



## **Faculty of Education**

### **Certificate Programme for Paraprofessionals in Teaching (1 year programme)**

#### **1.0 Rationale**

This one year certificate course is a direct response of the University College of the Cayman Islands to the Government's strategic plan measure 10, National Consensus on the Future of Education in the Cayman Islands (Report October 3<sup>rd</sup> 2005). Strategic measure 10 calls for the development and implementation of teacher education and training in the Cayman Islands and high quality teacher professional development programmes. This response is consistent with the mission of the University College of the Cayman Islands which is to contribute to Caymanian society by advancing knowledge.

The certificate course is a job preparatory course designed to equip the paraprofessionals to function effectively in the classroom. The programme introduces students to the teaching-learning dynamics and the skills necessary to operate effectively within a range of school settings. The programme also focuses on the improvement of skills in English Language (Communication Skills), mathematics (Numeracy Skills) and ICT (Computer Workshops). The three courses addressing these competencies will be completed at the first year Associate Degree level.

The paraprofessional in teaching has many responsibilities which may include observing and reporting pupils' progress; working with individuals or small groups; assisting in the preparation of instructional materials and facilitating the integration of special needs students in the regular classroom. Additionally, the paraprofessional assists in adapting or modifying educational materials and programmes to match the cognitive levels of students with special needs.

The programme has been developed to provide prospective Teacher Aides with an understanding of their roles and functions and to help them develop the competencies necessary for functioning effectively.

#### **ED 005: Working with Children with Exceptional Needs**

This course provides an overview of the nature of disabilities experienced by children with exceptional needs. General and specific learning disabilities (e.g. dyslexia, ADHD), physical and sensory impairments, autism and other pervasive developmental disorders will be discussed. The needs of children with these disabilities as well as the needs of gifted and talented students will be discussed. The goals and objectives for working with

students with exceptional needs defined in the Special Education Policy document will be reviewed.

## **OBJECTIVES**

- Discuss the characteristics of children with exceptional needs.
- Discuss the nature and causes of ‘developmental delay’.
- Identify and discuss the characteristics of various disabilities.
- Review the Special Education policy document.
- Identify and discuss strategies used to teach students with exceptional needs.

## **CONTENT**

Children with exceptional needs may suffer from a disability or may be gifted, and or talented. A disability is a physical or mental impairment that has a long term effect on a person's ability.

Children with exceptional needs fall into three categories

Children with developmental disabilities (physical or mental in nature)

Children with learning disabilities

Children who are considered gifted /talented

As a result the nature of the services offered to children with exceptional needs varies, and are often provided by persons with various specialist skills.

### **Children with Developmental Disabilities**

A Development disability is a chronic disorder that adversely affects the development of an individual’s capability to be mobile, learn language, speak coherently or interact with other people.

This specific disorder includes many different types and forms. The most common among them are autism, Down’s syndrome and other genetic disorders. Another condition that results in development disabilities is cerebral palsy that may be genetic in nature. Mental retardation is another cause of developmental disabilities.

### **Children with Physical Handicaps**

Physical handicaps may result from birth defects, illness or accidents. These may result in motor or sensory impairment such as blindness and deafness. Special accommodations often have to be made for persons with the various physical handicaps. This group would include persons suffering from loss of, or un- or underdeveloped limbs, and persons suffering from cerebral palsy etc.

Special accommodations, although of a different nature, also have to be made for children with sensory handicaps. Persons with visual impairment, that is, persons with no vision, or some functional vision need specialist teachers and learning equipment.

Persons with a hearing disability, that is, persons who are completely deaf or have partial hearing in one or both ears and require a hearing aid, also need specialist teachers capable of teaching them to communicate and acquire intellectual skills.

Physically handicapped students are aware of their physical limitations. However they want to succeed and participate in regular activities as much as they can and this should be encouraged by the teacher. Teachers can use a variety of strategies to help physically handicapped students to adjust and feel comfortable in the school environment. Some of these are listed in Appendix 1

### **Learning disabilities**

A learning disability (LD) is a *neurobiological disorder*; people with LD have brains that learn differently because of differences in brain structure and/or function. This term is used to cover a wide variety of learning problems children may encounter. If a person learns differently due to visual, hearing or physical handicaps, mental retardation, emotional disturbance, or environmental, cultural or economic disadvantage, we do not call it a learning disability.

Not all learning problems are necessarily learning disabilities. Many children are simply slower in developing certain skills. Because children show natural differences in their rate of development, sometimes what seems to be a learning disability may simply be a delay in maturation. To be diagnosed as a learning disability, specific criteria must be met.

Learning disabilities can be divided into three broad categories:

- Developmental speech and language disorders
- Academic skills disorders
- "Other," a catch-all that includes certain coordination disorders and learning handicaps not covered by the other terms

Each of these categories includes a number of more specific disorders.

### **Developmental Speech and Language Disorders**

Speech and language problems are often the earliest indicators of a learning disability. People with developmental speech and language disorders have difficulty producing speech sounds, using spoken language to communicate, or understanding what other people say. Depending on the problem, the specific diagnosis may be:

- Developmental articulation disorder
- Developmental expressive language disorder
- Developmental receptive language disorder (Appendix 2)

### **Academic Skills Disorders**

Students with academic skills disorders are often years behind their classmates in developing reading, writing, or arithmetic skills. The diagnoses in this category include:

- Developmental reading disorder
- Developmental writing disorder
- Developmental arithmetic disorder (Appendix 2)

### **"Other" Learning Disabilities**

There are also additional categories, such as "motor skills disorders" and "specific developmental disorders not otherwise specified." These diagnoses include delays in acquiring language, academic, and motor skills that can affect the ability to learn, but do not meet the criteria for a specific learning disability. Also included are coordination disorders that can lead to poor penmanship, as well as certain spelling and memory disorders.

### **Attention Deficit Disorder with Hyperactivity (ADHD)**

We all know kids who can't sit still, who never seem to listen, who don't follow instructions no matter how clearly you present them, who blurt out inappropriate comments at inappropriate times. Sometimes these children are labeled as troublemakers, or criticized for being lazy and undisciplined. However, they may have ADHD.

Attention-deficit hyperactivity disorder (ADHD) is a disorder that appears in early childhood. The signs and symptoms of ADD / ADHD typically appear before the age of 7.

#### **Signs and symptoms of inattention may include:**

- Often fails to pay close attention to details or makes careless mistakes in schoolwork or other activities
- Often has trouble sustaining attention during tasks or play
- Seems not to listen even when spoken to directly
- Has difficulty following through on instructions and often fails to finish schoolwork, chores or other tasks
- Often has problems organizing tasks or activities

- Avoids or dislikes tasks that require sustained mental effort, such as schoolwork or homework
- Frequently loses needed items, such as books, pencils, toys or tools
- Can be easily distracted
- Often forgetful

**Signs and symptoms of hyperactive and impulsive behavior may include:**

- Fidgets or squirms frequently
- Often leaves his or her seat in the classroom or in other situations when remaining seated is expected
- Often runs or climbs excessively when it's not appropriate or, if an adolescent, might constantly feel restless
- Frequently has difficulty playing quietly
- Always seems on the go
- Talks excessively
- Blurts out the answers before questions have been completely asked
- Frequently has difficulty waiting for his or her turn
- Often interrupts or intrudes on others' conversations or games
- ADHD behaviors can be different in boys and girls.
- Boys are more likely to be hyperactive, whereas girls tend to be inattentive.
- Girls who have trouble paying attention often daydream, but inattentive boys are more likely to play or fiddle aimlessly.
- Boys tend to be less compliant with teachers and other adults, so their behavior is often more conspicuous.

**You may suspect a child's behavior is caused by ADHD** if you notice consistently inattentive or hyperactive, impulsive behavior that:

- Lasts more than six months
- Occurs in more than just one setting (typically at home and at school)

- Regularly disrupts school, play and other daily activities
- Causes problems in relationships with adults and other children

## Dyslexia

. 'Word blindness' is an old-fashioned term that was first used to describe dyslexia. It means that a child is unable to recognize and understand words that he sees. The child often cannot remember the order and sequence of letters in a word from one time to the next. Therefore he could be drilled for hours on an easy word, but the next time he saw the word would not recognize it.

This apparent severe dyslexia is caused by disorientation, which for dyslexic people means that they have an inaccurate perception of the words. They might see the letters of the words jumbled around in all sorts of different ways. There is no way that a dyslexic person who suffers from this sort of disorientation can ever remember a word, because the word seems different every time he looks at it.

Fortunately, this problem of distorted perceptions can be corrected quickly and easily with Davis Orientation Counseling. Once the student has a consistent perception of the letters and words, he can be helped to attach meaning to the words through Davis Symbol Mastery.

**A.** There is no single pattern of difficulty that affects all dyslexic people. A dyslexic person might have any of the following problems:

- he might see some letters as backwards or upside down;
- he might see text appearing to jump around on a page;
- he might not be able to tell the difference between letters that look similar in shape such as **o** and **e** and **c** ;
- he might not be able to tell the difference between letters that have similar shape but different orientation, such as **b** and **p** and **d** and **q** ;
- the letters might look all jumbled up and out of order;
- the letters and words might look all bunched together;
- the letters of some words might appear completely backwards, such as the word **bird** looking like **drib** ;
- the letters and words might look o.k., but the dyslexic person might get a severe headache or feel sick to her stomach every time she tries to read;
- he might see the letters o.k., but not be able to sound out words -- that is, not be able to connect the letters to the sounds they make and understand them;
- he might be able to connect the letters and sound out words, but not recognize words he has seen before, no matter how many times he has seen them -- each time he would have to start fresh;

- he might be able to read the words o.k. but not be able to make sense of or remember what she reads, so that he finds herself coming back to read the same passage over and over again.

A dyslexic person could have any of the above symptoms -- or **none** ! It is possible for a dyslexic person to be able to read very well, yet find it extremely difficult or impossible to **write** or **spell** . Sometimes the writing problem is called 'dysgraphia' instead of 'dyslexia' - but we find that often these symptoms stem from the same underlying causes as dyslexia.

### **Developmental Delay**

*Developmental Delay* is when a child does not reach his developmental milestones at the expected times. It is an *ongoing, major delay in the process of development*. If the child is slightly or only temporarily lagging behind, that is not called 'developmental delay'. Delay can occur in one or many areas—for example, motor, language, social, or thinking skills.

Developmental Delay is usually a diagnosis made by a doctor based on strict guidelines. Usually, though, the parent is the first to notice that his child is not progressing at the same rate as other children the same age. In some cases, the general pediatrician might pick up a delay during an office visit. It will probably take several visits and possibly a referral to a developmental specialist to be sure that the delay is not just a temporary lag. Special testing can also help gauge your child's developmental level.

What happens during the first three years of a child's life stays with the child for a lifetime. Therefore it is important to identify signs of delays in development, and to get help for children with suspected problems. The sooner a delayed child gets early intervention, the better their progress will be.

Developmental delay can have many different causes, such as genetic causes, (like Down syndrome), or complications of pregnancy and birth (like pre-maturity or infections). Often, however, the specific cause is unknown. Some causes can be easily reversed if caught early enough, such as hearing loss from chronic ear infections, or lead poisoning.

### **Autism (Appendix 4)**

Symptoms of autism typically appear before a child is 3 years old and last throughout life. Children with autism can display a wide range of symptoms, which can vary in severity from mild to disabling. General symptoms that may be present to some degree in a child with autism include:

- Difficulty with verbal communication, including problems using and understanding language.

- Inability to participate in a conversation, even when the child has the ability to speak.
- Difficulty with non-verbal communication, such as gestures and facial expressions.
- Difficulty with social interaction, including relating to people and to his or her surroundings.
- Inability to make friends and preferring to play alone.
- Unusual ways of playing with toys and other objects, such as only lining them up a certain way.
- Lack of imagination.
- Difficulty adjusting to changes in routine or familiar surroundings, or an unreasonable insistence on following routines in detail.
- Repetitive body movements, or patterns of behavior, such as hand flapping, spinning, and head banging.
- Preoccupation with unusual objects or parts of objects.

### **What Causes Autism?**

The exact cause of autism is not known, but research has pointed to several possible factors, including genetics (heredity), certain types of infections, and problems occurring at birth.

### **How Is Autism Treated?**

There currently is no cure for autism, but treatment may allow for relatively normal development in the child and reduce undesirable behaviors. Children with autism generally benefit most from a highly structured environment and the use of routines. Treatment for autism may include a combination of the following:

- **Special education:** Education is structured to meet the child's unique educational needs.
- **Behavior modification:** This includes strategies for supporting positive behavior and decreasing problem behavior by the child.
- **Speech, physical, or occupational therapy:** These therapies are designed to increase the child's functional abilities.
- **Medication:** There are no medications currently approved to treat autism, but medications may be used to treat specific symptoms, such as anxiety, hyperactivity, and behavior that may result in injury. A recent study found that a drug often used to treat schizophrenia in adults, called Risperdal, might benefit children with autism.

## **Gifted and Talented Students (Appendix 5)**

Gifted children are primarily able to absorb abstract concepts, organize them more effectively, and apply them more appropriately than regularly students. The following

suggestions will help you develop a classroom environment that will challenge and nurture gifted learners.

Independent Projects

Academic Competition

Vertical Enrichment

Find a mentor

Try a New Approach

Use Bloom's Taxonomy

Multiple Intelligences

Learning Centres

leveling Assignments

### **COURSE REQUIREMENTS**

#### **Students must**

- attend at least 90% of classes
- complete all assignments
- actively participate in class discussions

### **ASSIGNMENTS AND CLASS DISCUSSIONS**

- Discuss and list the characteristics of various disabilities
- Discuss general strategies used to enhance the physical accommodation of students with special needs
- Make a list of strategies that can be used to promote cognitive and social development of students with specific disabilities.
- Review the Special Education policy document.
- Visit the Lighthouse School and the Sunrise Adult Learning Centre and observe the facilities and programmes offered.
- Discuss strategies that can be used to facilitate the development of gifted and talented students.

## RESOURCE ARTICLES

### APPENDIX 1

[List Physical Disabilities](#) [Children Disability](#) [Children Behavior](#) [Special Need Children](#)  
[Children Disabilities](#)

For students with physical handicaps, self-image is extremely important. Teachers need to ensure that the child's self image is positive. Physically handicapped students are aware of the fact that they are physically different than most others and that there are certain things they cannot do. Peers can be cruel to other children with physical handicaps and become involved in teasing, casting insulting remarks and excluding physically handicapped children from games and group type activities. Physically handicapped children want to succeed and participate as much as they can and this needs to be encouraged and fostered by the teacher. The focus needs to be on what the child CAN do - not can't do.

#### **Strategies that help:**

- Physically handicapped children long to be normal and be seen as normal as much as possible. Focus on what they can do at all times.
- Find out what the child's strengths are and capitalize on them. These children need to feel as successful too!
- Keep your expectations of the physically handicapped child high. This child is capable of achieving.
- Never accept rude remarks, name calling or teasing from other children. Sometimes other children need to be taught about physical disabilities to develop respect and acceptance.
- Compliment appearance from time to time. (I had a child with CP who took immense delight when I noticed her new hair barrettes or a new outfit).

## APPENDIX 2

### CHILDHOOD LEARNING DISABILITIES

#### **What Are the Types of Learning Disabilities?**

"Learning disability" is not a diagnosis in the same sense as "chickenpox" or "mumps." Chickenpox and mumps imply a single, known cause with a predictable set of symptoms. Rather, LD is a broad term that covers a pool of possible causes, symptoms, treatments, and outcomes. Partly because learning disabilities can show up in so many forms, it is difficult to diagnose or to pinpoint the causes. And no one knows of a pill or remedy that will cure them.

Not all learning problems are necessarily learning disabilities. Many children are simply slower in developing certain skills. Because children show natural differences in their rate of development, sometimes what seems to be a learning disability may simply be a delay in maturation. To be diagnosed as a learning disability, specific criteria must be met.

The criteria and characteristics for diagnosing learning disabilities appear in a reference book called the DSM (short for the *Diagnostic and Statistical Manual of Mental Disorders*). The DSM diagnosis is commonly used when applying for health insurance coverage of diagnostic and treatment services.

Learning disabilities can be divided into three broad categories:

- Developmental speech and language disorders
- Academic skills disorders
- "Other," a catch-all that includes certain coordination disorders and learning handicaps not covered by the other terms

Each of these categories includes a number of more specific disorders.

#### **Developmental Speech and Language Disorders**

Speech and language problems are often the earliest indicators of a learning disability. People with developmental speech and language disorders have difficulty producing speech sounds, using spoken language to communicate, or understanding what other people say.

Depending on the problem, the specific diagnosis may be:

- Developmental articulation disorder
- Developmental expressive language disorder
- Developmental receptive language disorder

***Developmental Articulation Disorder*** -- Children with this disorder may have trouble controlling their rate of speech. Or they may lag behind playmates in learning to make speech sounds. For example, Wallace at age 6 still said "wabbit" instead of "rabbit" and "thwim" for "swim." Developmental articulation disorders are common. They appear in at least 10 percent of children younger than age 8. Fortunately, articulation disorders can often be outgrown or successfully treated with speech therapy.

***Developmental Expressive Language Disorder*** -- Some children with language impairments have problems expressing themselves in speech. Their disorder is called, therefore, a developmental expressive language disorder. Susan, who often calls objects by the wrong names, has an expressive language disorder. Of course, an expressive language disorder can take other forms. A 4-year-old who speaks only in two-word phrases and a 6-year-old who can't answer simple questions also have an expressive language disability.

***Developmental Receptive Language Disorder*** -- Some people have trouble understanding certain aspects of speech. It's as if their brains are set to a different frequency and the reception is poor. There's the toddler who doesn't respond to his name, a preschooler who hands you a bell when you asked for a ball, or the worker who consistently can't follow simple directions. Their hearing is fine, but they can't make sense of certain sounds, words, or sentences they hear. They may even seem inattentive. These people have a receptive language disorder. Because using and understanding speech are strongly related, many people with receptive language disorders also have an expressive language disability.

Of course, in preschoolers, some misuse of sounds, words, or grammar is a normal part of learning to speak. It's only when these problems persist that there is any cause for concern.

### **Academic Skills Disorders**

Students with academic skills disorders are often years behind their classmates in developing reading, writing, or arithmetic skills. The diagnoses in this category include:

- Developmental reading disorder
- Developmental writing disorder
- Developmental arithmetic disorder

***Developmental Reading Disorder*** -- This type of disorder, also known as dyslexia, is quite widespread. In fact, reading disabilities affect 2 to 8 percent of elementary school children.

When you think of what is involved in the "three R's"--reading, 'riting, and 'rithmetic--it's astounding that most of us do learn them. Consider that to read, you must simultaneously:

- Focus attention on the printed marks and control eye movements across the page
- Recognize the sounds associated with letters
- Understand words and grammar
- Build ideas and images
- Compare new ideas to what you already know
- Store ideas in memory

Such mental juggling requires a rich, intact network of nerve cells that connect the brain's centers of vision, language, and memory.

A person can have problems in any of the tasks involved in reading. However, scientists found that a significant number of people with dyslexia share an inability to distinguish or separate the sounds in spoken words. Dennis, for example, can't identify the word "bat" by sounding out the individual letters, b-a-t. Other children with dyslexia may have trouble with rhyming games, such as rhyming "cat" with "bat." Yet scientists have found these skills fundamental to learning to read. Fortunately, remedial reading specialists have developed techniques that can help many children with dyslexia acquire these skills.

However, there is more to reading than recognizing words. If the brain is unable to form images or relate new ideas to those stored in memory, the reader can't understand or remember the new concepts. So other types of reading disabilities can appear in the upper grades when the focus of reading shifts from word identification to comprehension.

***Developmental Writing Disorder*** -- Writing, too, involves several brain areas and functions. The brain networks for vocabulary, grammar, hand movement, and memory must all be in good working order. So a developmental writing disorder may result from problems in any of these areas. For example, Dennis, who was

unable to distinguish the sequence of sounds in a word, had problems with spelling. A child with a writing disability, particularly an expressive language disorder, might be unable to compose complete, grammatical sentences.

***Developmental Arithmetic Disorder*** -- If you doubt that arithmetic is a complex process, think of the steps you take to solve this simple problem: 25 divided by 3 equals ?

Arithmetic involves recognizing numbers and symbols, memorizing facts such as the multiplication table, aligning numbers, and understanding abstract concepts like place value and fractions. Any of these may be difficult for children with developmental arithmetic disorders. Problems with numbers or basic concepts are likely to show up early. Disabilities that appear in the later grades are more often tied to problems in reasoning.

Many aspects of speaking, listening, reading, writing, and arithmetic overlap and build on the same brain capabilities. So it's not surprising that people can be diagnosed as having more than one area of learning disability. For example, the ability to understand language underlies learning speak. Therefore, any disorder that hinders the ability to understand language will also interfere with the development of speech, which in turn hinders learning to read and write. A single gap in the brain's operation can disrupt many types of activity.

### **"Other" Learning Disabilities**

The DSM also lists additional categories, such as "motor skills disorders" and "specific developmental disorders not otherwise specified." These diagnoses include delays in acquiring language, academic, and motor skills that can affect the ability to learn, but do not meet the criteria for a specific learning disability. Also included are coordination disorders that can lead to poor penmanship, as well as certain spelling and memory disorders.

### **Attention Disorders**

Nearly 4 million school-age children have learning disabilities. Of these, at least 20 percent have a type of disorder that leaves them unable to focus their attention.

Some children and adults who have attention disorders appear to daydream excessively. And once you get their attention, they're often easily distracted. Susan, for example, tends to mentally drift

off into a world of her own. Children like Susan may have a number of learning difficulties. If, like Susan, they are quiet and don't cause problems, their problems may go unnoticed. They may be passed along from grade to grade, without getting the special assistance they need.

In a large proportion of affected children--mostly boys--the attention deficit is accompanied by hyperactivity. Dennis is an example of a person with attention deficit hyperactivity disorder--ADHD. They act impulsively, running into traffic or toppling desks. Like young Dennis, who jumped on the sofa to exhaustion, hyperactive children can't sit still. They blurt out answers and interrupt. In games, they can't wait their turn. These children's problems are usually hard to miss. Because of their constant motion and explosive energy, hyperactive children often get into trouble with parents, teachers, and peers.

By adolescence, physical hyperactivity usually subsides into fidgeting and restlessness. But the problems with attention and concentration often continue into adulthood. At work, adults with ADHD often have trouble organizing tasks or completing their work. They don't seem to listen to or follow directions. Their work may be messy and appear careless.

Attention disorders, with or without hyperactivity, are not considered learning disabilities in themselves. However, because attention problems can seriously interfere with school performance, they often accompany academic skills disorders.

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June 2002 - Childhood Learning Disabilities.

## APPENDIX 3

### Types of Disability

Under the Disability Discrimination Act 1995 (DDA), disability is a **physical** or mental impairment that has long term effect on a person's ability.

There are different **types of** disability that you must know about so that you can easily categorize the disabled people around you.

Eyesight Disability includes people with no vision, or some functional vision.

Hearing Disability includes people who are completely deaf or have partial hearing in one or both ears and require a hearing aid.

Mobility Disability refers to a wide range **of** people with varying **types of physical disabilities**.

Cognitive Disability refers to people with dyslexia and learning difficulties.

If anybody around you fits in above mentioned **types** then please make sure that he/she should be treated well. 'No discrimination' should be your guiding motto.

### Various Forms of Disability

Disability is a very broad term that includes a number of **physical** and mental impairments or handicaps. **Disabilities** in a number **of** cases prevent the individual from carrying out useful and productive jobs.

From the standpoint **of** insurance and disability benefits, there are two **types of** disability. These are short-term disability (STD) and long-term disability (LTD).

Short-term disability includes certain conditions that are temporary in nature and last up to a period **of** two years. Long-term **disabilities** are conditions that take last for longer than two years. However, both these **types of disabilities** may have different meanings and implications depending on the context in which they are used.

**Disabilities** are usually as a result **of** accidents, illness or congenital **physical** or mental condition.

Let us take a look at just a few the **types of disabilities**

Cognitive or learning related **disabilities**

Cognitive disabilities are **disabilities** that are since birth and impair the learning process of an individual in a particular way. Examples **of** such **disabilities** are dyslexia and Dysgraphia.

Vision related **disabilities**

Impaired vision and blindness are two conditions that usually render an individual incapable **of** performing normal tasks.

**Disabilities** due to auditory impairment

Impaired hearing or deafness prevents an individual from functioning normally. People with this disability require hearing aids, cochlear implants and need to communicate in sign language.

**Disabilities** related to impaired motor reflexes

Poor muscular co-ordination and motor reflexes are also a major reason for disability. This condition is usually congenital and requires specialized care and handling.

**Disabilities** related to accidents

Accidents are a major cause of **disabilities**. As per statistics, the number of people disabled due to accidents in the US is much higher than the number **of** people disabled due to old age.

Illness

There are a number of illnesses both congenital and acquired that either are a form **of** disability or are likely to result in disability. A few examples are cystic fibrosis, epilepsy, cerebral palsy and diabetic retinopathy.

## **Different Types of Disability**

Can you imagine yourself being disabled? No, you can't, can you? It's hard to imagine yourself being on a state of disability, especially if you are completely normal. Maybe if you have been to an accident where in you couldn't do a single thing by yourself, then probably you have an idea what it's like. But for the benefit of those who haven't got an accident, have you ever thought what it would be like if you have one **of** the several disability **types**? I don't think so. Lucky are we who are living normally everyday. That means we have everything to be thankful for every single day that passes by.

What is disability really mean and what it involves? If you have a **physical** or mental impairment, and if such impairment can affect your daily activities or limit you to perform daily activities, that is called disability. For example, blind people find it hard to do some things like going to school or work. However, disability does not only relate to obvious conditions such as vision or hearing disability. Actually, there are different disability **types** that you might care to know such as eyesight, hearing, mobility, and cognitive disability.

The following is a list **of** disability **types**:

### **Eyesight Disability**

You are considered to have an eyesight disability if you don't have normal vision even if you wear eyeglasses or contact lenses. Visual impairment may be caused by several eye diseases like age related muscular degeneration, cataracts, and more. There are vision impairments that can be treated medically, but there also that can't be corrected medically after accidents or inherited ocular disorders.

### **Hearing Disability**

This disability includes people who are completely deaf. Or, have partial hearing in one or both ears. However, to correct this problem, you are required the use of a hearing aid. If you may have noticed, there are people who have hearing disability yet can still communicate through sign language.

### **Mobility Disability**

Mobility refers to different people with varying types of physical disabilities. It is often related to individual with upper limb mobility, manual dexterity, and co-ordination problem. Mobility impairment is one of the disability types that affect movement ranging from gross motor skills like walking, to fine motor movement involving manipulation of objects by hand. Some use assistive equipment such as wheelchair or electronic strollers to be able to move around.

### **Cognitive Disability**

Cognition is another word for thinking. It includes many different functions including our abilities to pay attention, learn and retain information, solve problems, and use language to express thoughts. Cognitive disability refers to people with dyslexia, a brain-based type of learning disability that specifically impairs your ability to read, and other learning difficulties. Learning problems, on the other hand, differs from someone who has a serious mental impairment.

You may be suffering from one or more disability types, but it doesn't mean there's nothing that can be done about it. Disability can lower, or worse lose, your self confidence as it always does, yet you can still gain control of your life through the use of assistive equipment. Many people use them and they were able to move on and face the hardships despite their condition. So can you!

### **A Note on Types of Disabilities**

Various physical and mental impairments can hamper or reduce a person's ability to carry out his day to day activities. These impairments can be termed as disability of the person to do his day to day activities as previously. Let's take a note on types of disabilities here.

**Mobility :** This category of disability includes people with varying types of physical disabilities. This includes upper limb disability, manual dexterity and disability in co-ordination with different organs of the body. Disability in mobility can be either an in-

born or acquired with age problem. It could also be the effect of some disease. People who have a broken bone also fall into this category of disability.

**Spinal Cord Disability :** Spinal cord injuries can sometimes lead to lifelong disabilities. This kind of injury mostly occurs due to severe accidents. The injury can be complete or incomplete. In an incomplete injury, the messages conveyed by the spinal cord is not completely lost. Whereas a complete injury results in a total dis-functioning of the sensory organs. In rarest of cases spinal cord disability can be a birth defect though.

**Brain Disability :** A disability in the brain occurs due to a brain injury. The magnitude of the brain injury can range from mild, moderate and severe. There are two types of brain injuries: Acquired Brain Injury (ABI) and Traumatic Brain Injury (TBI). ABI is not a hereditary type defect but is the degeneration that occurs after birth. The causes of such cases of injury are many and are mainly because of external forces applied to the body parts. TBI results in emotional dysfunctioning and behavioral disturbance.

**Vision Disability :** There are hundreds of thousands of people that suffer from minor to various serious vision injuries or impairments. These injuries can also result into some serious problems or diseases like blindness and ocular trauma, to name a few. Some of the common vision impairment includes scratched cornea, scratches on the sclera, diabetesw related eye conditions, dry eyes and corneal graft.

**Hearing disability :** This is the category that includes people that are completely or partially deaf. People who are partially dumb can use hearing-aid to do away with the hearing problem. But the situation is more worse if the deafness is complete.

**Cognitive disability :** It is a kind of impairment present in people who are suffering from dyslexia and various other learning difficulties. People having dyslexia face difficulties in reading, writing and speaking.

## APPENDIX 3

### Attention-deficit/hyperactivity disorder (ADHD) in children

Mayo Clinic Housecall

Symptoms

By Mayo Clinic staff

ADHD has been called attention-deficit disorder (ADD) and hyperactivity. But ADHD is the preferred term because it describes both primary aspects of the condition: inattention and hyperactive-impulsive behavior.

While many children who have ADHD tend more toward one category than the other, most children have some combination of inattention and hyperactive-impulsive behavior. Signs and symptoms of ADHD become more apparent during activities that require focused mental effort.

In most children diagnosed with ADHD, signs and symptoms appear before the age of 7. In some children, signs of ADHD are noticeable as early as infancy.

#### **Signs and symptoms of inattention may include:**

- Often fails to pay close attention to details or makes careless mistakes in schoolwork or other activities
- Often has trouble sustaining attention during tasks or play
- Seems not to listen even when spoken to directly
- Has difficulty following through on instructions and often fails to finish schoolwork, chores or other tasks
- Often has problems organizing tasks or activities
- Avoids or dislikes tasks that require sustained mental effort, such as schoolwork or homework
- Frequently loses needed items, such as books, pencils, toys or tools
- Can be easily distracted
- Often forgetful

#### **Signs and symptoms of hyperactive and impulsive behavior may include:**

- Fidgets or squirms frequently

- Often leaves his or her seat in the classroom or in other situations when remaining seated is expected
- Often runs or climbs excessively when it's not appropriate or, if an adolescent, might constantly feel restless
- Frequently has difficulty playing quietly
- Always seems on the go
- Talks excessively
- Blurts out the answers before questions have been completely asked
- Frequently has difficulty waiting for his or her turn
- Often interrupts or intrudes on others' conversations or games
- ADHD behaviors can be different in boys and girls.
- Boys are more likely to be hyperactive, whereas girls tend to be inattentive.
- Girls who have trouble paying attention often daydream, but inattentive boys are more likely to play or fiddle aimlessly.
- Boys tend to be less compliant with teachers and other adults, so their behavior is often more conspicuous.

**You may suspect your child's behavior is caused by ADHD** if you notice consistently inattentive or hyperactive, impulsive behavior that:

- Lasts more than six months
- Occurs in more than just one setting (typically at home and at school)
- Regularly disrupts school, play and other daily activities
- Causes problems in relationships with adults and other children

### **Normal behavior vs. ADHD**

Most healthy children are inattentive, hyperactive or impulsive at one time or another. For instance, parents may worry that a 3-year-old who can't listen to a story from beginning to end may have ADHD. But preschoolers normally have a short attention span and aren't able to stick with one activity for long. Even in older children and adolescents, attention span often depends on the level of interest. Most teenagers can listen to music or talk to their friends for hours but may be a lot less focused about homework.

The same is true of hyperactivity. Young children are naturally energetic — they often wear their parents out long before they're tired. And they may become even more active when they're tired, hungry, anxious or in a new environment. In addition, some children

just naturally have a higher activity level than do others. Children should never be classified as having ADHD just because they're different from their friends or siblings.

Children who have problems in school but get along well at home or with friends are not considered to have ADHD. The same is true of children who are hyperactive or inattentive only at home but whose schoolwork and friendships aren't affected by their behavior.

### **When to see a doctor**

If your child has disruptive behaviors you think may be signs of ADHD, such as trouble concentrating, sitting still or controlling his or her behavior, see your pediatrician or family doctor. Your doctor may refer you to a specialist, but it's important to have a medical evaluation first to check for likely causes of your child's signs and symptoms.

If your child is already being treated for ADHD, he or she should see the doctor regularly — at least once during the month following diagnosis, and then at least every six months after that. Be sure to discuss how often your child should be seen for appointments with his or her doctor. Call the doctor if your child has any medication side effects, such as loss of appetite, trouble sleeping or increased irritability. Over time some children taking stimulant medications may also lose weight or grow more slowly, although these changes are usually temporary.

### [References](#)

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## APPENDIX 4

### **Health and parenting WEB MD Autism Symptoms, Causes, Treatment, and More**

[Autism](#) is a [pervasive developmental disorder \(PDD\)](#), a group of illnesses that involve delays in the development of many basic skills, most notably the ability to socialize or form relationships with others as well as the ability to communicate and to use imagination (including fantasy play). Children with autism and related disorders often are confused in their thinking and generally have problems understanding the world around them.

In addition to problems with social interaction, imagination, and communication, children with autism also have a limited range of interests. Many children with autism (nearly 75%) also have mental retardation. In many cases, children with autism are unable to emotionally bond with their parents or other family members.

### What Are the Symptoms of Autism?

Symptoms of autism typically appear before a child is 3 years old and last throughout life. Children with autism can display a wide range of symptoms, which can vary in severity from mild to disabling. General symptoms that may be present to some degree in a child with autism include:

- Difficulty with verbal communication, including problems using and understanding language.
- Inability to participate in a conversation, even when the child has the ability to speak.
- Difficulty with non-verbal communication, such as gestures and facial expressions.
- Difficulty with social interaction, including relating to people and to his or her surroundings.
- Inability to make friends and preferring to play alone.
- Unusual ways of playing with toys and other objects, such as only lining them up a certain way.
- Lack of imagination.
- Difficulty adjusting to changes in routine or familiar surroundings, or an unreasonable insistence on following routines in detail.
- Repetitive body movements, or patterns of behavior, such as hand flapping, spinning, and head banging.
- Preoccupation with unusual objects or parts of objects.

People with a form of autism, called savantism, have exceptional skills in specific areas such as music, art, and numbers. People with savantism are able to perform these skills without lessons or practice.

### What Are the Warning Signs That a Child may Have Autism?

Babies develop at their own pace, some more quickly than others. However, you should consider an evaluation for autism if any of the following apply:

- Your child does not babble or coo by 12 months of age.
- Your child does not gesture, such as point or wave, by 12 months of age.
- Your child does not say single words by 16 months.
- Your child does not say two-word phrases on his or her own (rather than just repeating what someone else says) by 24 months.
- Your child has lost any language or social skills (at any age).

### What Causes Autism?

The exact cause of autism is not known, but research has pointed to several possible factors, including genetics (heredity), certain types of infections, and problems occurring at birth.

### What Causes Autism?

Recent studies strongly suggest that some people have a genetic predisposition to autism, meaning that a susceptibility to develop the condition may be passed on from parents to children. Researchers are looking for clues about which genes contribute to this increased vulnerability. In some children, environmental factors may also play a role. Studies of people with autism have found abnormalities in several regions of the brain, which suggest that autism results from a disruption of early brain development while still in utero.

Other autism theories suggest:

- The body's immune system may inappropriately produce antibodies that attack the brains of children causing autism.
- Abnormalities in brain structures cause autistic behavior.
- Children with autism have abnormal timing of the growth of their brains. Early in childhood, the brains of autistic children grow faster and larger than those of normal children. Later, when normal children's brains get bigger and better organized, autistic kids' brains grow more slowly.

### Can Childhood Vaccines Cause Autism?

To date there is no convincing evidence that any vaccine can cause autism or any kind of behavioral disorder. A suspected link between the [measles](#), [mumps](#), rubella (MMR) vaccine and autism has been suggested by some parents of children with autism. Typically, [symptoms of autism](#) are first noted by parents as their child begins to have difficulty with delays in speaking after age one. The MMR vaccine is first given to children at 12 to 15 months of age. Therefore, autism cases with an apparent onset within a few weeks after the MMR vaccination may simply be an unrelated chance occurrence.

### How Common Is Autism?

Autism affects an estimated 10 to 20 of every 10,000 people. It is about four times more common in boys as in girls.

### How Is Autism Diagnosed?

If autism symptoms are present, the doctor will begin an evaluation by performing a complete medical history and physical exam. Although there are no laboratory [tests for autism](#), the doctor may use various tests -- such as X-rays and blood tests -- to determine if there is a physical disorder causing the symptoms.

If no physical disorder is found, the child may be referred to a specialist in childhood development disorders, such as a child and adolescent psychiatrist or psychologist, pediatric neurologist, developmental pediatrician, or another health professional who is specially trained to diagnose and treat autism. The doctor bases his or her diagnosis on the child's level of development, and the doctor's observation of the child's speech and behavior, including his or her play and ability to socialize with others. The doctor often seeks input from the child's parents, teachers, and other adults who are familiar with the child's symptoms.

### Subtypes of Autism Include:

- Autistic disorder
- Asperger's syndrome
- Rett syndrome
- Childhood disintegrative disorder
- Pervasive developmental disorder

### How Is Autism Treated?

There currently is no cure for autism, but treatment may allow for relatively normal development in the child and reduce undesirable behaviors. Children with autism generally benefit most from a highly structured environment and the use of routines. Treatment for autism may include a combination of the following:

- **Special education:** Education is structured to meet the child's unique educational needs.

- **Behavior modification:** This includes strategies for supporting positive behavior and decreasing problem behavior by the child.
- **Speech, physical, or occupational therapy:** These therapies are designed to increase the child's functional abilities.
- **Medication:** There are no medications currently approved to treat autism, but medications may be used to treat specific symptoms, such as [anxiety](#), hyperactivity, and behavior that may result in injury. A recent study found that a drug often used to treat [schizophrenia](#) in adults, called [Risperdal](#), might benefit children with autism.

In 2001, a major study showed that a promising new therapy, called secretin (a digestive hormone), does not treat autism.

### What Is the Outlook for People With Autism?

The outlook for people with autism varies depending on the severity of symptoms, the age at which treatment is started, and the availability of supportive resources for the child. Symptoms in many children improve with intervention or as the children age. Some people with autism are able to lead normal or near-normal lives. However, many children with autism do not develop enough functional and communication skills to live independently as adults. The outlook is better for children with higher levels of intelligence who are able to communicate with language.

### What Autism Research Is Being Done?

The National Institute of Neurological Disorders and [Stroke](#) (NINDS), part of the National Institutes of Health, is studying brain abnormalities that may cause autism and is looking for genes that may increase the risk of autism. Researchers also are investigating possible biologic markers present at birth that can identify infants at risk for developing autism. Other studies are examining how different brain regions develop and function in relation to each other, and how alterations in these relationships may result in the signs and symptoms of autism. Researchers hope these studies will provide new clues about how autism develops and how brain abnormalities affect behavior.

### Can Autism Be Prevented?

Autism cannot be prevented or cured. However, early diagnosis and intervention is critical and may help to maximize a child with autism's ability to speak, learn, and function. It is very important that all children see a pediatrician regularly so that any signs of autism can be detected early. The earlier treatment is started, the more effective it can be.

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## APPENDIX 5

### Meeting the Need of Gifted Students in the Regular Classroom

What sets gifted children apart from other students in a classroom? It is primarily the ability to absorb abstract concepts, organize them more effectively, and apply them more appropriately. The following suggestions will help you develop a classroom environment that will challenge and nurture gifted learners.

[Independent Projects](#)

[Academic Competition](#)

[Vertical Enrichment](#)

<a href="#">Find a Mentor</a>	<a href="#">Try a new Approach</a>	<a href="#">Use Bloom's Taxonomy</a>
<a href="#">Multiple Intelligences</a>	<a href="#">Learning Centers</a>	<a href="#">Leveling Assignments</a>

**Create an Independent Project activity.** You will find that many gifted and talented students tend to have a lot of extra time on their hands in your classroom because they finish their work rather quickly. Use this time to help them develop creativity by allowing them to explore a special area of interest related to the topic being studied.

**Involve gifted and high achieving students in an academic competition.** These highly motivating events can be held right at your school and have relatively inexpensive registration fees. They are computer driven and test students' knowledge in a variety of academic disciplines. Not only do they challenge students academically, they provide an opportunity to develop skills in leadership and group dynamics

**Plan "vertical enrichment" activities** with gifted students. Design assignments or projects that go above and beyond what is covered in the regular classroom. Don't just give gifted students "more of the same." There are a number of educational products designed for gifted and talented students that can be easily adapted into regular classroom activities. Here is a list of vendors offering affordable materials that can be used to challenge students in a range of academic disciplines while developing their higher level thinking skills and problem-solving abilities.

[Prufrock Press](#)

PO Box 8813, Waco, TX 76714-8813  
1-800-998-2208

[Critical and Creative Thinking for the Gifted](#)

PO Box 448, Pacific Grove, CA 93950-0448  
1-800-458-4849

[MindWare](#)

Dept V1837X  
121 5th Ave NW, New Brighton, MN 55112  
1-800-999-0398

[Zephyr](#)

3316 N. Chapel Ave., Tucson, AZ 85716-1416  
1-800-232-2187

**Don't turn your gifted student into a tutor or teacher's aide!** Instead, find a mentor who is willing to work with him/her in an area of interest. Start with the parents of students at your school. Ask other teachers. Contact local organizations. The bottom line is that you want to help the gifted student reach his/her potential and tapping outside expertise is sometimes necessary. Gifted children need "tutors," too!

**Change your approach** when working with gifted and talented students. Instead of being "the expert," become "the facilitator." Rather than just "giving" them information, help them to discover it!

**Let Bloom's Taxonomy become your guide** in working with gifted students. This web site explains clearly and simply the levels of Bloom's Taxonomy - a model of critical thinking that progresses from the most basic level to the most complex. Examples of appropriate questions are given as well as illustrations for use in the classroom. Gifted students should be asked to utilize the upper three levels - analysis, synthesis, and evaluation. Below are some examples of lesson planning

"actions" that should be incorporated when planning activities for gifted students.

Level	Ask students to:	Suggested end results:
<b>Analysis</b>	Compare/Contrast Solve Investigate Examine Classify Inspect	Report, conclusion, plan, survey, solution to mystery or mock crime scene, questionnaire
<b>Synthesis</b>	Create Develop Design Compose Invent	Original story, game, musical composition, poem, invention, piece of artwork, hypothesis, experiment, script
<b>Evaluation</b>	Choose Rank Assess Grade Critique Judge	Book review, self-assessment, current events debate, court trial, editorial

**Incorporate Multiple Intelligences into your lessons!** Developed by Harvard Professor of Education Howard Gardner, this Theory of Multiple Intelligences states that all people possess at least seven different kinds of intelligences - linguistic, logical-mathematical, visual-spatial, body-kinesthetic, musical, interpersonal, and intrapersonal. These intelligences exist in varying degrees within each individual. Applying this theory to your classroom activities ensures that every student will be individually challenged in one or more specific area. The [multiple intelligences web site](#) provides many practical ideas for using Multiple Intelligences across the curriculum.

**Set up learning centers** in your room so that students can work at their own speed. The following source provides a variety of learning centers based on Bloom's Taxonomy.

Thinking Caps for the Gifted  
PO Box 26239  
Phoenix, AZ 85068  
(602) 279-0513

**Try leveling class assignments and learning outcomes.** In this way, you can explore the same material with all of your students, but require different outcomes depending on the students' individual abilities. This strategy can also be applied to testing. Again, refer to Bloom's Taxonomy and include higher level questions on exams for gifted students.

