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**EFFECTIVE EDUCATIONAL
PRACTICES FOR STUDENTS WITH
AUTISM SPECTRUM DISORDERS**

A R E S O U R C E G U I D E



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Une publication équivalente est disponible en français sous le titre suivant : *Pratiques pédagogiques efficaces pour les élèves atteints de troubles du spectre autistique.*

This publication is available on the Ministry of Education's website, at www.edu.gov.on.ca.

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ABOUT THIS GUIDE

As educators, we share a deep commitment to ensuring that every student has the opportunity to succeed and achieve to his or her highest potential. In developing this guide, the Ministry of Education acknowledges the valuable work being done in schools and classrooms across Ontario, and the dedication of teachers throughout the province to creating a learning environment that supports the success of every student.

What You Will Find in This Guide

This resource guide is designed to support educators in elementary and secondary schools in Ontario in planning and implementing effective educational programs for students with Autism Spectrum Disorders (ASD). It contains information, strategies, and practices that can be put to use in the school and the classroom. It also includes a collection of sample materials reflecting current practices in schools, as well as lists of references and resources for further reading.

Effective Educational Practices for Students with Autism Spectrum Disorders (ASD) includes the following elements:

- **Foundations:** General information about the diagnosis of ASD, characteristics of individuals with the disorder, and key principles for planning effective educational programs for students with ASD

- Effective Educational Practices for Students with ASD

- **Teaching and Learning:** Strategies and practices that have been found to be effective for students with ASD
- **Communication and Behaviour:** Strategies and techniques for addressing challenging behaviour, and improving communication and social skills
- **Tools & Techniques:** Sample materials that represent the most effective current practices, collected from school boards and regional autism service provider agencies across Ontario.
- **Reference Materials:** A glossary and lists of helpful resources on ASD, including publications and websites, as well as children’s books.

Getting the Most from This Guide

Effective Educational Practices for Students with Autism Spectrum Disorders (ASD) is designed as a practical reference you can use every day. In order to get the most out of this guide, you may wish to read it first in its entirety. Then, you can refer back to specific chapters or sections, or select from the various samples provided in Chapter 4, “Tools and Techniques”. As you explore the suggestions and tools provided in this guide, keep in mind that it is important to adapt them to the specific needs of the student, classroom, and school.

Look for These Text Features

To make this guide as useful as possible, the following symbols have been designed to highlight key features within the text.



TIPS FOR TEACHERS

For quick reference on strategies that have been found to be effective



TOOLS & TECHNIQUES

From Ontario school boards and regional autism service provider agencies



INSIGHT

For deepening your understanding of ASD



KEY FACTS

For consideration in planning programs for students with ASD



RESOURCES

For additional information and further study

Deepening Your Knowledge

In recent years a wealth of information and resource materials has been developed regarding the education of students with ASD. This resource guide is not intended as a complete or comprehensive source of information, but has been developed to provide examples of practices that have been found to be effective. Educators who are seeking additional information for further investigations on the topic of educating students with ASD are encouraged to consult the references and resources listed in the appendices of this guide, and to monitor the growing body of knowledge on this topic.

Why This Guide Was Developed

The Ontario Ministry of Education has undertaken a number of initiatives to support school boards, school authorities, and provincial/demonstration schools in teaching students with ASD. In September 2003, the ministry organized a conference on teaching students with autism, in partnership with the Autism Society of Ontario (now Autism Ontario), the Geneva Centre for Autism, the Council of Ontario Directors of Education, and the Council for Exceptional Children. Following the conference, the ministry worked with Ontario school boards to provide regional forums, in French and English, for educators working directly with students with autism at the school level to further explore programming and effective teaching strategies.

In 2004, the School Support Program – Autism Spectrum Disorder (SSP–ASD) was established through a partnership between the Ministry of Children and Youth Services and the Ministry of Education, school boards, and designated community agencies. The SSP–ASD is administered by nine lead autism service provider agencies. Through this program, ASD consultants are connected with school boards to work with school staff – teachers, principals, and others who interact with children – to help them address the needs of students with ASD.

To complement the services available through the autism service provider agencies, the ministry funded Geneva Centre for Autism to provide training opportunities in the 2006-2007 and 2007-2008 school years for teachers' assistants (TAs) who work or may work with students with ASD.

In fall 2006, the Ministers' Autism Spectrum Disorders Reference Group was established to provide advice to the Minister of Education and the Minister of Children and Youth Services on effective, evidence-based educational practices to meet the wide range of needs of students with ASD. The reference group included practitioners, researchers, parent representatives, and representatives from the francophone community who were

selected for their expertise and professional and personal experience with children, youth, and young adults with ASD. A report with recommendations from the reference group – *Making a Difference for Students with Autism Spectrum Disorders in Ontario Schools: From Evidence to Action* – was prepared for the ministers, and in spring 2007 the report was distributed to school boards.

In support of the recommendations of the reference group, in May 2007 the ministry released Policy/Program Memorandum No. 140, “Incorporating Methods of Applied Behaviour Analysis (ABA) into Programs for Students with Autism Spectrum Disorders (ASD)”, 2007. Regional training sessions were offered to board teams to clarify the expectations in the PPM.

To build on all of the previous initiatives, the ministry has developed this resource guide as another step to support school boards in the education of students with ASD in elementary and secondary schools.

Acknowledgement

The Ministry of Education acknowledges the contributions of resources and information from Ontario school boards, the Geneva Centre for Autism, and the regional autism service provider agencies that deliver the School Support Program – Autism Spectrum Disorder, which were invaluable in the creation of this guide.

1 FOUNDATIONS

Autism Spectrum Disorders (ASD) are complex neurological disorders that have a lifelong effect on the development of various abilities and skills. Helping students to achieve to their highest potential requires both an understanding of ASD and its characteristics, and the elements of successful program planning required to address them.

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Understanding Autism Spectrum Disorders

About Autism Spectrum Disorders

Autism Spectrum Disorders (ASD) are complex neurological disorders that have a lifelong effect on the development of various abilities and skills. ASD is characterized by impairments in communication and social interaction, as well as unusual patterns of behaviours, interests, and activities.

The term “spectrum” is used to recognize a range of disorders that include a continuum of developmental severity. The symptoms of ASD can range from mild to severe impairments in several areas of development. Many professionals in the medical, educational, and vocational fields are still discovering how ASD affects people and how to work effectively with individuals with ASD.

MYTHS ABOUT ASD	THE FACTS 
ASD is rare.	ASD is not rare. It affects approximately 1 in every 165 persons (Fombonne et al., 2006).
ASD is an emotional disorder.	ASD is a neurological disorder.
Poor parenting causes ASD.	Parents do not cause ASD in children.
There is a cure for ASD, or children will “grow out of” the disorders.	Children do not grow out of ASD. With early intervention and good educational programs, students may make significant progress.
Everyone with ASD behaves in the same way.	Students with ASD are individuals who each have unique strengths and needs.
Students with ASD have to be in special programs for “the autistic”.	Individually designed programs best meet the needs of students affected by ASD. Students need to be learning, living, and working in settings where there are ample opportunities to communicate and interact with others who have the skills they need.
<i>(Adapted with permission from the website of the Geneva Centre for Autism, April 2006)</i>	

KEY FACTS

Terminology

The terms “autism”, “Pervasive Developmental Disorders (PDD)”, and “ASD” have been used interchangeably within the literature and by professionals and parents, and may cause confusion.

Autism was first identified in 1943 by Leo Kanner, an American psychologist. Kanner noticed distinctive, common characteristics within a subgroup of children in whom other mental disorders had been diagnosed originally. Kanner recognized the inability of this subgroup to relate in the ordinary way to other people and situations, and he described this behaviour as “extreme autistic aloneness” (Kanner, 1943). As a result, for several decades the disorder was referred to as autism.

KEY FACTS

Autism is recognized by the Ontario Ministry of Education as a communication exceptionality for the purposes of student identification and placement.



This term continues to be used frequently as a shorthand term to include various conditions that are now recognized as a range of disorders.



The general term “PPD” is often confused with the specific diagnosis of PDD NOS.

Pervasive Developmental Disorders (PDD) was first used in the *Diagnostic and Statistical Manual of Mental Disorders–III (DSM-III)* by the American Psychiatric Association (APA) in 1980 as a general term to describe a class of disorders that shared the following characteristics: impairments in social interaction, imaginative activity, and verbal and non-verbal communication skills, and a limited number of interests and activities that tend to be repetitive. In 1994, five disorders were identified in the updated *DSM-IV* (APA, 1994) under the category of PDD: Autistic Disorder, Rett’s Disorder, Childhood Disintegrative Disorder, Asperger’s Disorder, and Pervasive Developmental Disorder Not Otherwise Specified (PDD NOS).

Autism Spectrum Disorders (ASD) was first used in 1988 (Wing, Allen) and is now commonly used to describe a subset of PDD that includes only Autistic Disorder, Asperger’s Disorder, and PDD NOS. In some cases, the term ASD is used to acknowledge the complete range or spectrum of associated characteristics and disorders that are included in PDD.

The term “ASD” will be used throughout this document in reference to students who have Autistic Disorder, Asperger’s Disorder, or PDD NOS.

ASD

The following is a brief summary of each of the three disorders considered ASD. More specific information regarding the diagnostic criteria, such as the characteristics that must be present in both quantity and type for diagnosis, can be found in the *Diagnostic and Statistical Manual of Mental Disorders-IV Text Revision (DSM-IV-TR)* (APA, 2000).

Autistic Disorder

Students with Autistic Disorder have noticeably abnormal or impaired development in social interaction and communication and a restricted repertoire of activity and interests. Such students often show a preoccupation with one narrow interest and an insistence on following routines. Abnormalities in the development of cognitive skills and in posture and body movements may be present. These impairments are accompanied by a delay or abnormal functioning in social interaction, language used in social communication, or symbolic or imaginative play that was recognized prior to three years of age.

Asperger’s Disorder

Like students with Autistic Disorder, students with Asperger’s Disorder show impaired social interaction and display a limited field of interests and activities prior to three years of age. This impairment causes difficulties in social and/or occupational functioning. The difference between students with Autistic



Autistic Disorder is four to five times more common in boys than girls.

Asperger’s Disorder is also known as Asperger’s syndrome and is diagnosed at least five times more frequently in boys than girls.

Disorder and Asperger's Disorder is that students with Asperger's Disorder show no significant delay in language acquisition, although the more subtle aspects of social communication may be affected. There are no significant delays in cognitive development or in the acquisition of age-appropriate learning skills or adaptive behaviours. Restricted, repetitive patterns of behaviour, interests, and activities are common. Students with Asperger's Disorder may experience feelings of social isolation, which may contribute to depression or anxiety in adolescence.

Pervasive Developmental Disorder Not Otherwise Specified (PDD NOS)

Students with PDD NOS have severe impairments in the development of reciprocal social interaction, including impairments in either verbal or non-verbal communication skills, or have stereotyped behaviours, interests, and activities. PDD NOS, also referred to as “atypical autism”, includes individuals who do not fit into the other categories because they do not meet all of the diagnostic criteria for a specific disorder; for example, diagnostic symptoms may occur at a later age.

Causes of ASD

There are several theories about the cause or causes of ASD. Researchers are exploring various explanations but, to date, no definitive answers or specific causes have been linked scientifically to the onset of ASD. Research suggests that individuals with ASD experience biological or neurological differences in the brain.

In many families, there appears to be a pattern of ASD-related disabilities, which suggests that ASD is an inherited genetic disorder. Current research studies show that certain classes of genes may be involved or work in combination to cause ASD. There appear to be many different forms of genetic susceptibility but, to date, no single gene has been directly related to ASD (Autism Genome Project Consortium, 2007). Ongoing research is being done to further investigate the cause of ASD.

KEY FACTS

It is important to note that ASD is not a mental illness, and there are no known psychological factors in the development of the child that have been shown to cause ASD.





ASD in Ontario

In the 2005-06 school year, school boards in Ontario reported that 7,888 students in publicly funded elementary and secondary schools were identified by an Identification, Placement and Review Committee (IPRC) as exceptional under the Communication–Autism category. This is more than double the 3,348 students who were reported to be identified in the same category in the 1998-99 school year (Ontario Ministry of Education, School October Reports).

KEY FACTS

Prevalence of ASD

ASD was once viewed as a rare disorder, but recent studies suggest that the prevalence rate for all forms of ASD is much higher than previously thought. The most current estimates from studies in Canada and the United Kingdom are that ASD is diagnosed in 60 of every 10,000 children, or one in 165 (Fombonne et al., 2006).

ASD is now recognized as the most common neurological disorder (Geneva Centre for Autism, 2006) and has been found throughout the world in families of all racial, ethnic, and social backgrounds. It is diagnosed more frequently in males than females; worldwide, males are affected four times as often as females (Chakrabarti & Fombonne, 2005).

An increase in the numbers of individuals in whom ASD is diagnosed can be linked to a combination of factors. With the broader definition of PDD that was provided in *DSM-IV* (APA, 1994) and an improved recognition of the symptoms, changes in diagnostic practices have occurred (Chakrabarti & Fombonne, 2005). As a result, the diagnosis of PDD is being made more frequently and at an earlier age (Fombonne, 2003). Also, in recent years, more rigorous methods are being used in surveys to find and gather data on cases of ASD.

While other possible causes for the increasing rates of diagnosis and resulting identification continue to be investigated, there is no direct evidence to support an increased incidence, or epidemic, of ASD. The research cited above suggests that ASD appears to be more common now because the tools used for diagnosing ASD in children are better now than before.

Diagnosis of ASD

The complex nature of ASD makes it difficult to diagnose, and there is no single medical test to determine if a student has ASD. In general, the perspectives of various professionals are required as part of the diagnostic process, which usually includes an assessment conducted by a qualified professional

who specializes in developmental disorders, such as a child psychiatrist, developmental pediatrician, child psychologist, or neuropsychologist.

Accurately diagnosing ASD in a student typically includes the following:

- assessments of multiple areas of functioning, such as intellectual and communication skills
- a review of developmental history
- parental input

Diagnosis is not a quick process and is much like putting together pieces of a puzzle. ASD is diagnosed through the presence or absence of certain behaviours, characteristic symptoms, or developmental delays. Often several tests may be performed to rule out other medical conditions, such as a loss of hearing that may be causing the social and communication impairments, before considering a diagnosis of ASD.

In many cases, ASD will be diagnosed in children before they begin attending school, often when they are between two and three years of age, although in some cases the child will start school prior to receiving a medical diagnosis of ASD. Parents often share with health professionals the information provided by educators about concerns related to the development of a child's social, communication, and behaviour skills in the school setting. This information may assist in the determination of an appropriate medical diagnosis.

Characteristics of Students with ASD

Several disorders are included in the diagnosis of ASD, and the symptoms and characteristics of each disorder can be present in a variety of combinations and develop within a continuum of severity. The degree of impairments can range from mild to profound and will affect individuals very differently.

Characteristics vary widely. For example, some students may be overly sensitive and display extreme reactions to sensory stimuli,



TOOLS & TECHNIQUES

See Chapter 4:
1. *Online Autism Modules*
2. *Information Pamphlet for Administrators*

while others do not respond at all to the same stimuli. Also, although students with ASD generally have impairments in both verbal and non-verbal communication skills, those with Asperger’s Disorder usually have relatively good verbal skills.

KEY FACTS

There is no single impairment, behaviour, or ability level that identifies ASD. Although ASD is typically characterized by impairments in communication and social interaction, as well as unusual patterns of behaviours, interests, and activities, the extent of the difficulties will vary considerably across individuals and within an individual over time.



(National Research Council, 2001)

The following chart describes some characteristics, related to the above-noted impairments, that students with ASD may exhibit in the classroom.

CHARACTERISTICS OF ASD AS SEEN IN THE CLASSROOM	
Area of Impairment	The student:
Social skills	<ul style="list-style-type: none"> • demonstrates difficulties interacting with peers and adults • has difficulty reading and understanding social cues or situations • withdraws from or provides unusual responses in social situations • engages in play that is lacking in the imaginative qualities of social play
Communication skills	<ul style="list-style-type: none"> • has difficulty communicating thoughts and needs verbally and non-verbally • has difficulty with non-verbal communication, such as use of gestures, pictures, eye contact, and facial expressions • uses speech that includes repetitive, echolalic, or unusual language
Behaviour	<ul style="list-style-type: none"> • displays obsessions or preoccupations with specific themes or objects • likes order and may line up toys repeatedly • engages in unusual behaviours, such as rocking, spinning, or hand flapping • gets extremely upset with changes in routine or schedules • has an unusual response to loud noises or other sensory stimuli

INSIGHT

The general level of intelligence can vary significantly across the population of students with ASD. Some individuals will demonstrate normal levels of cognitive development, while others will have profoundly impaired or abnormal development of cognitive skills. For example, about 75 per cent to 80 per cent of individuals with Autistic Disorder will have significant cognitive impairments. Many individuals with Asperger's Disorder, however, will have average to above-average intellectual functioning (Perry & Condillac, 2003).

The profile of various cognitive abilities in an individual may also be uneven, regardless of the individual's general level of intelligence. In some cases, special or "splinter" skills are present: an individual has highly developed skills in a very specific area of ability, such as long-term memory, but the same individual also has severe impairments in the development of other skills. For example, some individuals with Autistic Disorder may have excellent recall of technical data or mathematical formulas, but they repeat the information over and over again in a context that is socially inappropriate.

In many cases, comorbid (or additional) disorders, such as an anxiety or mental disorder, are diagnosed in individuals with ASD. The effects of the symptoms of other disorders can increase the severity of impairments for individuals with ASD.

Program Planning



TOOLS & TECHNIQUES

See Chapter 4:
3. Survey for Parents

Parent Involvement

Parents play a vital role in the education of their children. As partners in the process, parents can provide perspectives and information that will broaden educators' understanding of the student. Parent participation will enhance program planning and assist in the determination of educational goals, methods, and motivational strategies that are most appropriate and effective for a student.

A consultative partnership between home and school is developed through regular, frequent opportunities for discussions about the student's unique learning needs, evidence of progress, and any adjustments to the educational program that may need to be considered.

Students with ASD generally have difficulty transferring or generalizing skills from one situation or environment to another. The learning process for a student with ASD is supported when the same skills and concepts are reinforced in both the home and school environments.

Involving families in planning their child's educational program may assist in developing the student's ability to learn. Families are often able to provide additional opportunities for the student to practise skills. This may also enhance the student's ability to generalize skills to various settings. Students will be more successful in learning and generalizing skills when families and schools share a common focus, approach, and goals.

Having a child with ASD is a challenge for any family and may have an emotional, physical, and financial impact on the family (Higgins, Bailey, & Pearce, 2005). The impact on families can vary considerably across situations. Some families are able to cope with these additional stressors; however, for others it can be



Ontario Regulation 181/98, *Identification and Placement of Exceptional Pupils*, requires the principal, in developing the individual education plan, to consult with the parent and, where the pupil is age 16 or older, the pupil (Clause 6 (6)(a)).

KEY FACTS

more difficult. It is important to keep in mind that many parents are on their own journey of acceptance of the diagnosis and its significant implications for both their own lives and the life of their child.

The needs of families who have children with ASD can depend on:

- the particular characteristics of their child (such as age, level of functioning);
- the parents' own interpersonal resources;
- the availability and effectiveness of supports and services.

When interacting with families, it is important to be sensitive to these issues (Perry & Condillac, 2003).

Parents are able to provide valuable information about many key aspects that affect how a student participates at school, such as:

- Developmental history
- Health issues
- The range of professionals who are or have been involved with the student and the services provided
- Their child's likes, dislikes, special interests, and sensory sensitivities
- Effective positive reinforcers and motivators
- How the student has learned skills at home
- Behaviour and communication strategies that have been successful at home and in other environments
- Student performance across settings and over different periods of time
- Perspectives on the student's personality.

Teachers should secure appropriate consents from parents regarding personal information about students.



Parents are advocates for their child's best interests. It is essential that they have opportunities to be involved as partners in the ongoing planning and review of educational programs for students with ASD. A strong partnership between schools and families is the foundation for a student's ongoing, successful experience at school.

Home/School Communication

Positive relationships between home and school have been shown to improve parental involvement and increase parents' comfort level in working with the school.



It is important to keep in mind that home/school communication for many students with ASD is a method of reporting for students who, because of the nature of their disability, cannot do this for themselves.

The nature of the communication between home and school can have a significant impact on the quality of this relationship, as well as on a student's program at school and the ongoing development and generalization of skills. Many parents report that they wait expectantly to read the communication book at the end of each day and that their emotional state can be considerably influenced by its content. Thus, it is important to be cognizant of the messages that are sent and how the messages are stated.

It is important that the teacher, TA, principal, and parent meet to discuss and establish methods for home/school communication. Consideration should be given to the format, information to be included, information from home that will be shared, and the constraints of time for all parties. As well, guidelines for reporting any significant behavioural issues need to be clearly established.



TOOLS & TECHNIQUES

See Chapter 4:
4. Student's Day at School
5. School Communication

The classroom teacher is responsible for the content of the home/school communication. In some situations, while a TA may guide the student through the process of reporting daily events, this should be reviewed by the teacher. As a guideline to positive practice, the teacher should use methods such as a home/school communication book or phone call to maintain contact with the parent on a regular basis to provide updates on the student's activities and progress.

Generally, parents want to know about the activities in which their child participated during the day. Parents can use this information to talk with their child and elicit communicative responses whenever possible. Information to assist in this process can include:



- Activities in which the student participated
- Any new or particular skills that were demonstrated
- Nature of play with friends and classmates
- Songs and stories of the day
- New themes or areas of learning
- Upcoming, special events, trips, or snack days.

Health Issues

Some children have serious health issues, such as seizures or allergies, about which parents need more frequent information. Any serious occurrence should be reported to parents immediately. Collaboration between parent and school is essential to mutually decide on a way to report on health-related issues that is efficient for both home and school. In any situation where health issues are a serious concern, safety protocols must be created and shared with all staff.

Reporting Behavioural Difficulties

Most parents are aware of the behavioural difficulties of their child, and it can be a disheartening process to regularly receive a listing of their child's misbehaviours throughout the day. In most situations, it is unnecessary to report the daily incidences of non-compliance, off-task behaviour, and other occurrences if these are an ongoing or typical component of the child's behavioural profile.



Remember to report positive information as often as possible. This can have a significant impact on the quality of a family's evening or weekend.

There will be times when reporting and discussion of behaviour are necessary and unavoidable. When significant behavioural incidents occur, they must be reported to parents. However, the communication book is *not* the forum for sharing this kind of information. The principal decides how this information is to be shared with parents, and often assumes this important role.

In composing the content of daily communication, it can be helpful to ask yourself these questions: What if the communication book became lost and was found by another student or a stranger? Would the child's or the family's dignity or privacy be compromised?

Establishing a Successful Home/School Communication Process



- Involve the student in creating the system. Students can be partners in preparing pictures or picture symbols, writing, stamping, or applying stickers in the home/school communication book. This gives the student a sense of ownership and responsibility for the process.
- Often, the job of writing in the communication book is left until the end of the day. In some cases, however, it is possible to connect the student's visual schedule to the daily home reporting process. This method is helpful to reinforce the schedule and involve the student directly in communication with parents. Make the reporting process as positive as possible. The preparation and maintenance of the communication book can be a valuable component of the literacy program for some students.
- Respect the privacy of families.
- Comments should be objective. Always imagine yourself in the position of the parent receiving the information.
- When possible, pictures of the student involved in school activities can provide an excellent stimulus for information retrieval and communication. Reviewing pictures of school activities while at home will help some students to generalize thinking between the home and school environments.

While it will take a few extra minutes each week to manage the home/school communication process, the responsive and responsible reporting of the events of a student's days at school makes a positive contribution to both the home and the school experience. Parents feel informed, supported, and more able to support the learning needs of their child.



TOOLS & TECHNIQUES

See Chapter 4:
6. Information Pamphlet
on ASD

Individual Learning Profile

Decisions about what to teach or how to teach an individual student should not be based solely on the diagnosis of ASD. No one method or intervention will meet the needs of all students with ASD, as individual students differ in their abilities and their needs vary considerably (National Research Council, 2001).

Some students with ASD may have developmental delays or an intellectual disability and experience challenges with a number of basic, pre-learning, developmental skills, including imitation, joint attention, and generalization, while others may have much



TOOLS & TECHNIQUES

See Chapter 4:
 7. Critical Information Sheet
 8. Student Profile
 9. Promoting Independence

more highly developed skills. Program planning for students with ASD, as for all students with special education needs, should be individualized and focused on developing skills that will be of use in the student's current and future life in school, home, and community. This requires careful planning, preparation, and teamwork so that the programs provided are appropriate and effective for the individual student.

Determining the educational interventions that may be required to meet the learning needs of students with ASD begins with an understanding of the unique learning profile of each student. This requires consideration of information from a range of sources, such as the following:

- data and reports from assessments
- observations of skills and behaviours through the student's participation in assignments, activities, tasks, and projects
- Ontario Student Record (OSR)
- information and reports provided by parents, former teachers, and other involved professionals, such as service providers from outside the school system



Unusual developmental profiles are common for students with ASD, and therefore careful documentation of a student's unique strengths and weaknesses is necessary and can have a major impact on the design of effective intervention programs.

In developing the learning profile for a student with ASD, it is important to consider information gained from observations of the student. Observations should be as objective and descriptive as possible and avoid value judgements. In particular, educators should note the student's:

- progress towards learning outcomes;
- behaviours and interactions that occur in the school and classroom environment, including recess and lunchtime;
- age and social appropriateness of interactions with peers and adults;
- social language skills;
- reactions to the learning environment and the setup of the classroom;
- responses to transitions in the school day – between activities in the classroom, for example.

Assessment

Assessment information from various sources will need to be considered to develop individual learning profiles and establish appropriate educational programs for students with ASD. Comprehensive assessments are necessary to recognize and understand the various strengths and needs of individual students. It is important that generalizations or unrealistic expectations about overall abilities are not made on the basis of the diagnosis, individual skill impairments, or splinter skills.

Assessment data and results that have been gathered across a diverse range of skills by a variety of professionals will provide comprehensive information that will be useful in making accurate decisions about programs for students. A diagnosis of ASD is associated with impairments in communication, social, and behavioural skills, and multidisciplinary assessments in these skill areas will provide information that will be used to determine the extent of the impairments and how the difficulties interfere with the educational process.

When a student in whom ASD is diagnosed is first enrolled in school, parents should be invited to participate in a transition planning process that includes the sharing of any relevant assessment information with the school. This information will be considered in:

- determining the student's strengths and needs;
- deciding learning goals for the student;
- making decisions regarding programs, services, and supports that may be required to meet the student's needs;
- establishing records against which to measure future achievement.

Parents should be encouraged to participate in an ongoing process of sharing any relevant, updated assessment information with the school.



Policy/Program Memorandum No. 11, "Early Identification of Children's Learning Needs", 1982, requires school boards to have procedures to identify each child's level of development, learning abilities, and needs. A continuous assessment and program planning process should be initiated when a child is first enrolled in school and continue throughout the child's school life.

KEY FACTS

Assessment of student progress by a classroom teacher is a continuous, complex process that is an integral part of the learning-teaching process every day. Teachers use a variety of methods to gather information about a student's achievement, the level of the student's understanding, and the effectiveness of a particular teaching technique. Examples of classroom-based assessment methods that are used by teachers on a regular basis to assess student learning include the following:

- observations
- teacher-designed tasks
- interviews with the student
- criterion-referenced academic tests
- functional assessments



TOOLS & TECHNIQUES

See Chapter 4:
10. Inventory of Functional Skills

During the school day, there are ongoing opportunities for teachers to assess students across a variety of settings and situations. The information and data collected by teachers are primarily used for planning programs that will be appropriate to each student's strengths, interests, needs, and level of functioning.

The choice of assessment instruments is a complex one and depends on the student's:

- verbal skills;
- ability to respond to complex instructions and social expectations;
- ability to work rapidly;
- ability to cope with transitions in test activities.

(National Research Council, 2001:28)

The responsiveness of a student with ASD to an assessment task may be affected by the novelty and structure of the assessment situation. Consideration should be given to the possibility that the results of an assessment may indicate the student's response to the assessment task or situation and may not be an accurate reflection of the student's abilities.

Assessment accommodations may be required to allow the student with ASD the opportunity to demonstrate achievement of specific skills or expectations. Examples of assessment accommodations that may be required for students with ASD include providing:

- visual supports to clarify verbal instructions;
- additional time for student responses;
- alternative methods for the student to demonstrate achievement of skills;
- alternative environments for assessment tasks.

It is important to consider the following when assessing the academic skills of students with ASD:



TIPS FOR TEACHERS

- Recognize that verbal responses may be the most difficult and least accurate.
- If a verbal response is required, do not insist on eye contact.
- Provide the student with methods to answer questions non-verbally, if possible. For example, provide Yes/No or True/False cards that the student can touch or point out to indicate the answer.
- Allow the student several readings of a passage before asking comprehension questions.

This may include reading the passage to the student.

- Begin an assessment process by starting with material two or more grades below the ability level of the student. Gradually work up to the student's level.
- Provide the student with sample questions to practise with the assessment format.
- Allow the student to answer questions using the computer.

An effective assessment process is continuous and includes ongoing, systematic data collection that is necessary to:

- monitor student progress;
- evaluate instructional effectiveness;
- update goals as a student learns and masters a skill.

Information about skill development in multiple areas of functioning should be considered when decisions are made about students' programs. This would include collecting and analysing data and other information related to progress within various skill areas such as communication, social, and behavioural skills,

in addition to academic skills. For example, students with ASD often exhibit behaviours that are unusual or disruptive to the learning process. A systematic assessment process such as a functional behaviour assessment should be followed to determine the purpose of the behaviour, identify contextual factors that may be triggering the unusual or problematic behaviour, and evaluate the effectiveness of intervention strategies. Further information about functional behaviour assessments is found in Chapter 3 of this guide.

Multidisciplinary assessments include those conducted by qualified professionals, such as psychologists, speech-language pathologists (SLPs), and occupational therapists (OTs) who are staff within the school board or from the Ministry of Health and Long-Term Care, such as OTs from Community Care Access Centres (CCACs). In many cases, parents obtain assessments for their children from external institutions, agencies, or practitioners and provide consent for this information to be shared with the school.

Assessment information from various sources will provide valuable information to guide the development of the student's Individual Education Plan (IEP) and assist in the continuous process to determine educationally relevant goals, objectives, and implementation strategies that are based on the unique learning profile of the individual student.



Further information regarding assessment of students with special education needs can be found in *Special Education: A Guide for Educators* (Ontario Ministry of Education, 2001) and *Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students With Special Education Needs, Kindergarten to Grade 6* (Ontario Ministry of Education, 2005a).

The Individual Education Plan (IEP)

Many students with ASD will be identified by an Identification, Placement and Review Committee (IPRC) as exceptional students under the Communication–Autism category. As described in *Special Education: A Guide for Educators* (Ontario Ministry of Education, 2001), the definition that the IPRC considers in determining the exceptionality of Communication–Autism is:

A severe learning disorder that is characterized by:

a) *disturbances in:*

- *rate of educational development*
- *ability to relate to the environment*
- *mobility*
- *perception, speech, and language*

b) *lack of representational symbolic behaviour that precedes language.*



Most students with ASD have special education needs that need to be considered in an Individual Education Plan (IEP). This includes students who have been identified as exceptional by an IPRC, and also students who may have received a diagnosis of a disorder within the range of ASD but may not be formally identified by an IPRC as an exceptional pupil.

The IPRC will determine the most appropriate placement to meet the individual needs of students with ASD who are identified as exceptional pupils. Parents and students (if 16 years of age or older) are invited to attend the IPRC meetings and participate in the committee discussions. A range of placement options and services should be available for students with ASD to address the broad range of needs of these students. The needs of many students with ASD are met in regular class placements with appropriate supports. Other students require placement in special education classes for all or part of the school day.

The IEP is a written program plan that describes the special education program and/or services required by a student on the basis of a thorough assessment and understanding of the student's strengths and needs. The information gathered to understand a student's individual learning profile will be an important resource in the development of an appropriate program plan for the student. The IEP should be reviewed and updated regularly, at least once in every reporting period, and based on ongoing and continuous evaluation of the student's progress.

The IEP is a working document that identifies the accommodations that are required to help the individual student achieve learning expectations and demonstrate learning. The IEP also identifies the modified or alternative learning expectations, where appropriate, that are planned for a student's educational program and the specific knowledge and skills to be assessed and evaluated for the purpose of reporting student achievement.

It is helpful, for purposes of planning and IEP development, to classify the subjects or courses and alternative programs in which the student will receive instruction according to the following categories, as appropriate to the student's individual requirements:

- No accommodations or modifications
- Accommodated only
- Modified and/or
- Alternative.

KEY FACTS

Accommodations are the special teaching and assessment strategies, human supports and/or individualized equipment required to enable a student to learn and demonstrate learning. Accommodations do not alter the provincial curriculum expectations for the grade.

Modified expectations differ in some way from the regular grade expectations as outlined in the Ministry of Education's curriculum policy documents.

Alternative expectations are developed to help students acquire knowledge and skills that are not represented in the Ontario curriculum.

(The Individual Education Plan (IEP): A Resource Guide, Ontario Ministry of Education, 2004)



For some students with ASD, the most appropriate program is based on expectations from the Ontario curriculum with minimal or moderate accommodations or modifications. Other students may require a program that includes significantly modified expectations or is mainly composed of expectations that are an alternative to the Ontario curriculum. Educational

goals for students with ASD often need to address social, communication, and adaptive skills that are not part of standard curricula (National Research Council, 2001). For many students with ASD, the most effective education program includes a combination of instructional goals based on the Ontario curriculum with accommodations or modifications, as required, and includes alternative programs with specific goals and activities to support the development of functional skills that are useful and meaningful for the student.

Parents and relevant school board and community personnel who have previously worked with and/or are currently working with the student should be invited to provide input and participate in the IEP process. This may include, but is not limited to, consultations with current and previous teachers, the principal, the student, a psychologist, special education staff, an OT, service providers from community agencies, and autism program providers, as appropriate.

All members of the IEP team have important roles and responsibilities in the IEP process. It is important that the teacher(s) responsible for the direct instruction and assessment of the student's progress work collaboratively with parents and other involved professionals to determine the student's programming needs and appropriate learning expectations.

Effective educational programming for students with ASD should be based on a student's abilities and gradually increase in complexity as skills develop. In order to achieve this, programs should be carefully planned and constantly evaluated using a variety of formal and informal assessments. The program should then be modified on the basis of assessment results and student progress.



For additional information on the IEP process in general, refer to *Individual Education Plans: Standards for Development, Program Planning, and Implementation* (Ontario Ministry of Education, 2000), and *The Individual Education Plan (IEP): A Resource Guide* (Ontario Ministry of Education, 2004).

Collaborative Planning

A collaborative planning approach to support students with ASD is most effective and promotes the best outcomes for students. Keeping this in mind, it is important for school staff to invite input from and the participation of the parent(s) and, with parental consent, other professionals who have previously worked with and those who are currently working with the student. Students with ASD have a broad range of needs and abilities. The perspectives, information, and resources from parents and various in-school, school board, and community professionals will enhance the effectiveness of the program planning process.



TOOLS & TECHNIQUES

See Chapter 4:
 11. *Autism Transitional Classroom*
 12. *Think Tank on Autism*

Many school boards in Ontario have established school-based support teams that play a significant role in helping teachers to plan and implement programs for students with special learning needs. The school team is made up of school staff members who work together with the family to collaborate, consult, and share information and knowledge to identify strategies that may increase the student's learning success. As circumstances require, the team may also seek assistance from other resources, such as the following:

- community associations and agencies (such as Autism Ontario)
- service providers from the Ministry of Health and Long-Term Care (such as CCACs, which coordinate service providers such as OTs)
- service providers from the Ministry of Children and Youth Services (such as staff of the regional autism service provider agencies)
- Children's Treatment Centres (CTCs)
- Children's Mental Health Centres

Multidisciplinary teams composed of professionals with expertise in a variety of areas have also been developed by some school boards to provide additional support to schools in the planning



TOOLS & TECHNIQUES

See Chapter 4:
13. Resources for Drivers
14. Transportation Visuals

of effective programs for students with ASD. The membership of the multidisciplinary team could include a consultant, an SLP, a psychologist, an OT, and others who have the experience and knowledge to provide information, resources, and recommendations related to meeting the needs of students with ASD.

Through working collaboratively with other individuals, staff are able to better understand a student's learning profile and become aware of interventions that have successfully supported other students or the student in other environments. With this knowledge, staff can plan appropriate program goals and interventions for the student.

Some school boards have found it helpful to develop protocols with local community agencies to identify responsibilities and processes for working together. These local agreements are used to support collaborative partnerships by identifying and resolving issues that may arise. Collaborative efforts will be enhanced and most effective when those involved are committed to working together for the best interests of the student.



Students with ASD often experience difficulty with change. Establishing consistent practices is promoted through collaborative planning and may help to alleviate some of the challenges for students during transitions such as entry to school and between grades. Education strategies and practices are most effective if they are implemented across various settings, including the home, school, and community (Iovannone et al., 2003).

Universal Design for Learning

Education for All (Ontario Ministry of Education, 2005a), provides educators with recommendations on a broad range of techniques to enhance the instruction of students with special education needs, including those with ASD.

The report provides information on the use of the principles of Universal Design for Learning (UDL) and differentiated instruction to plan for and respond to students with various needs. Learning is a continuum and every student is a unique learner. Flexible, supportive, and adjustable classrooms and programs must be planned and developed to meet the learning needs of individual students. These are important considerations in the planning of programs for students with ASD.



TOOLS & TECHNIQUES

See Chapter 4:
15. *Autism Demonstration Site*
16. *Strategies Checklist*

UDL is recommended for consideration by teachers to guide the planning of the various components of teaching, such as defining the expectations of learning situations and determining the teaching strategies and assessment methods that will be required. Programs designed according to the core concepts of UDL are based on considerations of the following:

- universality and equity
- flexibility and inclusion
- an appropriately designed space
- simplicity
- safety

Universality and Equity

Teachers are encouraged to develop a class profile to identify the strengths, challenges, and needs of all students and to determine the stage that each student has reached in his or her learning. The instructional methods and classroom accommodations should be planned to ensure that the needs of all students are met.



For additional information on Universal Design for Learning, see *Education for All: The Report of the Expert Panel on Literacy and Numeracy Instruction for Students With Special Education Needs, Kindergarten to Grade 6* (Ontario Ministry of Education, 2005a).

Students with ASD vary in their cognitive level, communication ability, social skills, and behavioural characteristics. They have a wide range of skills and diverse needs. It is important for teachers to gather information to understand the individual strengths, needs, and interests of students to identify appropriate curriculum expectations, required accommodations, and effective instructional approaches.

Flexibility and Inclusion

To ensure that all students are provided opportunities for real learning experiences, flexibility and options should be built into the planning of teaching strategies, materials, and student activities.

The ability of students with ASD to participate in or respond to a learning experience may be affected by limitations in communication and social skills. Consideration of the likes, dislikes, strengths, needs, and interests of a student with ASD can help to make materials and tasks more engaging and provide motivation for the student to participate in and complete the desired task or activity. Concrete examples and hands-on activities provide students with opportunities to learn by seeing and doing and have been found to increase the motivation and engagement levels of students with ASD. For example, a student who has difficulty with concepts in mathematics may be motivated to learn graphing techniques by gathering data on items of personal or special interest.



Student engagement increases the learning opportunities for the student and has been found to be one of the best predictors of positive student outcomes (Iovannone et al., 2003).

Many students with ASD have difficulty processing information and are unable to respond immediately and “on demand” to expected tasks. They often require flexibility regarding the timing and method used to demonstrate their knowledge and skills. Teachers will need to consider the various alternatives, such as extended timelines and additional activities that may need to be planned to ensure that appropriate learning experiences are provided for all students.

An Appropriately Designed Space

Consideration should be given to the size, space, and arrangement of the physical and visual elements in the learning environment to ensure that they are conducive to student learning.

Students with ASD may be unusually sensitive to sensory stimulation, which can be reflected in an increased sensitivity to the physical environment of the learning situation. The classroom is filled with many sensory demands that can be overwhelming for some students. Although some of these demands, such as noise in the hallway and fire alarms, are unpredictable, teachers should monitor the physical environment to ensure that the sensory distractions (such as auditory and visual stimuli) for a student with ASD are minimized as much as possible. For example, tennis balls can be used to cover the bottoms of chair legs to reduce classroom noise.



TOOLS & TECHNIQUES

See Chapter 4:
17. Classroom Layout
18. Morning Routine

Some students with ASD are very aware of and need to know where things belong. The organization of materials, furniture, and resources should be carefully considered in relation to their effect on the learning environment of the student with ASD.

Simplicity

Teachers should ensure that the information provided in learning situations is presented clearly and is easily understood by the students. Unnecessarily complex and distracting information should be reduced as much as possible.

The communication impairments that are often present in students with ASD may affect their ability to process verbal information. They will often have difficulty understanding complex, abstract language and may misinterpret metaphors, slang terms, and colloquialisms. Effective methods to simplify information and make it easier for the student to understand include using clear and concise language, breaking instructions and tasks into smaller steps, and using visual supports, such as written or picture schedules. Information and materials should be organized in such a way that important or key components are highlighted and easily identified by students.



TOOLS & TECHNIQUES

See Chapter 4:
19. *Safety Plan: Crisis Protocol*
20. *Information for Occasional Teachers*

Safety

Teachers need to consider possible safety hazards and elements with the potential to cause accidents in the classroom. Staff should be aware of and able to act on any safety assessments, safety plans, or safety protocols that may apply to specific students in the classroom.

If a student with ASD is considered to be a safety risk in the school setting, adults involved with the student need to have access to the information and supports that are required to ensure a safe learning environment. A safety assessment can help to identify the factors that may lead to or cause situations and provide an assessment of the potential risks in given situations. A safety plan outlines the appropriate responses and supports that are required during specific situations with students.

Planning for Transitions

Common characteristics associated with a diagnosis of ASD are restricted, repetitive patterns of behaviour, interests, and activities. Many individuals with ASD have difficulty coping with novel and unexpected events. Change, including transitions between activities and environments, is often difficult for students with ASD and can lead to increased anxiety and unusual or inappropriate behaviours.




TOOLS & TECHNIQUES

See Chapter 4:
21. *Suggestions to Support Transitions*
22. *Preparing Students for a Special Event*

In school, transitions happen at various stages and levels for students. Some transitions occur on a regular basis between activities and settings within the routines of the school day. Other transitions, such as class excursions, occur less frequently. Significant transitions such as entry to school, between grades and divisions, from elementary to secondary school, and from secondary school to the postsecondary destination happen periodically, are more complex, and include significant changes to many aspects of a student's routines.

Planning for transitions provides the foundations for successful transition experiences that help a student learn to cope with change and adapt to a variety of settings. Transitions cannot be avoided,

but helping a student to be prepared for and adjust to change and transition can help to reduce or avoid some of the anxiety and unusual or inappropriate behaviours that they may cause.

FACILITATING TRANSITIONS 	
To facilitate transitions:	Examples
Begin preparing the student well in advance of the expected transition.	<ul style="list-style-type: none"> • A calendar is used daily to count down the days until a class trip. • Pictures and stories of the trip destination are reviewed for several days prior to the trip.
Plan transition steps to allow the student to gradually become familiar with change.	<ul style="list-style-type: none"> • A schedule of visits is arranged for the student to adjust to the new school. Scheduled timelines and things to see are increased for each visit.
Use consistent cues or routines to signal transitions.	<ul style="list-style-type: none"> • A “transition object” is carried by student during the move to the next class. • The same song or phrase is heard by student before the start of a routine activity.

TIPS FOR TEACHERS

Transition planning for students with ASD should begin well in advance of the expected change for the student. The planning can be complex and requires communication and coordination between those who will be involved in the transition process. Effective planning for significant transitions usually includes parents and staff from the school, school board, and community agencies who are and who will be involved with the student.



For additional information on transition planning, see:

- Ontario Regulation 181/98, *Identification and Placement of Exceptional Pupils*
- *Individual Education Plans: Standards for Development, Program Planning, and Implementation* (Ontario Ministry of Education, 2000)
- *Transition Planning: A Resource Guide* (Ontario Ministry of Education, 2002)
- *The Individual Education Plan (IEP): A Resource Guide* (Ontario Ministry of Education, 2004)
- *Planning Entry to School: A Resource Guide* (Ontario Ministry of Education, 2005b).
- Policy/Program Memorandum No. 140, “Incorporating Methods of Applied Behaviour Analysis (ABA) into Programs for Students with Autism Spectrum Disorders (ASD)”, 2007 (Ontario Ministry of Education, 2007a).



TOOLS & TECHNIQUES

See Chapter 4:
23. *Task Sequence for Home Time*
24. *Visuals for Transition from School to Home*

Parents should be involved in the sharing of information, collaboration, planning, and process that may be required to ease or facilitate significant transitions for a student. Parents can help to identify changes to routines or settings that may be difficult for the student. They can also help to support successful transitions by assisting in determining an effective transition process for an individual student or building skills and/or routines to familiarize the student with different expectations in the new setting.

The purpose of transition planning is to determine the considerations, goals, and actions that will be required to support the student in making a positive transition to the new setting and experiences. It also provides an opportunity for those within the new setting to become familiar with and prepare for the student.