EDUCATING CHILDREN WITH VISUAL IMPAIRMENTS:

A CASELOAD ANALYSIS FOR BRITISH COLUMBIA

by

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Abstract

Itinerant teachers of students with visual impairments (TVIs) in British Columbia have long been concerned with the size of their caseloads. TVIs' caseloads are effected by the demands of traveling from student to student, consultations, collaboration meetings, adapting materials as well as other aspects of service management. These can all make providing quality education to children with visual impairments difficult to accomplish within the time given by district and school administrators.

In order to ensure quality education, including the Expanded Core Curriculum for visually impaired children, a TVI must have a manageable caseload. Not having a manageable caseload affects not only the education of children, but also the stress level and attrition of qualified teachers. The stress and attrition of TVIs could lead to further reduction of quality of service for BC's visually impaired population. One way to ensure quality education is being provided is to make sure a TVI has a manageable caseload. This can be accomplished through conducting a caseload analysis.

British Columbia does not have a standard method of caseload analysis for its TVIs. Some school districts may be using an established method of caseload analysis, but many are not. Because the incidence of visual impairments for school-aged children is relatively low, teachers may be providing service to children in many districts, and their caseloads should be manageable as well. It is hoped that having one standard method throughout British Columbia will ensure continuity throughout the province as well as provide administrators with a basis for accountability.

To establish a standard caseload analysis for BC, a review of already established methods of caseload analysis for TVIs was conducted. Using the same population of

students, children attending the Howe Sound School District during the 2002/2003 school year who had been referred for TVI services, each caseload analysis method was utilized. The results and methods of the caseload analysis were compared by professionals in the educational field of visual impairments through a questionnaire and focus group discussion. Their comments and recommendations were compiled and served as a basis for creating a new British Columbia caseload analysis tool (B-CAT).

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CHAPTER 1

Introduction

Caseload size has long been an issue of concern for British Columbia's itinerant teachers of students with visual impairments (TVIs). In British Columbia the caseloads of TVIs range from 2 to 49 (M. Cay Holbrook, personal communication, January 30, 2004). Parents and teachers are concerned that there is such a disparity of caseload sizes because the number of students for whom a TVI plans and implements instruction is seen as a factor for the quality of services he or she can provide. A large caseload can affect the service TVIs provide to their students (Hatlen, 1996; Texas School for the Blind and Visually Impaired, 2002a). Researchers have determined that caseload, as well as class size, has been linked to student achievement, progress and on task behaviour in various educational areas (American Speech-Language Hearing Association, 2002a, 2002b; Krueger & Whitmore, 2001; Nye, Hedges, & Konstantopoulos, 2002; Russ, Chiang, Rylance, & Bongers, 2001).

Research related to the number of children served by individual teachers fall into two categories: caseload and class size. Caseload refers to the number of students a teacher is responsible for educating including providing materials, instruction and preparing Individual Education Plans (IEPs). Students included on the caseload of the same teacher may receive basic educational services at different times and places from each other (Rylance, Chiang, Russ, & Dobbe-Whitcomb, 1999). Class size, on the other hand, refers to the number of students a teacher may be educating in one particular block of time and in one specific place (Rylance et al., 1999). Although these two educational issues are unique in themselves, they are related, as each addresses a teacher's ability to effectively meet the educational needs of students.

Large caseloads and class sizes are inversely correlated with the achievement levels of students attending special education classes (Russ et al., 2001). That is, as class sizes and

caseloads went down, students' achievement levels increased. Russ et al. found that children with mild disabilities were more engaged and less disruptive when class size was kept as close to 1:1 as possible. Similar trends were seen in classes of children with severe disabilities. In their review of the Tennessee Class Size Experiment, also called Project STAR, which randomly assigned 11,600 students into varying class sizes, Nye et al. (2002) found the reading levels of low achieving students showed greater increases in small class sizes than those in large classes. Increased student achievement could be linked to lower caseloads and class sizes because these increase the likelihood of a special education teacher spending more time with students working on students' individual goals and allows the teacher to effectively monitor and maintain the amount of time student is engaged on a task (Russ et al., 2001).

The need for and the importance of manageable caseloads and class sizes is important for all school professionals but it may be especially critical for professionals who provide non-classroom based instruction, for example, speech /language pathologists, occupational and physical therapists, school psychologists and teachers of students with visual impairments. In a Wisconsin Department of Public Instruction (2001) survey, teachers of students with hearing impairments who had caseloads over 20 commented that their high caseload interfered with meeting the goals outlined in students' IEPs. Speech-Language Pathologists also find that a higher caseload impedes the kinds of service they can provide children as well as their options for service delivery (American Speech-Langauge Hearing Association, 2002a). The high caseloads of special education professionals can not only affect the instruction provided to children but also leave educators feeling overwhelmed (Kuhn, 2003).

Caseload size also has an impact on special education teachers' and related professionals' job satisfaction level and attrition rate (Blood, Ridenour, Tomas, Qualls, & Hammer, 2002; Coleman, 2000, Council for Exceptional Children, 2000; Gonzalez, 1995). For special educators

"increases in caseloads corresponds with simultaneous increases in meetings and paperwork demands." (Russ et al., 2001, p. 162). In a 1999 survey of special educators and adverse teaching conditions, the Council of Exceptional Children (CEC) found that special education teachers thought caseloads and class sizes were a problem (Coleman, 2000, Council for Exceptional Children, 2000). High caseloads are one reason special education teachers and related professionals report they are dissatisfied with their jobs (Blood et al., 2002; Gonzalez, 1995). In their study of over 1000 Speech-Language Pathologists working in schools, Blood et al. found a negative correlation between caseload size and job satisfaction. In light of the stated dissatisfaction, it is likely that caseloads also contribute to the higher attrition rate of special education teachers and related professionals when compared to the attrition rate of general educators (Blood et al., 2002; Gonzalez, 1995; Russ et al., 2001). The high attrition of special educators leads to teacher shortages, increases in caseloads for remaining teachers, the hiring of unqualified staff and, ultimately, the lowering of education and service for children (Russ et al., 2001).

Recognizing the need to address attrition and job satisfaction as well as assure that quality instruction is provided to students, the American Speech-Language Hearing Association has proposed a shift from designating a number to constitute a caseload to evaluating the actual "workload" that a caseload entails. A workload approach to designing a caseload would take into account all responsibilities involved in education, including meeting, testing and administration (American Speech-Language Hearing Association, 2002c). The workload method also takes into account the time needed to complete various instructional activities necessary to meet students' individual goals (American Speech Language Hearing Association, 2002a). It is hoped that by creating a manageable caseload, students will receive the quality intervention needed to meet their goals and that professionals in this field will be retained.

Currently, there is a shortage of qualified teachers to serve students with visual impairments (Stryker et al., 2002). Caseload size and caseload composition has been noted to be one of the most influential factors in job retention of TVIs (Texas School for the Blind and Visually Impaired, 2002a). Further attrition in this field would magnify an already difficult situation.

The caseload size of TVIs may be affected by school and district administrators not having a clear understanding of the needs of children with visual impairments (Wisconsin State Plan, 2002). It is important that administrators recognize that children's age and intellectual capabilities, as well as the presence of additional disabilities can affect the amount of time a TVI needs to spend to effectively instruct a child (Cowan & Toelle, 2003). Itinerant TVIs also have to take into account the amount of time needed to travel to the student, to adapt or modify materials, consult with associated personnel and assess students (Shields, Toelle, & Cowan, 2003; Wisconsin State Plan, 2002). Qualified TVIs have a clear understanding of the wide scope of needs of the child with a visual impairment so they should be closely involved with school and district administrators in the determination of their caseload size (Corn, Hatlen, Huebner, Ryan & Siller, 1995).

Students who are blind or have low vision have the need for and right to instruction from a qualified teacher of students with visual impairments. The involvement of a TVI is necessary because difficulties with vision can have a serious effect on a student's acquisition of knowledge in school and, traditionally, instruction in a regular classroom is presented in a visual format (American Foundation for the Blind, 2000; Corn et al., 1995; Pugh & Erin, 1999). It is estimated that about 80% of what people learn is done so visually and that much of this learning occurs incidentally through observation rather than direct teaching (Brasher & Holbrook, 1996; Hatlen, 1996). Children with visual impairments must, therefore, be systematically and sequentially

taught the skills they miss due to the loss of their vision (Pugh & Erin, 1999). When the children become school aged, they need to learn how to access the information available to their sighted peers. With the help of a qualified TVI, these students can learn the same curriculum as their peers, but in a different way (Hatlen, 1996).

It is estimated that 0.1%, or one in 1000, school-aged children have a visual impairment (Pugh & Erin, 1999). Over half of the school-aged children identified as having a visual impairment also have an additional disability (Ferrell, 2000; Holbrook, 1996; Kelley, 1998; Pugh & Erin, 1999; Sacks, 1998). The number of children with multiple needs in the school system is increasing due to advances in medical technology; more children are surviving complications at birth (Kelley, 1998; MacCuspie, 1996). In addition to understanding the complexity of working with children with additional disabilities, TVIs must understand the educational implications for the vast array of visual impairments.

The range of visual impairments and their varying effects on students' sight and their ability to access information makes this group of students unique. Children with visual impairments can range from having a mild impairment to being totally blind (MacCuspie, 2002; Pugh & Erin, 1999). Even children who are considered blind may have residual vision, which helps them interpret environmental information such as light, colour, and landmarks. Although this vision may be insufficient to access the school curriculum without adaptations, it must be considered during instruction (Holbrook, 1996; Sacks, 1998). When considering the range of visual impairments, it is also important to note that visual conditions can be congenital, occur traumatically during any stage in childhood, or may be progressive and deteriorate as children get older (Pagliano, 1998b; Pugh & Erin, 1999). These factors, as well as available resources and materials, culture, age, and physical environment, must be considered when conducting

assessments and establishing an educational program for students with visual impairments and establishing a caseload for TVIs (Pugh & Erin, 1999).

Due to the relatively low number of children with visual impairments within a school district, when compared to other disabilities, it is likely that a teacher of students with visual impairments will serve students via an itinerant service delivery model and may provide intervention to children in several regions (Corn et al., 1995; Pugh & Erin, 1999). While it is expected that the method, duration, and frequency of intervention for children may differ from child to child, it is assumed that every child with a visual impairment will receive services from qualified personnel designed to meet his or her unique educational needs. In a position paper adopted by the Division on Visual Impairments of the Council of Exceptional Children, Spungin and Ferrell (1999) stated:

> It is the position of the Division for the Visually Handicapped that every infant, child, and youth with a visual handicap is entitled to the services of a teacher of students with visual handicaps, regardless of the severity of the disability or the presence of additional handicapping conditions. (p. 165)

The United States Department of Education's Office of Special Education and Rehabilitative Services recognized the importance of providing high quality educational services for children with visual impairments but noted that some services provided to these children were not meeting "their educational and learning needs" (Heumann & Hehir, 1995, p. 135). Corn et al. (1995) stated that some children with visual impairments are being educated within programs for children who have other disabilities when they may not fit with the intellectual or physical abilities of the other students. In these situations, it was erroneously assumed the unique needs of children with visual impairments could be met in these settings; however, here, the children may not have been provided instruction in disability-specific curriculum by a

professional trained in these areas. Rather than placement in such a classroom, students with visual impairments should receive educational services from a teacher who has been specifically trained to meet their unique needs such as a TVI who bases students' curriculum on specialized assessments designed to address how a visual impairment effects various aspects of learning.

It is essential to the education of children with visual impairments that they receive routine assessment by qualified personnel in literacy, technology and orientation and mobility skills, as well as have an IEP that meets their particular learning needs (Pugh & Erin, 1999). It has been recommended that after an assessment, an educational plan should be developed to meet the needs of children with visual impairments, and the student should be added to a TVI's caseload within 30 days of being identified as having a visual impairment (Corn et al., 1995; Wisconsin State Plan, 2002).

Due to the wide range of needs of children within his or her caseload, a TVI must, in contact with school and district administrators, develop a method to ensure effective service delivery (MacCuspie, 2002; Sheilds et al., 2003). Conducting a caseload analysis can be an efficient method for both administrators and TVIs to ensure students' needs are being met in an efficient manor. Besides helping the TVI to ascertain service delivery, a caseload analysis can also help administrators determine the monetary and personnel requirements for providing quality programs for children with visual impairments (Shields et al., 2003). "The goal of caseload analysis is to provide consistent, quality, cost effective service to all students with visual impairments" (Cowan & Toelle, 2003, p.3). Once information from a caseload analysis is gathered, an idea of the amount of time needed to effectively provide specialized programs to children with visual impairments can be developed.

Justification for the Study

The goal of education is to prepare children to become successful, self-supporting, independent adults who are contributing, employable members of society (Brasher & Holbrook, 1996; Chadsey-Rusch & O'Reilly, 1992; Cowan &Toelle, 2003). It is expected that the education provided to children with visual impairments will also be directed towards this goal. Teachers of students with visual impairments, as well as supporting agencies and organizations, should work together to ensure children with visual impairments are prepared to become independent adults (Pugh & Erin, 1999). In order to do this, a specialized curriculum stressing independence needs to be taught. During the 1990s significant changes were made in the way that children with visual impairments were educated. Prior to this time, emphasis was placed on academic achievement with little attention to the disability-specific skills needed to be independent. In 1996, Hatlen outlined the Expanded Core Curriculum. This curriculum includes skills that students with visual impairments need in addition to the general education core curriculum. It is explained in detail later in the study. The Expanded Core Curriculum has been widely accepted as essential for students' future success and independence. Not teaching children with visual impairments the skills they need through comprehensive instruction from a qualified TVI may "disable [students] in their efforts to successfully transition from school to adulthood" (Koenig & Holbrook, 2000, p. 678).

In Canada, students of all abilities receive most of their education in a general education classroom. Most children with visual impairments are fully integrated into a general education classroom and are assumed to receive the support necessary to participate academically and socially at a level similar to their sighted peers (Blatch, Nagel, & Criuckshank, 1998; MacCuspie, 1996). Integration has the "potential to enhance both the educational and social-emotional development of children with disabilities" and those without (MacCuspie, 1996, p.4).

Successful integration requires children with visual impairments to be valued members of their regular classroom, in addition to being provided the instruction needed to become independent adults (Gale & Cronin, 1998). In order to ensure successful integration and the acquisition of knowledge contained in the Expanded Core Curriculum, students who are blind or visually impaired should have access to the service of a teacher of students with visual impairments.

In order to provide quality service and instruction to all students with visual impairments, a TVI must have a manageable caseload (Cowan & Toelle, 2003). A caseload analysis is a critical step in ensuring TVIs have the time to meet the needs of the children on their caseload.

There are several established methods and instruments used to conduct a caseload analysis for TVIs. The Texas School for the Blind (2002a) has noted the QPVI Caseload Analysis, The Michigan Severity Rating Scales for Students with Visual Impairments, Iowa Caseload Size for Itinerant Teachers, and The APSEA Guidelines for Determining Caseload Size for Teachers of the Visually Impaired as being the current methods of analysis being used by TVIs. Although no one method or instrument is utilized by all TVIs, each method is used to determine basically the same thing: the number of students who can make up an appropriate caseload and the amount of time TVIs will need to manage their caseload. These methods are widely used by districts or regions other than the ones for which they were created; however, no formal research has been conducted to determine the effectiveness of these caseload analysis methods. Division 16, Itinerant Personnel, of the Association for the Education and Rehabilitation for the Blind and Visually Impaired (AER) is reviewing several issues regarding caseload analysis. It is their position that a caseload analysis method include the "identification of a valid instrument appropriate to program's needs" which would result in action and information for both TVI's and their supervising administration (Cowan & Towell, 2003, p.3).

Definition of Terms

In order to understand the effect that a TVI's caseloads have on educating children with visual impairments, an explanation of terminology used in the field is necessary. The terms such as visual impairment, teacher of students with visual impairments, Expanded Core Curriculum and Caseload Analysis will be defined as they relate to the study.

Visual Impairments. To meet the British Columbia Ministry of Education criteria of having a visual impairment, a student must have an clinical report stating their vision is 20/70 or less in their better eye, they have a field of vision of 20 degrees or less, or have a progressive eye disease or a non-correctable difficulty that makes the vision function as if the above conditions were present. Students are considered visually impaired if their vision cannot be corrected to within 20/70 in their better eye and their vision difficulties seriously affects their acquisition of knowledge and completing daily tasks (BC Ministry of Education, 2001).

*Teacher of Students with Visual Impairments (TVI).*In British Columbia, only a teacher who has completed course work leading to qualifications in teaching children with visual impairments is qualified to teach this population. These teachers are trained to assess, instruct, modify materials and teach disability-specific curriculum to children with visual impairments.

Expanded Core Curriculum. The Expanded Core Curriculum is a set of competencies that is important for every child with a vision impairment to meet before leaving the school system (Hatlen, 1996). The Expanded Core Curriculum includes compensatory skills, technology skills, and Orientation and Mobility skills among others. The Expanded Core Curriculum, explained later in the study, is presented in addition to the core curriculum and is vital to the independence and success of children with visual impairments.

Caseload Analysis. A caseload analysis is a method used to help manage programs and personnel. It ensures that students receive the instruction they need based on assessments

conducted by a TVI. A caseload analysis is conducted in order to determine how a TVI should allocate his or her time and help school-based and district administrators ensure that appropriate time and personnel are available to provide quality instruction.

History of Howe Sound School District

In the Howe Sound School District (#48), school-based administrators have the responsibility of educating and providing educational supports to children with visual impairments who attend their schools. In September of 1998, the district school board began to decentralize control over school funds and special education services. The population of each school was considered and funding was provided to the school based on its population. Special programs that were once provided and/or funded by the school board were now the responsibility of the individual schools. It became the duty of the school-based administrator to decide how money was to be spent. The school-based administrator had to take into account classroom teachers, daily operations, materials, maintenance, technology and special programming including the programming needs of children with visual impairments.

There was strong concern that some of the needs of children requiring special services or instruction were not being adequately met. It was increasingly difficult for special service providers to efficiently manage and address the many needs of the children on their caseload within the time they were allowed by the various schools within the school district. Recognizing the difficulty, services from professionals specialized in education of the Deaf and Hard of Hearing, Speech-Language Therapy, Physiotherapy, and Occupational Therapy, were once again placed under the control of the centralized school board during the 2001/2002 and 2002/2003 school years. Services to children with visual impairments within the district continued to be the responsibility of the individual schools; it was up to the school-based administrator to employ and pay for TVIs for students. It was not until the 2004/2005 school year that TVIs became a

partially centralized service. This meant that if a student required intensive, almost daily instruction in disability-specific curriculum, it was still up to the individual school to ensure this was made available; however, if a less frequent service was necessary, the school board would take responsibility. This basically meant that school-based administrators who had children attending their school who were learning braille and had the Ministry of Education's designation of Visual Impairment were required to hire a TVI.

Children with visual impairments who have additional disabilities have the right to receive service from a person knowledgeable about visual impairment and blindness (Kelley, 1998). However, according to British Columbia's Ministry of Education policy, a child may only be "claimed" or "designated" by a school district under one disability category. If the child is placed under a Ministry of Education category other than Visually Impaired, they may not necessarily receive the services of a TVI. The administrator in the student's school then has to consider it a priority to provide vision services. Prior to the 2004/2005 school year many children in the Howe Sound School District fell into this situation.

In September 2000, only one student of the 4800 students within the school district was identified as being visually impaired and needing the services of a TVI. At this time a TVI was hired by the student's school-based administrator to meet this student's needs. In October of the same year five additional students with visual impairments were brought to the attention of the TVI. These five students were Ministry-designated under categories other than visually impaired but still met the Ministry criteria of having a visual impairment (see Appendix A). Throughout the following two years more children with visual impairments and additional disabilities were identified and many classroom teachers and special education teachers required assistance or advice from the TVI to help educate children with either vision impairments or perceptual difficulties.

In the fall of 2003, there were nine children attending schools within the Howe Sound School District who fit the Ministry of Education's description of being visually impaired. Based on the eligibility criteria of the Provincial Resource Centre for the Visually Impaired (PRCVI), these children were able to access equipment and materials. Even so, as of the 2002/2003 school year, only one of the nine identified students was receiving instruction from a TVI. Consultation and material management occurred voluntarily and many times outside of school hours for the remaining children. In the 2004/2005 school year there was again a shifting of the needs in the district as a second academic, low vision, braille-using student moved to the Howe Sound School District. Although there were some services now available at the district level, the district could not provide enough additional time from the TVI to meet the needs of the additional student. The school-based administrator had to acquire some TVI time from the school district, which left little or no time for the remaining students needing service from the TVI.

British Columbia's Itinerant Vision Teachers and Caseload Analysis

There are approximately 67 TVIs in British Columbia (C. Purcell, personal communication, December 6, 2003). As stated previously, the number of students with visual impairments on the caseload of BC's TVIs range from 2 to 49 (M. Cay Holbrook, personal communication, January 30, 2004). Although various school districts or TVIs may be using a caseload analysis tool, some may not be using any. As can be seen by the range of students on a caseload, school districts can have various ideas of appropriate caseloads for TVIs and service for children with visual impairments. For many TVIs in British Columbia, caseload management is an issue. It becomes an issue for students as well if necessary curriculum delivered by a qualified TVI is not available as much as it is needed.

In order to meet the needs of their students with visual impairments and be able to provide quality instruction, each school district is responsible for making sure it provides its

TVIs with a manageable caseload. One way to ensure that quality service is provided throughout school districts in British Columbia is to provide a standard method of caseload analysis. If such a standard was available, students with visual impairments would receive appropriate support for completing the standard core curriculum with success and instruction in areas of the Expanded Core Curriculum regardless of where they live in the province.

The Purpose of the Study

The purpose of this study was to develop a standard caseload analysis method for British Columbia's TVIs using Howe Sound School District as a pilot district. The proposed provincial caseload analysis method focuses on the assessed needs of children, taking into account the heterogeneous nature of the population. It accommodates the wide concerns of TVIs including the need to provide quality instruction of the Expanded Core Curriculum. The proposed caseload analysis method also considers the various team models used by the schools and the role of the TVI within this team.

CHAPTER 2

Literature Review

In order to determine appropriate caseloads and an effective method of caseload analysis for British Columbia, it was necessary to explore all factors that may affect providing service to children with visual impairments. These factors included service delivery models, the roles and responsibilities of educational team members and approaches for collaboration of team members. In addition, various existing caseload analysis methods were examined. This chapter includes a discussion of the above factors.

Service Delivery Models

The number of students on a caseload can limit service delivery options a teacher can provide (American Speech-Language Hearing Association, 2002a). As the number of students on a caseload increases, a teacher is forced to provide service in a manner that revolves around time management rather than student learning. Although a student may need more teacher time for instruction, the depth of service becomes harder to supply as the teacher has to work with more students. Therefore, a discussion on service delivery models is necessary when reviewing the caseloads of TVIs.

There are numerous service delivery models for providing instruction to children with visual impairments, and there are several factors that are considered when choosing the most appropriate model. The service delivery models for children with visual impairments can be placed on a continuum from most intense to least direct intervention (Gale, 1998; Spungin, & Ferrell, 1999). Each method has its positives and negatives and no one method is ideal for every child, nor is one method necessarily perfect for a child throughout his or her school career (American Foundation for the Blind, 2000; Blatch et al., 1998; Gale, 1998; Pugh & Erin, 1999; Smith, 1998). The various service delivery models are merely alternatives for providing

education, and it is likely that children may experience a variety of these options in their school career (Blatch et al., 1998). In this section the factors that affect the choice for service delivery will be reviewed, as well as the various aspects of the three most common models: itinerant teaching/consultation, self-contained classrooms and residential models.

Factors that Effect Choice of Service Delivery Options

Models of service delivery could range from consultation to intense direct instruction, and may be comprised of various combinations. The service delivery models chosen should primarily depend on the assessed needs of the child (American Speech-Language Association; 2002a). However, in addition to children's needs, other factors are usually considered, including the presence of additional disabilities, the availability of resources, whether the student lives in a rural or urban setting and, in many cases, available funding (Blatch, Nagel & Cruickshank, 1998; Gale, 1998; Spungin & Ferrell, 1999). Although the size of teachers' caseloads may limit the service they provide to their students, the service delivery model chosen, as well as the time and duration of service from any specialist personnel, should be based on the needs of the child and not limited by the time allowed by the specialist's schedule, nor hours and funding allotted by district or school administration (American Speech-Language Hearing Association, 2002a; Pugh & Erin, 1999).

All service delivery models for children with visual impairments should include "the service of teachers and support personnel with professional certification" (Pugh & Erin, 1999, p.68). In British Columbia, only a teacher who has completed course work leading to qualifications in teaching children with visual impairments has the specialized training to teach this population. These teachers are prepared to assess, instruct, modify materials and provide educational guidance to children with visual impairments. They are knowledgeable about the

implications loss of vision may have on education and completing daily tasks. They are also knowledgeable about disability-specific curriculum called the Expanded Core Curriculum.

Itinerant Service Delivery

Due to the relatively low incidence of visual impairments when compared to other special needs categories found in public schools, it can be a challenge, especially for rural school districts, to coordinate both TVI services and specialized equipment for children with visual impairments (Blatch et al., 1998; Gale, 1998). It is, therefore, likely that a TVI will be itinerant and will, therefore, travel in order to provide instruction to different children enrolled in different schools.

In British Columbia, school districts usually rely on the itinerant model of service delivery to provide intervention to their visually impaired populations. Itinerant teachers travel from school to school, whereas the students on their caseload are typically enrolled in their neighborhood school (Gale, 1998). Some of the caseload time that would have been devoted to service now has to include time to travel from student to student.

It is becoming common for services to be provided by itinerant personnel through direct pullout instruction or consultation (American Foundation for the Blind, 2000; Gale, 1998; Pugh & Erin, 1999). In direct pullout instruction most of the student's instruction occurs in the general education classroom with specialized instruction from an Orientation and Mobility (O & M) Specialist and TVI occurring within this classroom or in another classroom if the lesson requires (Brasher & Holbrook, 1996). A TVI or O&M specialist works with a student on a particular objective outlined in the IEP that only a professional knowledgeable about blindness and visual impairments can teach effectively (Sheilds et al., 2003). It is likely that the student would be receiving the benefit of both the TVI's direct service and consultation with classroom teacher and Special Education Assistant (Sheilds et al., 2003).

In an itinerant TVI consultant model the teacher travels from school to school to provide advice and training to team members involved in the child's program (Gale, 1998). The consultant teaches the other service providers how to reach the goals outlined in the IEP and has limited contact with the student.

Smith (1998) stated consultation could be provided either traditionally or collaboratively. In a traditional consult model, general information is shared with primary instructors and contact with specialist teachers is very limited (Smith, 1998). In the traditional consultation model, the responsibility of learning activities and modifications is not the responsibility of the specialist teacher, but of the classroom teacher and family members (Smith, 1998). In the collaborative consultation model, the information that is shared with a team is based on actual instructional activities prepared with specialist teachers (Smith, 1998). Time is needed for the specialist teacher to train another member or other members of the team. When the specialist teacher is satisfied that the trained instructor is sufficiently competent, the trainee can then implement instruction when the specialist teacher is not present: this is called "Role Release" (Silberman, 2000; Smith, 1998). Due to the level of collaboration, plenty of time is needed for teams to meet and discuss instruction when using the consultation model; in fact, "consulting can be as time consuming as direct service" (Shields et al., 2003, p.7).

There is concern that children with visual impairments are not getting the intensity of services and instruction they need with the itinerant teachers' direct pull-out/consultation service delivery models (American Foundation for the Blind, 2000). TVIs' instruction on the skills of the Expanded Core Curriculum may not be adequately met through the itinerant service delivery models due to the large size of the itinerant TVI's caseload (Hatlen,1998).

As needs of children within a school district change, the amount time that an itinerant TVI spends with various children who have visual impairments should change accordingly. The

TVI and administration have to ensure that enough time is made available to teach all aspects of the Expanded Core Curriculum as well as address collaboration issues. Despite the possible changes in caseload composition, it is essential that TVIs still provide the service that the children on their caseload need, rather than basing this on whatever is time allowed by administration (Pugh & Erin, 1999; Texas School for the Blind and Visually Impaired, 2002a, Wisconsin State Plan, 2002).

An itinerant TVI's caseload should take into account the unique needs of the children to whom he or she provides service. Factors such as the severity and etiology of visual impairment, age, modifications/adaptations of materials, direct instruction of the Expanded Core Curriculum, planning time, consultation with other professionals and parents and travel time should be considered when designing a caseload (Iowa Rules for Special Education, 2002; MacCuspie, 2002; Shields et al., 2003; Texas School for the Blind and Visually Impaired, 2002a, Wisconsin State Plan, 2002).

In order to determine the hours needed for a TVI, a caseload analysis should occur. A caseload analysis is a method used to help manage programs and personnel, as well as ensure that students receive the instruction they need. A caseload analysis is conducted in order to determine how a teacher should allocate his or her time and help school-based and district administrators ensure that appropriate time and personnel are available in order to provide quality instruction. After a caseload analysis, it should become evident how much time will be needed from an itinerant TVI within a school district.

Resource Room

In the resource room service delivery model, children with visual impairments receive instruction in a special class within a regular school. Although they spend varying amounts of the day with a TVI in this class, they should spend at least 50% of the day with their peers in the

regular classroom (Brasher & Holbrook, 1996; MacCuspie, 1996; Pugh & Erin, 1999). In this model, children with visual impairments are provided specialized instruction in a one-to-one or small group setting from a TVI (Brasher & Holbrook, 1996; Gale, 1998). The remainder of their studies occurs in the general education classroom, given the use of adapted materials and/or use of technology (MacCuspie, 1996). This model allows for the TVI to meet daily with students and classroom teachers, enables "assessment of disability specific needs more readily and accurately" and allows for the incorporation of the instruction of these needed skills into an existing program more easily (Gale, 1998, p.83).

Residential Schools

In the United States, the service delivery option of disability-specific residential schools has been available since the early 1800s (American Foundation for the Blind, 2000). In residential schools, children may live and receive instruction in the same place (Brasher & Holbrook, 1992). Here disability-specific resources and materials are available within the one location. The majority of the staff is also knowledgeable about the implications of visual impairments (Topor, Holbrook & Koenig, 2000). For children with visual impairments this means that TVIs, O&M specialist, transcribers and a multitude of pertinent resources are available in one location (Brasher & Holbrook, 1996). Collaboration among professionals knowledgeable about visual impairments is also more likely to occur in residential settings than it is in other mentioned (Gale, 1998).

In residential settings, children with visual impairments may feel less alone as they have the opportunity to socialize with children who have similar disabilities and difficulties (Brasher & Holbrook, 1996). Although children may be able to socialize with others with similar disabilities, they have little opportunity to socialize with children without disabilities within a residential school setting. Therefore, the residential school environment does not realistically

parallel the social make-up the children are going to find themselves in once they leave school. It is current practice for residential schools to work jointly with public schools in the community to provide children with both experiences- the companionship of people who face similar challenges as well as practice with realistic social issues outside of the residential school setting. With the dual program, intense instruction may be provided for a short time within a residential school, and then the children return to their local school or there may be a program set in which children receive disability-specific instruction for half the day in a residential school and then receive general instruction in a public school (Brasher & Holbrook, 1996).

In Canada there is only one school exclusive to children with visual impairment, the W. Ross McDonald School in Ontario. The remainder of the children with visual impairments in Canada receives service from TVIs through one or more of the other service delivery options. Instruction could be given to students with visual impairments in self-contained classrooms, through direct pullout or through consultation (Brasher & Holbrook, 1996; Gale, 1998; Pugh & Erin, 1999). With all service delivery methods efforts should be made by the TVI and other educational team members to educate students in an environment that is as normal as possible in order to prepare children for life outside the school system (MacCuspie, 1996).

Roles and Responsibilities of Team Members

Many different people and organizations share the responsibility to ensure quality education is being provided to children in British Columbia. Their roles may affect the kind of service a student receives, as well as the caseload of TVIs; therefore, the roles and responsibilities of the "team members", as well as background information, will be reviewed. The responsibility for students' education, although primarily seen at the school level, starts with the Ministry of Education and the School District through development of policies and procedures, and ensures the availability of funding for resources and personnel. School

principals, as well as parents, teachers and paraprofessionals, also share responsibility with the TVI and Orientation and Mobility Specialist for educating children with visual impairments.

Ministry of Education

It is the responsibility of "the state, region, and local district to assure that an adequate supply of qualified professional personnel is available to students" (Pugh & Erin, 1999, p 23-24). To ensure qualified personnel, the British Columbia Ministry of Education requires each TVI complete graduate level course work in the field of visual impairments. The province has also developed criteria to determine what constitutes a child who has a visual impairment. The British Columbia Ministry of Education requires that assessment and intervention, conducted by qualified personnel and medical professionals, occur in order to meet special education eligibility (see Appendix A for British Columbia's Ministry of Education's (2001) eligibility statement for children with visual impairments). Although a child is only eligible under one special education category, he or she may fit the criteria for two or more Ministry defined categories. This may leave children with multiple disabilities and vision impairments overlooked and without the services of trained professionals knowledgeable about the field of blindness and visual impairments (Pugh & Erin, 1999). "Without services related to visual impairments, these students have more limited opportunities for learning and obtaining an appropriate education." (Pugh & Erin, 1999, p.76). These students need to receive the resources available to students with visual impairments: both in personnel and in resources.

The British Columbia Ministry of Education funds two centers that help students with visual impairments access school curricula. The Provincial Resource Center for the Visually Impaired (PRCVI) and Special Education Technologies, British Columbia (SET-BC) are loan banks of materials and technological devices that aid the educational success of children with

visual impairments. PRCVI and SET-BC also provide up to date information on policy, materials and technology to TVIs and their students.

It is the mandate of the Provincial Resource Center for the Visually Impaired (PRCVI) to provide "leadership, information, training and consultation to support school districts' goals of equitable access and enhance learning opportunities for students with visual impairments" (Provincial Resource Center for the Visually Impaired, n.d.). The PRCVI provides children with visual impairments with alternate formats of learning resources and specialized equipment to support their educational needs. It provides training, inservice and materials for TVIs and school personnel. In addition, the PRCVI provides a forum in which TVIs from all over British Columbia share their concerns and ideas.

Special Education Technology, British Columbia (SET-BC) is a program that provides technology-based resources to children who meet the Ministry of Education's criteria of physical disability, visual impairment, and autism. The technology lent and the training given by SET-BC assist children with accessing information, reading, writing and the communication tools needed to be successful in their education (Special Educational Technologies, British Columbia, 2001). For students with visual impairments, this may include CCTVs, computers, screen reading programs and braille technology.

School District

It is the responsibility of the school district to ensure that qualified personnel, knowledgeable about vision impairments, are employed to assess and instruct children with visual impairments (BC Ministry of Education, 2001; Pugh & Erin, 1999). The school district is also responsible for developing and implementing referral procedures to ensure children with visual impairments are identified and receive the appropriate intervention within a timely manner (BC Ministry of Education, 2001). The school district may also have to make various

adjustments to policy and procedure to ensure TVI services and instruction of aspects of the Expanded Core Curriculum are available to students with visual impairments.

The school district may explore the possibility of expanding the school day and arena in order to accommodate students with visual impairments. Many skills taught to children with visual impairments have to occur outside of school hours and boundaries. Orientation and mobility may have to occur in the community. Instruction in daily living skills may occur at the students' homes as well as in the community. Recreation, leisure, and social skills may be taught in a wide variety of settings (Pugh & Erin, 1999). Due to the intense learning needs of children with visual impairments, "school districts may [also] develop and approve orientation and mobility programs or Brailling programs...for credit toward graduation" (BC Ministry of Education, 2001, p. 2).

Principal

It is the responsibility of the school-based administrator (the principal) to help ensure a positive learning environment by accepting the student with visual impairments as an important member of the school community. School-based administration has an important leadership role in educating children with visual impairments. Whether a principal embraces the idea of full inclusion will affect the attitude of his or her staff (Gale & Cronin, 1998; MacCuspie, 1996; Pugh & Erin, 1999). It is also the responsibility of administration to ensure safety and building access to all students enrolled in their school (MacCuspie, 1996)

A principal will have to ensure that appropriate instructional services are in place to meet the needs of students with visual impairments and may have to advocate for students at a district and classroom level to make sure appropriate accommodations are made and personnel are hired. An administrator "approves all program changes, obtains needed personnel, organizes training

opportunities for staff, contracts with consultants, approves materials and equipment purchases, and supervises all staff in their roles" (Pugh & Erin, 1999, p. 42).

Parents

Parents of children with visual impairments play a vital role in their child's educational team. Parents have the right and responsibility to be involved in all aspects of education of their child including assessment, setting of educational goals, and program placement (Corn et al, 1995; Wisconsin State Plan, 2002). Parents are their child's advocates and make sure the school and district provide personnel and resources needed to teach their child throughout their time in the education system. Parents know their child best and provide the most ongoing support (Gale & Cronin, 1998).

The support given by parents can have a profound effect on the self-esteem and the psychosocial well being of their children (Bru, Murberg, & Stephens, 2001; Buri, Murphy, Rightsmeier, & Komar, 1992; Cardinali & D'Allura, 2001; Xia & Qian, 2001). Social support from parents serves as a buffer for stressful life events, promotes the feeling of being valued, aids in the feeling of control as well as providing a safe context in which children can take risks (Chien-Huey Chang & Schaller, 2000; Hurre & Aro, 2000; Kef, 1997; Lewis, 1999). For youths with visual impairments social support from parents may be demonstrated through emotional validation, inclusion in a variety of family activities, provision of information and practical support (Kef, 1997; Rosenblum, 2000).

Classroom Teachers

It is the responsibility of the classroom teacher to plan, teach, and assess children's knowledge of the core curriculum (Gale & Cronin, 1998; Pugh & Erin, 1999). Children who are blind or visually impaired are usually part of a regular classroom community and are assessed on curricular material taught in the general education classroom by the classroom teacher (Gale,

1998). Children with visual impairments, including those with additional disabilities, should be integrated into all aspects of the general curriculum and treated in a similar manner to their sighted peers (Gale, Kelly et al., 1998; Pugh & Erin, 1999). Merely placing the student with a visual impairment in a classroom with peers does not constitute inclusion. Students are not fully included unless they are provided the same opportunities to learn and have equal access to the curriculum through specialized equipment and adaptations (American Foundation for the Blind, 2000). In order to ensure inclusion, the classroom teacher may help in the coordination and organization of adaptive materials needed by a student with visual impairments to access the general curriculum (Pugh & Erin, 1999). The TVI will work collaboratively with the classroom teacher to ensure appropriate adaptations occur as well as help the teacher establish a network of colleagues with similar experiences (Gale & Cronin, 1998).

The attitude and reservations held by the classroom teacher regarding a student with a visual impairment can influence the way peers and others in the school community perceive the student (Gale & Cronin, 1998). It is, then, important that the classroom teacher is knowledgeable about and comfortable with the student with a visual impairment, as well as know the implications for the impairment and how to adapt the curriculum accordingly (American Foundation for the Blind, 2000). A classroom teacher's knowledge of visual impairments and the consequent support can affect the experiences and acquisition of general curriculum for children with visual impairments (Chien-Huey Chang & Schaller, 2002). The young adults with visual impairments in Chien-Huey Chang and Schaller's study confirmed that part of the children's success was due to the fact they were pushed and encouraged to improve by teachers who expected excellence from all students in their class.

Classroom teachers, with the help of Special Education Assistants (SEAs) and Teachers of Students with Visual Impairments (TVIs), ensure that children with visual impairments have

the opportunity to socialize with children with and without visual impairments (Pugh & Erin, 1999). It is important to encourage socialization with peers for many reasons. Pugh and Erin (1999) stated that in addition to increasing social skill achievement and decreasing social isolation, peer involvement also enhances academic achievement. Encouraging socialization will also help students prepare for employment, where appropriate social skills are the key to success and employability.

Special Education Assistant (SEA)

A Special Education Assistant, also called a Teacher's Aide or Paraprofessional, works under the guidance of the classroom teacher, TVI and other specialists to assist in preparations and material adaptations to ensure information is accessible to children with visual impairments (Gale, 1998; Pugh & Erin, 1999; Silberman, Sacks & Wolfe, 1998). The SEA also may reinforce concepts taught by the TVI and, in the case of children with multiple disabilities, assist in physical management, mobility, and self care (Pugh & Erin, 1999; Silberman et. al, 1998). A SEA, having reached the standards required by the Braille Authority of North America, may be employed to transcribe the student's work from braille to print and vice versa (Pugh & Erin, 1999). Although a SEA is part of the educational team, a SEA is not responsible for planning or for completing evaluations but rather he or she follows the assessed recommendations of educators and specialists. Since the role of an SEA can vary from student to student, based on individual need and depending on the guidance received from teachers, the exact role of the SEA should be described in the IEP (Pugh & Erin, 1999).

A Special Education Assistant may work with a group of students or one-to-one (Gale, 1998). However, having a SEA work one-to-one with a child with vision impairments does not fulfill the school's obligations of providing adequate intervention (Pugh & Erin, 1999). A student having a one-to-one SEA may actually impede his or her progress if not handled

correctly by the SEA. Students may develop learned helplessness and come to rely more on adults, specifically the SEA, rather than their own abilities or even the abilities of their peers, which would at least foster some social interaction with peers (Gale & Cronin, 1998; Silberman et al., 1998). It is the role of the SEA to help guide students toward independence rather than dependence (American Foundation for the Blind, 2000). It is the shared responsibility of all team members to promote independence.

Teachers of Students with Visual Impairments (TVI)

Parents, classroom teachers, and TVIs share a partnership in the education of children with visual impairments (Gale & Cronin, 1998). Within this team, the TVI's "training and experience often establish him or her as the individual best qualified to address the unique learning needs" of the child with a visual impairment (Spungin & Ferrell, 1999, p. 165). In addition to being knowledgeable about general education and behaviour/classroom management, TVIs are trained to effectively assess, instruct, adapt curriculum and provide counseling to children with visual impairments (Gale, 1998; Pugh & Erin, 1999). They are also trained to manage the many administrative duties that are involved when educating children with visual impairments, including organizing specialized personnel, ordering equipment and technology, screening and referring processes, producing and implementing IEPs and being aware of and participating in research and development (Gale, 1998; Spungin & Ferrell, 1999).

TVIs are aware of the implications a visual impairment may have on accessing the educational curriculum. In addition to curriculum-based assessments, teachers of students with visual impairments perform yearly Functional Vision Assessments (FVA) and Learning Media Assessments (LMA) as well as interpret assessments from other related professionals. They are able to elaborate on the implications of results found in ophthalmological exams and other assessments and convey to other professionals how the results may affect the education of

children with visual impairments (Spungin & Ferrell, 1999). After completing and reviewing assessments, a TVI will be able to recommend appropriate reading and writing media or adaptations to allow children equal access to the curriculum materials, as well as make suggestions as about changing the educational environment or activity to assist in student learning (Pugh & Erin, 1999).

Functional Vision Assessment. A TVI uses a Functional Vision Assessment (FVA) to evaluate how children use their vision in real situations and surroundings (Koenig, Holbrook, Corn, Depreist, Erin, & Presley, 2000). By conducting a FVA, a teacher of students with visual impairments obtains information on students' ability to use their vision efficiently (Koenig et al., 2000). Information about ideal lighting and contrast is examined along with students' eye reflexes, structure, visual field, motility, acuity, binocularity, color and visual motor behaviours (Koenig et al., 2000; Utley, Roman, & Nelson, 1998). By conducting this assessment, a TVI can also gather information on how to stimulate children's vision and suggest various teaching strategies, adaptations and programs in which it would be appropriate for children to participate (Holbrook, 1996). It is important to note that conducting a FVA is a vital component when educating children with visual impairments because they are a heterogeneous group and although two children may have the same visual impairment, they may use their remaining vision in different ways (Pugh & Erin, 1999). A FVA assesses how a particular child uses his or her residual vision and allows the TVIs to make specific suggestions for that child on instructional materials and programs or recommend further testing by other professionals if necessary (Spungin & Ferrell, 1999).

Learning Media Assessment. A TVI uses a Learning Media Assessment (LMA) to determine in which literacy media a child will best learn: braille, print, or a combination of braille and print (Koenig & Holbrook, 1995). In addition, teachers use LMAs as an on-going

decision-making process to evaluate the efficiency with which a child uses his or her current media and whether the media should be changed, or new literacy tools should be added (Koenig & Holbrook, 1995). In addition to providing information on appropriate instructional material, a LMA will also yield information about appropriate instructional methods (Koenig & Holbrook, 1995). When conducting a LMA a teacher must examine various factors that could affect the choice of media including visual acuity, contrast sensitivity, colour vision, field of vision, fluctuations in vision, reading speed/efficiency of current media, tactile sensitivity, motor control, and prognosis for future vision (Pugh & Erin, 1999). Based on an LMA, a TVI would be able to provide insight to educational planning for children who have visual impairments with or with out additional disabilities and decide whether children should participate in functional or conventional literacy programs (Koenig & Holbrook, 1995).

After conducting and reviewing appropriate assessments, TVIs work with other members of the child's team to develop and implement an Individual Education Program (IEP). The IEP summarizes the student's current functioning level, learning style and preferred instructional methods and stresses goals for future growth (Spungin & Ferrell, 1999). Within the IEP the duties of all team members are defined, including those of the TVI (Smith, 1998). The IEP should also include information about service delivery model(s) needed, specialized equipment, learning environment, and materials as well as include the provision of instruction in the Expanded Core Curriculum (Pugh & Erin, 1999).

Expanded Core Curriculum. The Expanded Core Curriculum, like the core curriculum of traditional academics, is a set of competencies that children with vision impairments are required to meet before they leave the school system (Hatlen, 1996). If the Learning Media Assessment shows the need, the curriculum may include braille. The Expanded Core Curriculum is learned in addition to, not instead of the core curriculum and takes time and therefore, it may require

children with visual impairments to attend school longer than the average student (Hatlen, 1996; Koenig & Holbrook, 2000, Pugh & Erin, 1999). The competencies taught as part of the Expanded Core Curriculum by the TVI will ensure that students leave the school system as capable and independent as possible. The Expanded Core Curriculum includes the following areas:

- compensatory skills,
- assistive technology,
- braille reading and writing (as shown by a LMA),
- visual efficiency skills,
- orientation and mobility,
- social interaction skills,
- independent living skills
- recreation and leisure skills, and
- career and vocational training

(Gale & Cronin, 1998; Hatlen, 1996; Pugh & Erin, 1999). The need for the instruction on the Expanded Core Curriculum does not diminish over time nor with the mastery of a skill for as a student becomes older new skills have to be taught within these areas (Hatlen, 1996; Koenig & Holbrook, 2000).

Seen as part of the Expanded Core Curriculum, compensatory skills are the skills needed by children with visual impairments to access the core curriculum (Hatlen, 1996; Pugh & Erin, 1999). Compensatory skills ensure the materials to be learned and the work produced by a student with visual impairments is equal to that of their sighted peers. Compensatory skills include handwriting, printing, keyboarding, use of optical and non-optical aids, technology, speaking and listening skills, study and organizational skills, motor development, concept

development, reasoning skills, spatial understanding, tactual development, communication development, daily living skills, human sexuality, and physical education (Gale & Cronin, 1998; Hatlen, 1996; Spungin & Ferrell, 1999).

In addition to assessment and instruction, TVIs are in the unique position of being able to provide teachers, children and their families with supportive resources related to visual impairments (Spungin & Ferrell, 1999). TVIs can help parents and teachers interpret information from optometrists and ophthalmologists and understand its implications for learning and development. They instruct, support and teach personnel about the utilization of resources needed in the education of children with visual impairments, brainstorm appropriate adaptations and provide ideas for instruction (Brasher & Holbrook, 1996). For the children, a TVI helps form social contacts with other children with similar problems and help change the expectations their sighted peers or teachers may have due to the presence of the visual impairment. A TVI is also an advocate for parents, teachers and children.

Orientation and Mobility Specialists (O&M Specialists)

It is the responsibility of an O&M Specialist to teach children with visual impairments how to move independently in various environments (Pugh & Erin, 1999). O&M Specialists assess the needs of the child and then instructs him or her on the various skills needed to move safely and efficiently in a variety of settings (Brasher & Holbrook, 1992). These skills may include the use of techniques to cross busy streets safely, the use of a cane and/or guide and how to become familiar with various room arrangements. The O&M Specialist will also teach children with visual impairments about the various modes of transportation available to them and how to use these modes.

The skills taught by the O&M Specialist are reinforced by the TVI. In some cases a TVI holds dual certification and is able to teach O&M skills as well as teaching other aspects of the Expanded Core Curriculum.

Team Approaches

In inclusive school settings, it is essential that teaching a child with visual impairments is a collaborative team approach in which each team member is valued and has an equal say in the education of the youth (American Foundation for the Blind, 2000; Pagliano, 1998a; Topor et al., 2000). Having a team of members sharing their ideas and teaching strategies or methods ensures consistency in terms, programming, frequent practice of desired skills and avoids overlap in instruction (Smith, 1998). Despite the varying perspectives and areas of expertise, each member of the team shares responsibility for the education of the child with visual impairments (Pagliano, 1998a). The lack of a team approach to educating children with visual impairment can "have a detrimental effect upon [children with visual impairment's] social acceptance and interaction (MacCuspie, 1996, p. 119). Lack of a team approach can also leave various educators involved in the child's program feeling isolated, unprepared, and unaware of their responsibilities regarding the child (MacCuspie, 1996).

Team members may vary depending on the age, presence of additional disabilities and level of intellectual functioning of the youth (Pagliano, 1998b). For children with visual impairments the team should include their parents, classroom teacher, TVI and principal (MacCuspie, 1996; Silberman, Sacks, & Wolfe, 1998). Additional team members may be an Orientation and Mobility Specialist, Physiotherapists, Occupational Therapist, Speech-Language Pathologists, Teacher of the Deaf and Hard of Hearing, or others. Each team member brings different background knowledge and a different understanding of the child (MacCuspie, 1996;

Silberman et al., 1998). It is the job of the team to bring all perspectives together and collaboratively develop an effective Individual Education Plan (Pagliano, 1998a).

There are several ways in which collaborative teams can be arranged. Three main models have been noted when working with children with visual impairments: the multidisciplinary team model, the interdisciplinary team model and the transdisciplinary team model (Sacks, 1998; Topor et al., 2000). Although no one method is right for every child, when working with children with visual impairments, especially those with multiple disabilities, the transdisciplinary model has been seen to be the most effective (Pugh & Erin, 1999; Silberman et al., 1998; Smith, 1998).

Multidisciplinary Team Model

The multidisciplinary team model is a medically based model (Kelley, Gale, & Blatch, 1998; Sacks, 1998). In this model assessment and instruction occur outside the classroom and are conducted by each professional in isolation from other educational disciplines (Kelley et al., 1998; Sacks, 1998; Topor et al., 2000). There is some collaboration when discussing IEP objectives but none in the sharing of instructional practices (Sacks, 1998). When using this model the child may benefit from in-depth instruction on a particular topic, but may not generalize skills across environments because there is little carryover between one specialist to another (Sacks, 1998; Topor et al., 2000). Although time may be spent on intervention, little time is spent on collaboration.

Interdisciplinary Team Model

There is greater communication among team members in the interdisciplinary team model than the Multidisciplinary model (Sacks, 1998). Although assessments are still completed separately, the team collectively develops educational goals and instructional plans (Kelly et al., 1998; Sacks, 1998; Topor et al., 2000). Although there may be informal discussions and formal

collaborative meetings, each team member is responsible for a different area of instruction (Sacks, 1998; Topor et al., 2000).

Transdisciplinary Team Model

The transdisciplinary team model allows the various specialists involved to be immersed as a team in all aspects of education. In the transdisciplinary team model services are integrated, letting instruction occur more naturally and more often (Smith, 1998). Smith found using a transdiciplinary model allowed specialists to work daily with students, providing direct instruction if they found it necessary or teaching other professionals working with the students about the intervention and then monitoring progress.

The transdisciplinary model requires that one person, the case manager, coordinate the service and be responsible for the program in consultation with specialists (Kelley et al., 1998; Topor et al., 2000). All service providers assess the needs of the child and relay information to the whole team (Sacks, 1998; Smith, 1998). When the information is shared among all team members, a plan is formulated to address the specific needs of the child (Sacks, 1998). Everybody in the team is familiar with all the instructional methods used, the goals of interventions and progress made in all areas. The plan formulated by the transdiciplinary team may include information about who will be providing direct instruction, method of instruction and duration and time of instruction (Pugh & Erin, 1999). At this time it may become evident that the child requires frequent, intense direct instruction from the specialist or, as is the case with many children with multiple disabilities, that the child would benefit from instruction from one member of the team while the others act as consultants (Silberman et al., 1998). In the latter situation instruction would be provided to the team member(s) providing the service by the specialist and the specialist then takes on a consultative role. As the needs of the child changes, as he gets older or learns new skills, the team will reassess the intervention provided.

It is likely that a TVI will participate in all three collaboration team models while working with the wide variety students on his or her caseload and their various educational team members. Each method requires a different level of time commitment from a TVI. A TVI may be needed to provide only input during information meetings in the multidisciplinary model or may be required to meet with team members weekly with the transdiciplinary model. The time needed to participate on the collaborative team model chosen should be considered when developing a TVI's caseload and conducting a caseload analysis.

Models of Caseload Analysis

A caseload analysis is an examination of how TVIs allocates their time (Texas School for the Blind and Visually Impaired, 2002). Factors that affect a TVI's caseload include assessment, administration, adaptations of materials, travel, and direct and consultative teaching services (Iowa Rules for Special Education, 2002; Texas School for the Blind and Visually Impaired, 2002). It should be noted there is no definite number of students nor is there a definite time allotment for an ideal TVI caseload derived from any caseload analysis method. However, it is unlikely that an itinerant TVI would be able to effectively manage a caseload of more than 12 students if more than two students are braille users (Gale, 1998, MacCuspie, 2002; Shields et al., 2003; Texas School for the Blind and Visually Impaired, 2002). Opinions on the ideal amount of total time itinerant teachers spend on their caseload varies from 35 to 45 hours per week (MacCuspie, 20002; Stewart, 2002, Texas School for the Blind and Visually Impaired, 2002).

There are several published methods of caseload analysis including the APSEA Guidelines for Determining Caseload Size for Teachers of the Visually Impaired, The Michigan Severity Rating Scales for Students with Visual Impairments, Iowa Caseload Size for Itinerant Teachers, and the results from the Study on Quality Literacy Instruction (Corn & Koenig, 2002;

Koenig & Holbrook, 2000; Texas School for the Blind and Visually Impaired, 2002). All of these methods are used to determine the appropriate caseload of itinerant TVIs.

APSEA Guidelines for Assigning Caseloads. Developed by the Atlantic Provinces Special Education Authority, this scale determines the amount of time a TVI would typically need to adequately meet the needs of youths with visual impairments based on their age and severity of visual impairment (see Appendix B& C). The scale takes into account that a young child or student will need varying degrees of support as he or she develops cognitively. It also accounts for travel time and the various kinds of service that a TVI will need to provide: direct service, consultation, adaptation of materials and preparation of lessons. This scale assumes that braille transcription is already provided for and that new referrals will be seen not by the TVI, but by their supervisor.

Severity of Needs Scale/Severity Rating Scale. The Severity of Needs scale provides an objective and comprehensive way to determine the needs of an individual child (see Appendix D, E and F). The Severity of Needs scale takes into account students' visual needs as well as various aspects of the Expanded Core Curriculum. It allows for time needed to assess new children who have been referred and to consult with other professionals. It includes two scales: one for students who complete an academic curriculum and another for those with multiple disabilities. Once the appropriate scale is completed the method, intensity and duration of service can be determined. Individual scales are then compiled and summarized in a caseload profile. In addition to providing a method of caseload analysis, the Severity Rating Scale also helps determine model of service delivery as well as appropriate frequency and duration of contact and, as such, can be used in conjunction with other caseload analysis (National Agenda-Pennsylvania, n.d.).

Iowa Caseload Analysis Tool. The IOWA caseload analysis is a formula method is used to determine the time needed by the TVI to meet the needs to children in their caseload (see Appendix G). Consideration is given to students needing consultation or direction instruction and to the time needed by the TVI to travel to the various locations where their students are attending school. A formula has been derived with each model of service delivery used by the TVI being allocated a number regardless of the amount of time a TVI may actually spend providing the service. Once numbers are added a general idea of the amount of time a TVI will need is established.

Study of Quality Literacy Instruction (QLI). The QLI is composed of two scales that were created through gathering the advice of 40 experienced TVIs to show the amount of time needed to teach literacy skills to children with visual impairments (see Appendix H). The summary of information gathered shows the amount of time needed by the TVI to provide quality literacy programs for children with visual impairments. The scale takes into account various literacy tools, including technology, needed by students with visual impairments to be successful. There are two scales provided in the QLI. One scale is for use with braille readers (Koenig & Holbrook, 2000). The other scale is to help decide the time needed to teach low vision/large print users (Corn & Koenig, 2002). By completing the appropriate scale, an estimate of the amount of time needed to provide literacy instruction to children with visual impairments can be established.

The use of the caseload analysis methods should help a school district decide how much time a TVI will need to effectively meet the needs of children attending school within the district who have visual impairments. The method chosen has to meet the dynamic nature of the school districts and the TVIs, as well as the students who need service. A caseload analysis method

suitable for wide-spread use in British Columbia has to account for all variations found in the school system.

CHAPTER 3

Method

The purpose of this study was to determine a standard caseload analysis method for British Columbia's TVIs using the Howe Sound School District as a pilot. By using Howe Sound as the pilot district, a suggested caseload for the district's TVI was also determined. This study used an expert and social validation method (Dennis & Giangreco, 1996) to determine an overall strategy for application of one caseload analysis method in school districts throughout British Columbia. The existing caseload analysis methods were used to determine the time needed for the TVI to provide quality services to children with visual impairments attending schools within the Howe Sound School District. In order to complete the caseload analysis, an extensive examination of current needs in the Howe Sound School District was conducted through a review of Learning Media and Functional Vision Assessments and other reports in the students' files.

The method and results of the existing caseload analysis methods were shared with experienced TVIs. The TVIs, all of whom had at least five years of experience in the field and course work leading to qualifications to teach children with visual impairments, were asked to complete a questionnaire and participate in a focus group discussion regarding the caseload analysis methods. "The goal of focus group interviews [was] to create a candid, normal conversation that addresses, in depth, the selected topic" (Vaughn, Schumm, & Sinagub, 1996, p. 4). The panel's comments and concerns were compiled and used in the development of a new caseload analysis method that could be used as a standard method for British Columbia.

This chapter describes the methods used to complete this study. It includes information on data collection and the procedures for study completion.

Data Collection

Several pieces of information were collected to provide a clear picture of students' needs within the Howe Sound School District (see Table 3.1). These included a review of files containing assessment results. A review of services required by students with visual impairments attending schools within the Howe Sound School District based on their assessments was necessary in order to formulate a caseload analysis method by which the district can review the needs of their students with visual impairments in future years. The data were collected from existing files of the school district. The files include all students who have either been referred for file review, consultation, assessment or instruction from the teacher of students with visual impairments in the Howe Sound School District from September 2000 to June 2003. The files may have included, but would not be limited to Functional Vision Assessments, Learning Media Assessments, and clinical reports including Optometrist and Ophthalmological reports. These assessments are necessary when considering the unique needs of a student with visual impairments.

Learning Media Assessment (LMA). A LMA is initially conducted by a TVI to determine in which media a child with a visual impairment best learns: braille, print or a combination of braille and print. By a conducting a LMA the teacher would be able to suggest adaptations to educational materials and processes as well as suggest whether braille, large print or regular print would better suit the learning needs of the child. A LMA includes an informal reading inventory, which provides information about students' reading fluency and comprehension.

Learning Media Assessments are conducted on a yearly basis to examine a student's progress in obtaining literacy skills. A continuing LMA tests the effectiveness of the choice media suggested in the initial assessment, measures each student's reading speed and literacy skills, and provides direction to implementation or introduction of other literacy tools.

Functional Vision Assessment (FVA). A FVA is conducted by a TVI to determine how a child with a visual impairment uses his or her residual vision. Children use their vision in a multitude of ways and, after conducting a FVA, a TVI is able to give teachers and related professionals information on environmental and instructional considerations to be kept in mind when designing programs for the child with visual impairments in their class.

Clinical Evaluations. Ophthalmologists and Optometrists are doctors specializing in eye care and function. Clinical reports from either an Ophthalmologist or Optometrist are required by the BC Ministry of Education for eligibility to meet the criteria as a student with a visual impairment (See Appendix A). In order to meet the criteria of having a visual impairment, a student must have an Ophthalmological or Optometrist report stating their vision is 20/70 or less in their better eye, have a field of vision of 20 degrees or less, or have a progressive eye disease or a non correctable difficulty that makes the vision function as if the above conditions were present. A student is considered visually impaired if his or her vision cannot be corrected to within 20/70 in the better eye and their vision difficulties seriously affect their acquisition of knowledge and completing daily tasks (BC Ministry of Education, 2001)

Student	LargePrint Reader	Braille	Non-reader	Additional Disabilities	High School	Late Elem. School	Early Elem. School
A			x	x			x
B	x				x		
C	x				x		
D	x			x	x		
E	x	x			x		
F			x	x	x		
G					x		
H					x		
I	x					x	
J			x	x			X
K			x	x			X
L			x	x			X
M	x						X

Table 3.1: Characteristics of Students with Visual Impairments in Howe Sound

Procedure

The purpose of this study was to develop a standard model of caseload analysis for British Columbia's TVIs using Howe Sound School District as a pilot district. Consideration was given to the individual needs of the children and the necessity to provide effective, quality programs. First, in order to complete the study, educational permanent files of the students attending the district and who have been referred for services of consultation with the TVI, were reviewed. Most recent Learning Media Assessments and Functional Vision Assessments, Ophthalmological and Optometrist reports and other available information were reviewed and considered when conducting the caseload analysis.

Second, the time needed to provide quality instruction to students with visual impairments was examined using existing scales and forms from Atlantic Provinces Special Education Authority (APSEA) Guidelines for Assigning Caseloads (see Appendix B and C), the Michigan Severity Rating scales and caseload profile form adapted by K. Stewart for the York Regional School District (see Appendix D, E and F), Iowa Caseload Size for Itinerant Teachers (Appendix G), and the recommendations from the Study of Quality Literacy Instruction (Appendix H). Third, the results of these caseloads analysis methods were compiled to form a summary of proposed caseloads for a TVI working within the Howe Sound School District under a centralized special education service umbrella (see Figure 4.1).

Finally, the information gathered was compared across caseload analysis methods by a small experienced panel. The panel was composed of three experienced TVIs from British Columbia and the Outreach Coordinator from the Provincial Resource Center for the Visually Impaired. It was thought having a small panel with solid experience in the field would provide in-depth insight into the practicality and usefulness of the caseload analysis methods used in the study. The panel members had to have at least five years of experience teaching children with

visual impairments and have education leading to qualifications to be a TVI. In order to participate in all aspects of the study, panel participants also responded to an initial contact e-mail and indicated that they lived in the lower mainland area and may be able to attend the focus group discussion at the PRCVI in order to discuss their thoughts about caseload analysis methods. TVIs who met these criteria were contacted by e-mail and/or in person and were then asked to participate in review of the results of the caseload analysis methods. The group ofexperts who ultimately chose to participate had an average of 20.5 years of teaching experience, and on average 15.75 of those years were spent working with children who have visual impairments (see Figure 3.1). Once the panel was established, a package containing the caseload analysis methods and a survey questionnaire containing a Likert-type scale (see Appendix I) was delivered to each panel member. They were asked to help judge the effectiveness of the various methods first by completing the survey, and then later by participating in a focus group discussion.

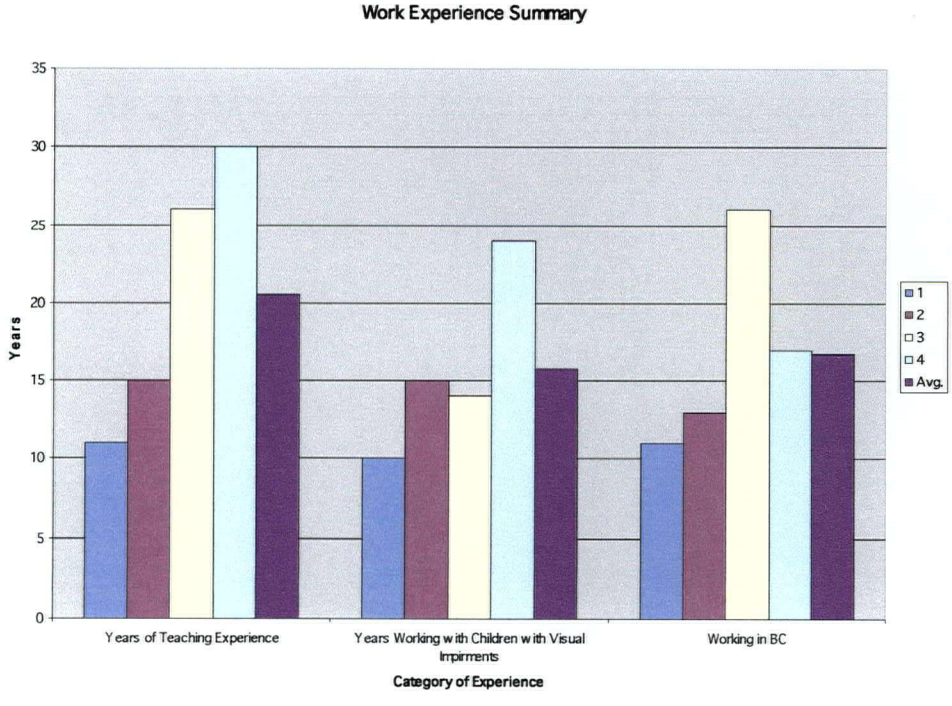

Figure 3.1: Years of working experience of participants who responded to the questionnaire.

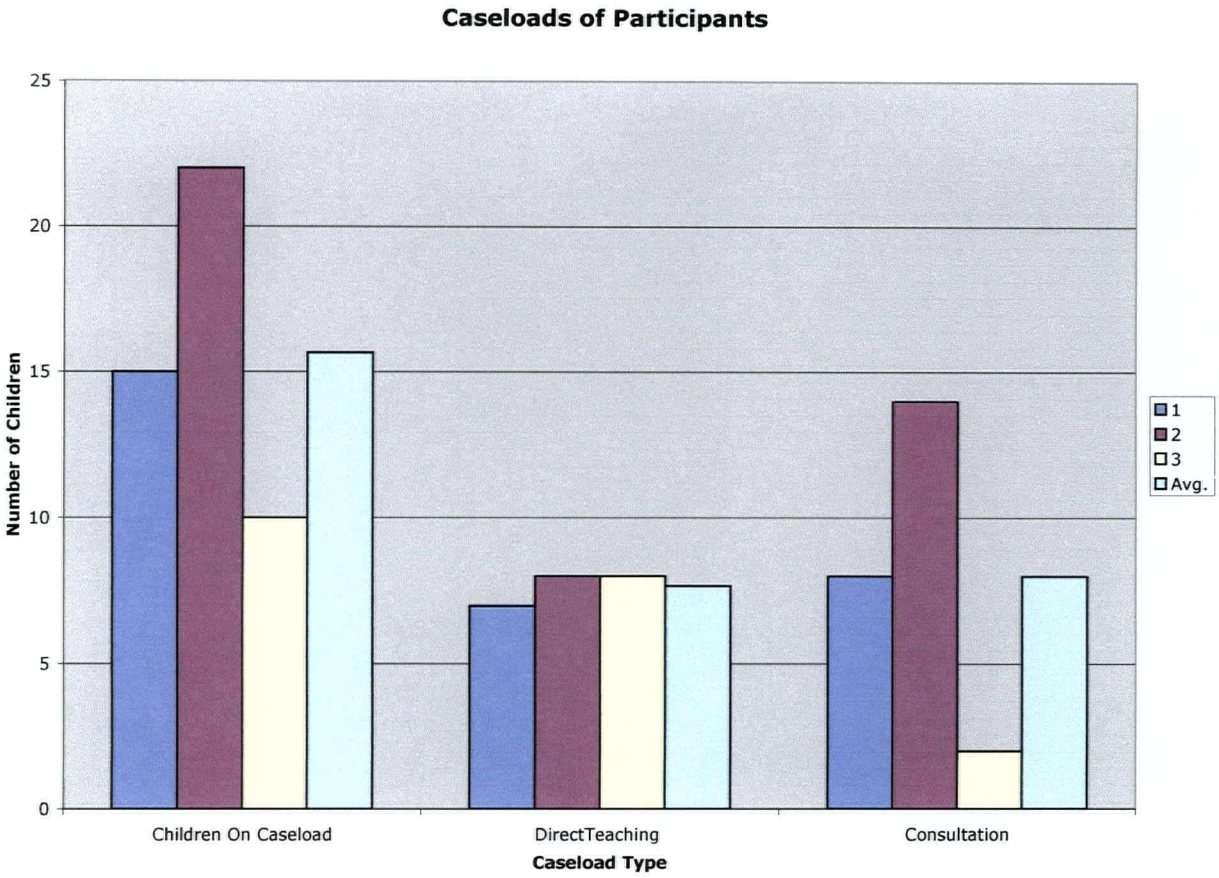

Figure 3.2: Caseloads of TVI participants on the panel.

During the focus group discussion, the expert TVIs and Outreach Coordinator shared their impressions of the caseload analysis methods, as well as participate in a discussion on the parts of the methods they found most useful. Their comments were compiled and sorted to determine emerging themes and a consensus on an ideal caseload analysis method for British Columbia (see Appendices J and K). Following the advice of the panel and drawing on the parts on each analysis method which they thought was most effective, a British Columbia method of caseload analysis was drafted (B-CAT) and applied to information gathered from the files of the Howe Sound School District.

A caseload analysis that outlined the amount of time needed by a TVI to provide quality programs for children with visual impairments within Howe Sound was drafted, giving the

school district an objective measure of how to allocate services for children who are visually impaired based on the needs of the child (see Appendices L and M). Following the study, the proposed British Columbia method of caseload analysis will be shared with members of the British Columbia's Vision Teacher's Association and the school districts in which the teachers are employed.

CHAPTER 4

Results

The three experienced TVIs and PRCVI Outreach coordinator were each given a copy of the caseload analysis methods examined, along with a table that summarized the hours of service the analysis deemed necessary to provide quality instruction to the children referred in the Howe Sound School District (Table 4.1). The hours of necessary instruction varied from IOWA's .65 FTE (approximately 26 hours per week based on a forty-hour workweek) including travel, to the Severity Rating Scale's 37.5 hours per week including travel. With the same population, there was a difference of over 11 hours per week of service deemed necessary.

Caseload Analysis Summary Student	APSEA hrs/week	QLI hrs/week	IOWA Teacher Position	SEVERITY RATING SCALE hrs/week
A	2.25	1.00		0.50
B	3.00	4.00		2.00
C	1.50	1.50		0.25
D	2.00	1.00		2.50
E	9.00	12.50		9.10
F	2.50	1.50		2.50
G	N/A	0.50		Monitor
H	N/A	0.50		0.50
I	1.50	1.00		0.25
J	3.00	1.00		2.50
K	2.50	1.00		2.50
L	1.90	6.00		0.50
M	0.50	1.00		0.25
TOTAL	29.65 (including travel)	32.50	6.5 FTE = 0.65 of full time position (including travel) approx. 26 hrs.	23.35 (with travel and meetings = 37.5 hours)

Table 4.1: Summary of caseload analysis' hours necessary to provide quality service.

To determine where the variance in caseload analysis results came from, the experts were asked to evaluate all four methods based on ten statements. They were to indicate to which degree they agreed (one) or disagreed (five) with the statements provided on the questionnaire (an average of the ratings given by the panel are shown in Figure 4.1). Later the experts met to

elaborate on their opinions and share their thoughts with each other on various issues that affect the caseloads and teaching practices of TVIs in British Columbia.

Results of Questionnaire

Although the TVIs and Outreach coordinator rated the APSEA method of caseload analysis as the most favorable overall, they did not find that any one caseload analysis method was best in all categories based on the statements provided (see Figure 4.1). In terms of being an efficient method of caseload analysis and providing adequate time needed to address the Expanded Core Curriculum, both the APSEA and the Severity Rating Scale models had similar favorable ratings. The participants also agreed that of the methods provided, the APSEA model best addressed issues of providing enough time to consult with teachers and professionals, time for adaptations, time to travel from student to student as well as the method that best accounts for differences in students' ages. The APSEA model of caseload analysis was also rated the best for being able to account for the unique needs of the children who have visual impairments and have additional disabilities, as well as for providing enough time to ensure quality instruction.

The Severity Rating Scale was rated fairly close to the APSEA method in most categories presented in the questionnaire. In addition to rating well in terms of efficiency and allowing time for the Expanded Core Curriculum, the Severity Rating scale method was mentioned as being able both to provide enough time to directly teach literacy concepts in addition to provide time for quality instruction. The Severity Rating Scale was the method the participants saw as best addressing the needs that occur when various visual abilities are present within a caseload.

The IOWA and the Study of Quality Literacy Instruction (QLI) did not receive many favorable ratings by the TVIs nor Coordinator partially due to the category statements provided. The IOWA scale was seen as too general as it uses a formula method to determine the time needed to provide instruction to children with visual impairments and only specifically mentions

travel time in its analysis. The IOWA did not take into account the heterogeneous nature of the children with visual impairments. The IOWA received only an acceptable rating for being able to adequately estimate the time needed to travel from student to student. The QLI was designed to specifically address the need for literacy and literacy tools. As such, it obtained the best rating in being able to adequately address the time needed to provide direct instruction of literacy skills but did not score as favorably on other aspects of the questionnaire (see Figure 4.1).

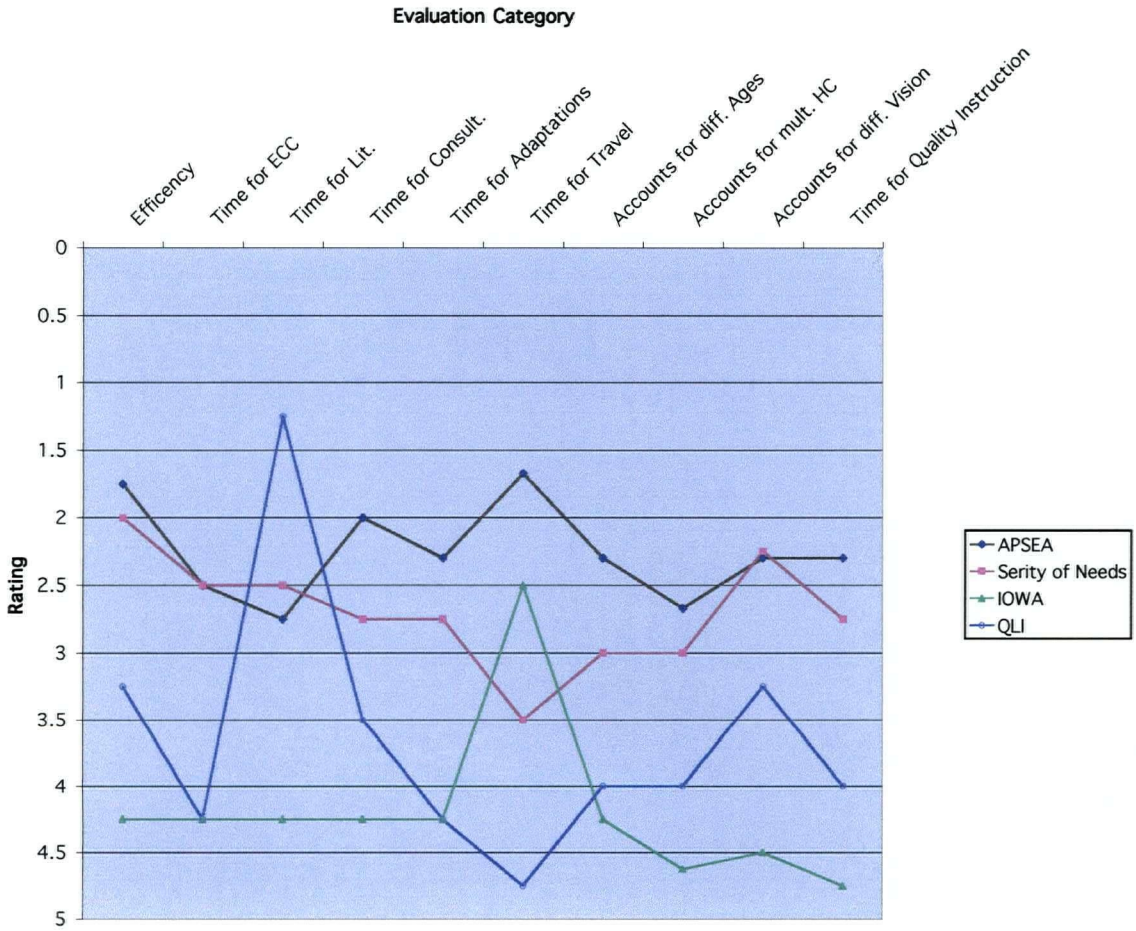

Figure 4.1: Results of caseload analysis effectiveness questionnaire.

Participants on the expert panel had various comments and concerns regarding the caseload analysis methods presented. One member of the panel stated that TVIs "need to use

parts of all of [the caseload analysis methods]". Another member found that the caseload analysis methods "that provided the best analysis looked like they would be time consuming to complete" and was concerned that using these methods with her multiply handicapped student would "skew the results in terms of looking like they needed less help than they really did." This concern was compounded by the tendency of the district "to only give service to students [designated] visually impaired".

Results of Focus Group Discussion

In order to clarify decisions made on the questionnaire and to have the opportunity to share their ideas on the issues facing teachers of students with visual impairments and their caseloads, a structured focus group discussion was held with the participants (see appendices K and Figure 4.1). Of the four experts who participated in the questionnaire, only three were available to meet for the focus group discussion. The focus group discussion was held at the Provincial Resource Center for the Visually Impaired in Vancouver, British Columbia, because it was a location central to most participants. In addition to discussing their views on the caseload analysis methods presented in the study, the participants were asked by the researcher to identify issues that they thought affected the size and composition of caseloads both in terms of administration and teaching.

The participants on the panel thought that the administrators in their districts based their decisions regarding caseloads on two key issues, specifically the amount of funding they could provide and the degree of pressure put on them by either parents or other administrators. However, they thought funding and pressure-based decisions could be influenced by the administrator's knowledge of the unique needs of children with visual impairments.

Funding was seen as an issue for two reasons. First, because funds are not "targeted" as being for children with vision impairments when given from the Ministry of Education to the

school districts, students and teachers are left "vulnerable" to an administrator's choice for best use of the monies. Second, the participants found that parents influence administrators and that currently "parents are pushing for Special Education Assistants (SEAs) for every blind kid." Since "SEA funds come out of teacher funds," the "budget is used up" by providing SEAs instead of teachers to students with visual impairments. When funds are spent on SEAs, as opposed to teachers, the TVIs are forced into a more consultative role than a teaching role, despite the needs of the child with visual impairments. In addition to parents pushing for SEAs, school board officials also have to contend with providing funds to other areas. For example, in Vancouver school administrators and parents requested more funds for the large English as a Second Language population, rather than for the smaller children with vision impairment population.

The participants in the discussion found that an administrator's knowledge of the needs of children with visual impairments helped when discussing both caseloads and funding. Whether administrators understood the differences between having low vision and being blind, as well as their familiarity with the Expanded Core Curriculum, helped in developing the working relationship between the administrator and TVI.

When discussing how they develop their own caseload, the participants found they were influenced by a variety of different factors. However, all participants agreed that flexibility in scheduling as well as meeting students' individual needs were key in designing their caseloads. Because most TVIs in British Columbia are itinerant, time flexibility is necessary in order to travel around both rural and urban areas. Other time flexibility issues that should be considered, according to the participants, are the time needed to communicate with other professionals and to prepare materials for individual students. The participants found they had to be most flexible when students' needs change. "Students who may be in crisis require more time [and] meeting

all demands can influence [teacher] flexibility". A conundrum may occur as TVIs have to decide how to meet the individual needs of their students as they "fluctuate without taking from other" students. Their students' needs should be determined by their knowledge of the concepts in the Expanded Core Curriculum and by formal and informal assessments, including a yearly Learning Media Assessment. In order to teach everything outlined in the Expanded Core Curriculum, a flexible concept of what is considered a school day should also be reviewed because many areas need to be taught outside of the school grounds and outside of school hours.

The caseload analysis method chosen for British Columbia had to follow specific criteria. A method of caseload analysis that is able both to educate administrators on the needs of children with visual impairments and allow TVIs to have time flexibility necessary to teach the Expanded Core Curriculum is needed. The method of caseload analysis chosen for British Columbia had to be quick for administrators to read and for TVIs to complete, given time constraints of both people, but it still had to address the vast arena of concepts children with visual impairments have to learn. The method chosen may also have to be used "to justify certain factors" to administrators that allow for the flexibility needed to teach children with visual impairments. The caseload analysis method has to account for the fluctuating needs of students based on their age, vision and knowledge of the Expanded Core Curriculum.

The participants in the expert panel were asked to evaluate the four caseload analysis methods presented in the study based on how well they would or could fulfill the needs of both administrators and TVIs. The panel thought that TVIs should be "familiar with all the methods" presented because each of the methods included "important stands" or concerns in the field of vision impairments.

Severity of Needs/Severity Rating Scale. The Severity Rating Scale may work to help support TVIs choices and justify the amount of time needed to teach children with visual

impairments. In the view of the participants the Severity Rating Scale "looks at vision as a continuum," is "more comprehensive with the Expanded Core Curriculum," "allows for professional judgement," and considers the time needed for "materials and communication." The Severity Rating Scale also "itemizes what [TVIs] think is extenuating circumstances which empowers [them] with administrators". Still, given the depth of this caseload analysis method, it requires more dimension to the existing categories of the Expanded Core Curriculum and the inclusion of categories such as literacy and community outreach.

There were some difficulties noted with the Severity Rating Scale. Although the Severity Rating Scale method of caseload analysis allows the TVI to account for most aspects of "individuality" of their students, it may be too involved for administrators to give it their full attention. It is also "time consuming" to complete and read due to the "semantics" used, specifically, the difference between mild and moderate needs on the scale with multiple disabilities. The Severity Rating Scale can provide charts for "showing data of need" which "administrators [may] like" but whether administrators would sift through the complicated language to give the scale and charts primed attention in order to understand [TVIs'] arguments is in doubt.

APSEA Caseload Analysis Model. The Atlantic Provinces Special Education Authority's caseload analysis method was not seen as specific as the Severity Rating Scale; however, participants on the panel thought it may have a better chance of being read by administrators. A supervisor or TVI is able to quickly look at the APSEA caseload analysis method and "explain it to administration" and the data created by the method will provide "accountability" sought by many administrators. The participants on the panel also thought because the APSEA model was developed by TVIs in the Atlantic Provinces, that it may legitimize the choices made by TVIs in British Columbia.

The APSEA model is also quick to complete. However, its easy completion could also be a downfall. It "doesn't account for changes in the Expanded Core Curriculum" and "assumes that kids are more the same or different at various ages" and visual abilities. There may be a possibility that using this method may "short change some of the kids" on the district's caseload as it is based on "averages".

IOWA Caseload Analysis Method. The IOWA Caseload Analysis tool uses a formula in order to determine the amount of time needed by a TVI to provide instruction to their students. As such, it also had some faults in its ability to account for the individual needs of the students. The panel agreed that this caseload analysis method took very little time to complete, but also thought it was much too general to suit the diverse needs of their population.

Study of Quality Literacy Instruction. In contrast, the Study for Quality Literacy Instruction (QLI) was very specific in its intent to ensure students with visual impairments receive adequate literacy instruction. However, this method dealt solely with literacy and was validated by experienced teachers. It shows the importance of and the time needed to provide quality literacy instruction to students who have low vision or are blind. It also "involves technology in literacy" which is a major component of success for children who are visually impaired. The QLI can be a necessary piece when developing an ideal caseload analysis method. However, on its own, this method does not account for the wide scope of needs and curricula depicted in the Expanded Core Curriculum.

A New Caseload Analysis Method. The participants on the panel thought that some parts of all analysis methods in the study maybe useful in composing a caseload analysis method for British Columbia and teachers should be familiar with all the methods available. The members of the panel thought that the bulk of the new model could be based on the Severity of Needs worksheet. They felt it should then be supplemented with the literacy component of the QLI, the

adaptation and preparation components of the APSEA and add a more in-depth travel, transitional and community component. The new caseload analysis method should also allow for professional judgement. The participants thought that despite these additions the new caseload analysis method should be easy to complete by teachers and easy to decipher by administrators. In order for it to be readable for administrators, it was suggested that the ideal caseload analysis method include a summary sheet.

The panel felt it was possible that such a model could be used in many school districts within British Columbia. The participants stressed the importance that this method also be used as a means to work cooperatively with administrators and parents. They felt in order for the new caseload analysis to be accepted, TVIs in British Columbia had to present the new method as an idea fully accepted by all TVIs to district and school based administrators while still maintaining a good working relationship with all parties involved in the education of children with visual impairments.

Results of Proposed British Columbia Caseload Analysis Tool (B-CAT)

The British Columbia Caseload Analysis Tool was created using the feedback from the focus group discussion (see Appendices L and M). It was produced using ideas from the Severity Rating Scale, APSEA model and parts of the QLI Study. The intention of this new tool was to add all factors participants thought as integral to the teaching of children with visual impairments, remove any confusing items or terms for both the teachers administrators and to have a tool that was user friendly. At this stage, the method is intended to be only a draft of the desired tool.

Difficulty arose when trying to include all the elements the participants determined necessary and yet maintain an easy to use and read tool. To further reduce confusion, items such as type of collaboration model were given consideration within the actual scale, while travel time

was included as part of the caseload summary. An estimate of weekly travel was included and not linked to individual children as needs of children change and exact times are not realistic to manage in a caseload overview. Consideration was also given to the age of the child as the needs of children fluctuate in different stages of their lives as they have to learn new skills or have times of crisis.

The summary of the results of the B-CAT, outlined in Appendix Q, is communicated through tables that are adapted from the Severity Rating Scale from the York Regional School District. The difference between the two models mainly lies in the absence of the consultation rows and columns as these sections have be amalgamated into the scale in the B-CAT in order to reduce complications and to give credence to the various amounts of times needed by the different types of consultation and team models.

The Caseload Profile for the Howe Sound using the B-CAT shows the amount of time needed by students, including team consultation, to meet their educational needs adequately. The estimated total of direct teaching and collaboration time is approximately 17 hours and 45 minutes per week (see Appendix N). This does not include time for travel, material preparations or assessments. The total amount of time needed to meet the needs of the Howe Sound School district as calculated by the B-CAT and shown on the Caseload Summary sheet is 34 hours and 45 minutes. It should also be noted that the tables show an estimate of what one week might be and that the TVI may not necessarily spend the noted particular amount of time each week with a particular student. For example, students with less than 30 minutes allocated to them each week may receive a one-hour session every other week instead, or the student who only has 15 minutes of TVI time each week may be seen once a month to review progress and make future plans. As expressed by the panel, the caseload of the TVI has to be flexible in order to meet the needs of all the students.

The Caseload Summary sheet includes the time needed by the students, as well as other times necessary to teach. It includes time for Assessment, Preparation of materials, Material adaptation or Brailling, Department meetings and travel, which is assessed by dividing the total number of estimated travel minutes per week by sixty. The Caseload Summary also included time for lunch and non-instructional parts of the school day. By adding all the categories together a TVI time of 34 hours and 45 minutes was the time needed to effectively meet the needs of children with visual impairments referred in the 2002/2003 school year.

The time estimated by the British Columbia Caseload Analysis Tool, 34 hours and 45 minutes, is comparable to the results of the other methods included in this study. The Severity Rating Scale estimated 37 hours 30 minutes including travel, while the Study of Quality Literacy Instruction showed a time of 32 hours 30 minutes. The estimated B-CAT falls between these two estimated times but is still above the APSEA method's time estimate of 29 hours 40 minutes and the IOWA's 26 hours or .65 FTE. The differences in the amount of time needed by each method examined in the study and the B-CAT range from 8 hours and 45 minutes in the case of the IOWA, which the panel already suggested was too general, to 2 hours 15 minutes (Delphi Study) and 2 hours 45 minutes (Severity Rating Scale).

Although the results of the B-CAT are comparable to the other methods in the study, further development of the tool may be necessary. In order to meet the scope of TVIs' caseload in British Columbia, the caseload analysis tool may have to be adapted to include other concerns. The figures indicated above may change according to the input of TVIs in further studies.

CHAPTER 5

Discussion

Teachers of students with visual impairments and the provincial outreach coordinator participating in the study agreed that having sufficient time to meet various needs effectively was the major factor in delivering quality instruction to their students. TVIs need adequate time to meet the needs of all the students on their caseload. They also needed time to travel from student to student, to meet the needs of students in areas of the Expanded Core Curriculum, to manage the paperwork required of their caseload as well as meet the time demands of collaboration meetings. Having a larger caseload means having to decide how to divide the teacher's time among more children, and it can affect the instructional service the TVIs could provide their students (Hatlen, 1996; Texas School for the Blind and Visually Impaired, 2002). A lower caseload would increase the amount of time a TVI could spend meeting the individual student's instructional needs as depicted in his or her IEP (Russ et al., 2001). Participants in this study stressed that despite the size or composition of the caseload, the time given had to be sufficient to manage the caseload demands while being flexible in order to account for the changing needs of children as they age, learn or are in "crisis."

The amount of teacher time, as opposed to and compared to SEA time, and its resulting impact on administrators' funding choices was also an issue with the participants in the study. TVIs participating in the study felt that administrators were being pressured by parents and other administrators to provide funding for a SEA for every child who had a visual impairment. The choice to hire a SEA for a child with a visual impairment affects the amount of funding available to hire qualified teachers of students with visual impairments and ultimately has an impact on the quality of instruction provided to children with visual impairments within their district. The students are not provided instruction from a person who is knowledgeable about the effect their

vision has on their learning nor are they able to benefit from the instruction of the Expanded Core Curriculum, which is something they need to learn in order to become successful, independent adults.

Similar to previous findings, the participants in the study suspected that administrators' lack of knowledge about the learning needs of children with visual impairments affected their funding choices (Wisconsin State Plan, 2002). The participants felt that if administrators knew about the various aspects of the Expanded Core Curriculum and literacy needs of the students, there would be a better chance that they would provide adequate funding and hire qualified personnel necessary for quality instruction. Administrators should be apprised of the various aspects that have to be considered when teaching children with visual impairments, including age, intellectual abilities, presence of additional disabilities, travel, associated personnel, as well as materials and adaptations (Cowan & Toelle, 2003; Sheilds, Toelle & Cowan, 2003; Wisconsin State Plan, 2002). A way to inform the administrators of the needs of children with visual impairments within their school district, then, should be developed. An effective caseload analysis method could perform this function as well as be a formidable tool to justify the teaching time sought by TVIs. However, an ideal caseload analysis method was not found among those presented in the study.

Although participants agreed there was value to all methods, no one method presented would meet the needs of TVIs in British Columbia. The caseload analysis did not cover all aspects of instruction, the time demands of TVIs, nor did they provide an efficient, effective way to show all these needs to administrators. The TVIs who participated in the study suggested a combination of the methods presented could cover all aspects affecting a teacher's caseload. However, a concise way to impart the gathered information would still need to be considered.

In the questionnaire the experienced TVIs and a provincial outreach coordinator were given four caseload analysis methods and the results of those methods evaluating the time needs of students who had been referred within the Howe Sound School District. The participants favored the APSEA caseload analysis method as well as the Severity Rating Scale for their overall scope of meeting most aspects of instruction. When evaluating how much time was needed to provide instruction for students in the Howe Sound School District, the methods favored by the participants on the panel had estimates that ranged from 29 to 37.5 hours including the time needed to travel from student to student. Although the QLI showed the greatest need for teacher time (32.5 hours without travel time), the participants did not feel it met all the needs of children with visual impairments or their teachers. The participants liked the QLI for its in-depth analysis into the literacy needs of children with visual impairments, but understood it was meant for that purpose only and did not reflect all of the needs of the Expanded Core Curriculum. The IOWA caseload analysis method was seen as user-friendly. However, the IOWA was also too general for the desired use and showed the least amount of need for teacher time for children with visual impairments within Howe Sound.

For the new, combined caseload analysis model required, the participants suggested using the bulk of the Severity Rating Scale and adding aspects of the APSEA and QLI models, as well as adding a transitions and literacy medium component. This new method should be able to meet all learning needs of students with visual impairments. However, if it was too long, it may be cumbersome to complete and read, which may affect its widespread use by TVIs in British Columbia and its chance of being read and understood by provincial, district and school-based administrators. Because one objective of a caseload analysis is to inform administrators of the needs of the students within their district, an easy to read method to impart results of the new caseload analysis tool should accompany it.

Implications and Application to Students in the Howe Sound School District

A proposed British Columbia Caseload Analysis Tool (B-CAT) is presented as part of the study. Using the new method to evaluate the same population evaluated by the established methods used in this study, students referred in the 2002/2003 school year, an estimated time of 34 hours 45 minutes was derived as necessary to meet the students needs. This time was comparable to the time deemed necessary by the other methods presented. It fell within the range of hours estimated by the APSEA and Severity Rating Scale. The method still allowed for the flexibility in time management sought by the participants in the study as well as addressed most of the issues brought forth by the panel. It elaborated on the Expanded Core Curriculum, went into greater depth with literacy, and supported the idea that children with visual impairments are a heterogeneous group and they have a varying degrees of needs. The B-CAT also addressed the issues of travel time and various kinds of team collaboration team models.

The time needed by a TVI in the Howe Sound School District will vary from year to year as students move out and into the school district and as the needs of individual children change. As the participants of the panel expressed, any caseload analysis method, the B-CAT included, should address flexibility to deal with children in crisis. The B-CAT method could be used within the Howe Sound School District in two ways. First, it can be used at the end of each year as a projection for the following school year and allow for hiring of a qualified TVI based on estimates of student enrollment. Second, it can be completed at the beginning of each year or whenever there are significant changes to caseload or conditions so that TVI time is based on actual student needs for that school year.

Limitations of the Study

One of the limitations in the study was the low number of respondents. The number of TVIs in British Columbia is relatively low: approximately 67 teachers (C. Purcell, personal

communication, December 6, 2003). Fewer still were the numbers of TVIs available to participate in the study who lived and worked in the Lower Mainland. Of those who participated in the study, all had over ten years experience in the field and had some training courses in educating children with visual impairments making them an asset to this study.

Effectiveness of caseload analysis methods presented in this study could also be examined further. The methods chosen have been in practice in various districts, provinces and states or have been created using the expertise of experienced teachers of students with visual impairments. These methods are valid in that they measure what they set out to. The APSEA and Severity Rating Scale estimate the amount of time needed to provide instruction, adaptation to materials as well as collaboration time. The Study of Quality Instruction provides an in-depth method to estimate the amount of time needed for literacy instruction, while the IOWA caseload analysis method is a quick tool to estimate time needed for instruction. With the exception of the QLI Study, which was meant only to estimate one aspect of instruction, the other caseload analysis tools were meant to be all-encompassing. They were meant to depict all the time needed to meet the needs of students with visual impairments. If that is the case, using the same population, each tool should have comparable results to each other. The time deemed as necessary, including travel time, ranges from 26 hours (IOWA) to 37.5 hours (Severity Rating Scale); the APSEA model suggested 29.65 hours was necessary to meet the needs of the same population of students.

The effectiveness of new caseload analysis method is untested at this time. However, the B-CAT did produce time allotments similar to the other methods explored in the study. Testing the new method within British Columbia and revamping according to the views expressed by TVIs will be necessary.

Implications for Future Research

Future research of the British Columbia Caseload Analysis Tool should include two streams of study. The first study should review the content of the scale and its applicability to TVIs' teaching load. Teachers of students with visual impairments within British Columbia should be given the opportunity to review the scale and comment on its limitations and its good points. By having the provincial TVIs comment on the proposed caseload, there is a better chance of their using the caseload analysis method once it is established.

The second stream of study may help to further ensure the B-CAT is the standard method used across the province. Once the scale has been finalized, several districts will be asked to pilot the caseload analysis method and report on its effectiveness. The caseload analysis method will occur later in the year in order to project the TVI caseload for the next school year. Based on TVI feedback across the province, reliability and validity of the B-CAT will be reviewed and published along with the method.

When the scale has been finalized and its effectiveness as a tool in British Columbia established, the method will be presented to provincial education bodies as a proposed method to be used throughout British Columbia. Furthermore, the method will be published in professional journals for teachers of students with visual impairments in order to present and alternative to the methods currently published.

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Appendix A

BC Ministry of Education: Special Education Manual

Special Education Services: A Manual of Policies. Procedures and Guidelines 2001

Special Considerations for Individual Planning

Students with Visual Impairments

Definition

Visual impairment is a generic term that covers a range of difficulties with vision and includes the following categories: blind, legally blind, partially sighted, low vision, and cortically visually impaired.

For educational purposes, a student with visual impairment is one whose visual acuity is not sufficient for the student to participate with ease in everyday activities. The impairment interferes with optimal learning and achievement and can result in a substantial educational disadvantage, unless adaptations are made in the methods of presenting learning opportunities, the nature of the materials used and/or the learning environment. It is not intended to include students described as having visual perceptual difficulties unless they also have a vision loss as described below.

To be eligible for supplemental funding as a visually impaired student, the following three conditions must be met:

- In the opinion of an ophthalmologist, optometrist, orthoptist of the Visually Impaired Program at British Columbia's Children's Hospital, the student's functioning may be described by one of the following:
    - a visually of 6/21 (20/70) or less in the better eye after correction;
    - a visual field of 20 degrees or less;

  - any progressive eye disease with a prognosis of becoming one of the above in the next few years; or
  - a visual problem or related visual stamina that is not correctable and that results in the student functioning as if his or her visual acuity is limited to 6/21 (20/70) or

- a current IEP must be in place; and
- the student must be receiving additional special education services that are directly related to the student's visual impairment on a regular and frequent basis from a qualified teacher of the visually impaired. The special education service(s) must be in addition to any services provided under formula funding based on total student enrolment (e.g., learning assistance, counseling). Reduction in class size is not by itself a sufficient service to meet the definition.

Appendix B
Directions for Completing APSEA Caseload Analysis
(from AER Division 16- Caseload Analysis Training Handout)

For each student:

1. Write the student's name in the first column
2. Write the age level in the second column.
3. Write the vision status in the third column.
4. Indicate whether the student has any other disabilities in column three.
5. From the range provided in the appropriate section, fill in the remaining columns:
   Direct - means the actual time spent instructing the students per week.
   Consult - means the time spent consulting with teachers, parents and other professionals per week.
   Adapting Materials - means the time spent on adapting materials to be used in the classroom per week.
   Preparation - means the time spent preparing for direct instruction of the student by the itinerant teacher per week.
   Travel - is the amount of time required for a return trip to the student from the itinerant's office base times the number of times the itinerant teacher goes to this location per week. Add minutes and divide by 60.
6. Total the number of hours for each student in the final column.
7. Add the totals in each column.
8. To arrive at the grand total, add the totals from each column: Direct + Consult + Adapting Materials + Preparation + Travel. This number represents the total number of hours of itinerant teacher's time per week required to complete this caseload.

NOTE-Under the APSEA model:

1. Travel is considered working time.
2. Braille transcription support is provided.
3. New referrals are seen by supervisors.
4. The calculations for students who are seen monthly, are done in the same way as for any student. Use the formula in the APSEA Guidelines, and convert to what it would mean for time per week. For example, if you calculate a student requires two hours a month, that is written as 30 minutes/week-even thought the service is delivered monthly.
5. You must stay within the guidelines given for service levels in order to use this tool effectively.
6. There will be a variability of results, within a certain range.

APSEA Guidelines Caseload Profile

1 Student	2 Age Level	3 Vision Status – other disab.	4 Direct Service	5 Consultation	6 Adapting Materials	7 Preparation	8 Travel	9 Total hrs / child per week
1.								
2.								
3.								
4.								
5.								
6.								
7.								
8.								
9.								
10								
1 Totals	2	3	4	5	6	7	8	9

Add:
Direct: ___ (column 4)
Consult: ___ (column 5)
Adapting Materials: ___ (column 6)
Preparation: ___ (column 7)
Travel: ___ (column 8)
Grand Total: ___/hours per week of itinerant teachers time (column 9)

Full Time: 35-40 hours/wk Half Time: 17-20 hours/wk

Based on the APSEA CA Tool, this caseload is: Low Acceptable High Very High

Appendix C

From Ann MacCuspie

APSEA Guidelines for Assigning Caseloads published on the TSBVI web site.

PRESCHOOL (birth to 4 years)

Vision Status	Direct Service	Consultation	Adapting Materials	Preparation
Blind	1 to 2	0 to 1	0 to 1	0 to 1
20/200 or less	1 to 2	0 to 1	0 to 0.5	0 to 1
20/70 - 20/200	0.5 to 2	0 to 1	0 to 0.5	0 to 1
VI with MD	.5 to 1	0 to 1	0 to 1	0 to 1

PRESCHOOL CHILD (year prior to school entry--transition year)

Vision Status	Direct Service	Consultation	Adapting Materials	Preparation
Blind	1 to 4	0 to 1	0 to 1.5	0 to 1.5
20/200 or less	1 to 4	0 to 1	0 to 1	0 to 1
20/70 - 20/200	0.5 to 2	0 to 1	0 to 1	0 to 1
VI with MD	0.5 to 2	0 to 2	0 to 1	0 to 1

ELEMENTARY SCHOOL STUDENTS

Vision Status	Direct Service	Consultation	Adapting Materials	Preparation
Blind	5 to 8	0 to 2	1 to 2	1 to 2
20/200 or less	1 to 5	0 to 2	0 to 1	0 to 2
20/70 - 20/200	0 to 3	0 to 1	0 to 0.5	0 to 2
VI with MD	0 to 1	0 to 1	0 to 0.5	0 to 0.5

JUNIOR & SENIOR HIGH SCHOOL (grades 7-12)

Vision Status	Direct Service	Consultation	Adapting Materials	Preparation
Blind	3 to 6	0 to 3	1 to 2	1 to 2
20/200 or less	1 to 4	0 to 2	0 to 1	0 to 2
20/70 - 20/200	0 to 2	0 to 1	0 to 0.5	0 to 2
VI with MD	.5 to 1	0 to 1	0 to 0.5	0 to 1

Appendix D

Directions for Completing the Vision Severity Characteristics and Vision Severity Summary
(adapted from TSBVI website)

This chart may be used three times.

1. Category names are listed vertically along the left hand side of the Vision Severity Characteristics Worksheet. Refer to definitions on following page as necessary.

2. Descriptors are listed horizontally for each category. The descriptors are listed sequentially in terms of severity, from mild to profound.

3. The numbers attached to each severity are considered part of a continuum. The specific number under each severity name is the numerical rating to be given for that severity. For example, under MILD, a numerical rating of 0, 1, or 2 is possible; while under PROFOUND, a numerical rating of 11 or 12 is possible.

4. For each category, mark the descriptor that best describes the visually impaired student. Place the appropriate severity number in the right hand column (Severity Score Column). Three columns are provided for evaluation on three separate occasions.

5. Total the right hand column to get a TOTAL SEVERITY SCORE.

6. Using the Total Severity Score, refer to the Vision Severity Summary to determine:

* Severity rating
* Frequency of service
* Total minutes of service per week.
* Model of service delivery

7. Record these findings in the Recommendations of Services section on the Vision Severity Summary.

8. Input data into Teacher's "Caseload Profile" and "Caseload Hours" forms.

Appendix E

YORK REGION DISTRICT SCHOOL BOARD
SEVERITY OF NEEDS WORKSHEET
(Adapted from Nelson, 1991 by Stewart, 2000)
Students with Visual and Multiple Disabilities

DATE: _____

STUDENT: _____ **SCHOOL:** _____ **PLACEMENT:** _____

D.O.B: _____ **AGE:** _____ **VISUAL /MEDICAL DIAGNOSES:** _____

CATEGORY	RATING				Severity Score
	Mild Needs 0-2	**Moderate Needs 3-4**	**Severe Needs 5-6**	**Profound Needs 7-8**	
Visual Status	No medically identified vision problem, but ability to attend to visual stimuli is questionable	Medically identified vision problem, with ability to attend to visual stimuli	Medically identified vision problem, with impaired ability to attend to visual stimuli	Medically identified vision problem resulting in profound loss of vision	
Functional Vision Status	Visual skill being maintained/reinforced in a variety of settings	New visual skills being introduced or developed	Vision skills fluctuate depending on activity	Totally blind-no input	
Response to Stimulation / Instruction	Minimal response to stimulation / instruction	Occasional response to stimulation / instruction	Frequent response to stimulation / instruction	Consistent response to stimulation / instruction	
Educational Need	Classroom participation is not affected by vision loss	Classroom participation is occasionally affected by vision loss	Classroom participation is frequently affected by vision loss	Classroom participation is consistently affected by vision loss	
Educational Growth	No measurable gains even after intervention	Minimal growth even after intervention	Demonstrating growth but on a plateau	Continues to demonstrate steady growth	
Potential for Improved Use of Vision	Minimal, gains appear remote	Currently functioning at a level equal to developmental ability	Some improvement appears possible, gains probable with vision services	Prognosis for improved visual functioning appears to be good	
Physical Independence	Dependent on special care for medical and daily living functions	Dependent on others for daily living functions	Dependent on a modified environment, difficulty with certain activities	Basically independent	
				TOTAL SCORE	

Definitions (Students with Visual and Multiple Disabilities)

Visual Status	Refers to the capability of attending to visual stimuli • Awareness • Fixation / Attention
Functional Vision Status	Refers to the student's ability to apply visual skills to perform activities in the classroom • Fixation, tracking, scanning objects and pictures • Teaching these skills in actual activities • Vision stimulation / efficiency program needed
Response to Stimulation / Instruction	Refers to the ability of the student to respond to stimulation and/or instruction
Educational Need	Refers to the Regional Vision Resource Teacher's projection of the extent that vision affects student's participation and programming in the educational settings.
Educational Growth	Refers to the amount of growth the student has demonstrated during the previous year on vision related goals and objectives.
Potential for Improved Use of Vision	Refers to the skills demonstrated by the student in the areas of sensory awareness and visual functioning (LMA assessment for students with additional disabilities).
Physical Independence	Refers to the student's motoric involvement and to his/her ability to function independently within his/her classroom.

YORK REGION DISTRICT SCHOOL BOARD
SEVERITY OF NEEDS WORKSHEET
(Adapted from Nelson, 1991 by Stewart, 2000)
Students without additional disabilities

STUDENT: _____ **SCHOOL:** _____ **GRADE:** ____ **D.O.B:** _____ **AGE:** _____ **DATE:** _____

CATEGORY		RATING						Severity Score
		Mild Needs 0-2	**Mild to Moderate Needs 3-4**	**Moderate Needs 5-6**	**Moderate to Severe Needs 7-8**	**Severe Needs 9-10**	**Profound Needs 11-12**	
Functional Vision Skills		Visual Skills adequate for accessing curriculum	Visual Skills being maintained in a variety of settings	Visual Skills need to be reinforced in a variety of settings	Visual skills are being introduced or further developed LV Clinic Assess.	Visual skills fluctuate depending upon the task or environmental conditions	Totally blind or not able to access visual information for learning	
Medical	Distance Acuity	20/20 – 20/50 or blind in one eye	20/50 – 20/100	20/100+ - 20/200	20/200+ - 20/400	20/400+ - 20/800	20/800 – LP. NIL	
	Field Loss	0-10 degrees	10-20	20-30	30-40	40-50	>50	
Near Acuity: Functional		20/20 – 20/50	20/50 – 20/100	20/100+ - 20/200	20/200+ - 20/400	20/400+ - 20/800	20/800 – LP. NIL	
Reading Medium		Regular Print with no modifications	Regular Print Primary Type (12 point)	Regular Print with some modifications / magnification	Print demands vary with subject / Print modification / magnify. Needs	Constant print modifications / magnify / braille, tape, combo.	Learning to use a new reading method - Braille	
Low Vision Devices / Technology		No aids required	Mastery of aids / no instruction	Competency / may need reviewing or refining of skills	Refine or introduce new skills using existing aids, i.e., calculators, LV aid	Maintain use of hi-tech. Equip. or teach use if new equip. or low vision device	Intro. Of hi-tech equip./skills, i.e., scanner or note taker	
Compensatory / Expanded Core Skills		Needs no compensatory skills at this time only tutoring	Needs minimal intervention: P.E. adaptations; Monitoring skills	Occasional intervention: Monitoring in place skills	Frequent intervention 2-3 compensatory skills introduced	Intense instruction: ISA 1 Equipment; Learning Strats; 3-4 compensatory skills	Daily instruction: ISA 3 : Braille user; Learning Strats; 4+ skills	
Preparation of Materials		No adaptations of instructional materials/presentations/teach style	Minimal amount of adapted materials	Occasional need to adapt materials	Frequent need to adapt materials	Intense modification of materials needed	Daily preparation of braille, tactile materials	
Communication with Educational Team		Primarily the students responsibility	Minimal communication required (2-4 times per year)	Monthly comm. With team members	Weekly comm. with team members	Intense comm. (2-3 times / week) with pertinent individuals (E.A.)	Daily comm. with pertinent individuals (E.A./Braillist)	

Compensatory Skills Descriptors (Students without additional disabilities)

Mild Needs	Needs no compensatory skills instruction; needs academic tutoring
Mild to Moderate Needs	Needs minimal support in: • P.E. adaptations, • recreational activities • Monitoring of compensatory skills already in place (e.g. use of LV device)
Moderate Needs	Occasional modification or intervention • Use of non-optical aid (slant boards, markers etc.) • Use of environmental modifications (i.e., lighting) • P.E. class / recreational activities
Moderate to Severe Needs	**Frequent intervention or introduction of skills,** two to three **of the following compensatory skills: Has ISA 1 low-tech equipment.** • Study and organizational skills • Understanding own impairment • Listening skills • Social • Independent living • Advocacy
Severe Needs	Intense accommodations and instruction. Needs compensatory skill instruction **in two or more** (but not braille) of the following **Or** High School Vision Learning Strategies Class (2-3 classes/week): Has ISA 1 hi-tech equipment. • Touch typing • Guidance / social emotional • Daily Living Skills • Listening skills • Map reading • Career / vocational training
Profound Needs	Daily modification and instruction. Needs compensatory skill instruction in **at least four** of the compensatory skills (one being braille) Or High School Vision Learning Strategies class (4-5 classes/week): (ISA 2-3; Braille users). • Tactile development / pre-braille / academic and functional braille skills and codes • Slate and stylus • Abacus • Daily Living Skills • Recording devices / Listening skills • Social emotional and guidance counseling • Recreational and leisure • Career / vocational training

Preparations of Materials (Students without additional disabilities)

Mild Needs	• Needs no adaptations of instructional materials, presentations, or teaching styles or • only very minimal, which can be handled by the classroom teacher with our consultation. • Adaptive atlas, LP dictionary
Mild to Moderate Needs	Needs some adapted written materials such as: • some enlargements, • darker or clear copy of handouts (handled by classroom teacher) • extra lighting being explored
Moderate Needs	Occasional modification or intervention • Work area for equipment set up • Supplying lined paper, notebooks, graph paper, NCR paper • P.E. class / recreational activities • Equipment repairs
Moderate to Severe Needs	Frequent need to adapt materials 2-3 times per week • Obtaining materials for learning use • Enlargements • Contrast issues need to be adapted
Severe Needs	Intense support needed for materials 3 + times per week (Print/braille user) • Tapes • Large print reproductions • Adaptations to maps, graphs • Braille (one code; some Nemeth) • Constant use of enlargements • Extra time for tests • Obtaining materials for learning use
Profound Needs	Daily modification and reproduction of teaching materials 5 times per week • Braille preparation of printed materials • Braille literary and Nemeth code • Tactile preparation of printed materials • Complete adaptations of instructional materials • Taping materials • Interpreter for films etc. • Extra time to complete tests • Accommodations to homework amounts • Ordering texts in braille & tape

SERVICE DELIVERY DETERMINATION
Students with Additional Disabilities

SEVERITY SCORE	SEVERITY RATING	FREQUENCY OR MIN./WEEK	SERVICE DELIVERY
0	0	0	*No Service*
1-20	1	1-5/Yearly	*Monitor*
21-36	2	1-2/ Monthly	*Consultation*
37-46	3	2-4/ Monthly or 30-90 Min/Weekly	*Light Itinerant (Supportive)*
47-56	4	2-3/ Weekly or 90-240 Min/Weekly	*Moderate Itinerant (Direct)*

SERVICE DELIVERY DETERMINATION
Students without additional disabilities

SEVERITY SCORE	SEVERITY RATING	FREQUENCY OR MIN./WEEK	SERVICE DELIVERY
0	0	0	*No Service*
1-10	1	1-5/Yearly	*Monitor*
11-36	2	1-2 Monthly	*Consultation*
37-54	3	1-2/Week or 30-100 Min.	*Light Itinerant (Supportive)*
55-72	4	3-5/Week or 60-300 Min.	*Moderate Itinerant (Direct)*
73-90	5	5+/Week or 180-360 Min.	*Heavy Itinerant (Heavy Direct)*
91-108	6	5+/Week or 6-12.5 hours	*Intensive Service Amount (ISA 2 or 3)*

VISION SEVERITY SUMMARY

(Adapted from Texas School for the Blind)

STUDENT: _____ D.O.B.: _____

Educational Setting / Grade	Regional Vision Resource Teacher	Classroom Teacher

RECOMMENDATIONS OF SERVICE

DATE	SEVERITY RATING	FREQUENCY	MIN/WEEK	MODEL OF SERVICE DELIVERY

PROFESSIONAL JUDGEMENT FACTORS

_____	**1.** Age of student	_____	**2.** Availability of materials/equipment
_____	**3.** Classroom Teacher's need for support	_____	**4.** Transition to a new school/building
_____	**5.** Student cooperation / willingness	_____	**6.** Parental concerns / acceptance
_____	**7.** Attendance	_____	**8.** Progressive condition
_____	**9.** Home environment	_____	**10.** Visual field restriction
	11. Additional support needed		**12.** Other_____

Appendix F

CASELOAD PROFILE

Teacher: _____ **Date:** _____

STUDENT NAMES	Severity Rating	Face to Face with Student: Sessions /week		Face to Face with Student: Min. / Session		Student Services: SERVICE HOURS/WEEK	Student Services: Consult / week	Student Services: Materials Adpt.	Total Hours
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
			@		=				
SUBTOTALS									
TOTAL DIRECT SERVICE									

Regional Resource Vision Itinerant Teachers

CASE LOAD HOURS

TEACHER:_____ DATE: _____

ACTIVITY		HOURS/MIN. PER WEEK
Instructional Hours *(Includes Assessment time of 2 hrs per week of Vision Itinerant time)*	**Direct Service**	
	Consult Time	
	Assessment *(If Itinerant)*	
Preparation Time		2 hrs. 30 min.
Uninterrupted Lunch		3 hrs. 20 min.
Non-Instructional/ Part of School Day *(Time before school, recesses, and time during lunch hour left after the 40 min.)*		4 hrs. 25 min.
Department Meeting *1 hr. 30 min. (15 min. excess applies to travel time)*		1hr. 30 min.
Travel *(> 15 minutes, Not more than 4 hours)*		
Material Adaptation / Braillist		
TOTAL HOURS *(Should average between 34-35 hours)*		

Appendix G
Iowa Caseload Analysis Tool
(Adapted from the Iowa Rules for Special Education – Dr. Alan Koenig)

DIRECTIONS: When caseload sizes for itinerant teachers of students with visual impairments are not specified, it is recommended that the maximum caseload be established at 10 full time equivalents (FTEs) with appropriate adjustments made through application of the formula specified for the following three factors:

1. The number of students receiving direct services
2. The number of students receiving consultation services
3. Average daily amount of time spent traveling

Use the following formula to calculate caseload size for itinerant teachers:

1. Count each student receiving direct services as 1 FTE regardless of the amount of contact time.
2. Count each student receiving consultative services. Divide this number by 5.
3. 5 students receiving consultative services count as 1 FTE, using a fraction if necessary. Note: Include students receiving direct services in this count as they should be receiving consultative services in addition to direct.
4. Calculate the total number of hours spent traveling in performance of job duties during a typical week and divide by 5 to get the average daily amount of travel time.
5. Count 1 hour of average daily traveling time as 1 FTE using a fraction if necessary.
6. Add the numbers from (1), (2), and (4) above for the total FTE's

IOWA CASELOAD ANALYSIS SUMMARY

1. Each direct student = 1 FTE
2. 5 consult students = 1 FTE
3. Every hour of daily travel time = 1 FTE
4 Caseload should not exceed 10 FTEs for a full time teacher – 5 FTEs for half time.

Iowa Caseload Analysis Tool

IOWA CASELOAD ANALYSIS WORKSHEET

TEACHER NAME: _____ HOURS IN WORK WEEK: _____

1. # direct students (each student = 1 FTE): _____

2. # consult. Students (5 students = 1 FTE): _____ ÷ 5 = _____

3. # minutes of travel per week divided by 60 = # hours of travel per week

   (example: 225 minutes per week divided by 60 = 3.75 hours or 3 _ hours per week. Dividing 3.75 by 5 gives an amount of .75 or _ hour per day):(1 hour of daily travel time = 1 FTE – use fraction as needed) _____

4. TOTAL FTEs: (1)_____ + (2) _____ + (3) _____ = _____FTEs

4. BASED ON THE IOWA CA TOOL THIS CASELOAD IS:

   LOW ACCEPTABLE HIGH VERY HIGH

Appendix H

Literacy for Students with Low Vision:
Professional Consensus on Instructional Considerations
for Students in Print Literacy Programs
(developed by Corn & Koenig)

	Instructional Considerations			
Skill Areas	**Consistency**	**Total Time per Day**	**Time Span**	**Duration**
Emergent literacy skills	Moderate (85%)	Short/Moderate – Moderate (78 + 22 = 100%)	Infancy to preschool (97%)	Long (100%)
Integrated use of visual skills	Moderate (88%)	Moderate (92%)	Infancy through high school (92%)	Long (90%)
Use of optical devices in near environments	Moderate – Moderate/High (82 + 12 = 93%)	Short – Moderate (88%)	Preschool through high school when prescribed by a clinical low vision specialist (92%)	Concentrated, short, or long (97%)
Use of optical devices in distant environments	Moderate (86%)	Short/Moderate – Moderate (76 + 15 = 91%)	Preschool through high school when prescribed by a clinical low vision specialist (94%)	Concentrated, short, or long (100%)
Beginning print literacy skills	High – High/Moderate (73 + 21 = 94%)	Long – Long/Moderate – Moderate (52 + 27 + 7 = 100%)	Kindergarten through Grade 3 (91%)	Long (100%)
Intermediate and advanced print literacy skills	Moderate (91%)	Moderate (94%)	Grade 4 through grade 12 (89%)	Long (92%)
Beginning literacy skills in dual media (print and braille)	High (100%)	Long (100%)	Kindergarten through grade 3 (90%)	Long (100%)
Braille literacy skills for student with print literacy skills	High (100%)	Long (100%)	Introduced at an appropriate time as determined by the educational team (100%	Long (100%)
Listening, aural reading, and live reader skills	Moderate (87%)	Moderate (86%)	Throughout the school years (97%)	Long (86%)
Keyboarding and word-processing skills	Moderate (90%)	Moderate (94%)	Begin in elementary school (grades K-6) (88%)	Long (92%)
Technology skills	Moderate (91%)	Moderate (90%)	Throughout the school years (100%)	Long (87%)

Consistency: High = Daily contact; Moderate = One to three days per week; Low = Semimonthly or monthly contact;
Periodic = Several contacts throughout school year
Total Time per Day: Long = 1–2 hours per session; Moderate= 1/2–1 hour per session; Short =Less than 1/2 hour per session
Duration: Long = Throughout at least one school year; Short = Throughout one quarter or semester; Concentrated = One to a few days with high/moderate intensity

Assuring Quality Literacy Instruction for Students Who are Blind
Professional Consensus on Instructional Considerations
for Students in Braille Literacy Programs
(developed by Koenig and Holbrook)

	Instructional Considerations			
Skill Areas	**Consistency**	**Total Time per Day**	**Time Span**	**Duration**
Emergent braille literacy skills	Moderate – Moderate/High (67 + 28=95%)	Moderate – Moderate/Short (79 + 18=97%)	Infancy to preschool (92%)	Long (100%)
Early formal literacy skills ("prebraille")	High (89%)	Moderate (89%)	Preschool through kindergarten (97%)	Long (100%)
Beginning braille literacy skills	High (100%)	Long (89%)	Kindergarten through grade 3 (94%)	Long (100%)
Beginning literacy skills in dual media (print and braille)	High (100%)	Long (92%)	Kindergarten through grade 3 (89%)	Long (100%)
Intermediate braille literacy skills	Moderate – Moderate/high (79+16=95%)	Long – Long/moderate – Moderate (69+11+19=100%)	Grade 4 through 8 (85%)	Long (100%)
Advanced braille literacy skills	Moderate – Low/moderate (51 + 49 = 100%)	Long – Long/moderate (68 + 18 = 86%)	Grade 9 through 12 (91%)	Long (97%)
Braille literacy skills for student with print literacy skills	High (97%)	Long (95%)	Introduced at an appropriate time as determined by the educational team (95%)	Long (100%)
Listening, aural reading, and live reader skills	Moderate/periodic (87%)	Short – Moderate/short – Moderate (34 + 37 + 26 = 97%)	Throughout the school years (100%)	Long overall; concentrated for specific applications (100%)
Technology skills	Moderate – high (87%)	Moderate (95%)	Throughout the school years (97%)	Long overall; short or concentrated for specific devices (100%)
Keyboarding and word-processing skills	High/moderate (84%)	Moderate/short – moderate (71 + 29 = 100%)	Begin in grade 1, 2, or 3 (19 + 46 + 32 = 97%)	Long (87%)
Slate and stylus skills	Moderate/high – moderate (76 + 21 = 97%)	Moderate – short (87%)	Begin in grade 3 or 4 (61 + 32 = 93%)	Long/short – Long (39 + 58 = 97%)
Signature writing skills	Moderate (89%)	Moderate/short (87%)	Begin in grades 5-7, grade 3, or grade 4 (63 + 16 + 11 = 90%)	Long – short (97%)

Consistency: High = Daily contact; Moderate = One to three days per week; Low = Semimonthly or monthly contact; Periodic = Several contacts throughout school year

Session Length: Long = 1–2 hours per session; Moderate = 1/2–1 hour per session; Short = Less than 1/2 hour per session

Duration: Long = Throughout at least one school year; Short = Throughout one quarter or semester; Concentrated = One to a few days with high/moderate intensity

Appendix I

Educating Children with Visual Impairments:
A Review of Caseload Analysis Methods.

Background Information:

How many years of teaching experience have you had: _____

How many years experience have you had working with children with visual impairments: ____

Of those years, how many have been in British Columbia: _____

How many children are currently within on your caseload: _____

Of those children, how many of those are on your direct teaching caseload: _____

Consultation caseload: _____

Please circle your response indicating to which extent you agree or disagree with the statements below.
1 Indicates strong agreement while 5 indicates strong disagreement.

APSEA Guidelines for Assigning Caseloads:

	Strongly Agree	Agree		Disagree	Strongly Disagree
1. Efficient method of caseload analysis.	1	2	3	4	5
2. Adequately addresses the time needed for direct instruction of the Expanded Core Curriculum.	1	2	3	4	5
3. Adequately addresses the time needed for direct instruction of Literacy Skills	1	2	3	4	5
4. Adequately addresses the time needed for consultation with teachers and professionals.	1	2	3	4	5
5. Adequately addresses the time needed to provide adaptations for curricular areas.	1	2	3	4	5
6. Adequately addresses the time needed to travel from student to student	1	2	3	4	5
7. Sufficiently accounts for the different needs of different ages of the students in a caseload.	1	2	3	4	5
8. Sufficiently accounts for the unique needs of children with multiple handicaps.	1	2	3	4	5
9. Sufficiently accounts for the various visual abilities.	1	2	3	4	5
10. Provides a good estimate of the time needed to provide quality instruction to all children within a school district.	1	2	3	4	5

Severity of Needs Checklist	Strongly Agree	Agree		Disagree	Strongly Disagree
1. Efficient method of caseload analysis.	1	2	3	4	5
2. Adequately addresses the time needed for direct instruction of the Expanded Core Curriculum.	1	2	3	4	5
3. Adequately addresses the time needed for direct instruction of Literacy Skills.	1	2	3	4	5
4. Adequately addresses the time needed for consultation with teachers and professionals.	1	2	3	4	5
5. Adequately addresses the time needed to provide adaptations for curricular areas.	1	2	3	4	5
6. Adequately addresses the time needed to travel from student to student.	1	2	3	4	5
7. Sufficiently accounts for the different needs of different ages of the students in a caseload.	1	2	3	4	5
8. Sufficiently accounts for the unique needs of children with multiple handicaps.	1	2	3	4	5
9. Sufficiently accounts for the various visual abilities.	1	2	3	4	5
10. Provides a good estimate of the time needed to provide quality instruction to all children within a school district.	1	2	3	4	5

Iowa Caseload Analysis Tool	Strongly Agree	Agree		Disagree	Strongly Disagree
1. Efficient method of caseload analysis.	1	2	3	4	5
2. Adequately addresses the time needed for direct instruction of the Expanded Core Curriculum.	1	2	3	4	5
3. Adequately addresses the time needed for direct instruction of Literacy Skills	1	2	3	4	5
4. Adequately addresses the time needed for consultation with teachers and professionals.	1	2	3	4	5
5. Adequately addresses the time needed to provide adaptations for curricular areas.	1	2	3	4	5
6. Adequately addresses the time needed to travel from student to student	1	2	3	4	5
7. Sufficiently accounts for the different needs of different ages of the students in a caseload.	1	2	3	4	5
8. Sufficiently accounts for the unique needs of children with multiple handicaps.	1	2	3	4	5
9. Sufficiently accounts for the various visual abilities.	1	2	3	4	5
10. Provides a good estimate of the time needed to provide quality instruction to all children within a school district.	1	2	3	4	5

Delphi study on Quality Literacy Instruction

	Strongly Agree	Agree		Disagree	Strongly Disagree
1. Efficient method of caseload analysis.	1	2	3	4	5
2. Adequately addresses the time needed for direct instruction of the Expanded Core Curriculum.	1	2	3	4	5
3. Adequately addresses the time needed for direct instruction of Literacy Skills	1	2	3	4	5
4. Adequately addresses the time needed for consultation with teachers and professionals.	1	2	3	4	5
5. Adequately addresses the time needed to provide adaptations for curricular areas.	1	2	3	4	5
6. Adequately addresses the time needed to travel from student to student	1	2	3	4	5
7. Sufficiently accounts for the different needs of different ages of the students in a caseload.	1	2	3	4	5
8. Sufficiently accounts for the unique needs of children with multiple handicaps.	1	2	3	4	5
9. Sufficiently accounts for the various visual abilities.	1	2	3	4	5
10. Provides a good estimate of the time needed to provide quality instruction to all children within a school district.	1	2	3	4	5

Thank-you for completing the survey. If you have any comments about any of the scales used, please write them below. Any insight you have would be greatly appreciated. You will be contacted for a discussion of these scales at a later date. Thank-you again.

Comments:

_____

_____

_____

_____

_____

_____

_____

Appendix J

Focus Group Discussion Questions
Caseload Analysis Method

1. What factors do administrators think should be considered when developing a caseload?

2. What factors do Vision teachers consider when developing a caseload?

3. Which of these are the most important?

4. Of the caseloads given, are there any that take into consideration all of the administrators and Vision Teacher's concerns?

5. Of the caseloads given, which encompasses Vision Teacher's priorities?

6. APSEA
Likes

Dislikes

7. Severity of Needs Checklists
Likes

Dislikes

8. Iowa Caseload Analysis Tool
Likes

Dislikes

9.Delphi Study
Likes

Dislikes

10. Are there parts of any of these studies, you think could help you with your caseload configuration?

11. Of the priorities mentioned above, which parts of each method best address a particular priority?

12. If a caseload composed of each part mentioned valuable in #11 was developed, could you see it as being used as a standard method in your district? BC?

Appendix K
Focus Group Discussion Notes
Caseload Analysis Method

1. What factors do administrators think should be considered when developing a caseload?
E - Funding: because funding is not targeted so we're vulnerable.
D - Parents are pushing for SEAs (Special Education Assistants) for every blind kid and TVIs have to explain why Vision teachers are necessary.
- SEA funds come out of teacher funds and this is starting to be put in contract language. The budget is used up. Vancouver [School District] [and TVIs] has a great relationship with only one grievance. The teacher lost: even with good relationships, it still comes down to money.
- We are dealing with other issues in Vancouver like ESL (English as a Second Language)
- Its consultation versus teaching caseload. It what should they [administrators] go by: Braille, Low Vision and other issues that take more time. Do administrators understand.

D/E – It depends on how much pressure from other administrators, parents, and other working relationships between administration and TVIs and how familiar with Expanded Core Curriculum [Administrators are].

2. What factors do Vision teachers consider when developing a caseload?
D- Learning needs is one of the factors.
- Its [also] our own interest (perhaps more time teaching to own strengths for example I like technology)
- Educating colleges
- Students may be in crisis requires more time. Meeting all demands can influence flexibility. emphasis on compensatory aspects of the Expanded Core Curriculum where other aspects are not looked at as closely. Things should be determined by the IEP (Individual Education Plan). [They] can back off where needs are outlined [and this is based on] formal and informal assessments on an annual basis.
- We also consider geography and urban districts

E- A LMA (Learning media assessment) every year should help decide.
- respond to who is making the most noise and the pushing of administrators
- time between schools and distance between them.

A – A flexible schedule that can be outside the school day for the Expanded School Curriculum (7:30 am- 6pm)
- eye condition

3. Which of these are the most important?
D - Educational need is the whole concept.
- Have to book in office time, communication, and flexible travel time and material preparation. But I can see you [Anne] on flexibility. Meet the needs as [they] fluctuate without taking from others.
- It has to be doable for teachers,
E – The Severity Rating Scale works for that.

4. Of the caseloads given, are there any that take into consideration all of the administrators and Vision Teacher's concerns?
E- The Severity Rating Scale because it looks at vision as a continuum and looks at the Expanded Core Curriculum and professional judgement questions as well as materials and communication. It is comprehensive. It's easier to fill out. Administrators like charts and graphs for showing data of need. Surrey [School District] used this for a while. This can be used to

justify certain factors.
D- liked APSEA (Atlantic Provinces Special Education Authority) features and will sit with administration even better. They have a chance of reading them.
- Severity Rating Scale for individuality but would administrators give it attention?
- likes APSEA but needs to point out credibility and needs to be more specific like the Severity Rating Scale.
- IOWA was too general

5. Of the caseloads given, which encompasses Vision Teacher's priorities?
A/D/E – need to be familiar with all the methods.
- could use parts of all because all have important strands.

6. APSEA
Likes
D- supervisor is able to look at this and can explain it to administration. Data supports accountability.
- more likely for administrators to look.
E- Short [amount of time to complete] given time constraints
A- developed by teachers; however, these teachers at this point, in BC, we have to lend credibility to your choices and have to give credibility to caseloads. APSEA helps legitimize choices and it is flexible.

Dislikes
D- assumes that kids are more the same or different at various ages. It depends on the law of averages. It works for APSEA because they know the kids.
E – Very short and doesn't account for changes and the Expanded Core Curriculum.
A- looks at acuity and additional disabilities, but may not be necessarily the best way of doing this. This may shortchange some of the kids?

7. Severity of Needs Checklists
Likes
D- gives to supporting piece
E- more comprehensive with ECC. It allows for professional judgement. It itemizes what we think is extenuating circumstances which empowers us with administrators.

Dislikes
D- need more dimension to these [categories] for example reading speed per minute and literacy. It doesn't cover everything in the ECC but has the chance to bring them in under professional judgement. It needs more emphasis on reading medium.
- The semantics under visual status need to be justified (mild needs and moderate needsa0. I would work the other way around.
- Would administration give this attention to understand [our] arguments. It's difficult to understand some of the language.
E- If this is seen as presented it is missing things. Transition and Career prep is clumped together and should be separated. There should be community outreach.
A- This is a little confusing and complicated.

8. Iowa Caseload Analysis Tool
Likes

D/E/A - short

Dislikes
E- short
D- too general and doesn't reflect individual needs

9. Delphi Study
Likes
E- involves technology in literacy
- validation by experienced teachers
A- great for dealing with literacy and can be a shock to administrators

Dislikes
E- solely one aspect of caseload
A- It's a piece of a whole

10. Are there parts of any of these studies, you think could help you with your caseload configuration?
D- use some of the Severity of Needs worksheet (bulk), but stretch what was given. Add the literacy component like the Delphi. Add the adaptation and prep. components of APSEA. Add travel. Add transitional needs school to community, placement or medium. It is justifiable if there is high amount of monitoring that has to be done.
E- Same as D. It may require some professional decision.
- need short summary sheet because people respond to numbers
A- Same. If you have SEA for Prep work.

11. Of the priorities mentioned above, which parts of each method best address a particular priority?

12. If a caseload composed of each part mentioned valuable in #11 was developed, could you see it as being used as a standard method in your district? BC?
D- Yes to district but should tend to own students. If this was used cross-district it may be a concern. If peer review, might be forced to reallocate caseload and there is resistance to change.
- to meet needs of ECC
E- Yes, potentially. There must be an objective way to address the issue [D mentioned].
A- Geography is a problem. We need to work cooperatively with administrators. There are challenges in rural areas and need flexibility.
- We need school districts to ban together in a Vi Consortium that is flexible. Flexible personnel is needed like a "farm model".

E- If we don't have united front, how are we going to approach administrators.
A- We need to get parents on side.
- understand the kid's backgrounds

Notes in Meeting

D- need to meet the needs of ECC but there is life outside of school. There is a limited way to meet peers where they [kids with VI] are full member.
A and E- could Preschool list be added? We should be supporting them and then a checklist can be given as part of history.
- There should a Professional Development day on caseload analysis methods.

Notes Made of Questionnaire

D- need to use parts of all of them.

A- The ones that provided the best analysis looked like they would be time consuming to complete.
- I have academic multiply- handicapped students. I hope that the fact that they have additional handicaps wouldn't mean that they skewed the results in terms of looking like they needed less help than they really did.
- In general, the tendency in this district has been to only give service to students coded VI since the new government got in.
CW -(On Delphi): yes re: literacy instruction (9)
- only as related to literacy (10)

Appendix L

Directions for Completing the British Columbia Caseload Analysis Tool (BCAT)

This chart may be used three times.

1. Category names are listed vertically along the left-hand side of the BCAT Characteristics Worksheet. Refer to definitions and explanations on following page as necessary.

2. Descriptors are listed horizontally for each category. The descriptors are listed sequentially in terms of severity, from mild to profound.

3. The numbers attached to each severity are considered part of a continuum. The specific number under each severity name is the numerical rating to be given for that severity. For example with the scale for children who have visual impairments without disabilities, under MILD, a numerical rating of 0, 1, or 2 is possible; while under PROFOUND, a numerical rating of 11 or 12 is possible.

4. For each category, mark the descriptor that best describes the visually impaired student. Place the appropriate severity number in the right hand column (Severity Score Column).

5. Total the right hand column to get a TOTAL SEVERITY SCORE.

6. Using the Total Severity Score, refer to the Vision Severity Summary to determine:

* Severity rating
* Frequency of service
* Total minutes of service per week.
* Model of service delivery

7. Record these findings in the Recommendations of Services section on the Vision Severity Summary.

8. Input data into Teacher's "Caseload Profile" and "Caseload Hours" forms

9. To estimate the amount of hours of weekly travel: estimate the amount of minutes of weekly travel and divide by 60.

Appendix M

BC CASELOAD ANALYSIS TOOL
(Students with Additional Disabilities)

DATE: _____

STUDENT: _____ **SCHOOL:** _____ **PLACEMENT:** _____ **D.O.B:** _____ **AGE:** _____

VISUAL and MEDICAL DIAGNOSES: _____

CATEGORY	RATING				Severity Score
	Mild Needs 0-1	**Moderate Needs 2-3**	**Severe Needs 4-5**	**Profound Needs 6-7**	
Visual Status	No medically identified vision problem, but ability to attend to visual stimuli is questionable	Medically identified vision problem, with ability to attend to visual stimuli	Medically identified vision problem, with impaired ability to attend to visual stimuli	Medically identified vision problem resulting in profound loss of vision	
Functional Vision Status	Visual skill being maintained/reinforced in a variety of settings	New visual skills being introduced or developed	Vision skills fluctuate depending on activity	Totally blind-no input	
Response to Stimulation / Instruction	Minimal response to stimulation / instruction	Occasional response to stimulation / instruction	Frequent response to stimulation / instruction	Consistent response to stimulation / instruction	
Educational Need	Classroom participation is not affected by vision loss	Classroom participation is occasionally affected by vision loss	Classroom participation is frequently affected by vision loss	Classroom participation is consistently affected by vision loss	
Educational Growth	No measurable gains even after intervention	Minimal growth even after intervention	Demonstrating growth but on a plateau	Continues to demonstrate steady growth	
Potential for Improved Use of Vision	Minimal, gains appear remote	Currently functioning at a level equal to developmental ability	Some improvement appears possible, gains probable with vision services	Prognosis for improved visual functioning appears to be good	
Physical Independence	Dependent on special care for medical and daily living functions	Dependent on others for daily living functions	Dependent on a modified environment, difficulty with certain activities	Basically independent	
Team Approach/ Collaboration Model	Multidisciplinary	Interdisciplinary	Transdisciplinary with "Role Release"	Transdisciplinary with Direct Service	
Age of Student	Junior or Senior Grades (age 13-18)	Late Elementary Grades (age 9-12)	Preschool Age (Age 0-3)	Early Primary Grades (age 4-8)	
				TOTAL SCORE	

Definitions (Students with Additional Disabilities)

Visual Status	Refers to the capability of attending to visual stimuli • Awareness • Fixation / Attention
Functional Vision Status	Refers to the student's ability to apply visual skills to perform activities in the classroom • Fixation, tracking, scanning objects and pictures • Teaching these skills in actual activities • Vision stimulation / efficiency program needed
Response to Stimulation / Instruction	Refers to the ability of the student to respond to stimulation and/or instruction
Educational Need	Refers to the Regional Vision Resource Teacher's projection of the extent that vision affects student's participation and programming in the educational settings.
Educational Growth	Refers to the amount of growth the student has demonstrated during the previous year on vision related goals and objectives.
Potential for Improved Use of Vision	Refers to the skills demonstrated by the student in the areas of sensory awareness and visual functioning (LMA assessment for students with additional disabilities).
Physical Independence	Refers to the student's motoric involvement and to his/her ability to function independently within his/her classroom.
Team Approach/ Collaboration Model	Multidisciplinary: medically based model where assessment and intervention occur outside the classroom. There is little collaboration or sharing of ideas. Interdisciplinary: Although there are individual assessments, goals are collective. Each member is responsible for area of instruction. Transdisciplinary: Services are integrated allowing for generalization to various settings. Role release means the expert in the field trains another team members in order to allow teaching to happen in more settings. Direct Instruction is completed by the professional in that field.
Age	At different ages, children with visual impairments who also have multiple needs will need various amount of support. The greatest need of support may be required during developmental and transitional stages.

STUDENT: _____ SCHOOL: _____ GRADE: ___ D.O.B: _____ AGE: _____ DATE: _____

CATEGORY		RATING						Severity Score
		Mild Needs 0-2	**Mild to Moderate Needs 3-4**	**Moderate Needs 5-6**	**Moderate to Severe Needs 7-8**	**Severe Needs 9-10**	**Profound Needs 11-12**	
Functional Vision Skills		Visual Skills adequate for accessing curriculum	Visual Skills being maintained in a variety of settings through student directed adaptations	Visual Skills need to be reinforced in a variety of settings	Visual skills are being introduced or further developed LV Clinic Assess.	Visual skills fluctuate depending upon the task or environmental conditions	Totally blind or not able to access visual information for learning	
Medical	Age	0-2	3	4-5	14-18	12-14	5-11	
	Distance Acuity	20/20 – 20/50 or blind in one eye	20/50 – 20/100	20/100+ - 20/200	20/200+ - 20/400	20/400+ - 20/800	20/800 – LP. NIL	
	Field Loss	0-10 degrees	10-20	20-30	30-40	40-50	>50	
	Near Acuity:	20/20 – 20/50	20/50 – 20/100	20/100+ - 20/200	20/200+ - 20/400	20/400+ - 20/800	20/800 – LP/nil	
Reading Medium/ Literacy Skills		Regular Print with no modifications	- Regular Print Primary Type (12-14 point) or - Aural reading only.	Regular Print with some modifications and magnification or - Emergent Print or Braille Skills	- Print demands vary. Or - Print mag. needed through optical device	-Constant print magnification or -- - braille/ audio combo. - Beginning literacy skills (brl & pr)	- Learning to use a new reading method or - Braille user	
Expanded Core Curriculum	Compensatory Skills	Needs no compensatory skills at this time/ tutoring	Needs minimal intervention: P.E. adaptations; Monitoring skills	Occasional intervention: Monitoring in place skills	Frequent intervention 2-3 compensatory skills introduced	Intense instruction: has 1-2 tech. devices; Learning Strats; 3-4 compensatory skills	Daily instruction: has 2-4 tech devices: Learning Strats; 4+ skills	
	Career Preparation & Independent Living Skills	- Skills do not to be taught at this time.	Some self-care skills needed (grooming and hygeine) - can feed self - some social skills	-learn about career options. - simple self-care (cooking/ clothing id/shopping)	- learn about self care (cooking/ cleaning/ shopping grooming) - self advocacy	- transition into highschool -diverse social relationships	- transitions into new school or work environment	
	Low Vision Devices / Technology	No aids required	Mastery of aids / no instruction	Competency / may need reviewing or refining of skills	Refine or introduce new skills using existing aids, i.e., calculators, LV aid	Maintain use of hi-tech. Equip. or teach use if new equip. or low vision device	Intro. Of hi-tech equip./skills, i.e., scanner or note taker	
Preparation of Materials		No adaptations of instructional materials	Minimal amount of adapted materials	Occasional need to adapt materials	Frequent need to adapt materials	Intense modification of materials needed	Daily prep. of braille, tactile materials	
Communication with Educational Team		Primarily the students responsibility	Minimal comm. (2-4 times per year) multidisciplinary	Monthly comm. with team members Interdisciplinary	Weekly comm. with team members Transdisciplinary	Intense comm. (2-3 times / week) Transdisciplinary	Daily comm. with (E.A./Braillist) Transdisciplinary	

Expanded Core Curriculum (Compensatory Skills, Career & Independent Life Kills, and Technology)

Mild Needs	Needs no compensatory skills instruction; needs academic tutoring
Mild to Moderate Needs	Needs minimal support in: • P.E. adaptations, • Recreational activities • Monitoring of compensatory skills already in place (e.g. use of LV device)
Moderate Needs	Occasional modification or intervention • Use of non-optical aid (slant boards, markers etc.) • Use of environmental modifications (i.e., lighting) • P.E. class / recreational activities • Learn about career options for people with visual impairments • Self care (simple meal preparation and clothing ID)
Moderate to Severe Needs	Frequent intervention or introduction of skills, two to three of the following compensatory skills: Has 1-2 pieces of low-tech equipment. • Study and organizational skills • Understanding own impairment • Self- Advocacy • Listening skills • Social skills training for small groups • Non verbal communication/stop self-stimulation behaviours • Learn about cooking, cleaning, shopping and personal grooming)
Severe Needs	Intense accommodations and instruction. Needs compensatory skill instruction in two or more of the following Or High School Vision Learning Strategies Class (2-3 classes/week): Has 1-2 pieces of hi-tech equipment. • Touch typing • Guidance / social emotional • Listening skills • Map reading • Learn about reciprocal friendships and sharing mutual relationships with peers • Understanding verbal and nonverbal cues • Transition into high school
Profound Needs	Daily modification and instruction. Needs compensatory skill instruction in at least four of the compensatory skills (one being braille) Or High School Vision Learning Strategies class (4-5 classes/week): (2+ high tech devices; Braille users). • Slate and stylus • Abacus • Recording devices / Listening skills • Social emotional and guidance counseling • Recreational and leisure • Performing nonverbal cues • Cultural and social norms and sex education • Puberty • Transition into new school or work place.

* note there are other aspects of the Expanded Core Curriculum, but they are either taught by professionals other than TVI (Orientation and Mobility Specialist) or are immersed into existing categories.

Preparations of Materials (Students without additional disabilities)

Mild Needs	• Needs no adaptations of instructional materials, presentations, or teaching styles or • only very minimal, which can be handled by the classroom teacher with our consultation. • Adaptive atlas, LP dictionary
Mild to Moderate Needs	Needs some adapted written materials such as: • some enlargements, • darker or clear copy of handouts (handled by classroom teacher) • extra lighting being explored
Moderate Needs	Occasional modification or intervention • Work area for equipment set up • Supplying lined paper, notebooks, graph paper, NCR paper • P.E. class / recreational activities • Equipment repairs
Moderate to Severe Needs	Frequent need to adapt materials 2-3 times per week • Obtaining materials for learning use • Enlargements • Contrast issues need to be adapted
Severe Needs	Intense support needed for materials 3 + times per week (Print/braille user) • Tapes • Large print reproductions • Adaptations to maps, graphs • Braille (one code; some Nemeth) • Constant use of enlargements • Extra time for tests • Obtaining materials for learning use
Profound Needs	Daily modification and reproduction of teaching materials 5 times per week • Braille preparation of printed materials • Braille literary and Nemeth code • Tactile preparation of printed materials • Complete adaptations of instructional materials • Taping materials • Interpreter for films etc. • Extra time to complete tests • Accommodations to homework amounts • Ordering texts in braille & tape

SERVICE DELIVERY DETERMINATION
Students with Additional Disabilities

SEVERITY SCORE	SEVERITY RATING	FREQUENCY OR MIN./WEEK	SERVICE DELIVERY
0	0	0	*No Service*
1-18	1	1-5/Yearly	*Monitor*
19-36	2	1-2/ Monthly	*Consultation*
37-54	3	2-4/ Monthly or 30-90 Min/Weekly	*Light Itinerant (Supportive)*
54-63	4	2-3/ Weekly or 90-240 Min/Weekly	*Moderate Itinerant (Direct)*

SERVICE DELIVERY DETERMINATION
Students without additional disabilities

SEVERITY SCORE	SEVERITY RATING	FREQUENCY OR MIN./WEEK	SERVICE DELIVERY
0	0	0	*No Service*
1-15	1	1-5/Yearly	*Monitor*
16-33	2	1-2 Monthly	*Consultation*
34-55	3	1-2/Week or 30-100 Min.	*Light Itinerant (Supportive)*
56-77	4	3-5/Week or 60-300 Min.	*Moderate Itinerant (Direct)*
78-99	5	5+/Week or 180-360 Min.	*Heavy Itinerant (Heavy Direct)*
100-121	6	5+/Week or 6-12.5 hours	*Intensive Service Amount (ISA 2 or 3)*

Appendix N
CASELOAD PROFILE

Teacher: _____HSS_____ **Date:** _____

		Student Services Including consultation				
STUDENT NAMES	**Severity Rating**	**Sessions /week**		**Min. /Session**		**SERVICE HOURS/ WEEK**
A (additional disabilities)	**2**	**1**	**@**	**30**	**=**	**0.5**
B	**3**	**2**	**@**	**65**	**=**	**1.5**
C	**3**	**1**	**@**	**45**	**=**	**0.75**
D (additional disabilities)	**3**	**1**	**@**	**60**	**=**	**1.0**
E	**6**	**5**	**@**	**100**	**=**	**8.33**
F (additional disabilities)	**3**	**1**	**@**	**60**	**=**	**1.0**
G	**2**	**1**	**@**	**10**	**=**	**0.17**
H	**2**	**1**	**@**	**15**	**=**	**0.25**
I	**3**	**1**	**@**	**30**	**=**	**0.5**
J (additional disabilities)	**3**	**1**	**@**	**60**	**=**	**1.0**
K (additional disabilities)	**3**	**1**	**@**	**90**	**=**	**1.5**
L	**3**	**1**	**@**	**60**	**=**	**1.0**
M	**2**	**1**	**@**	**15**	**=**	**0.25**
					SUBTOTALS	**17.75**
TOTAL SERVICE						**17.75**

CASELOAD SUMMARY

TEACHER:_____HSS_____ DATE: _____

ACTIVITY		HOURS/MIN. PER WEEK
Instructional Hours *(Includes Assessment time of 2 hrs per week of Vision Itinerant time)*	**Student Service**	17 hours 45 min
	Assessment *(If Itinerant)*	2 hours
Preparation Time		2 hrs. 30 min.
Uninterrupted Lunch		3 hrs. 20 min.
Non-Instructional / Part of School Day *(Time before school, recesses, and time during lunch hour left after the 40 min.)*		4 hrs. 25 min.
Department Meeting *(2 hours Per month for HSSD= 30 min. per week)*		30min
Travel *(estimated # of minutes per week/60)*		1 hr. 30 min.
Material Adaptation / Braillist		2 hour 45 min.
TOTAL HOURS *(Should average between 34-35 hours)*		34 hrs. 45 min.