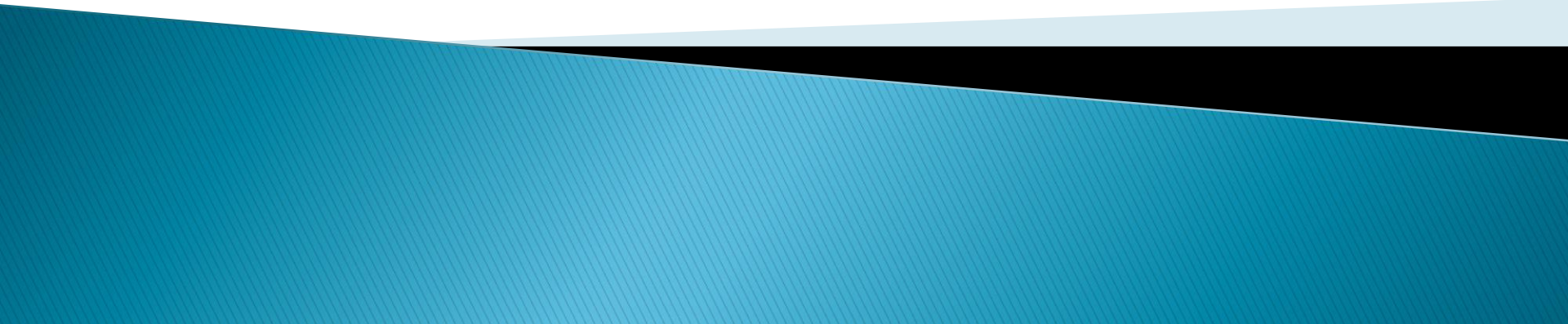


Education of persons with
learning difficulties.



Discussion points

- ▶ Define the following terms and give at least one example for each.

self-concept

self-esteem

learned helplessness

Self-concept refer to description and evaluation component one's own

Unit one: Meaning of Learning Difficulty

1.1. Definition of learning difficulty

Zack is a fifth grader. He has had learning problem to read since the first grade. Now he can read third grade materials reasonably well, but he still has problem to comprehending what he has read. His spelling is a little better than his reading, but his handwriting is very messy and immature.

Dear students,

- ▶ What learning problems does Zack has?
- ▶ Do you think Zack has learning difficulty?
- ▶ Do you think students who have learning problems have learning difficulty at the same time?
- ▶ Can you mention some instances of learning problems that students can have?

Just imagine/think about these...

- ▶ Having strong emotions or important ideas to share but being unable to express them.
- ▶ Being an environment rich in sounds and sights but being unable to focus your attention.
- ▶ Trying to read or compute but not being able to make sense out of the letters or numbers.

- ▶ Failing to understand what some body is trying to tell you.
- ▶ Struggling to organize your thoughts on paper.



what does it feel to have one or more of these limitation?

What is learning difficulty?

- ▶ Learning difficulty:- is a disorder in one or more of the basic psychological processes involved in understanding and using language which may manifest itself in an “imperfect ability” to
 - listen -write -calculate
 - think - spell -organize information
 - speak - reason
 - read -recall

- ▶ Learning difficulty is a discrepancy between academic achievement and intellectual ability.
- ▶ Learning difficulty is a generic term that refers to a heterogeneous group where serious difficulties in acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities exist.

- ▶ Learning difficulty refers to a discrepancy between a child's apparent capacity to learn and his/her level of achievement.
- ▶ LD is a generic term that refers to heterogeneous group of where serious difficulties in acquisition and use of listening, speaking, recalling, organizing information, reading, writing, reasoning and social skills exist.

- ▶ LDs are diagnosed when the individual's achievement on individually administered standardized tests in reading, writing or mathematics is significantly below compared to what is expected of that individual's age schooling or level of intelligence.
- ▶ LD refer to a number of difficulties which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information.

- ▶ Learning difficulties are deficits in information processing (input, integration, memory, and output).
 - a, input represents the recoding of information from the senses.
 - b, memory represents the storage of information for late use.
 - c, integration is the process of interpreting the input.
 - d, output requires appropriate use of language and memory skills.

1.2 Facts about LD/individual with LD

- ▶ The very concept of Learning difficulty is meant to identify children with severe learning problems that can not be explained by intellectual disability, sensory impairment, emotional disorder and others.
- ▶ LD is not the same as learning problem. Though, learning difficulty is basically a problem in learning.
- ▶ All with LDies have learning problems. Not all children with academic/learning problem have learning difficulty.

- ▶ A child with LD is simply one who is not achieving up to his/her potential.
- ▶ LD doesn't include children who have the result of learning problems that are primarily the result of visual impairment, hearing impairment, motor impairment, intellectual disability, behavioral disorder, environmental deprivation and cultural diversity.
- ▶ A person may have a learning disability along with another disability but not because of that disability.

- ▶ LD is a specific and serious achievement difficulty in the presence of adequate overall intelligence.
- ▶ LD refers to a delayed development in one or more of the following basic psychological processes such as speech, language, reading, spelling, writing, arithmetic, and others.
- ▶ LD doesn't have anything to do with a person's intelligence. It is not an indicator of low intelligence. Most persons with LD have average or above average IQ.

- ▶ LD refers to a reduced learning/performance manifested as deficits in academic achievement.
- ▶ Children with LD some times are called in children with hidden disability, for this strengthen in some areas often mask hide their learning problems in other areas.
- ▶ The term LD is not meant to be used for children who are having minor or temporary difficulties in learning.
- ▶ LD usually affects only selected areas of an individual's development.

- ▶ The term LD meant to identify children with a severe discrepancy between ability and achievement.
- ▶ Having a learning difficulty means having an average intelligence but a problem in one or more area of learning.
- ▶ The population with learning difficulties is a heterogeneous group, each individual is unique and may exhibit difficulty in one area but not in another.
- ▶ To be considered characteristics of learning difficulty, and an identifying behavior must persist over time.

- ▶ Many students who do not have learning difficulty behave in a way that is characteristics of a learning difficulty for brief time period.
- ▶ Learning difficulty indicates limitations in the following area: oral expression, listening, writing, written expression, basic reading skills, reading comprehension, mathematics calculation, mathematics reasoning, attention, memory problems and other.

- ▶ Children with learning difficulty have difficulty with academic achievement and progress. Discrepancies exist between their potential for learning and what they actually learn.
- ▶ The learning problem that individuals with learning difficulty have significantly interfere with their academic achievement or activities of daily living that require reading, mathematical or writing skills.

- ▶ Children with learning difficulty show an uneven pattern of development (language development, academic development, perceptual development and others).
- ▶ Learning difficulty may co-exist with various conditions including attention, behavioral and emotional disorders, sensory impairments or other impairments.
- ▶ Learning difficulties affect learning in individuals who otherwise demonstrate at least average abilities essential for thinking or reasoning.

Discussion points(5%)

- 1.How do people in your community perceive children with learning difficulty?
2. What is learning difficulty? Give more than one definitions.
3. What is intelligence?
4. Define the term academic achievement?
5. List down the basic psychological processes?
6. Explain the differences and similarities between learning difficulty and intellectual disability?

1.3. Types of learning difficulty

- ▶ There are different ways of classifying learning difficulty in to various types. However, we are going to see the following way of categorization in this course.
 - academic learning difficulty
 - developmental learning difficulty

1.3.1. Academic Learning Difficulty

- ▶ There are three major types of academic learning difficulty.

Dyslexia(sever reading difficulty)

Dysgraphia(writing difficulty)

Dyscalculia(learning difficulty with math)

1. Dyslexia (reading difficulty)

A little bit about reading

- reading involves two basic processes
 - decoding
 - comprehension

Decoding

Involves understanding the phoneme–grapheme relationships and translation printed words into representation similar to oral language.

phoneme – a speech sound

grapheme – a written symbol

Comprehension

grasping the meaning of words in isolation or in context.

What is dyslexia?

- it can affect reading fluency, decoding, reading comprehension, recall, and sometimes speech and can exist along with other related disorders.

- ▶ There are two types of reading difficulties
 - a. basic reading difficulties
 - b. reading comprehension difficulties
- a. basic reading difficulties**
- ▶ Occur when there is difficulty understanding the relationship between sounds, letters, and words.
- ▶ Phonological skill problem (like understanding how letters and sounds match up and how sounds and letters match up to make words).

b. Reading Comprehension

- ▶ Problems occur when there is an inability to grasp the meaning of words, phrases, and paragraphs.
- ▶ Initially shows itself by difficulty in learning to read, then by failing to read and later by erratic/irregular/spelling and problems in writing skill in general.
- ▶ Is thought to be present in approximately 1 to 2 percent of the school population. Although some reports place the prevalence rate very much higher.

Students with Reading learning difficulty

- ❖ Have word recognition difficulties/errors
 - omissions– omitting a word/ Tom saw a cat/
 - insertions– inserting a word/the dog ran fast after the car/
 - substitutions– substituting one word for another /the house horse was big/

mispronunciation– mispronouncing words

mister for miser/mal.z@r/

transpositions– reading words in the wrong

order. She away ran for

she ran away.

slow choppy reading– not recognizing words

quickly enough

/20 to 30 words per minute/

- ❖ Have visual discrimination problems /left-right and up-bottom disorientation/ as a result of which they will face difficulties differentiating letters that look similar /p , q ; b , d/.
- ❖ Often reverse letters, words and numbers/ commit errors of sequential ordering/ /pan, nap; 71, 17; on, no; tub, but; b, d; p, q; was, saw/
- ❖ Have oral reading marked by slow and word-by-word reading in a choppy, halting, and laborious manner /e.g. no attempts are made to group words into thought units/

- ❖ May be able to recognize words presented in isolation but miss these same words presented in context [meaning wise].
- ❖ Ignored or misinterpreted punctuation; running together phrases, clauses or sentences.
- ❖ May have poor visual memory which results in difficulty to recognize specific letters and words

- ❖ May misread or mispronounce a word and still knows what the text says.

for example: on oral reading the student may read Jim, but a comprehension check indicates that the student knows the name is John.

- ❖ may have difficulty in representational systems such as telling time, direction and seasons.

for example, they confuse time and direction words, such as up for down, first for last, and go for stop.

- ❖ almost always have problems writing and spelling.

❖ Comprehension errors

- can not recall basic facts: unable to answer specific questions about a passage /what was the dog's name in the passage?/

- can not recall sequence: unable to tell sequence of the story that was read.

- can not recall main theme: unable to recall the main topic of the story.

- ❖ have difficulties in understanding words and ideas.

- ❖ Have reading speed and fluency problems.

- ▶ The following skills are correlates of reading skills and difficulties in reading skills can result in difficulties in these skills.
 - making sound–letter correspondence
 - knowing the alphabet
 - distinguishing one letter from the other
 - spelling
 - competence in writing
 - capitalization
 - studying
 - punctuation

2. Dysgraphia (writing difficulty)

a little bit about writing

integrates visual, motor, and
conceptual abilities.

is considered as the best correlate
of reading skill.

Writing difficulty (dysgraphia)

- ▶ Refers to problems with handwriting, spelling and writing expression.
- ▶ Can involve the physical/motor acts of writing or the mental activity of grasping and synthesizing information.
- ▶ Affects the ability to recognize forms in letters, to write letters and words on paper to understand the relationship between sounds, spoken and written words.

- ▶ Affect the learner's ability to write words with correct spelling appropriate word choice, and basic mechanics such as letter formation, grammar, and punctuation.

There are two types of learning difficulty in writing.

- **basic writing difficulty** which refers to physical difficulty in forming letters and words.

- **expressive writing difficulty** which indicates a struggle to organize thoughts on paper.

Hand writing difficulty

- ▶ Is a visual motor task that include copying, tracing, and writing from dictation.
- ▶ can exist in a variety of forms.
 - slowness
 - illegible letter
 - too much or to little slant
 - spacing difficulty
 - unnecessary grip
 - messiness
 - too much or to little pencil pressure
 - inability to stay on a horizontal line

Spelling difficulty (dysorthographia)

- Spelling is essential because it allows one to read written words correctly.
- Can exist the following forms
 - Insertion of unneeded letters
umberella for umbrella
 - Omission of needed letters
famly for family
 - Substitution of letters
kome for come
 - Phonetic spelling of irregular words
laf for laugh

directional confusion

was for saw

vowels in unaccented syllables

cottin for cotton

letter orientation confusion

doy for boy

reverse letter sequences

rular for rural

confused recall of spelling rules

takeing for taking

Facts about spelling and reading

- students who have trouble recognizing words in reading usually have poor spelling skills as well.

however, some students are able to read words but not spell them.

thus, it appears that spelling a word may be a more difficult task than reading a word.

Writing expression difficulty

A little bit about writing expression skills

- is how an individual organizes ideas to convey a message.
- reflects a person's level of comprehension, concept development and abstraction.
- is the most complex of the language skills and is based on
 - listening
 - talking
 - handwriting
 - verbal expression
 - spelling
 - reading

- ❖ writing expression difficulty exists as difficulty in the following areas
 - ▶ Idea generation
 - ▶ Maturity of themes and theme development
 - ▶ Organization
 - ▶ Grammar

Students with writing difficulty

- Perform significantly lower than their peers on most written expression task, especially on
 - spelling
 - punctuation
 - word usage (grammar) and they also
 - write fewer words per composition
 - produce compositions that possess less organization and coherence

Group discussion point it has 4 marks.

- ▶ Explain how you will be able to help child with,
 - basic reading difficulty
 - comprehension reading difficulty
 - handwriting difficulty
 - spelling difficulty
 - writing expression difficulty

3. Dyscalculia (difficulty with math)

- ▶ Ranges from inability to understand the apply math principles to solve problems.
- ▶ Ranges in intensity and the skill areas that students experience difficulty.
- ▶ Can exist in the following areas.
 1. Difficulty in mastering basic number facts.
Number facts are the basic computations.
e.g. $4+6=10$, $7-2=5$, $4\times3=12$

2. arithmetic weaknesses: refers to

- inconsistency with computations
- misreading
- engaging in immature arithmetic strategies and others.

NB. These weaknesses can occur in spite of having good understanding of math concepts.

- ▶ The following instances can be taken as an example of “engaging in immature arithmetic strategies” such as counting all instead of counting up.

for example, if the given problem is $5+2$, the student may count 5 on one hand and 2 on the other hand, and then count all fingers to get 7. counting up strategies involves counting 5, 6, 7 on one hand to get 7.

3. difficulty to connect the abstract or conceptual aspects of math with reality like having.

- difficulty understanding the relation between numbers and the quantities they represent.

- difficulty understanding what different math symbols represent in the physical world.

4. difficulty understanding the language of math

for example, if students are experiencing reading difficulty then

- understanding word problems and basic directions is difficult.

Word problem: seven people were waiting at the bus stop. When the bus came only three could get on. How many were left to wait for the next bus?

- difficulty following verbal explanations, and/or weak verbal skills for monitoring the steps of complex calculation.

5. difficulty in visual-spatial aspects of math

- ▶ inability to visualize mathematical concept like

- being unable to judge the relative size of three dissimilar objects or

- being unable to determine what shape will result when a 3-D figure is rotated.

students with math difficulty

Note: although students with math difficulty experience profound problems in one area, strengths can be seen in other areas of math.

- ▶ May not understand basic operations of addition and subtraction.
- ▶ May not understand complex problems such as multiplication, division and more abstract problems.
- ▶ Difficulty doing math problems, understanding time, using money and others.

- ▶ May struggle with memorization and organization of numbers, operation signs, and number “facts” (like $5+5=10$ or 5×5).
- ▶ May have trouble with counting principles (such as counting by 2s or counting by 4s)
- ▶ May be unable to recall basic math facts, procedures, rules, or formal.
- ▶ May be very slow to retrieve facts or pursue procedures.

- ▶ May have difficulties maintaining precision during mathematical work.
- ▶ May difficulty remembering previously encountered patterns.
- ▶ May forget what he/she is doing in the middle of a math problem.

1.4. Some more characteristics of students with learning difficulties

1. Impulsiveness

what do you understand by the term impulsiveness?

- acting with out thinking.

2. Distractibility refers to inability

- to attend to a task
- to redirect one's attention back to the original task once it has wandered.

3. Short attention span refers to

- not staying at tasks for long.
- finishing tasks rarely or not getting satisfaction from them.

4. Inability to follow direction

- failing to understand directions
- or forgetting directions after grasping them previously.

5. Hyperactivity

- note that being active and hyperactive are different.

active children usually have activity that is purposeful/at least to them/ and they stay at an activity for a period of time.

- ▶ Hyperactive children
 - seem to be in motion
 - their motion is not goal-oriented
 - even when sitting these children are not quite—they may twitch, jerk or rock.

6. Hypo-activity

children with learning difficulty may be hypoactive.

- may appear to move in slow motion.
- may seem listless, bored, sleepy their every movement seems to require a lot of effort.

7. General awkwardness

these children are awkward compared with other children of their age.

they frequently bump into things or people, knock things over and trip /loss balance/.

8. Social problems

- are more likely than others to be in conflict with their peers.

- have difficulty recognizing social cues and using social skills.

- fail to read other's body language accurately and hence make wrong assumptions and act inappropriately.

Unit two Causes of learning difficulty

What do you think the causes of learning difficulties are?

What are some reasons a child may have a learning difficulty?

2.1. facts about the causes of learning difficulty

- The exact and specific causes of learning difficulties are not known.
- Learning difficulties stem from difficulties in bringing together information from various brain regions.
- Factors that can cause different impairments can also cause learning difficulty.

let us see some possible causes of learning difficulties

- Most believe that learning difficulties stem from subtle disturbances in the brain's structures and functions. Let us see some that do so.....

- ❖ **factors during pregnancy**

- many times mothers who are pregnant may make poor choices such as smoking, drinking large amounts of alcohol, using drug...
- If the child is premature or has a very low birth weight. These factors often lead to children having a learning difficulty once he or she begins school.

- ❖ **Factors during delivery**
 - If there is a trauma to the baby during delivery, such as lack of oxygen(anoxia), the baby stands a great chance of having a learning difficulty.
- ❖ **Early childhood factors**
 - Many factors from early childhood can lead to learning difficulty such as,
 - seizures
 - a poor learning environment, abuse,
 - isolation or neglect
 - toxins(lead poison)
 - poor nutrition

- ▶ A child who experiences one or some of these factors does not mean he or she will be “learning disabled”..... but there can be possibilities.....
- ❖ **Brain Trauma or Tumors:** any types of physical trauma to the brain can be a factor in developing a learning difficulty....
- ❖ **Genetic factors**
 - there are evidences that show learning difficulties run in families.... but..... a parent’s learning difficulty may take a slightly different form in the child.

Unit three: Developmental Characteristics of children with Learning Difficulty

Note: what we are going to have here is the general developmental characteristics of persons with learning difficulty.

3.1 cognitive characteristics

- it is believed that students with learning difficulty have average or above average intelligence with
- specific cognitive processing problems which exist in the following area

- ▶ **Attention** refers to the ability to stay on task in a selective, sustained, and divided way.
- a. selective attention: is focusing on a specific aspect of experience that is relevant while ignoring others that is irrelevant.
- b. Sustained attention: the ability to maintain attention to a selected stimulus for a prolonged period of time.
- c. Divided attention: involving concentrating on more than one activities at the same time.

- ▶ **Work Memory** refers to the ability to retain and process information for short time periods.

Difficulty in the area

- having a problem remembering instructions.

- ▶ **Long-Term Memory** refers to the ability to both store and recall information for later use.

Difficulty in the area

- difficulty to recall dates, names and facts on tests.

What is the difference between sensation and perception?

▶ Sensation

- is the process of receive, converting, and transmitting raw sensory information from the environment to our brain.
- occurs in the sense organs

▶ Perception

- refers to the selecting, organizing and interpreting of the sensory information.
- takes place in the brain.

How does perception take place?

1. The first step is selection
 - choosing where to direct one's attention
 - allows us to direct our attention to the most important aspect of the environment at any one time.
2. Having selected incoming information, we organize the information into patterns and principles in order to understand the world.

3. After selecting and organizing sensory information into patterns, the brain uses this information to explain and make judgments about the external world. This stage of perception is called interpretation.

perceptual problems refer to inability to recognize, discriminate, and interpret sensation.

- ▶ **Visual processing** refers to the ability to perceive visual stimuli.

problems in visual perception/visual processing deficit

- missing subtle differences in shapes,
- reversing letters or numbers
- skipping lines,
- misperceiving depth or distance,
- having problems with eye–hand coordination and others.

- ▶ **Auditory processing** – the ability to perceive and conceptualize what is heard.
- some more instances of visual and auditory perception problem such as left–right orientation, figure–ground differentiation, pattern discrimination, body image difficulties,
symbol recognition and auditory association /association sound with symbols/.

- ▶ **logic and reasoning** – the ability to reason, prioritize and plan.

Difficulty in the area

- difficulties in problem solving, working with abstractions, or interpreting information.

- ▶ **learning-to-learn**

difficulty in the area

- unable to generalize strategies to other situations.
- unable to identify and select appropriate strategies for solving problems of various sorts.

3.2. Language characteristics

- Language is often another problematic area for SwLD. While language art is a broad subject, SwLD have problems with major skill areas that affect the entire subject.

Difficulty in the area

- having a problems identifying and using appropriate speech sound and words
- unable to understand word meanings

3.3. Academic characteristics

- Because of the effect on cognitive processes student with learning difficulty may have difficulty in a variety of academic area. While a SwLD may have difficulties in all academic area, major problems are more often found in reading, writing...
- Students with learning difficulty perform poorly in school than expected by their teachers on the basis of
 - their experience working with the child
 - performance on an intelligence test

Mention some academic characteristics of students with LD.

3.4. socio-emotional characteristics

what do the terms social and emotional in the term “socio-emotional” refer to?

- “socio” refers to relationships taking place between two or among more individuals.
- “emotional” refers to a subjective feeling.

▶ Emotional characteristics

students with learning difficulties have the following emotional characteristics

- negative self-concept and low self-esteem
- high rate of seemingly purposeless activity
- poor motivation
- learned helplessness as a result of this, children will loss faith that their effort will result in desired outcomes.

▶ **Social characteristics**

Many children with learning difficulty get along brilliantly with peers; however, a significant number

- have problems establishing family relations
- face difficulty in social interaction
- have trouble establishing friendships
- have limited participation in activities
- are uncooperative and slow to adapt to change

Unit four: Identification, Assessment, and Intervention Procedure for Children with Learning Difficulty

4.1. Identification of CwLD

- Finding indicators
- The indicators frequently occur in the given environment
- Picking up symptoms of difficulty
- It help to refer the child further assessment
- It gives clue to category of the difficulty

Reading assignment

You have to read about indicators of learning difficulty in each milestone.

4.2. Assessment of CwLD

- The **gathering** and **integration** of **data** for the purpose of making **evaluation**, accomplished through **the use of tools** such as tests, interviews, case studies, observations, and specifically designed apparatuses and measurement procedures.
- These are the act of placing a person in a strictly or loosely defined category of people.
- This allows us to quickly understand what they are like in general, and to assess the presence of other relevant characteristics based upon people similar to them.

- ▶ **Assessment is a process**

 - Gather data using diverse methods

 - Analyze data

 - Lead to intervention

- ▶ Professional assessment usually also includes:

 - Interview
 - Demographic information
 - Medical information
 - Personal history
 - Observations by others

4.3. Intervention

- Interfere between the child and the impairment exist with in the child.
- It is a system of coordinated services that promotes the child's growth and development.
- Intervention services are targeted at children who are confronted with life events and parenting practices which negatively affect their development and mental health.
- Intervention programs typically intended to serve groups of children who are at risk due to biological and environmental factors.

- Intervention is all planned attempts to promote the general welfare of individual;
 - Preventive
 - Remedial
 - Compensatory
- Intervention services delivered within the context of the child can:
 - Reduce impairment progress
 - Reduce the future costs of health care needs and rehabilitation
 - Reduce feelings of isolation, stress, and frustration that individual may experience

- ▶ Intervention has two components
 - intervention to any age
 - it is depend on the age of onset and kinds of difficulty.
 - it can reduce dependence and enhance the individual potential.
 - intervention to early age
 - it is comprehensive targeting the overall development.
 - it is the most valuable to the individual.

Thank you!
the end