Teaching Material of B. Ed. in Special Needs Education

Assessment Procedures for Children with Disabilities

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Assessment Procedures of Children with Disabilities

(SN Ed...)

For Bachelor's Degree in Education

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Specific Objectives of the Course

After the completion of the course, the students will be able to:

- Explain the concept of assessment, measurement, and testing.
- Mention key principles and practices of assessments in relation to children with special needs.
- Describe assessments process of children with SNE.
- Identify the individuals involved in the assessment process.
- Show the importance of confidentiality in assessment.
- Describe the concept of inclusive assessment.
- Explain the concept of approaches to inclusive assessment.
- Define cooperative learning assessment and its elements.
- List out the assigning grade in cooperative learning.
- Define concept of response to intervention (RTI) model.
- Describe the assessment procedure in response to intervention (RTI) model.
- Explain the models of RTI in assessment.
- Apply RTI model in general and special education.
- Explore the strength and challenges of RTI model.
- Explain assessing intelligence.
- Describe the purpose of intelligence testing.
- Clarify the instructional implication of intelligence.
- Illustrate the specialized measures of intelligence.
- Explain the concept and uses of developmental assessment.
- Explain the principles of developmental assessment.
- Describe the provision of infant and toddlers in IDEA.
- Explain the concept and uses of developmental screening
- List the guidelines of developmental screening.
- Describe developmental indicators for the assessment of learning in the areas of special needs education.

Unit I: Understanding Assessment in Special Needs Education

special education instruction is specially designed to meet the unique needs of students who have different kinds of disabilities. This type of education is offered for free and no cost burden for parents. Special education can include special instruction in the classroom, at home, in hospitals of institutions, or in other settings. Certain students with disabilities are eligible for special education and related services. IDEA provides a definition of a child with a disability and mentioned 13 separate categories of disabilities under which children may be eligible for special education and related services. these are Autism, Deafness, Deaf-blindness, Emotional disturbance, Hearing impairment, Mental retardation, Multiple disabilities, Orthopedic impairment, Other health impairment, Specific learning disability, Speech or language impairment, Traumatic brain injury, and Visual impairment, including blindness.

According to IDEA, the disability must affect the student's educational performance. To determine if a student is eligible for classification under one of these areas of exceptionalities, an evaluation, or assessment, of the students must be conducted. Every year, millions of students ages three and up are assessed for the presence of a disability and they are found eligible for special education and related services because they are in need of support in order to successes in school.

More than 5 million students' ages 6 through 21 receive special education and related services each year in the USA. Individuals with Disabilities Education Act (IDEA, 2004): defines special education as, each student receives instruction that is specially designed to meet the student's unique needs (which result from having a disability); and to help the student learn the information and skills that other students are learning.

In the context of Nepal, around 2 percent of (531,321) of the total population of Nepal reported having some kinds of disabilities (CBS, 2012). Among them, 34.1 percent population is

still illiterate, and out of total primary school age children 3.4 percent children do not have access to primary education till the date (MOE, 2015). This data depicts that many school age children did not have the golden opportunity in primary education. Besides this there 32 special and 22 integrated schools with 380 resource classes where 74,829 differently disabled children are enrolled and get special education services (Inclusive Education Policy, 2017).

1.1   Concept of Assessment, Measurement, and Testing in SNE

Assessment is the process of gathering information to monitor progress and make educational decisions if necessary. Assessment happens every day in every classroom. The process of assessment plays an important role in the determination of student outcome. The IDEA 1997 Amendments and current educational reform place more emphasis on the assessment of all students for the measurement of attainment of educational standards within the general curriculum (Federal Register, 1999; Ysseldyke, Nelson, House 2000).

Assessment is an essential tool available for teachers of the students with special educational needs where the teachers uses tests and other formal and informal tools of measurement to reach in an educational decision for the child. There are the range of options an educational assessment, measurement and testing available these days for effective delivery of the educational and related services to the children with special educational needs. Teachers teaching the children with special educational needs require practical knowledge and skill regarding assessment and tests to provide full range of educational and related services to the disabled children.

Assessment

Assessment in special education is the process used to determine a student's specific learning strength and needs to determine whether that student is eligible for special education services. It is a process involves collecting information about the student for the purpose of making decisions or value determined. Assessment can be seen as a problem-solving process (Swanson & Watson, 1989) that involves many ways of collecting

information about the students. According to Gearheart and Gearheart (1990), assessment is a process that involves the systematic collection and interpretation of a wide variety of information on which to base instructional/ intervention decisions and, when appropriate, classification and placement decisions.

Being a teacher, we are known about assessment from our personal experiences as we take different type teacher-made of tests; formal or informal, classroom level or final tests. We use different types of testing and non-testing tools to evaluate academic performance of the children. These all personal experiences about student assessment will be helping to understand the full meaning of assessment.

Assessment consists of an assortment of techniques and procedures for evaluating, estimating, appraising, testing, and drawing conclusions about students (Venn, 2007). Broadly speaking, assessment is a process of making educational decisions for the children where the measures of their performance and behavior are used. Assessment of the students with special educational needs considers the unique needs of the children unlike other general assessment; different assessment process is used for each unique child. The main goal is to adapt the process to fit individual needs of the child rather than to fit the child in assessment process. The assessment procedures and test systems are so designed that they could easily assess and evaluate the unique abilities of a special child.

In the assessment of students, behavior is observed, progress is evaluated, and a program is planned. The very best assessment practice, however, must adhere to legal mandates, ethical standard and basic principles of measurement. Teachers and other educational personnel have a professional responsibility to be accountable for each decision about assessment decision. Therefore, knowledge of the fundamentals of assessments and the various types of assessment is necessary.

Measurement

Educational measurement refers to the use of educational assessments and the analysis of data such as scores obtained from educational assessments to infer the abilities and proficiencies of students. Educational measurement is the assigning of numerals to traits such as achievement, interest, attitudes, aptitudes, intelligence and performance. Venn (2007) defines assessment as a process of determining the ability or performance level of students. He includes testing a type of measurement, but other measures include behavior, observations, and interviews, rating scales, check lists and clinical evaluations.

The aim of theory and practice in traditional educational measurement is typically to measure abilities and levels of attainment by students in areas such as reading, writing, mathematics, science and so forth. In special education, measurement includes conventional paper-pencil type of tests to the measures of behavior, traits, aptitudes and intelligence. The purpose of measurement is to obtain objective information in numbers, scores, and other qualitative data.

Testing

A test is usually administered with the help of standard set of questions and it is done only once. It is considered as a specific type of assessment process. Tests produce of set of scores, or some either numerical results (Venn, 2007). There are many types of tests; for example, informal, teacher made tests, formal, standardized tests etc. Hence, a test is a method to determine a student's ability to accomplish certain tasks or demonstrate mastery of a skill or knowledge of content. The disabled students often feel a kind of fear and anxiety of failure during test taking.

The term assessment, measurement and tests are often interchangeably used but there are some specific differences exist among them. Assessment is the broadest term and measurement and tests are subsuming of assessment. Assessment includes the variety of

measurements, and tests for educational decision making. Assessment is the most general term while measurement less general and includes testing as well as many other procedures for quantifying behavior and gauging student performance (Venn, 2007). Testing refers to the set of questions administered in a structured setting; hence it is an exact term. The following diagram shows the relation among assessment, measurement and tests.

1.2   Importance and Purpose of Assessment in SNE

The National Council for Special Education (NCSE) supports an inclusive education system that enables children and adults with special educational needs to achieve their potential abilities. Moreover, IDEA specifically governs services provided to students with disabilities. Children with disabilities are included in general state and district-wide assessment programs, with appropriate accommodations, where necessary [Sec. 612 (a) (16) (A)]. The term "individualized education program" or "IEP" means a written statement for each child with a disability that is developed, reviewed, and revised in accordance with this section and that includes . . . a statement of any individual modifications in the administration of state or district-wide assessments of student achievement that are needed in order for the child to participate in such assessment; and if the IEP Team determines that the child will not participate in a particular state or district-wide assessment of student achievement (or part of such an assessment), a statement of why that assessment is not appropriate for the child; and how the child will be assessed.

Importance

Instructions and assessments go side by side; hence an assessment is an integral part of instruction, as it determines whether or not the goals of education as being met. Assessment are also crucial in making decisions about providing grades, educational placements, advancement, instruction needs, curriculum and in some cases funding. Assessments are important in identifying a student's learning problems and in selecting

instructional intervention strategies that respond to specific problems (Venn, 2007). Until and unless the appropriate assessment strategies are not adopted for a child to measure his unique academic, intellectual or behavioral qualities, the exact measurement is impossible and decision making regarding the child does not come to be effective. Right assessment can lead to the right result and right result can help to make good educational placement decisions for the disabled children.

Assessment helps to keep the teaching learning activities in the right track. Assessment inspires us to ask these hard questions: "Are we teaching what we think we are teaching?" "Are students learning what they are supposed to be learning?" "Is there a way to teach the subject better, thereby promoting better learning?" Students of this era need to know basic reading and arithmetic skill to solving advanced problems they have to face which are brought about by the continually changing modern world. They must be able to think critically, to analyze, and to make inferences. Changes in the skills base and knowledge our students need require new learning goals; these new learning goals change the relationship between assessment and instruction. Teachers need to take an active role in making decisions about the purpose of assessment and the content that is being assessed.

Purpose of assessment

The goal of assessment is to ensure the quality education for disabled children through best assessing their needs for effective decision making for their right educational placement and effective delivery of related services. Goals are achieved through step by step accomplishment of several purposes. Hence, many objectives and purposes must be fulfilled to achieve the set goals. The following are the purposes of assessment:

- Assessment informs instructors what students know and do not know at the outset, setting the direction of a course. If done well, assessment is useful in highlighting the gap between existing knowledge and a desired outcome.

- Accomplished instructors find out what students already know and use the prior knowledge as a stepping off place to develop new understanding.
- Assessment practices helps students to choose what to study, and the relative time to spend on concepts and skills to be learnt.
- The feedback provided in the assessment process help them to improve their performance in the future.
- Feedbacks from instructors help students to be aware of their strengths and challenges with respect to course learning outcomes.
- Assessments must clearly match the content, the nature of thinking, and the skills taught in a class.
- Reflection on student accomplishments offers instructors to self-mirroring their delivery and insights on the effectiveness of their teaching strategies.
- The knowledge from feedback helps the instructor to improve instruction; and, to strengthen teaching. Also, to know areas weakness they must understand and therefore may be cut back in future courses.
- Assessment is done for grading the learning outcomes of the students. Grading should be based on direct evidence of student learning as measured on tests, papers, projects, and presentations, etc.
- Grades often fail to tell us clearly about "large learning" such as critical thinking skills, problem solving abilities, communication skills (oral, written and listening), social skills, and emotional management skills.

Assessment in educational settings serves five primary purposes (Pierangelo & Giuliani, 2006):

- *Screening and Identification:* To screen children and identify those who may be experiencing delays or learning problems.
- *Eligibility and Diagnosis:* To determine whether a student has a disability and is eligible for special education services, and if so to diagnose the specific nature of the student's problems or disability.

- **_IEP Development and Placement:_** To provide detailed information so that an Individualized Education Program (IEP) may be developed and appropriate decisions made about the child's educational placement.
- **_Instructional Planning_**: To develop and plan instruction appropriate to the child's special needs.
- **_Evaluation:_** To, evaluate student progress.

1.3   Assessment Process of Children with Special Needs

Referral is the collaborative process which is usually determined by teachers, parents, doctors, or anyone involve in a student's education. An assessment must be completed before a child is placed in Special Education because it is necessary to determine the academic level, cognitive ability, adaptive behavior, motor skill, or language processing abilities. The design of assessment varies according to the suspected area of disability. Assessments are only appropriate when all other classroom interventions have been tried.

An assessment plan must next be developed that purposes and evaluation process to explore the student's abilities and suspected area of disability. The assessment plan must be received by the student's family within a legally determined period of time from the referral date. The parent then has a mandated time frame to consent to the assessment plan.

1.3.1 Screening and Prereferral Activities

The children who are at risk are eligible for early identification and assessment by the state according to IDEA provisions. Those at-risk children should be continuously monitored for their ongoing progress. State has to conduct consequent public awareness at institutional level and offer free health screenings in different accessible locations of the community. IDEA has clear provisions regarding early identification of those children who traditionally back warded, from diverse cultures and language backgrounds and those who live in extreme poverty in the inner city or rural countryside.   Only few number of fortunate

youngsters with moderate or severe disabilities in motor, sensory or cognition are identified in their infancy, or even prior to their birth. Early identification leads to early invention and that helps children to receive necessary supports to strengthen the areas of their weakness. In such cases, schools can play constructive roles in the process of finding the children with special needs.

In the context of Nepal, screening and identification process is done in hospital, usually with medical or paramedical persons. But children of remote areas are deprived from such facilities. Many new born disabled children go unnoticed in the early period and are compelled to live carrying their disabilities for long time which is impeding the development of cognitive, motor, speech and language, social-emotional, and academic domains in their later stage of life.

Children often exhibit academic or behavioral difficulties after they start school and encounter new challenges. When there is a continuous progress of the student in academic and behavioral aspects are stagnated despite the teacher's intervention for long time, teacher takes concern and can request prereferral assessment and intervention support (Pavri, 2012). A student study team composed of different professionals, veteran teachers, a special educator, an administrator, student's parents, and specialist may be formed upon the request of the teacher. The team has a regular meeting to discuss the student's difficulties, possible intervention strategies pertinent for the student. The team provides necessary intervention to the student for certain time; and if no progress is seen, either intensive interventions or referral for a formal special education evaluation may be recommended. The prereferral team may request for more intensive screening using norm-referenced screening test, teacher-made screening tool, and checklist, rating scale, observation or interview.

Screening is a useful process which provides prompt measure of how the student performs in the targeted academic or behavioral learning area. It also helps in checking student's medical history, hearing and vision tests, educational history and attendance

records to determine whether these factors had an adverse effect on the students' performance at the school. Screening usually provides the rough index of the student's current level of performance. IDEA clarifies that screening for the purpose of designing appropriate instruction cannot be the part of evaluation for determining eligibility for special education placement.

Prereferral activities include all approaches and interventions designed to improve the functional capabilities at risk learners within the general educational setting (Chalfant & Pysh, 1989; as cited in Pavri, 2012). Some of the prereferral interventions include is intervention groups, one-on-one tutoring, behavioral contracts, proximity control, peer tutoring, increasing student choice, frequent teacher feedback and encouragement, after-school enrichment activities etc.

1.3.2 Assessment for Eligibility Determination

Even after the prereferral intervention has been implemented and student is still experiencing significant academic or behavioral problems, the teacher or the student's parents must refer to determine whether the students have a disability. The parent or teacher has to submit a referral form to the school. IDEA mandates to hold a multidisciplinary conference conducting the eligibility determination within 60 days of receiving referral and the parents be informed of their rights and provide permission for their child to be assessed. In every three years, students are reevaluated by the MDC team once because to confirm whether the child meets the eligibility criteria for special education.

The MDC team generally includes an administrator, a school psychologist, a special education teacher, the student's general education teacher, student's parent, and various therapists depending on the student's needs. The MDC team does an in-depth study using multiple tests and measures with student, teacher, and parent to find out whether any kind of disability does exist interrupting the child's educational performance. Assessment is

usually carried out in academic performance, cognitive and processing skills, and motor functioning and mobility, socio-emotional-behavioral functioning and vocational skills. The guidelines can be prepared mentioning criteria for determining eligibility on the basis of 13 categories of disability as recognized by IDEA.
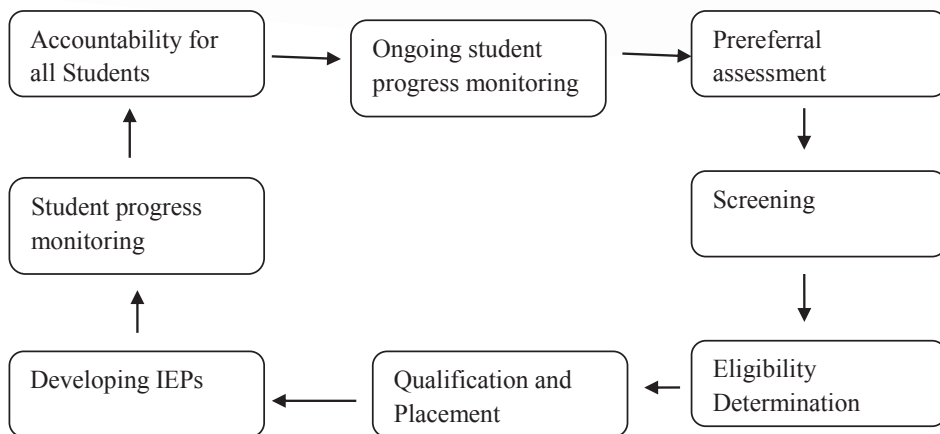
Figure 1.2 The Special Education Assessment Cycle (Pavri, 2012)

The RTI approach and IQ-achievement approach are oftenly used method to determine the eligibility; however, IQ-achievement approach is rarely used because IDEA 2004 prohibited it as a sole method for eligibility determination. RTI model provides scientifically proven document about the attempts of interventions used as evidence have proven unsuccessful. However, students who do not have access to scientifically based instruction in a general education classroom from a qualified teacher in the areas of reading and math, or those who have limited English proficiency, are excluded from elifibility for special education (IDEA, 2004; as cited by Pavri, 2012).

IQ-achievement discrepancy model for learning disability is a traditional model of determining eligibility which uses the data obtained from the multidisciplinary assessment battery. In RTI method, academic progress monitoring data gathered during the intervention phases are used as evidence of a student's lack of responsiveness to

intervention. RTI method is useful to in utilizing multidisciplinary assessment data flexibly in eligibility determination. In RTI method, there is not necessary of full-blown evaluation data gathered from a complete battery of cognitive, perceptual, achievement, and behavioral assessment. In this model, eligibility determination data are of less important for determining whether the student has a disability, and more important for instructional design and grouping purposes (L.S. Fuchs & D. Fuchs, 2007; as cited by Pavri, 2012).

1.3.3 Assessment for Instructional Planning

Student's IEP is prepared by the data gathered by MDC team. Assessment data provide strong basis for decision making about the type of supports that a student may need. IEP is a guideline to about many things to provide to the student with disability including instructional techniques. IEP clearly states the present level of performance (PLOP) of the student, annual goals, and short-term objectives or benchmarks. It also clearly identifies the educational placements or settings where the students will be best served. IEP also list the responsible personnel's for responding annual goals, how the student's progress will be addressed, and what type of services will be received in which setting.

The accommodations and modifications need by the students for assessment and instruction are also listed in the IEP. When a student celebrates his/her 16th birthday, he/she must have an individualized transitional plan (ITP) as a part of an IEP. ITP includes the plan for post-secondary school transition in the domains of postsecondary education, vocational skills, and employment, community skills and independent living, and socialization, recreation, and leisure. Toddlers and preschoolers who are younger than 3 years are served under an individualized family support plan (IFSP) in lieu of the IEP. IFSP is not only for the younger child but focuses on entire family and keeps family's contexts and needs of the child in mind. The goals, supports, and services that the infant or toddler will receive are included in IFSP.

1.3.4 Ongoing Assessment Process

This involves ongoing evaluation and periodic assessment of overall performance. Educators also assess student progress to gauge program effectiveness and to ensure that services respond to individual needs (Venn, 2007). It is very important to monitor the ongoing progress of the student after the intervention has been made. It is necessary to know whether the student is meeting his IEP objectives and whether the modification is needed to the instruction being provided.

The monitoring also provides the necessary inputs for the day-to-day instructions and several learning decisions made by the teachers. When talking about an RTI model, the benchmarking goals set for monitoring students' progress are expected to achieve after the intervention provided systematically and frequently and note the data for determining ongoing progress. The data collected systematically provides necessary inputs to ensure whether the progress is directed towards meeting or exceeding the targeted goals. In case the progress monitoring data showed any decline or flat, an immediate modification by the teacher is required in curriculum or instruction immediately according to the need.

Accountability in education is trend, requirement and the most importance condition for ensuring better educational services for the disabled students. It is necessary to warrant effectiveness of educational programs for a child, classroom, school, district, or state. The data on performance on critical high-stake tests must be kept intact to meet the annual goal. The data must be disaggregated by critical subgroups based on economic distribution, socio-economic status, English learner status, special education status, and other factors and made available to the public. Schools are thereby held accountable for ensuring that each of these sub-groups of students demonstrates adequate annual progress. Parents of the children who cannot perform enough to meet the Adequate Yearly Progress (AYP) are permitted to transfer their children to another school.

When a student performs at lower pace or lower difficulty level, the IEP team determines what medication in assessment is required for the student. Such modification is usually done if the student is working toward the same performance standards and class activities as his or her general education peers do. Students may also need to modify the test format or mode in order to perform optimally on the test. The modified standards may be less difficult than grade-level achievement standards but more challenging than the alternate achievement standards.

1.4   Individuals to be Involved in the Assessment Process

In special education process, professionals, paraprofessional, related stakeholders, and parental involvement is considered very essential in every step of decision making regarding the child with special educational needs. Among them, parental participants are quite valuable in assessment process. The IDEA (2004) mandates for a written permission of parents before any type of evaluation of a suspected disability is undertaken. The right of parents about the evaluation of the disability of the child must be reserved and kept assessment the result obscured except than the parents. The request the parents for consent for evaluation should not be mentioned or misinterpreted as a decision that a child has a disability. Rather, it is a good opportunity for the school to show that the school is bearing full responsibility about their students and ensure parents that they know full knowledge about how school undertakes decisions and how parents are involved in making decisions.

Parents must be satisfied with the reason for evaluation of their children and they should be fully assured about the educational and related benefits of individual evaluation. In addition to the rights of parents to involve in the evaluation process, parental involvement has several other benefits for assessment process. The pertinent background information provided by the parents of the child is helpful for the assessment process. School has responsibility to design, conduct, interpret and pay for the assessment; at the same time, parents have an important role to play before, during and after the evaluation process.

IDEA (2004) has clearly mandated that an evaluation of a child with a suspected disability must be made by the multidisciplinary team or group of people including at least one teacher or specialist with knowledge in the area of the suspected disability. Variety of assessment tools are used to find the information regarding functional and developmental aspects of the child from parents. The information thus collected will assist in determining whether a child has a disability as defined under federal law in the case of the United States of America. The multidisciplinary team consists of the following persons (Pierangelo & Giliani, 2009):

a. *General education teacher:* Implement prereferral strategies, work with local school-based child study team, plan and implement along with the special education team, creating appropriate environment within the classroom setting.

b. *School psychologist:* The role of school psychologist is to administration of individual intelligence tests, projective tests, personality inventories, and the observation of the student in the variety of setting.

c. *Special education evaluator:* The professionals administer the series of evaluations including norm-referenced and criterion-referenced tests, observe the student in a variety of settings, and makes educational recommendations that get applied to the IEP as goals and objectives.

d. *Special education teacher:* The role special education teacher is to consult the parents and classroom teachers about prereferral recommendations, administering educational and perceptual tests, observing the students in a variety of settings, screening students with the suspected disabilities, writing IPEs and recommending intervention strategies to teachers and parents.

e. *Speech and language clinician:* Speech and language clinician evaluate speech and language developmental problems and language disability, they also provide direct services, and consults with staff and parents.

f. *Medical personnel:* Medical personnel as a part of the MDT, have crucial role in evaluating the health aspects of the child. Medical personnel are responsible to confirm the suspected health problems as being some type of disability.

g. *Social workers:* The role is to gather and provide information concerning the family system. This may be accomplished through interviews, observations, conferences and so forth.

h. *School/guidance counselor:* Counselor usually involve in providing aptitude test information, providing counseling services. They are also responsible for working with the team to change or develop student's schedule and assisting the child study team in developing prereferral strategies.

i. *Parents:* Parents are the extremely important part of the MDT. Parents provide input for the IEP, working closely with members of the team, and carrying out, assisting, or initiating academic or management programs within the child's home.

j. *School nurse:* The nurse is responsible for reviewing the medical reports, screen for vision and hearing, consulting outside physician and make referrals whenever it is needed.

k. *Occupational therapist:* These professionals evaluate the students when they face problems in fine motor skills and living and self-help skills. These therapists may be used to screen; evaluate; provide direct services; consult with the teacher parent, or school; and assist in obtaining the appropriate assistive technology or equipment for the student.

l. *Physical therapist:* Physical therapist is needed for evaluate when children is experiencing gross motor functioning, living and self-help skills, and vocational skills necessary for the student to be able to function in certain settings. This professional may be used to screen, evaluate, provide direct services, or consult with the teacher, parent or school.

The above accounts clearly explain about the roles and responsibility on assessing, evaluating, diagnosing, intervening and referring to the children. The multidisciplinary team members do complimentary work for the child from identification or assessment of suspected disability to placing into the special education.

1.5   Maintaining Confidentiality

The IDEA (2004) has mentioned about the confidentiality of the information obtained during individual assessment process. The information about the child automatically becomes the part of school records. The schools are free to make the policies to maintain the confidentiality of the information related to an individual child. Parents have right to privacy; to know the person that access the information; right to challenge those records should they be inaccurate, misleading, or otherwise inappropriate (Pierangelo & Guiliani, 2013). Information collected regarding various statuses (health, education, socialization etc.) of the child by the professionals through verbal and written methods during assessment should be held in strictest confidence.

The personnel involved in assessing child should be aware that the information must not be shared, refrained or leaked with unrelated people and person not involved directly in the assessment process. Accurate and real information shouldn't be shared to the parents unless the final result is obtained. Parents are assured that the undergoing activities are meaningful only after all the testing has been completed and the final result to be obtained is going to be fine. Parents should be further assured that they are entitled to receive the well typed final result and records of the assessment after the completion of assessing and recording the information on every area of the child.

Let Us Sum Up

Assessment in special education is the process used to determine a student's specific learning strength and needs to determine whether that student is eligible for special education services. The Individuals with Disabilities Education Act (IDEA, 2004), Public Law 105-476, lists 13 separate categories of disabilities under which children may be eligible for special education and related services. These are: autism, deaf-blindness, developmental delay, emotional disturbance, hearing impairment, mental retardation, multiple disabilities, orthopedic disabilities, other health impairment, specific learning disabilities, speech and language impairment, traumatic brain injury, and visual impairment. Assessment consists of an assortment of

techniques and procedure for evaluating, estimating, appraising, testing, and drawing conclusions about the students. Unlike typical assessment, assessing students with special needs takes into account unique needs; therefore, it becomes different for each student. The goal is to adapt the process to fit individual needs rather than fitting students into assessment procedure.

Educational measurement is the assigning of numerals to traits such as achievement, interest, attitudes, aptitudes, intelligence and performance. Venn (2007) defines assessment as a process of determining the ability or performance level of students. He includes testing a type of measurement, but other measures include behavior, observations, and interviews, rating scales, check lists and clinical evaluations. Tests produce of set of scores, or some either numerical results (Venn, 2007). There are many types of tests; for example, informal, teacher made tests, formal, standardized tests etc. Hence, a test is a method to determine a student's ability to accomplish certain tasks or demonstrate mastery of a skill or knowledge of content. The disabled students often feel a kind of fear and anxiety of failure during test taking.

Unit-End Activities

- **Objective Questions:**   Group "A"

Tick (↓) the Best Answer.

1. Specially, special education instruction is designed to:
   a. **Meet the unique needs of students who have different kinds of disabilities**
   b. Students who is eligible for general education
   c. Students who is out of school education
   d. Students who left the school
2. Which one is the primary purpose of assessment in educational setting
   a. Environment
   b. Economic factor
   c. **Screening and identification**

d. Emotional factor

3. In a broad sense special education assessment process is related to…

a. Problem in verbal and non-verbal communication

b. Problem in reading

c. **Making educational decisions for the children with special needs**

d. Making decision of the future

4. Which one is the first step of the problem-solving model

a. **Problem identification**

b. Problem analysis

c. Plan implementation

d. Problem evaluation

5. Problem evaluation includes:

a. Establishing goals

b. **Follow-up**

c. Prioritizing concerns

d. Planning and interventions

6. The Feedback provided in the in the assessment process help them to improve   their performance in the future is related to ….

a. **Purpose of the assessment**

b. Area of the assessment

c. Meaning of assessment

d. Out of assessment

7. Ongoing assessment process involves………

a. Planning

b. **Ongoing evaluation and periodic assessment of overall performance**

c. Identification

d. Special education teacher

8. To develop and plan instruction appropriate to the child's with special needs is related to..

a. Eligibility criteria

b. IEP

c. **Instructional planning**

d. Evaluation.

- **Short Answer Questions:** **Group "B"**

  1. List-out the importance and purpose of the assessment.

  2. Define the screening and prereferral activities.

  3. What is ongoing assessment process?

  4. Define the concept of maintaining confidentiality.

  5. list-out the individuals to be involved in the assessment process in special education.

- **Long Answer Questions:** **Group "C"**

  1. Explain the assessment process of children with special needs.

  2. What is special assessment? Explain the role of individuals to be involved in the assessment process.

  3. Show the difference between ongoing assessment process and maintaining confidentiality.

- **Points for Discussion**

  - Purpose and importance of assessment in special education.

  - Assessment process of children with special needs.

  - individuals involved in the assessment process and their importance.

  - Needs of maintaining confidentiality in special assessment process.

  - Ongoing assessment process and its necessity in special education.

  - Eligibility determination in assessment process.

Unit II: Inclusive Assessment

2.1 Concept of Inclusive Assessment

Inclusive assessment practice is part of an inclusive approach to learning and teaching and should not be viewed in isolation. Inclusive teaching covers diverse aspects of creating a learning environment that can meet the individual needs of all students. Fair access to education can only be met when these needs are addressed. This chapter is designed to support professional and paraprofessional in providing students with inclusive assessment and academic support. Nowadays, school have increasingly diverse student populations, with diverse learning and support needs. The development of inclusive learning and assessment opportunities to meet the needs of our diverse learners is central with the principles of fairness and equality enshrined in our academic regulations.

Inclusivity is a very important factor in assessment design as fair assessment must reflect the needs of a diverse student. Through inclusive design wherever possible, and through individual reasonable adjustments wherever required, assessment tasks provide every student with an equal opportunity to demonstrate their achievement. Moreover, to provide all students with an equal opportunity to demonstrate their learning, we need to consider the different means of demonstrating a learning outcome. Ensuring that students have variety in assessment and some individual choice, e.g., in the topic or in the method/format of the assessment, can lead to overall enhancement of the assessment process to benefit all students. Assessment procedures and methods must be flexible enough to allow adjustments to overcome any substantial disadvantage that individual students could experience.

The context of good inclusive assessment practice must be underpinned by excellent teaching. For example, engaging students effectively by providing accessible resources and engaging learning opportunities. Interactive activities will help students enjoy their experience of

learning and thus support their achievement of the module outcomes through whatever form of assessment is offered. Inclusive assessment needs to be supported by effective collaborative, and equal learning opportunities and spaces with a positive attitude in the classroom to diversity and differences. Assumptions about students' knowledge, lives and interests normally should be avoided as a basis for teaching. Good assessment design is important for a range of purposes. Assessment enables, all students to demonstrate their learning and through feedback and feed forward to further their learning and their development, and evidence that students have achieved the intended learning outcomes of the course or module at the relevant academic standard for the award.

Inclusive assessment does not mean easier assessment and it does not compromise academic or professional standards but improves the opportunities for all students to demonstrate how they have achieved learning outcomes. Assessment is a key driver for learning. Good design starts with well written learning outcomes and clear, transparent assessment criteria. Formative and summative assessment should accurately test the extent to which the student has met the intended learning outcomes. Assessment design should be inclusive enabling all students to undertake this equitably and where necessary, by means of reasonable individual adjustments. Inclusive assessment should:

- Be accessible and equitable for all students
- Be explicit and transparent
- Fairly evaluate students' ability to meet module learning outcomes, academic and professional standards
- Support student engagement in learning, their progression and retention
- Address the needs of all our diverse student population
- Involve authentic, contextualized, meaningful, tasks and valid and reliable processes
- Reduce the need for modified assessment e.g. alternatives/extra time
- Promote a shared understanding of the basis on which academic judgements are made
- Develop and enable good academic practice, and

▪ Enables students to demonstrate the extent to which they have achieved the intended learning outcomes.

Inclusive assessment means inclusive practice and a clear move away from ad hoc arrangements which treat individual students as special cases.

Keeping pace with changes in assessment practices and services for students with disabilities is challenging. Many innovations have occurred, one of the most significant of which has been educating students with disabilities in general classrooms. The amendments of IDEA 2004 defines "inclusion as the education of students who have difficulties and without difficulties. Furthermore IDEA 2004, states that special classes, separate schooling, or other removal of students with disabilities abilities from the regular educational environment should happen inly if the nature or severity of the disability precludes education in regular classes with appropriate supplementary aids and services". Inclusive education involves placement in the local school and in the general school education setting with appropriate supports and curricular adaptations designed individually for each student eligible for special education services (Venn, 2007).

Full inclusion refers to attaining the greatest integration possible for all, including students with severe disabilities. The philosophy is that all students are active, fully participating members of the school community, and that schools understand the benefits of inclusive education for all students. More specifically, full inclusion refers to full membership in the general classroom with all the supports necessary for successful inclusion. Inclusion also encompasses placement in a variety of educational setting. In addition to the general education classroom, inclusion extends to community-based instruction and educational activities such as school clubs and athletics that occur outside the classroom.

Inclusion gives students with disabilities the opportunity to participate in typical school activities with their peers who are not disabled. The educational experts expect that inclusion will result in classrooms that serve much more diverse student groups. As a result, teachers need to develop new instructional methodologies and assessment procedures that respond to

the greater diversity of student needs. Furthermore, the concept of the general education classroom is changing; therefore, the notions of teaching, learning, and assessment are changing as well.

Although assessment in inclusive settings requires changes, many latest evaluation practices works well in inclusive setting. For example, curriculum-based assessment procedures, such as teacher-made testing, grading of homework assignments, and grading of classwork, already occur in the same way in most classrooms. In fact, teachers should use established assessment procedures whenever possible as long as they meet the increasingly diverse needs of the students (Venn, 2007).

2.2 Approaches to Inclusive Assessment

Assessment is a vital part of learning. It can be difficult to know how to identify learners with special needs educational (SNE) in the classroom and how to include learners with SENs in the assessment process. Inclusive assessment may include offering students a choice of assessment method. If choice is offered, programme teams should consider what approach to take in terms of ensuring that a student has covered all the necessary or required assessment formats during the programme (it is particularly relevant to programs with associated professional body requirements).

An inclusive assessment will provide a clear assessment brief and marking criteria in advance of the task. There will be opportunity to explore this brief with peers and a teacher so that students can ask questions and clarify key elements of the task before they begin. Teaching and learning approaches used in the module will develop skills that relate to the assessment task, with elements of formative feedback to support the process. By the point of summative assessment, the students should have had plenty of opportunity to enhance their disciplinary knowledge and improve the associated skills to the required level.

Modifying assessment by redesigning teacher-made tests is just one example of new approaches teachers are using in inclusive setting. Other approaches include team assessment,

assessing teamwork in cooperative learning, and portfolio assessment. New assessment procedures are necessary to meet the needs of the increasing numbers of students with disabilities who receive all or part of their education in general classes. Inclusive classes must also respond to the needs of increasingly diverse groups of students. Though inclusive educational practices focus on students with disabilities in general education, schools need to be restructured so that they meet the needs of all students, including students from culturally and linguistically different background. Information about ways to differentiate cultural and language differences from learning problems appears in multicultural considerations.

2.2.1 Team Assessment

Team assessment is one of the most useful assessment approach in inclusive classroom. Team assessment process involves all teachers in the evaluation process, not just special education teachers. Moreover, it helps general education teachers who have many concerns about testing and grading students with disabilities. Some concerns result from lack of training and experience in appropriate techniques for modifying evaluation procedures with mainstreamed students. Other concerns arise from the resistance of a few teachers to altering their traditional testing and grading practices. However, successful inclusion depends in part on the willingness of teachers to modify their measurement procedures in response to the needs of individual students.

Team assessment is necessary because inclusion classroom is different from the traditional classroom. The goals, teachers, curriculum, and assessment procedures all differ (Tiegerman-Farber, & Radziewicz, 1998; as cited in Venn, 2007). Because the inclusion classroom changes assessment, general and special education teachers as well as the other members of the assessment team must work together in implementing new assessment procedures. Fortunately, most teachers are willing to collaborate as co-teachers in developing and implementing new assessment techniques that benefit all students while accommodating the needs of students with disabilities.

Moreover, one of the assessment elements that teachers should consider is how well the members of the team work together. Teachers can use the team analysis checklist in figure 2.1 to assess team collaboration and effectiveness.

Figure 2.1 Team analysis checklist

Team Analysis Checklist Item	Yes	No
Team Purpose		
1. Understand the purpose of the team		
2. I believe it is possible of each team member		
Team Structure		
3. I know the expertise of each team member		
4. I know the major tasks associated with the team objectives		
5. I know who serves as a team leader		
6. I accept the leadership of the team leader		
Interpersonal Relations		
7. Fellow team members accept me as a valuable contributor		
8. I perceive most of the other members as valuable team contribution		
9. All team members can fully express their views		
10. Team members listen to and consider the views of others		
11. The team avoids domination by one individual member		
Resolution of Conflicts		
12. The team solve conflicts together		
13. The team strongly discourage personal attack		
14. I accept team decisions even if they conflict my own view		
Records, Reporting, and Responsibilities		
15. The team has a process for recording activities and decisions		
16. The team members share recording and reporting duties		

Information Exchange		
17. I have regular opportunities to contribute my professional knowledge to the team		
18. Other team members have regular opportunities to them contribute professional knowledge to the team		
19. The team frequently seeks information from outside sources		
Gaining Consensus		
20. The members have opportunities for input in making team decisions		
21. The members reach consensus prior to making team decisions		
Assigning Responsibilities		
22. After the team decides, members accept responsibility for specific follow-up and implementation activities		
23. The team shares follow-up and implementations responsibilities appropriately		
Team Assessment		
24. The team assesses the program on a regular basis		
25. All team members have opportunities to participate in program change and program evaluation activities		

In team analysis checklists there are 25 items. It covers the most important aspects of team success, including team goals, structure, interpersonal relations, resolution of conflicts, information exchange, consensus, assignment of responsibilities, and team assessment. The checklist is an informal tool for evaluating overall team effectiveness and identifying specific problems that the team needs to address. The checklist is useful in a variety of settings and situations in which professionals work together as a team.

Team assessment requires a substantial amount of time, professional commitment, and interpersonal communication. Active participation of all team members in gathering and interpreting assessment data is a key element. Team assessment is a decision-making approach that results in a more complete assessment of student needs based on discussion among team members with diverse expertise.

2.2.2 Alternative Grading

This brief scenario based on a vignette by Salend and Duhaney (2002), illustrates the complexities associated with grading, especially with students who have disabilities placed in inclusive classes. As more students' which disabilities receive their education in general education classes, teachers are grappling with the challenging and complex issues associated with assigning grades. In some situations, the IEP team includes alternative grading procedures in a student's IEP. In other situations, students receive alternative grading consideration as needed without specifying a particular procedure in the IEP. Regardless of whether alternative grading appears in a student's IEP, the general education teacher and the special education teacher should work together as a team in the grading process. This means that teachers need to reach agreement on the type of grading system they will use and the grading responsibilities of each teacher before assigning grades.

Results from a comprehensive study of class grading (Bursuck et al., 1996) indicated that most teachers support the use of alternative grading with students who have special learning needs. The most common alternative grading procedures identified in this study were pass/fail grades, multiple grades, grading for effort, and portfolio-based grading. A description of alternative grading strategies is as given below:

- **Pass/Fail Grading**

Pass/fail grading involves establishing minimum criteria for receiving a passing grade. Students who successfully meet the criteria receive a grade of 'pass' and those who fail to demonstrate the required skills and knowledge receive a grade 'fail'.

- **Multiple Grading**

Multiple grading enables teachers to assign grade in more than one area. For example, students can earn two grades: one for effort and one for performance. Multiple grading also provides a way to grade students based on ability.

- **Grading for Effort**

Some teachers use grading for effort with students whose ability is so low that they are unable to meet even minimum performance standards.

- **Portfolio-Based Grading**

Portfolio-Based Grading is another technique for evaluating students with special needs in inclusive setting (Mercer & Mercer, 2005). Teachers assign portfolio grades based on evaluation of the authentic sample of student work that appear in a portfolio. Rather than emphasizing grades such as test scores, the portfolio approach relies more on holistic grades. This encourages reflective teaching, learning, and assessment. As a result, students have many opportunities to evaluate their performance, receive feedback during portfolio conferences, and think about their learning experiences and progress. Portfolio grading has the potential for expanding measurement into new and challenging areas. Details about portfolio grading appear in Chapter 18, which is an entire chapter devoted to this exciting and useful approach to evaluating student performance.

- **Competency-Based Grading**

With competency-based grading, students demonstrate attainment of required skills. Teachers should establish criteria for successful attainment of competencies prior to instruction so that students know what is expected. Students then receive grades based on their progress in reaching specified criterion levels for each competency or skill. Teachers often list the required competencies on a checklist, which helps monitor student progress. Teachers assign grades according to the number of successfully mastered skills.

- **Point Systems**

Point systems assign points for successfully completing learning activities, tests, and assignments. A sample point system may consist of the following:

- 10 points for each of 10 homework assignments completed
- 20 points for each of five class quizzes
- 50 points for completing the class project or paper
- 10 points for daily participation in class

Students can earn all the points or partial points for a particular assignment depending on their level of performance. At the end of the grading period, students receive grades corresponding to the total number of points earned. Students with the highest number of points earn a grade of "A", students with lower points totals earn lower grades.

- **Contract Grading**

Contract grading involves having the teacher and the student sign a contract that describes the work that the student will complete within a specified time. Students many contracts for grades of "A", "B", or "C", depending on the amount or quality of work they complete. For example, students who contract for an "A" may write an extra paper during the grading period or complete specific enrichment activities such as documenting books,

articles, or chapters read on a particular topic. The student and the teacher sign the contract prior to instruction. The teacher and the student then monitor progress in fulfilling the contract, and the teacher assigns a final grade at the end of the grading period.

- **Descriptive Grading**

Descriptive grading relies on descriptive comments that the teacher writes to describe the quality of a student's performance. Descriptive grading avoids numbers such as point totals. Instead, the narrative statements describe student performance, effort, attitude, behavior, interest, and learning style. For example, team teachers in an inclusion class may decide to evaluate the performance of a student with a severe disability using descriptive grading. Teachers often use examples of completed student work to support the qualitative statements.

- **Level Grading**

In level grading the teacher individualizes grading by indicating the level of difficulty (1, 2, or 3) for each grade. A indicates above-grade-level difficulty, a 2 indicates on grade-level-difficulty, and a 3 denote below-grade-level difficulty. For example, a grade of C2indicates the student is doing average work on grade level. Likewise, a B3 indicates above average performance on work that is below grade level in difficulty.

- **IEP Grading**

IEP grading reflects student attainment of IEP goals. The teacher measures progress and assigns grades using the evaluation criteria for each IEP objective. The teacher individualizes IEP grading for each student.

- **Mastery Level/Criterion Grading**

Students reach mastery level when they reach a criterion level on specific skills. Thus, mastery level/criterion grading relies on content or skills divided into specific components. Mastery level/criterion grading normally involves pretesting students to determine level of performance on each skill in the curriculum, instruction on skills not yet mastered, and post testing to identify skills mastered after instruction.

- **Shared Grading**

Shared grading involves collaboration among two or more teachers to assign a grade. Shared grading often occurs when teachers instruct the same student in a subject or content area, such as in a co-teaching situation in an inclusion class with a general and special education teacher.

- **Progressive Improvement Grading**

Progressive improvement grading involves giving students feedback and instruction on tests and learning activities throughout the grading period. However, grades are based on the results from the cumulative tests and learning activities occurring at the end of the term. On a more practical level, most teachers rely on a variety of support services in providing students with needed accommodations. Although many programs have well established support services, teachers often find that they must also develop their own support systems. For example, teachers may use paraprofessionals, resource teachers, parent volunteers, or community volunteers to assist students with accommodations by giving oral tests, tape-recording instructions, transcribing tape-recorded test response, and monitoring students who take tests in alternative settings. Teachers also use computers and other forms of technology to help support students with disabilities. See the Technology Focus box for a discussion of technology-based assessment processes and procedure useful in inclusive classrooms.

2.3 Cooperative Learning Assessment

Cooperative teaching is becoming an increasingly popular instructional approach for learners with disabilities, pupils who are at risk, as well as providing access to the general education curriculum, and enhancing the performance and participation of students with special needs in the general education classroom. Cooperative teaching within an inclusive environment is currently considered best practice – one way of effectively meeting the diverse needs of pupils with and without disabilities (Thousand, Villa, & Nevin, 2007). Cooperative teaching enriches learning opportunities for all students by targeting students with unique learning needs and many peers who struggle in school but fail to qualify for extra help. With this strategy general education teachers and special educators work together in a collaborative and cooperative manner, with each professional sharing in the planning and delivery of instruction to a heterogeneous group of students.

Cooperative teaching is service delivery approach based on collaboration. Effective cooperative teachers share responsibility for planning, delivering, monitoring, and evaluating instruction; they also share authority and prestige in the classroom. These educators also believe that all pupils in the classroom are their students. The alliance between general teacher and special educator allows them to respond effectively to the varied needs of their students, lower the student-teacher ratio, and expands the professional expertise that can be directed to these needs. The aim of cooperative teaching is to create options for learning and to provide support to all learners in the general education classroom by combining the content expertise of the general educator with the instructional accommodation talents of the special educator.

Cooperative learning is an approach to groupwork that minimizes the occurrence of those unpleasant situations and maximizes the learning and satisfaction that result from working on a high-performance team. Moreover, a large and rapidly growing body of research confirms the effectiveness of cooperative learning in higher education. Relative to students taught traditionally—i.e., with instructor-centered lectures, individual assignments, and competitive grading—cooperatively taught students tend to exhibit higher academic achievement, greater

persistence through graduation, better high-level reasoning and critical thinking skills, deeper understanding of learned material, greater time on task and less disruptive behavior in class, lower levels of anxiety and stress, greater intrinsic motivation to learn and achieve, greater ability to view situations from others' perspectives, more positive and supportive relationships with peers, more positive attitudes toward subject areas, and higher self-esteem.

Teaching practices that provide opportunities to students to learn together in small groups are known as Cooperative Learning. Cooperative Learning is children learning together in groups, which are structured so that group members have to cooperate to succeed. Students work together to learn and are responsible for their team-mates' learning as well as their own. Nowadays, many teachers in Nepal are reconsidering traditional practices that emphasized competition over cooperation in the classroom. Teachers are rethinking whether it makes sense to encourage students to work by themselves, often hiding what they know from other students in order to prevent cheating. They are discovering that cooperative learning allows more students to be actively engaged in learning.

Classrooms are very social places but often when teachers think about learning the focus is on individual learning and the social aspects are often viewed as a distraction and/or a nuisance. If, however teachers are able to make positive use of this social aspect and the social arrangement of the classroom then more learning would take place. Cooperative Learning improves students' communication skills and enhances their ability to be successful in the world of work and to live in the society.

Effective cooperative learning is dependent on the sort of talk, which takes place in the group between students. Talking about a question helps create meaning and understanding; humans make meaning about things through talk. Studies have shown that by having to explain answers to problems to a peer that the act of having to clarify and communicate actually enhances the students understanding. In these conversations it is the process of discussion that is important not whether the answers are right or wrong.

Several definitions of cooperative learning have been formulated. According to the Johnson & Johnson model, cooperative learning is instruction that involves students working in teams to accomplish a common goal, under conditions that include the following elements:

- *Positive interdependence:* Team members are obliged to rely on one another to achieve the goal. If any team members fail to do their part, everyone suffers consequences.
- *Individual accountability:* All students in a group are held accountable for doing their share of the work and for mastery of all of the material to be learned.
- *Face-to-face promotive interaction:* Although some of the group work may be parceled out and done individually, some must be done interactively, with group members providing one another with feedback, challenging reasoning and conclusions, and perhaps most importantly, teaching and encouraging one another.
- *Appropriate use of collaborative skills*: Students are encouraged and helped to develop and practice trust-building, leadership, decision-making, communication, and conflict management skills.
- *Group processing*: Team members set group goals, periodically assess what they are doing well as a team and identify changes they will make to function more effectively in the future.

Cooperative learning is not simply a synonym for students working in groups. A learning exercise only qualifies as cooperative learning to the extent that the five listed elements are present. During cooperative learning activities, each member of a team is responsible not only for learning what is taught but also for helping team-mates learn, thus creating an atmosphere of achievement.

Appropriate assessment is one of the key components in cooperative learning. Furthermore, assessing teamwork in cooperative learning is as important as assessing individual students work. The following cooperative learning assessment procedure developed by Johnson, Johnson, & Holubec (1998), include ways to assess teamwork and individual work. Teacher can easily adapt these procedures for use in inclusive classroom. When teacher use cooperative

learning, they are responsible for ensuring that appropriate assessment task place. The steps in assessing cooperative learning are as given below:

- Specify the objectives
- Develop the assignment
- Determine grading criteria
- Explain the assignment and share the grading criteria with students
- Monitor the efforts of the cooperative groups
- Intervene and provide support as necessary
- Evaluate the result

Note: Above mentioned cooperative learning assessment steps are also similar to any lesson assessing procedure.

Moreover, teacher use several assessment strategies to evaluate results, including the following procedures:

- Observing group performance as it occurs
- Interviewing individual students and groups of students
- Evaluating individual and group performance on classwork and homework
- Grading teacher-made tests given to individuals or groups

Although, these strategies are familiar to most teachers, Johnson et al. (1998) have also designed specialized approaches to assessment in cooperative learning situations. Specialized assessment approaches include peer editing, peer assessment of class presentations, self-assessment, peer assessment, group assessment, and group celebration.

2.3.1 Peer Editing

Peer editing Involves having the other members of the cooperative group edit the compositions of individual students. In peer editing, all group members certify that each

member's paper meets the criteria set by the teacher. Group members work together in developing their papers, and each group member receives two grades. One grade is an individual grade based on the quality of the manuscript. The other grade is a group grade that reflects the sum quality of the group's papers. One way to structure peer editing uses the following steps.

- The teacher assigns students to cooperative learning pairs with at least one good writer in each pair.
- The teacher gives the students individual writing assignments.
- The teacher has the students describe what they are planning to write each other.
- Students work individually in their papers, but they also share material with each other and help their partners.
- The teacher monitors the work of the pair and assists as necessary to help students develop their writing skills and their cooperative skills.

Finally, when the assignments are complete, the teacher helps the students do the following activities:

- Discuss how well they worked together by describing specific actions they engaged into help each other.
- Plan what behaviors they are going to emphasize in future cooperative writing assignments.
- Thank each other for the help they received.

Students with special needs may require additional instruction, support, coaching, and encouragement to develop their peer-reading skills. The special education teacher can often provide this support directly. Teachers may also arrange for teaching assistants, peer tutors, or volunteer tutors to provide extra support while students learn how to work with others on cooperative writing assignments.

2.3.2 Peer Assignment of Class Presentations

Peers can evaluate presentations given by fellow students. One way to encourage group interdependence and to foster peer assessment is to structure class presentations so that all members must learn the material presented. Teachers can accomplish this by assigning students to cooperative groups of four, giving each group a topic, and requiring each group to develop a presentation that every group member can give in its entirety. The presentation criteria should include a specific period of active participation by the audience. The group should have sufficient time prepare and rehearse so that all group members can give the presentation.

Then the teacher divides the class into four sections (one in each corner of the class). One member of each group goes to each section and gives the presentation to the audience in their section. Assessment involves having the audience rate the presentation using rating form. The rating form should include items for assessing the quality of the information; the interest generated by the presentation; the ease of understanding; the organization, creativity, and originality; and audience participation. Moreover, the students give one copy of the completed rating form to the presenter and one copy to the teacher. The teacher also observes parts of all the presentations. Finally, the groups meet to evaluate the effectiveness of the presentations, to celebrate their successes, and to discuss ways to improve their presentation skills in the future.

2.3.3 Self-Assessment and Peer Assessment

Arranging for students to assess themselves and each other should be an element in most cooperative learning lessons. Students with special needs in inclusive settings may need considerable guidance doe develop self-assessment and peer assessment skills. Students who lack these skills need opportunities to develop them over time. Teachers may accomplish this in many ways, including modeling, role playing, coaching, and

direct instruction. The goal is for students to discuss and reflect on their learning and that of others.

Teachers can use cooperative learning assessment checklists such as those in figures 2.2 and 2.3 to help students develop self-assessment and peer-assessment competencies. In self-assessment form the teachers should help students learn how to rate their own collaboration skills with the self-assessment checklist. On the other hand, the peer-assessment form the teachers should give students instruction in using peer-assessment checklist and rate the participation of their peers in their cooperative group. Students can use the completed checklists to compare their self-rating with the rating form of their peers.

The checklists provide data that teachers and students can use to ensure they are making positive contributions to the learning of all group members. Teachers can also use the results in grading individual students and cooperative learning groups, or teachers may develop their own assessment checklists to fit particular cooperative learning assignments.

Figure 2.2: Cooperative Learning Assessment checklist for Self-Assessment Form

Your Name: Rate yourself using the following scale: 4-Excellent, 3-Very Good, 2-Good, and 1-Poor	
Assessment Item	**Rating**
1. I was on time. 2. I was prepared. 3. I contributed to the learning of others in my group. 4. I listened to the other members of the group. 5. I worked together with others in my group. 6. The other members would like to work with me again.	

Comments………………………………………………………………………………..

Figure 2.3: Cooperative Learning Assessment checklist for Peer-Assessment Form

Person Being Rated…………………….. Rater………………………………	
Rate the group member by using the following scale:	
4-Excellent, 3-Very Good, 2-Good, and 1-Poor	
Assessment Item	**Rating**
1. The group member was on time. 2. The group member was prepared. 3. The group member contributed to the learning of others. 4. The group member listened to others. 5. The group member worked together with others. 6. I would like to work with this group member again.	
Comments………………………………………………………………………………..	

2.3.4 Group Assessment

Individual assessment is more common in the classroom than group assessment, the typical cooperative learning group has students learn in a group but individually demonstrate they have learned. In real life, most organizations focus on the success of the organizations as a whole. The emphasis is on the success of departments in the organization and teams in departments rather than the success of individual employees. For this reason, cooperative learning assignments in school should require group reports, exhibits, performances, and presentations in which the students work together, and teachers grade the performance of the group.

Arrangements of Cooperative Teaching

Kagan, Kyle, & Scott (2004) show that cooperative learning arrangements are among the most powerful methods to engage and boost the achievement of all students (cited in Thousand, Villa,

& Nevin, 2007). For students from culturally and linguistically diverse communities, cooperative or communal learning may be preferred over individualistic or competitive structures. Furthermore; Kagan et al. (2004) state that cooperative learning is the most effective educational approach which is used to meet the diverse needs of all students in inclusive environment….If we are to create least restrictive learning environments, and if we are to integrate students with special needs into regular classrooms, it is mandatory that our instruction include frequent cooperative learning that includes teambuilding, class-building and social skill development (cited in Thousand et al., 2007). It is becoming an increasingly common service delivery approach for expanding instructional options for learners with disabilities and pupils who are at risk. It is also useful to provide access to the general education curriculum and enhancing the performance and participation of students with special needs in the general education classroom.

Cooperative teaching is an instructional model that fosters shared responsibility for coordinating and delivering instruction to a group of children with unique learning needs. Effective cooperative teachers share responsibility for planning, delivering, monitoring, and evaluating instruction. Cooperative teachers always talk about "our goals for the year," "our classroom," "the lessons we planned." Actually, cooperative teaching is about a true partnership and parity in the instructional process. This alliance allows teachers to "respond effectively to the varied needs of their students and lower the student-teacher ratio. Cooperative teaching can be implemented in several different ways. The particular strategy chosen often depends on the needs and characteristics of the pupils, curricular demands, amount of professional experience, and teacher preference, and space. Many educators use a variety of arrangements depending upon their specific circumstances of cooperative teaching. Some of them are as given below:

- **One Teach, One Observe**

In this arrangement of cooperative teaching, one teacher delivers the instruction to entire class and another teacher circulates gathering information to particular student, or a

small group of students. While using this arrangement, teachers need a minimal amount of joint planning and exchange of roles periodically.

- **One Teach, One Support**

In this instructional setting, both teachers play active role in teaching, but one teacher takes the instructional lead while another provides support and assistance to the students quietly. However, it is expected that one professional (primarily special teacher) does not always work as the assistant, changing roles can help alleviate this potential problem.

- **Station Teaching**

In this teaching arrangement, the lesson to be taught is classified into two or more segments and presented into different locations in the classroom. Generally, one teacher presents one portion of the lesson while the another teacher delivers different portion. And then the student groups rotate, and the teachers repeat present the same content to the new group of students. Depending on the class, teachers can also establish a third station where students work independently or with a learning buddy to review material.

- **Parallel Teaching**

In this instructional setting, instructional activities are planned jointly but are delivered by each teacher to one-half of the heterogeneous group of learners. This instructional arrangement lowers the teacher-pupils ratio. Coordination between teachers is very crucial in this teaching arrangement.

- **Alternative Teaching**

In this teaching arrangement, one teacher provides instruction to a heterogeneous group of learners while the other teacher interacts with a small group of pupils. Alternative

teaching is also useful for pre-teaching activities and in-depth study. Nevertheless, teacher need to be cautious that children with disabilities are not exclusively that routinely assigned to the small group; all members of the class should participate periodically in the function of the smaller group.

- **Team Teaching**

In this instructional arrangement, both teachers equally share the instructional activities for the entire class. Students therefore always view each teacher as having equal status. In team teaching, teachers require a significant amount of professional trust and a high level of commitment. Compatibility of teaching styles is another key component for successful teaming.

2.4 Assigning Grades in Cooperative Learning

The way teachers assign grades in cooperative learning depends on the amount of interdependence they wish to develop among students. Teachers have a number of options for assigning grades. Examples of some of the available options follow.

- *Individual grading with extra points based on all members reaching criterion*

This grading procedure encourages group members to study together so that everyone learns the material. Students are graded individually but also receive extra points if all group members achieve a preestablished criterion level. An example of this procedure is as follows:

Group Member	Individual Points	Extra Points[1]	Total Points
Jack	95	3	98
Royal	92	3	95
Florida	90	3	93

[1]*Criteria for Extra Points:* if all group members receive at least 90 individual points, all group members receive 3 extra points.

▪ *Individual grading with extra points based on the lowest score*

In this grading system the group members prepare with each other to take the exam. The group members receive extra points based on the lowest individual score in the group. An example is as given below:

Group Member	Individual Points	Extra Points[2]	Total Points
Jack	99	4	103
Royal	87	4	91
Florida	80	4	84

[2]Criteria for Extra points: 90-100=5 points, 80-89=4 points, 70-79=3 points

▪ *Individual grading with extra points based on the group average*

After group members help each other study for the test, students take the exam individually and receive individual scores. The scores of all group members are then averaged, and the average is added to each student's score. An example is as follows:

Group Member	Individual Score	Average Score	Total Score
Jack	88	82	170
Royal	82	82	164
Florida	77	82	159

▪ *Random selection of one group member's work to grade*

The students in the group complete the assignment individually and then help each other to make sure all the papers are correct. Because the group certifies all papers as correct, it matters little which paper is randomly selected by the teacher for grading. All group members receive the same grade.

- *Assigning the lowest member's grade to all members the group*

The group members help each other study for the exam. Then students take the exam individually, but all group members receive the lowest grade in the group. This grading procedure helps group members encourage, support, and assist the low-achieving members of the group. Moreover, sometimes results in significant increases in the performance low-achieving students. Teachers can avoid the problem of penalizing advanced and high-achieving students by using group grades like this only for extra credit or rewards. Thus, a low grade from a group exam can potentially increase but never reduce a student's individual grade.

- *Averaging individual grades with a collaboration score*

The group members work together to learn the assigned material and then take individual exams. The grades of the group are then averaged. The teacher also observes the group to determine the level of collaboration (e.g., leadership, shared decision making, listening). The group then receives a collaboration grade that is added to their average grade to arrive at a total score.

- *Individual grading with celebration rewards*

The members of the group help each other study for exam, but they take test individually and receive individual grades. The group is rewarded with free time, extra time in the yard, snacks, stickers, or other appropriate reinforces if they all achieve a predetermined level of success.

Johnson et al. (1998) developed these procedures for assessing the performance of students in cooperative learning groups. Teachers should select a particular procedure from these available options depending on the nature of thee assigned task and the amount of interdependence they wish to foster in the group.

Let Us Sum Up

Inclusion of students with disabilities in general education means that regular classrooms are composed of much more diverse student groups than in the past. As a result, teachers in inclusive settings must provide significant testing modifications to meet individual needs. Although most teachers are familiar with inclusion in general, they have many questions about inclusive assessment. Furthermore, the wide variety of alternative testing procedures makes inclusive assessment complex and challenging. On the other hand, this variety also provides a range of options from which to select the best test procedure for each student.

The context of good inclusive assessment practice must be underpinned by excellent teaching. For example, engaging students effectively by providing accessible resources and engaging learning opportunities. Interactive activities will help students enjoy their experience of learning and thus support their achievement of the module outcomes through whatever form of assessment is offered. Inclusive assessment needs to be supported by effective collaborative, and equal learning opportunities and spaces with a positive attitude in the classroom to diversity and differences. Assumptions about students' knowledge, lives and interests normally should be avoided as a basis for teaching. Good assessment design is important for a range of purposes.

Cooperative teaching is service delivery approach based on collaboration. Effective cooperative teachers share responsibility for planning, delivering, monitoring, and evaluating instruction; they also share authority and prestige in the classroom. These educators also believe that all pupils in the classroom are their students. The alliance between general teacher and special educator allows them to respond effectively to the varied needs of their students, lower the student-teacher ratio, and expands the professional expertise that can be directed to these needs. The aim of cooperative teaching is to create options for learning and to provide support to all learners in the general education classroom by combining the content expertise of the general educator with the instructional accommodation talents of the special educator.

Unit-End Activities

- *Objective Questions:*   *Group "A"*

Tick (↓) The Best Answer.

1. Inclusive assessment should….

   a. **Be accessible and equitable for all students**

   b. Be students oriented

   c. Be good teaching method

   d. Be practicable

2. "Inclusion as the education of students who have difficulties and without difficulties" is defined by the mandates of……

   a. CEC

   b. **IDEA**

   c. AAIDD

   d. IEP

3. In alternative grading strategies, multiple grading enables….

   a. Establishing minimum criteria of grading

   b. Required skills

   c. **Teachers to assign grade in more than one area**

   d. Receive grade pass

4. Progressive improvement grading involves….

   a. The difficulty level of test

   b. Collaboration among two or teachers to assign grade

   c. Individualized grading

   d. **Giving students feedback and instruction on test and learning activities throughout the grading period**

5. Cooperative teaching is service delivery approach based on ……

   a. **Collaboration**

   b. Individual teaching

    c. Teachers thought

    d. School needs

- **Short Answer Questions:**   **Group "B"**

  1. Define the concept of inclusive assessment.
  2. Explain the concept of peer editing.
  3. Show the difference between self-assessment and peer assessment.
  4. What is team assessment? Why it is needed in inclusive assessment?
  5. Show the importance of the alternative grading in inclusive assessment.

- **Long Answer Questions:**   **Group "C"**

  1. What is inclusive assessment? Explain the approaches to inclusive assessment.
  2. Explain the concept of cooperative assessment in inclusive assessment.

- **Points for Discussion**

  - Concept of inclusive assessment.
  - Approaches to inclusive assessment.
  - Team assessment and alternative assessment in special needs education.
  - Cooperative learning assessment.
  - Peer editing, peer assessment, and self-assessment in special needs education.
  - Assigning grade in cooperative learning.

Unit III: Assessment in Response to Intervention (RTI) Model

3.1 Introduction to Response to Intervention (RTI) Model

Response to Intervention (RT) model is quite useful and famous. RTI is based on the simple premise of early intervention and ongoing monitoring of progress, or progress monitoring, and epitomizes the data-based decision-making model. In this model, instructional decisions are made on the basis of constant and ongoing monitoring of students' responses to the instruction they receive. Schools adopting the RTI model have systems in place that allow for the early detection of academic and/or behavioral problem in youngsters and the use of empirically sound intervention techniques or programs that address these problems as soon as they appear (D. Fuchs & L. Fuchs, 2006; Fuchs, Mock, Morgan, & Young, 2003; Vaughn & Fuchs, 2003). In order to ensure that interventions are indeed improving academic and/or behavioral outcomes for students, teachers conduct ongoing progress monitoring. The intensity and duration of interventions and the frequency of progress monitoring. The intensity and duration of interventions and thee frequency of progress monitoring increases with increased severity of the academic and/or behavioral difficulty (L. S. Fuchs & D. Fuchs, 2007, as cited in Pavri, 2012).

Special education in and of itself has not been the solution for these students' learning and behavior difficulties, and in many cases, it has been a one-way street from which there is no turning back (Patton, 1998). Students with low achievement levels have continually slipped "through the cracks" of our education system and have not received needed accommodations and modifications to achieve success. In addition, the flawed process that is used to identify students who have disabilities has resulted in an overrepresentation of students from culturally and linguistically diverse backgrounds in special education. Often, these students are misidentified as needing special services (Harry, Klingner, Sturges, & Moore, 2002; as cited in Pavri, 2012).

Through the passage of the Individual with Disabilities Education Improvement Act (IDEA), the federal government of the USA officially allowed students to be classified as learning disabled based on documentation of how well they respond to interventions - procedures commonly known as RTI. The identification of students with learning disabilities science the mid-1970s has been an ongoing topic of argument. In education, response to intervention (RTI or RtI) is an approach to academic and behavioral intervention used in the United States to provide early, systematic, and appropriately intensive assistance to children who are at risk for or already underperforming as compared to appropriate grade- or age-level standards ((Haager, Klinger & Vaughn, 2007). RTI seeks to prevent academic and behavioral failure through universal screening, early intervention, frequent progress monitoring, and increasingly intensive research-based instruction or interventions for children who continue to have difficulty. RTI is a multitier approach for helping students that is adjusted and modified as per the result of continuous assessment.

According to Haager, Klinger & Vaughn (2007), there are some issues regarding learning of 'math and reading' to identify the students with learning disabilities. The issues were like; the subjectivity in referral for services with teachers' perception, inaccurate method for determining learning disabilities, students being identified using a "wait-to-fail" method rather than a prevention-early intervention method, considerable variation for prevalence rate, and disproportionate numbers of minorities being identified and served appropriately in special education. However, RTI should never be equated with the identification method because the focus is on enhanced service delivery and academic and behavioral outcomes for children (Fletcher & Vaughn, 2009).

ED Kame' enui, the Commissioner for Special Education Research at the U.S. Department of Education's Institute of Education Sciences, asserts that RTI dovetails nicely with the special education model of practice that requires a diagnosis the of child's needs, followed by the development and implementation of individualized interventions and consequent evaluation of student progress. RTI reinforce this approach to educating youngsters and raises the bar by requiring the scientifically validated interventions, implementing these interventions

consistently and with fidelity, and using technically sound progress-monitoring tools to measure the students' response to the interventions (Kame' enui, 2007, as cited in Pavri, 2012).

Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. RTI is designed for use when making decisions in both general education and special education, creating a well-integrated system of instruction and intervention guided by child outcome data. For RTI implementation to work well, the following essential components must be implemented with fidelity and in a rigorous manner:

- *High-quality, scientifically based classroom instruction:* All students receive high-quality, research-based instruction in the general education classroom.
- **Ongoing student assessment:** Universal screening and progress monitoring provide information about a student's learning rate and level of achievement, both individually and in comparison, with the peer group. These data are then used when determining which students need closer monitoring or intervention. Throughout the RTI process, student progress is monitored frequently to examine student achievement and gauge the effectiveness of the curriculum. Decisions made regarding students' instructional needs are based on multiple data points taken in context over time.
- **Tiered instruction:** A multi-tier approach is used to efficiently differentiate instruction for all students. The model incorporates increasing intensities of instruction offering specific, research-based interventions matched to student needs.

▪ *Parent involvement:* Schools implementing RTI provide parents information about their child's progress, the instruction and interventions used, the staff who are delivering the instruction, and the academic or behavioral goals for their child.

According to Brown-Chidsely & Steege (2005), response to intervention (RTI) is a systematic and data-based method for identifying, defining, and resolving students' academic and/or behavioral difficulties. Beside this, Gresham, (2005) defines, RTI uses data-based decision making as a basis for modifying, titrating, or changing the nature of interventions.

The Response to Intervention (RTI) Pyramid

RTI uses a tiered system of supports for struggling learners. The intensity of the interventions and progress monitoring are increased with the increasing needs of the student. Several different perspectives are evolving in the field with regard to the optimal number of tiers in an RTI model. The simplest model, which has been studied extensively by Lynn and Doug Fuchs and their colleagues at Vanderbilt University in Tennessee and Sharon Vaughn and her colleagues in Texas, is composed of three tiers as described in Figure 3.1.
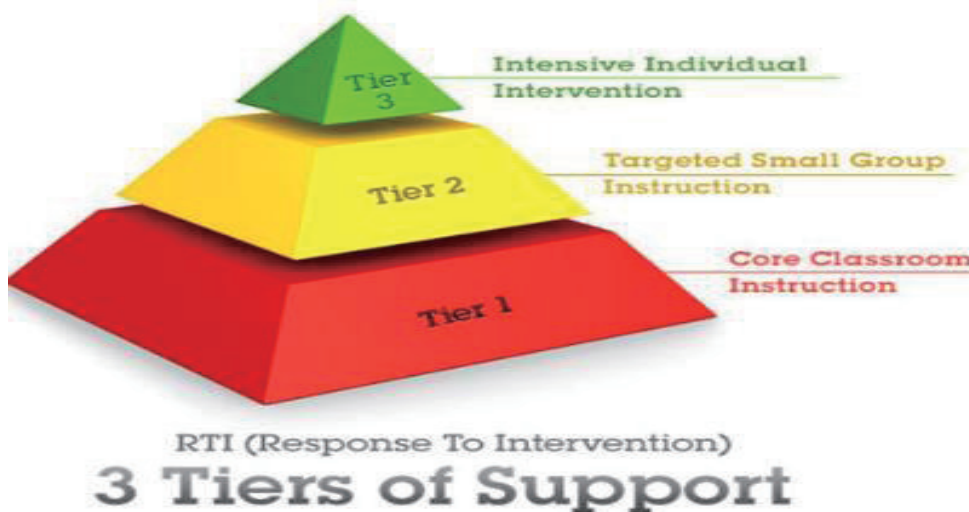

Figure 3.1: The RTI Pyramid

3.1.1 Primary Intervention (Tier I)

Within Tier 1, all students receive high-quality, scientifically based instruction provided by qualified personnel to ensure that their difficulties are not due to inadequate instruction. All students are screened on a periodic basis to establish an academic and behavioral baseline and to identify struggling learners who need additional support. Students identified as being "at risk" through universal screenings and/or results on state- or districtwide tests receive supplemental instruction during the school day in the regular classroom. The length of time for this step can vary, but it generally should not exceed 8 weeks. During that time, student progress is closely monitored using a validated screening system such as curriculum-based measurement. At the end of this period, students showing significant progress are generally returned to the regular classroom program. Students not showing adequate progress are moved to Tier 2.

Moreover, at Tier 1 there is an underlying assumption that all students receive high-quality, empirically based curriculum and instructional techniques and behavior supports that facilitate their learning and allow them to make steady progress. Proactive techniques are adopted in the general education classroom to prevent learning and behavioral difficulties (Foorman, 2007; Reschly 2005).

3.1.2 Universal Screening System

Universal screening occurs either prior to or within the Tier1 structure in order to identify students who are struggling academically or behaviorally (Stecker, 2007, Vaughn. Wanzek, Woodruff, & Linan-Thompson, 2007). Screening allows teachers to identify at-risk students early and improves the likelihood of these students catching up with their grad-level peers when they receive effective instruction that is based on their needs.

There are two ways to conduct universal screening. It may be done once at the beginning of the year by administering a brief screening measure (e.g., standardized test or a curriculum-based measure) to all the students in school. Students who fall behind

predetermined cutoff scores qualify for preventive intervention programs. Ideally this one-time universal screening would be followed by a few weeks of ongoing progress monitoring to verify that the students who were identified truly are struggling. Doing so would prevent the misidentification of students for Tier2 (Fuchs & Deshler, 2007). Alternatively, schools might use a combination of measures, including low scores on the universal screening tool and ongoing data from other sources, such as district reading and math benchmark assessments, trimester tests, standardized achievement tests, teacher-made tests, curriculum-based measurement, and classroom observation data, to determine whether a student needs intervention.

3.1.3 Secondary Interventions (Tier II)

Students not making adequate progress in the regular classroom in Tier 1 are provided with increasingly intensive instruction matched to their needs on the basis of levels of performance and rates of progress. Intensity varies across group size, frequency and duration of intervention, and level of training of the professionals providing instruction or intervention. These services and interventions are provided in small-group settings in addition to instruction in the general curriculum. In the early grades (kindergarten through 3rd grade), interventions are usually in the areas of reading and math. A longer period of time may be required for this tier, but it should generally not exceed a grading period. Students who continue to show too little progress at this level of intervention are then considered for more intensive interventions as part of Tier 3.

Moreover, Tier 2 is the safety net for those students, usually about 20 % of the students in a class, who are not demonstrating learning outcomes at the same rate and level as their grade peers. These students receive additional support in their areas of academic and/or behavioral need through scientifically based intervention strategies over a certain time, usually 10 to 20 weeks. A certified teacher, reading specialist, or trained paraprofessional generally provides this support in 20-30-minute sessions three

to five times a week, although parent volunteers or other support staff also could be trained to implement these interventions (Vaughn & Roberts).

Small, homogeneous groups of three to no more than six students are ideal for implementing such secondary interventions. The progress made by these students is evaluated at least biweekly with measures that directly assess the target behavior or academic skill and that are sensitive to student growth. Students who catch up with their grade peers exit Tier2 and return to Tier1 instruction. Students who make gains but do not reach their target objectives in Tier 2 may receive additional Tier 2 interventions. A majority of students catch up with their grade peers. Students who continue to struggle, usually about 5 % of the class, may benefit from more intensive Tier 3 interventions and frequent assessment of the areas targeted for intervention to determine their progress (Stecker, 2007; as cited in Pavri, 2012).

3.1.4 Tertiary Interventions (Tier III)

At this level, students receive individualized, intensive interventions that target the students' skill deficits. Students who do not achieve the desired level of progress in response to these targeted interventions are then referred for a comprehensive evaluation and considered for eligibility for special education services under the Individuals with Disabilities Education Improvement Act of 2004 (IDEA 2004). The data collected during Tiers 1, 2, and 3 are included and used to make the eligibility decision.

Tier 3 includes specialized and intensive interventions that are usually specifically tailored to the students 'needs. At Tier 3, interventions are often provided one-on-one or in very small, homogeneous groups by a special education or reading teacher or therapist who has expertise in implementing interventions. The intensity, frequency, and duration of interventions is greater than in Tier 2, and it is not unusual for a student to receive specialized assistance for up to 90 minutes daily, at times in place of the regular classroom instruction. Progress monitoring occurs more frequently as well,

usually weekly. Students in Tier 3 have not responded adequately to general education instruction or to the small group support they received in Tier 2, and they need individualized and prolonged interventions that are tailored to their unique learning difficulties.

Typically, this level of individualized instruction is not possible in general education settings, and often school districts require a referral to social education in order for students to participate in Tier 3 intervention. Special education supports allow for continued individualized intervention to meet the student 's academic or behavioral needs, and instruction is developed meet measurable annual goals. RTI is also based on the premise that students exit a particular Tier of intervention after they make adequate progress. Consequently, it is not presumed that a student will require continued special education services throughout his or her school career.

It should be noted that at any point in an RTI process, IDEA 2004 allows parents to request a formal evaluation to determine eligibility for special education. An RTI process cannot be used to deny or delay a formal evaluation for special education. In addition to variations in the tiers used to deliver RTI services, schools use different approaches in implementation, such as problem-solving, functional assessment, standard protocol, and hybrid approaches. Although there are many formats for how a school might implement RTI to best serve the needs of its students, in every case RTI can be a school-wide framework for efficiently allocating resources to improve student outcomes.

3.2 Models of RTI

There are two common models have been used to implement RTI in schools: the problem-solving model and the standard-protocol model (Fuchs et al., 2003). Most schools select just one of these approaches to implement RTI at a particular Tier, but it is possible to blend the two models, particularly by using a standard-protocol approach in Tier 2 and then a more individualized problem-solving approach in Tier 3.

3.2.1 The Problem-Solving Model

The problem-solving model of RTI is rooted in behavioral consultations. It follows a four-step process in dealing with students learning and behavior problems:

I.   Problem identification
II. Problem analysis
III. Plan implementation, and
IV. Problem evaluation (Fuchs et al., 2003).

In the first phase, the team attempts to understand what the problem looks like, how often it occurs, and how long it lasts. The teacher making the referral, and/ or the parent may be primary information in this stage. It is helpful to determine the student's strength and talents at this stage and to assist in intervention planning.

Second, the team operationally defines the problem by reviewing the data on the student's present performance. During the third stage, intervention plans are tailored to the problem that has been evidenced. The team prioritizes concerns, establishes academic or behavioral goals, and develops a plan for monitoring progress. Feasible scientifically based interventions are identified to achieve the stated goals. Step four, consists of plan implementation and requires a systematic implementation of the plan with fidelity. Finally, the problem-evaluation step consists of evaluating the effectiveness of the interventions, monitoring the plan, and developing ideas to improve the intervention's effect on the targeted outcomes.

There is some evidence of the effectiveness of the problem-solving model of RTI. For example, the Ohio State Department of Education adopted the Intervention Based Assessment Model, which permitted schools to apply for a waiver to use the problem model with students who were at risk and also to substitute for the traditional IQ-achievement discrepancy model that was used by the multidisciplinary evaluation team. Similarly, Pennsylvania adopted the Instructional Support Team Model of collaborative

problem solving as part of its prereferral intervention process. Both these models met mixed success (Conway & Kovaleski, 1998; Fuchs et al., 2003; as cited in Pavri, 2012). The Heartland Area Education Agency in Iowa has been acclaimed a leader in using a problem-solving approach to prereferral interventions and eligibility determination since the mid-1980s.

Experts recommend that a structured problem-solving team approach be adopted by an RTI team representing respected colleague from various disciplinary backgrounds who works closely with parents in determining research-based interventions to assist the students (Wright, 2007). A problem-solving approach to RTI is versatile and can be used for academic or behavior problems, but it is highly individualized and hence is both time and personal intensive. Consequently, some researchers have recommended that this approach be used primarily for students demonstrating behavioral problems that require more individualized intervention.

Steps of Problem-Solving Model

1. **Problem identification:** Problem identification is divided into two steps, these are as follows:

    a. *Understanding the problem:* To understand the problem, functional behavioral assessment (FBA) with the help of teachers and parents at home and school is needed. The goal of problem identification is to answer the question "what is the problem?" The problem should be stated in objective, measurable, terms using direct measures of academics or behavior. The definition of the problem must focus on teachable skills (i.e. phoneme blending, letter/sound correspondence, etc.) that can be measured and changed through the process of research-based instruction/intervention.

    b. *Identifying student's strengths:* The team of RTI should observe how far the student can recognize basic shapes and numbers (for e.g. 1 to 20) and follow

simple pattern. The simple directions the student follows and how much he/she can enjoy physical activities are also the matters to be observed.

2. **Problem analysis:** it is divided into six steps these are as given below:

   a. *Reviewing the data:* The data regarding the child's solitary activities and other sorts of physical outburst obtained through functional behavior assessment (FBA) and interview with parents and teachers must be intact.

   b. *Defining the problem:* The team must define the problem in the depth. The behaviors may be spitting, biting and doing other sorts of activities. The type and intensity of the behavior should be defined properly.

   c. *Prioritizing concerns:* The activities of behaviors of the children should be prioritized specially in communication strategies, skills and therapy. The top priority must be there to help him communicate with peers.

   d. *Establishing goals:* Goals like sharing the toys with peers, and say "I will give when done" when a peer approaches them, are developed.

   e. *Planning the intervention:* Intervention strategies should be developed on how to replace the aggressive behaviors with socially appropriate behaviors (especially verbal response). The student will review his behavior at the end of the day with teacher and earn a sticker on his behavior chart if he behaves well.

   f. *Establishing a plan for monitoring progress:* An observation protocol is usually developed to record data about the behaviors of the student under observation. The data is taken on the indoor and outdoor activities of the students on different time interval basis (for e.g., 10 minutes during outdoor play, 10 minutes during indoor play, same day and time every week).

3. **Plan implementation:** it is classified into two categories:

   a. *Systematically thinking through the intervention steps:* Steps that need to be followed in implementation the intervention are laid out.

   b. *Ensuring fidelity in the intervention:* It is ensured that teacher is following the steps of the intervention as intended fidelity checklist.

4. **Problem evaluation:** problem evaluation is divided into two steps which are as follows:

   a. *Reviewing the data:* To determine the growth in decision making of the student, ongoing observation data should be reviewed. The team will decide if there may any need to continue intervention, design a new, more intensive intervention; or cease implementation on the basis of student's progress.

   b. *Follow up:* Follow up meetings are continuously held according to scheduled time and date.

3.2.2 The Standard-Protocol Model

The standard protocol model to RTI consists of the series of perspective, evidence-based interventions to help a group of students meet target skills that have been identified as lacking. The first step in this perspective is to identify the skill deficits. The second step is to implement the series of intervention that has been validated in previous research in a uniform manner with the group of struggling students (Fuchs et al., 2003; as cited by Pavri, 2012). The standard protocol model is easier and more cost effective to implement with groups of students and has been gaining favor for the last decade. This model is found to have more effective in dealing with academic problems; for example, students demonstrate early problem in the area of literacy.

A systematic intervention on early literacy has been proved to be the most effective intervention to develop literacy skills in the children. Figure 3.2 depicts a sample weekly lesson planning template that is based on a scientifically validated intervention routine. Researcher tend to prefer the standard-protocol approach to RTI for dealing with academic problems because there is a growing body of evidence suggesting that is effective with increasing academic achievement.

Biweekly Lesson Planning Template
Objective 1:

Objective 2:				
Day				Notes
Monday *Target Skill*				
Wednesday *Target Skill*				
Friday *Target Skill*				
Monday *Target Skill*				
Wednesday *Target Skill*				
Friday *Target Skill*				
Friday ASSESS	Notes for next sessions:			

Figure 3.2: Weekly Lesson Planning Template Using Standard Protocol for RTI in Reading

In addition, most students demonstrate early problems in the area of literacy and given that systematic literacy interventions address most early literacy skills, it is possible to intervention more cost effectively by using standard treatment that have been proven effective in previous research, particularly at Tier 2.

3.3 RTI Model in General and Special Needs Education

Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners

are provided with interventions at increasing levels of intensity to accelerate their rate of learning. The Role of RTI model in general and special education is as given below:

- **RTI in General Education**

The objective of RTI is to enhance general education through initiatives for enhancing high quality general education. Although a majority of students respond to the extra support they receive in general education, those students who continue to be nonresponsive to prolonged, intensive, and individualized interventions qualify for special education services. Early screening helps students' learning and behavior problems to be identified early. Early screening also benefits students from targeted interventions which focus on developing major learning skills that help them to do better perform at academic and later life (Brown-Chidsey & Steege, 2005, cited in Pavri, 2012).

One major objective of RTI is to collaborate between general and special education. It demands the joint effort of many school personnel through working together for enhancing student learning outcomes. Collaboration is one thing which is important for the schools to be proficient with RTI techniques in the area of early identification, empirically validated intervention, and sound progress monitoring. For these all skills to learn, the general school teachers need to develop their professionalism in the skills of relevant areas. The administrator also has roles to support teachers to study their own needs strengths, develop a vision, and make plans to implement successfully. Resources such as time, data management system, and assistance from other teachers, para-educators, and volunteers also play very important role to the implementation of RTI.

Although, in order for RTI to take hold at school and drive instruction, it must be perceived as an integral and meaningful part of sound teaching practice with interventions tied the core curriculum, rather than as an additional task that a teacher

needs to complete in an already extremely busy day. It is attitudinal change in how a teacher conducts his or her practice that is often the biggest and most critical challenge in the implementation of RTI.

- **RTI in Special Needs Education**

RTI helps to reduce the number of referrals for special education evaluation and placements. On other hand, it improves academic and behavioral outcomes for struggling students. Early and effective intervention followed by ongoing progress monitoring is a feature of RTI model. RTI also helps to reduce the number of referrals of students from minority cultural and language backgrounds to special education. General education teachers who are prepared in the RTI model are better equipped to serve struggling students in the classroom and do not feel pressured to refer them right away to outside services in order to get them assistance (Fuchs et al., 2003 as cited by Pavri, 2012).

The role of special educators is enhanced in such a way that they provide direct support to a larger group of struggling learners. They also provide an intensive and individualized support to students who are identified as having a disability. According to IDEA (2004), almost 15% of the resources are used for pre-referral support and intervention to the students who are identified as having at risk. Teachers of special education are allowed to work with at risk students in general education setting, provide those required interventions and providing them necessary boosts.

The special education teachers have greater level of expertise to deal with the chronically non-responsive students. Those non-responsive students are ultimately referred and evaluated for special education in an RTI model needing for more intensive learning. RTI is helpful in making the school more inclusive promoting the collaborative model of service delivery. It also allows special education teachers to work collaboratively inside the general education setting classroom through co-

teaching for wide range of students. Differentiating instruction for students with at risk is also a serious job of special education teachers.

3.4 Strengths and Challenges of RTI Model

Though the effectiveness of RTI model largely depends upon how all the processes and procedures are carried out, how the services are provided to children in the schools. It is an approach to early intervention where commonsense plays vital role. This approach is to enhance the condition of the students through intervening target learning and behavior problems of the students and not allowing them to stay any longer into chronic conditions. There exist many unanswered questions despite of a large strides of solid knowledge base on RTI principles, models and techniques.

- **Strengths of RTI Model**

Vaughn & Fuchs (2003), stated that, one of the major benefit of RTI is early identification of children and preventing the need for later remediation of school problems. On the other hand, strengths of RTI is that it is an intervention not a program or teaching strategy. It continuously measures progression of students and provides ample of support to the needy students. Another essential component of RTI is progress monitoring. There are frequent assessments on students' learning and behavior that are helpful to measure students' level of performance. The RTI approach also reduces teacher bias and also decreases the number of inappropriate referrals to special education (Fuchs et al., 2003).

RTI utilizes instructionally meaningful data for student goal setting and inform to the teachers when instruction needs to be modified. One of the major benefit of RTI method is to promote a cohesive and collaborative school system in which general education, and other related school services work together to improve student outcomes. As soon as they respond to the intervention, they can exit the particular type of support.

▪ **Challenges of RTI Model**

Regardless of the many achievements through RTI, there are many unknowns regarding it. There are many challenges like measurement of change and how to give those students additional assistance when intervention is not showing positive results and progression. Lack of progress monitoring measurements to assess student is also a big challenge. Not having the support of parents, teachers, and the school team can be a greater challenge. In social-emotional-behavioral domain, the application of RTI principles is very few.

Moreover, there are handful number of researches in the effectiveness of RTI in content areas. (Fuchs & Deshler, 2007). RTI is limited to elementary school-aged children; and there is few recent studies supporting the use of RTI in middle and high school students. The relevancy of RTI have been considered widespread but the students with moderate to severe disabilities are usually identified in their early life which questionable for the scope of RTI approach. There is the need of experts among various stakeholders associated with the RTI approach, the organizational change in between the intervention approach can bring unscheduled chaos challenging its effective implementation. Each school developing their own RTI model working for it is a difficult job.

Let Us Sum UP

Response to Intervention (RTI) is a multi-tier approach to the early identification and support of students with learning and behavior needs. The RTI process begins with high-quality instruction and universal screening of all children in the general education classroom. Struggling learners are provided with interventions at increasing levels of intensity to accelerate their rate of learning. These services may be provided by a variety of personnel, including general education teachers, special educators, and specialists. Progress is closely monitored to assess both the learning rate and level of performance

of individual students. Educational decisions about the intensity and duration of interventions are based on individual student response to instruction. RTI is designed for use when making decisions in both general education and special education, creating a well-integrated system of instruction and intervention guided by child outcome data.

Tier 1, all students receive high-quality, scientifically based instruction provided by qualified personnel to ensure that their difficulties are not due to inadequate instruction. All students are screened on a periodic basis to establish an academic and behavioral baseline and to identify struggling learners who need additional support. Students identified as being "at risk" through universal screenings and/or results on state- or districtwide tests receive supplemental instruction during the school day in the regular classroom.

Tier 2 is the safety net for those students, usually about 20 % of the students in a class, who are not demonstrating learning outcomes at the same rate and level as their grade peers. These students receive additional support in their areas of academic and/or behavioral need through scientifically based intervention strategies over a certain time, usually 10 to 20 weeks. A certified teacher, reading specialist, or trained paraprofessional generally provides this support in 20-30-minute sessions three to five times a week, although parent volunteers or other support staff also could be trained to implement these interventions.

At Tier 3, interventions are often provided one-on-one or in very small, homogeneous groups by a special education or reading teacher or therapist who has expertise in implementing interventions. The intensity, frequency, and duration of interventions is greater than in Tier 2, and it is not unusual for a student to receive specialized assistance for up to 90 minutes daily, at times in place of the regular classroom instruction. Progress monitoring occurs more frequently as well, usually weekly.

Unit-End Activities

- *Objective Questions:*   *Group "A"*

Tick (↓) The Best Answer.

1. All students are screened on a periodic basis to establish an academic and behavioral baseline is related to…

   a. Tier I
   b. Tier II
   c. Tier III
   d. Problem-solving model

2. In which Tier students receive individualized and intensive instruction that target the students' skill deficits.

   a. Universal screening
   b. Tier III
   c. Tier II
   d. Tier I

3. Which one is not related to step of problem solving model.

   a. Problem identification
   b. Problem analysis
   c. Screening
   d. Problem evaluation

4. The standard protocol model of RTI consists of the series of perspective and …….

   a. Need of students
   b. Teacher's voice
   c. Follow-up
   d. Evidence-based interventions

5. RTI is early identification of children and preventing the need for later remediation of school problems is related to….

a. Strengths of RTI model

b. Weakness of RTI model

c. Future direction

d. Baseline of RTI model

- **Short Answer Questions:** Group "B"

    1. Define the concept of primary interventions in RTI model.

    2. Show the importance of RTI model in general and special education.

    3. Explain the need of standard-protocol model in special education.

    4. Why tertiary intervention is needed in RTI model? justify.

    5. List-out the strengths of RTI model in special education.

- **Long Answer Questions:** Group "C"

    1. Explain the strengths and challenges of RTI model in special education.

    2. Describe the concept of RTI model with its elements.

    3. Illustrate the importance of RTI model in general and special needs education.

- **Points for Discussion**

    - Response to intervention model (RTI) in special education.

    - Uses of different Tier In special needs education.

    - Models of RTI in special needs education.

    - Role of RTI in general and special needs education.

    - Strengths and challenges of RTI model.

Unit IV: Assessing Students' Intelligence

4.1 Concept of Assessing Intelligence

In general, intelligence tests measure a wide variety of human behaviors as compared to any other measure that has been developed. Moreover, intelligence tests are excellent predictors of academic achievement and provide an outline of a person's mental strengths and weaknesses. Intelligence tests are psychological tests that are designed to measure a variety of mental functions, such as reasoning, comprehension, and judgment purpose. Furthermore, the goal of intelligence tests is to obtain an idea of the person's intellectual potential. The tests center around a set of stimuli designed to yield a score based on the test maker's model of what makes up intelligence (Venn, 2007).

Intelligence is a general concept of an individual's ability to function effectively within various settings; usually assessed by intelligence tests. The measurement of intelligence has been a controversial issue in educational and psychological assessment for the past several years. Even though professionals in the field disagree to some extent about the definition of the term *intelligence* and about the fairness and importance of intelligence testing, the assessment of intellectual ability is mandated by IDEA for the diagnosis of many disabilities.

Currently the researchers present a review of several measures of intelligence and adaptive behavior that commonly are used in schools to diagnose students with learning or emotional disabilities. Group intelligence tests may be administrated in school systems to students in the regular education curriculum; for special education diagnostic purposes, however, group IQ tests are not appropriate. Tests constructed to be administrated in an individual setting are commonly used to measure cognitive abilities.

A general discussion of intelligence testing and the court cases that have influenced current practice are presented before the review of intelligence tests. Intelligence tests measure different skills, including:

- Verbal reasoning and vocabulary: thinking with words
- Fluid reasoning: using language to solve unfamiliar problems
- Visual-spatial and visual-motor skills: thinking with pictures, designs, and hands
- Short-term and working memory: capturing input for temporary storage and manipulating content
- Long-term memory storage and retrieval: recalling factual information and retrieving it from memory
- Processing speed: making small decisions quickly with pencil in hand

4.2 Assessing Intelligence

Defining the intelligence is quite difficult. What is intelligence? What is intelligence tests measure? Is it a complex theoretical concept that explains certain types of behavior? Is it a score on an IQ test? What makes person intelligent? How should we measure intelligence? These questions illustrate the difficulties in defining intelligence. Therefore, answer these questions provide valuable insight into the challenge of defining the term and understanding the tests that measure it. Moreover, most of the researchers and experts agree on the general definition of intelligence as a trait or construct associated with cognitive or intellectual capacity and directly related to the potential or ability to learn. In the other words, intelligence is an abstract quality associated with all types of intellectual processes including abstract thinking, mental reasoning, using sound judgment, and making rational judgments.

Generally, intelligence has been defined in many ways including one's capacity for logic, understanding, reasoning comprehension, self-awareness, learning, emotional knowledge, planning, creativity, and problem solving. Moreover, it is generally described as the ability to

perceive or deduce information, and to retain it as knowledge to be applied towards adaptive behaviors within an environment.

In defining intelligence, specialists note that the term represents a concept, not an object. A concept is an idea or theoretical construct developed, in the case of intelligence, to describe a behavior or a set of behavior. A concept such as intelligence is not a thing or concrete object like a desk that can be seen, touched, or moved. A more sensible approach is to describe intelligence according to what a person does or fails to do rather than describing it according to what a person is (Murphy & Davidshofer, 2005). Intelligence is the ability to solve problems and to adapt to and learn from life's everyday experiences, these are as follows:

- The ability to solve problems
- The capacity to adapt and learn from experiences
- Includes characteristics such as creativity and interpersonal skills
- The mental abilities that enable one to adapt to, shape, or select one's environment
- The ability to judge, comprehend, and reason
- The ability to understand and deal with people, objects, and symbols
- The ability to act purposefully, think rationally, and deal effectively with the environment

Furthermore, the purpose of intelligence testing is to measure various levels of intellectual ability within and across individuals. Many students served in special programs manifest below-average intelligence and in some cases, students' exhibit extremely low levels of intelligence. For this reason, teachers of students with special needs should be aware of the levels of intelligence of their students and, more important, the instructional implication of intelligence.

4.2.1 Purpose of Intelligence Testing

Most intelligence testing occurs during the classification and placement stage of assessing students with special needs. During this stage, assessment team use

intelligence test results, along with other measure of student ability and performance, to identify students who qualify for special services, including special education. Despite widespread use of intelligence tests, the meaning of intelligence and the efficacy of using intelligence tests remain a topic of debate for several reasons. One point of debate involves the initial (and difficult) task of defining intelligence.

Developing tests of intelligence based on a particular definition is an even greater challenge. Finally, the central focus of the debate concerns the role and use of intelligence tests in the process of classifying and placing students. Although some critics argue for the elimination of intelligence testing, most content that, no valid substitutes for intelligence testing exist at present. Most experts argue that they must continue to use intelligence tests, along with other valid measurements, to obtain a comprehensive picture of student learning ability and performance. The main purpose of assessing intelligence is as follows:

- To obtain and estimate of learning ability
- To know the level and ability of the students
- To identify students with disabilities
- To classify students according to their specific disabilities
- To periodically reevaluate the learning ability of students

IQ intelligence quotient; expressed as a standard score, usually with the mean of 100. The results of intelligence tests are usually reported in the form of a standardized IQ score. The IQ is a quotient that is derived in the following manner:

$$IQ = MA \div CA \times 100$$

In this calculation,

MA= mental age of the students

CA=chronological age of the students.

For example, using this formula, a child with a mental age of 9 and a chronological age of 11 would have an IQ of around 82. Same as a student with a mental age of 14 and a chronological age of 10 would have an IQ of 140. It is important for the special education professional to understand what an IQ score is and is not.

To possess a basic understanding of IQ scores, the professional educators should consider what is measured by IQ tests, that is, the content and presentation of the items on an IQ test and what the items represents. It is a commonly believed myth that IQ scores are measurement of potential that is innate in a person. The following statements illustrate some current views about intelligence and intelligence testing expressed in the literature.

Intelligence can be defined informally as intellectual ability. A person who solves a difficult crossword puzzle quickly or gives the right answer to a tricky mathematical problem or gets a high score on an IQ (intelligence quotient) test is showing intelligent behavior, and it is reasonable to infer that such a person is intelligent. Someone who does badly at the same tasks is not showing intelligent behavior and may have a low intelligence, but the inference is uncertain in this case because other explanations are possible. Poor performance, even on an IQ test, might be due to tiredness, lack of interest or motivation, test anxiety, or many other causes apart from low intelligence.

4.2.2 Instructional Implications of Intelligence

Many students could learn more effectively than they do now if they were taught in a way that better matched their patterns of abilities. Teaching for successful intelligence provides a way to create such a great combination between intelligence and teaching strategies. It involves helping all students capitalize on their strengths and compensate for or correct their weaknesses. It does so by teaching in a way that balances learning for memory, analytical, creative, and practical thinking. This article describes how such teaching is done and provides data supporting the efficacy of the approach.

Most of the children fail to learn at a level that matches their ability to learn. There can be several reasons for this failure. One reason is that the way students are taught and often assessed in school does not enable them to learn and perform in an optimal way. We have developed the theory of successful intelligence in order to understand these children and a set of methods of teaching for successful intelligence to help these students reach their full potential (Sternberg & Grigorenko, 2000).

The concept of levels of intelligence suggests that the learning rates and patterns of students with abnormal intelligence are quantitatively and qualitatively different from the learning rates and patterns of students with normal intelligence. Moreover, students at the same levels of intelligence often display similar learning characteristics. Although intelligence is only one variable in the learning process, teachers use many specialized methods and materials with students who have significantly high or low levels of cognitive ability. For example, students with abnormally low intelligence learn at a slower rate. As a result, teachers use techniques such as over learning (e.g., repeated practice) and creative repetition to help compensate for the cognitive deficits. Likewise, teachers carefully introduce new tasks only after students have mastered all of the prerequisite skills.

Moreover, teachers also avoid tasks that are beyond a child's level of mental ability because such tasks quickly become frustrating and often lead to failure for the students and the teacher. In contrast, students with abnormality high levels of intelligence learn at a higher rate than average students. Highly intelligent students also benefit from unique teaching methods and materials. For example, teachers of gifted students use tasks that encourage divergent thinking and creativity. Knowledge of the instructional implications of intelligence helps in understating the process of assessing the intellectual capacity of children with special needs.

In addition, most of the psychologists agree about the general meaning of intelligence, they disagree about specific definitions. Two authors of intelligence tests,

Wechsler and Binet, offer contrasting descriptions of intelligence (sattler, 2001). According to Wechsler, creator of the Wechsler scales of Intelligence, intelligence is global ability to act in a purposeful manner, to think reasonably, and to adjust appropriately to the environment. In contrast, Binet, the originator of intelligence tests, believed that intelligence consists of a group of abilities including judgment, good sense, initiative, and the ability to adjust to changes in the environments. These differing definitions help to explain why different authors construct different types of intelligence tests, depending on their interpretation of the meaning of the term.

Teaching for successful intelligence attempts to help teachers reach a larger cross-section of students than more traditional teaching methods that emphasize memory and analytical instruction. In teaching for successful intelligence, a teacher follows a number of fundamental ideas. There is not only one appropriate way of teaching and learning as well as assessing students' achievement. Teaching and assessment should balance use of analytical, creative, and practical thinking. Fundamentally, teachers need to help students capitalize on individual patterns of strengths and, at the same time, help them correct or compensate for weaknesses. Students, like teachers, need to develop flexibility, giving students multiple and diverse options in assessment. Because students have different life goals, student success needs to be defined in terms that are meaningful to them as well as to the institution. Students are more likely to see meaning if teachers provide numerous examples of concepts that cover a wide range of applications. Grade student work in a way that preserves the integrity of the course as well as the integrity of the students' varied life goals.

4.3 Specialized Measures of Intelligence

Successful intelligence is the use of an integrated set of abilities needed to attain success in life, however an individual defines it, within his or her sociocultural context. Thus, there is no one definition of intelligence. People are successfully intelligent by virtue of recognizing their

strengths and making the most of them at the same time they recognize their weaknesses and find ways to correct or compensate for them. Both are important. On one hand, students need to learn to correct aspects of their performance in which they are underperforming. On the other hand, they have to recognize that they probably will never be superb at all kinds of performance. It helps to find ways around weaknesses, such as seeking help from others and giving it in return. In other words, people find their own unique path to being intelligent.

The individually administered tests of general intelligence include subtests sampling a variety of behaviors including verbal language ability and performance skills. The verbal language items require responses to oral questions. For example, tasks such as answering factual and comprehension questions, defining vocabulary words, identifying similarities, and solving arithmetic problems all involve verbal language. Specific examples of such items include these questions: Who invented the telephone? What is a paragraph? How are a window and a door similar? (Wechsler, 1991).

The specialized intelligence tests include screening tests given to individuals and groups of students, tests for students with unique disabilities, and tests for infants, toddlers, and preschoolers. A short description of each specialized tests is as given below:

4.3.1 Screening Tests

Most of the screening tests are designed for administration to individuals or to groups and they measure cognitive ability by having students pencil in responses to multiple-choice questions on machine-scored answer sheets. The Otis Lennon School Ability Test is one of the widely used screening intelligence tests that rely on this format. The multiple-choice format limits the variety of contents. As a result, these tests tend to measure intelligence with a restricted sample of behavior. Furthermore, the pencil-on-paper format requires that test taker have good reading skills and experience with "bubble in" scoring sheets. Although this format is appropriate for most students, is causes difficulty for students with special needs (Otis & Lennon, 2002). For example,

students with visual perception problems may have difficulty accurately recording answers on scoring sheets.

4.3.2 Tests for Students with Special Needs

Tests for students with unique disabilities rely on restricted sample of behaviors like as screening tests. For example, the Universal Nonverbal Intelligence Tests (UNIT) (Bracken & McCallum, 1997; as cited in Venn, 2007) is a test of visual memory and visual reasoning ability that requires no verbal and minimal motor responses. It is developed for testing students with Hearing Impairment, Language Disabilities, or Limited English Proficiency. Moreover, it does not require reading, writing, and speaking skills. The UNIT includes of picture and abstract drawings on cards that students respond to by pointing to the correct drawing, or if necessary, using eye-blink communication system.

Tests such as the UNIT sample visual reasoning behaviors that require visual-perception ability to make perceptual discriminations and to remember visual image. Perceptual discriminations involve simple perceptual classifications and abstract manipulation of symbolic concepts. Perceptual classification takes usually consist of discrimination of colors, shapes, numbers, and objects. Abstract manipulation of symbolic concepts involves tasks such as visual discrimination (recognizing small differences in objects such as geometric of drawings), visual sequencing (identifying the progressive relationship in a series geometric figures), and recognition of details (identifying missing parts in pictures). Visual memory involves tasks such as remembering symbols, memory for designs, and object memory Illustrations of some visual reasoning tasks.

4.3.3 Tests for Infants, Toddlers, and Preschoolers

Tests for infants, toddlers, and preschoolers' estimates learning potential based on samples of the behavior appropriate for very young children. The Bayley Scales of Infant

Development, 2nd Edition (Bayley, 1993; as cited in Venn, 2007), for example, consists of subscales of mental ability, motor skills, vocalizations, and early verbal communication. The motor scale measures gross motor and fine motor skills, and the behavior scale is a rating scale completed by a primary caregiver.

In conclusion, the main reason for giving intelligence tests to students with special needs is too identify and classify students. In fact, the law mandates that most students referred for special education services receive an individually administered test of intelligence to estimate their learning ability. The way assessment teams interpret this estimate depends on the student's suspected disability: When assessment teams suspect learning disabilities, they look for a significant discrepancy between learning ability (as measured by an intelligence test) and achievement (as measured by an achievement test).

Students with learning disabilities will also likely display normal intelligence and a learning profile with significant strengths and weaknesses. When assessment teams suspect emotional disturbance, they look for normal intellectual abilities because eligibility requirements exclude students with mental retardation from such programs. When team members suspect mental retardation, they rely on intelligence testing to obtain evidence of significantly below-average learning ability that exists concurrently with deficits in adaptive behavior.

Although many states have replaced the traditional categories of learning disabilities, emotional disturbance, and mental retardation with more generic categories such as educationally handicapped, learning handicapped, and severely handicapped, all states employ some form of intelligence testing in identifying, classifying, and placing students into special programs. In addition, regulations require periodic reevaluation of intelligence to determine if a student should remain in the current placement, transfer to another program, or transfer out of special education entirely. Here is the example of Wechsler Intelligence scale for children.

Wechsler Intelligence Scale for Children-Revised 4th ed. (WISC-R-IV)

The WISC-IV (Wechsler, 2003) is designed to assess the global intellectual ability and processing ability of children ages 6 through 16 years. This scale has excellent technical qualities, well-designed administration, and scoring procedure. Unlike the earlier editions, this test does not yield verbal and performance IQ scores. The structure of the scoring system is based on the supported factor structure of the test. Therefore, test results are presented with a Full-Scale IQ score as well as index or processing scores.

The tests developers have reported that the basal and ceiling levels of the instrument have been expanded so that a more accurate assessment of intellectual ability can be obtained for very young students (6 years of age) as well as students in the older age group (aged 16 years). This provides more accuracy in measurement of ability for children who have cognitive limitations at the younger and who have superior cognitive functioning at the upper end.

The WISC-IV there are 15 tests, among them 10 core tests, and 5 supplemental tests are presented. Scores from each index, based on 10 core subtests only. Subtests presented in bolds are supplemental and their score is not added in intelligence. A discussion of each subtests is as given below:

- **Verbal Comprehension Index (VCI):** The following subtests support the construct of verbal comprehension. These subtests have been found to be heavily weighted in the understanding of language concepts.
  1. Similarities
  2. Vocabulary
  3. Comprehension
  4. Information (Supplemental)
  5. Word Reasoning (Supplemental)

- **Perceptual Reasoning Index (PRI):** Perceptual reasoning means that a person is able to look at visual stimuli and tap into reasoning skills to solve novel problems. In other words, these types of items may not be as heavily influenced by previous education experiences, but rather require the student to see a stimulus, process that visual concept mentally, and respond with a solution.

    1. Block Design
    2. Picture Concepts
    3. Matrix Reasoning
    4. Picture Completion (Supplemental)

- **Working Memory Index (WMI):** When an item is presented that requires the student to hold on to the stimuli for a period of time in order to solve the task, it is referred to as a working memory item. These items may require visual or auditory working memory.

    1. Digit Span
    2. Letter-Number Sequencing
    3. Arithmetic (Supplemental)

- **Processing Speed Index (PSI):** The subtests included in this index score assess how quickly a person can complete a task. The subtests included in the index require visual-motor processing and fine-motor skills required to respond to the items. All subtests in this index are timed.

    1. Coding
    2. Symbol Search
    3. Cancellation (Supplemental)

- **WISC-IV Materials:** WISC-IV materials include administration and technical manuals, record forms, response booklets, scoring and report writing software on CD, and a training CD.

- **WISC-IV Administration:** The WISC-IV takes about 75 minutes to give, depending on the response speed of the students. The expert evaluators administer the test following standardized procedures. Administration involves alternating the

presentation of subtests in a specified order. This alternating procedure makes taking the test more interesting. Moreover, specific training and certification are required for evaluators, and test use is limited to psychologists and diagnosticians who have met these conditions.

- **WISC-IV Scoring:** The WISC-IV yields IQs for the full scale and four indexes. These scores have a mean of 100 and a standard deviation of 15. The evaluator summarizes the testing results on a form that includes identifying information overall IQs, and graph that profile the results. Moreover, scoring may also include use of supplementary computer software report program that analyzes results and generates an interpretive report.

Let Us Sum UP

intelligence tests are excellent predictors of academic achievement and provide an outline of a person's mental strengths and weaknesses. Intelligence tests are psychological tests that are designed to measure a variety of mental functions, such as reasoning, comprehension, and judgment purpose. Furthermore, the goal of intelligence tests is to obtain an idea of the person's intellectual potential. The concept of levels of intelligence suggests that the learning rates and patterns of students with abnormal intelligence are quantitatively and qualitatively different from the learning rates and patterns of students with normal intelligence.

In conclusion, the main reason for giving intelligence tests to students with special needs is too identify and classify students. In fact, the law mandates that most students referred for special education services receive an individually administered test of intelligence to estimate their learning ability. The way assessment teams interpret this estimate depends on the student's suspected disability: When assessment teams suspect learning disabilities, they look for a significant discrepancy between learning ability (as measured by an intelligence test) and achievement (as measured by an achievement test).

Unit-End Activities

- *Objective Questions:*   *Group "A"*

Tick (↓) The Best Answer.

1. Which one is not related to measure of intelligence skills.
    a. Verbal reasoning
    b. Fluid reasoning
    c. Processing speed
    d. Screening

2. The IQ quotient is measure by using the formula of…
    a. IQ=CA÷MA×100
    b. IQ=MA÷CA×100
    c. IQ=CA×MA=100
    d. IQ=CA+MA×100

3. The verbal language items require responses to…
    a. Written questions
    b. Fluid reasoning
    c. Oral questions
    d. Students ability

4. Which subtests in not included in the verbal comprehension index.
    a. Block design
    b. Similarities
    c. Vocabulary
    d. Comprehension

5. Processing speed index included the subtests of…
    a. Digit span
    b. Coding
    c. Picture concepts

    d.   Matrix reasoning

- **Short Answer Questions:**   **Group "B"**

    1. Define the concept of assessing intelligence in special education.
    2. What are the purposes of intelligence testing.
    3. List-out the instructional implications of intelligence testing.
    4. Describe the concept of tests for students with unique needs.
    5. What is specialized measures of intelligence.

- **Long Answer Questions:**   **Group "C"**

    1. Explain the process of specialized measures of intelligence in special needs education.
    2. Illustrate the importance of tests for infants, toddlers, and preschoolers in the areas of special education.
    3. what is assessing intelligence? Explain the instructional implications of intelligence testing.

- **Points for Discussion**

    - Concept of intelligence and assessing intelligence.
    - Purpose of intelligence testing in special needs education.
    - Instructional implications of intelligence testing.
    - Specialized measure of intelligence tests.
    - Tests of students with unique needs.

Unit V: Developmental Assessment

The main focus of this chapter is assists we in learning the essential concepts and techniques of developmental assessment as it applies to young children with special needs. To achieve this goal, we consider the questions teachers ask about the developmental approach and examine the principles of developmental assessment. In addition, we investigate four types of developmental assessment instruments: screening tests, diagnostic scales, readiness tests, and specialized measures. Accompanying each type of instrument is a definition of the category, a description of representative evaluation tools, and a discussion of practical applications for special education teachers. in conclusion of the chapter, we consider the current trends and issues in developmental assessment and review the developmental tests used most often by preschool teachers.

5.1 Concept and Use of Developmental Assessment

Developmental assessment, an increasingly important topic in special education, is the process of measuring and evaluating the growth and progress of children from infancy through the primary grades. Teachers of young children with disabilities need in-depth knowledge of developmental assessment. In addition, special educators, understanding developmental assessment is part of a comprehensive knowledge base in testing and evaluation.

Developmental assessment is a specialized type of assessment for measuring the performance of young children, especially infants, toddlers, and preschoolers from birth to approximately 6 years of age. By utilizing predictable patterns that children follow as they grow, developmental assessment helps to determine whether a child lowing the normal sequence of skill acquisition at expected age levels. For example, the developmental milestones (critical skills in early childhood development) such as walking, saying one or two words, and toilet

training, all occur at about the same age for most children. Children normally learn to walk and to say one or two words at about l year age, and most children are toilet trained by age 2.

Surprisingly, this similarity in development occurs across cultures and social classes for children up to approximately 6 years of age. For this reason, most developmental tests assess behavior within the age range of birth through 6 years. However, some instruments measure behavior beyond the 6-year-old level, and a few tools extend even into adult- hood. In addition, specialized developmental scales evaluate behavior in narrow age ranges such as 4 to 6 years of age or birth 3 years of age.

Experts in assessment of young children have given developmental tests a special name: developmental scales. Developmental scales are specialized checklists of behavior arranged by skill area in chronological order. Most developmental scales measure performance in several specific skill areas, often called developmental learning areas. The curriculum in most educational programs for infants, toddlers, and preschoolers includes these learning areas. the traditional learning areas consists of the following aspects:

- Fine motor (small muscle) skills
- gross motor (Large muscle) skills
- communication and language development
- social development
- cognitive functioning
- self-help skills.

specialized developmental scales evaluate behavior in additional learning areas such as sensorimotor skills and reflexive behaviors for infants and toddlers, and for preschool children, preacademic or readiness skills necessary for success in the first grade.

Uses of Developmental Assessment

In programs for young children, teachers use developmental scales as part of the diagnostic-prescriptive process. The diagnostic component encompasses administering a developmental scale to determine current levels of performance and, more important, to identify specific skills the child has learned, has not learned and needs to learn next. The prescriptive component uses diagnostic information to develop a prescription or individual plan specifying appropriate goals for the child. The teacher then translates the objectives into learning activities and lessons for everyday use. Reassessment to measure progress over time occurs after implementing the individual prescription or intervention plan.

Moreover, comparing the results of the first assessment with the follow-up assessment provides an estimate of developmental growth. Revision of the child's individual program follows retesting. The revision process uses the reassessment data to establish new priorities for intervention, which become new or modified objectives in the individual plan. In addition, such developmental assessment, however, should not take place in isolation but should occur as part of the overall intervention program that is consistent with best-practice guidelines and legal mandates, including the Individuals with Disabilities Education Act (IDEA). The main uses of developmental assessments are as given below:

- Measure and evaluate the growth and progress of children from infancy through primary grades.
- Provides the in-depth knowledge of developmental assessment of young children to the teachers.
- Measuring the performance of young children, especially infants, toddlers, and preschoolers from birth to approximately 6 years of age.
- It helps to determine whether a child if following the normal sequence of skill acquisition at expected age level.

- Developmental scales are specialized checklists of behavior arranged by skill area in chronological order.
- Measure the young children's performance on several specific skill areas, often called developmental learning areas.
- The teachers use the developmental scales as part of the diagnostic-prescriptive process.

5.2 Principles of Developmental Assessment

The development assessment principles that follows are guideline for professional in using the developmental approach to assess the behavior and performance of young children. Originally described by Banus (1971) in a textbook for occupational therapist, these principles are as given below:

- Children follow a predictable sequence as they develop.
- Lower developmental skills precede higher developmental skills.
- Higher skills usually begin to emerge before lower skills drop out.
- Developmental progress depends in part on maturation.
- Teachable moments exist for children as they grow.
- Children with disabilities may skip stages of development.
- Children with severe handicaps may develop abnormal patterns of development.

The detail information of each principles are as follows:

- *Predictable Sequence of Development*

Children follow a predictable pattern as they grow. In this regard, test writers arrange the items on developmental scales according to this sequence. Teachers rely on this predictable sequence when they use developmental scales as curriculum guides for designing intervention programs and arranging learning activities.

- *Lower Skills Precede Higher Skills*

Skills develop in a predictable pattern; lower skills must precede higher skills. For example, scribbling (a lower skill) is a prerequisite for learning to draw the basic geometric shapes (a higher skill). Likewise, learning the meanings of words receptively represents a lower skill that is necessary for learning the higher-level skill of saying words expressively. Teachers rely on developmental scales, their knowledge of child development, and their experience with children to determine if a child has learned the prerequisite skills needed to begin learning higher-level skills.

- *Emergence of Higher Skills*

In concert with the lower-to-higher skills concept is the principle that lower skills need not drop out completely before higher skills begin to emerge. Many teachers and parents have experienced a classic illustration of this principle with children who crawl and creep while simultaneously learning to walk. With nondisabled children, higher-level skills like walking seem to emerge naturally. However, with young children who have disabilities, higher-level skills may not emerge without intervention. Special educators rely on their professional judgment and experience to decide when introduce higher level skills, and intervention largely depends on the needs and interests of the particular child.

- *Maturation*

Developmental progress depends in part on maturation of the nervous system as well as psychological maturation. For this reason, teachers should not expect performance of a skill until the demonstrate the necessary physical and psychological maturation levels for learning that particular skill.

- *Teachable Moments*

The principle of the teachable moment refers to the optimal time during which a child is physically, psychologically, and emotionally ready to learn a particular skill. on the other

hand, for this phenomenon include critical period and the critic moment. Developmental assessment helps professionals identify critical moments by determining mastered, emerging, and unlearned skills. When a teacher attempts to introduce a new skill before the critical moment, it may be difficult if not impossible for the child to learn the skill. Likewise, when teachers introduce a skill after the critical period, acquisition becomes increasingly difficult. For example, an infant reaches the critical moment for learning the eating skill of chewing at an early age (approximately 6 months). It is difficult (and dangerous due to the risk of choking on food) to introduce chewing before this age. If a child skips the chewing stage, it may become increasingly difficult to learn the skill at older ages.

- *Skipping Developmental Stages*

Children with disabilities often skip stages of development. This may lead to gaps in development and splinter skills. A gap in development is a delay slowdown in the development of a particular skill or set of skills. A splinter skill is a skill learned in isolation from related skills. Teachers use developmental tests to identify gaps and splinter skills in need of remedial programming.

- *Abnormal Patterns of Development*

Children with severe disabilities often fail to follow the normal sequence of development and may even develop abnormal patterns due to the severity of their disabilities. For example, children with severe physical impairments frequently retain reflexive movements that normal infants integrate into higher-level movement patterns in the first few months of life. When children retain reflexive movement patterns, they may have difficulty leaning to move, communicate, or perform self-help skills. For example, in the self-help skill area of eating, some children develop abnormal gag and bite impairments. These abnormal movement patterns often impair the ability to learn how to chew food and to develop normal speech.

5.3 Provisions for Infants and Toddlers in IDEA

The Individuals with Disabilities Education Act (IDEA) mandates a free, appropriate public education for 3- to 5-year-old children with disabilities and encourages early intervention programs for infants and toddlers under 3 years of age and their families. A key provision of the law requires the development of a special individual education plan (IEP) for each child. IDEA recognizes the importance of parents by replacing the IEP requirement with an individual family service plan (IFSP) requirement for infants and toddlers (birth through 3 years). Similar in content to the IEP, the guidelines of the IFSP include specific requirements for parental participation and additional regulations for assessing the child and the family.

Under IDEA, each child under 3 years must receive a multidisciplinary evaluation, which includes assessment of family needs. Like the IEP, the IFSP addresses the present levels of performance as well as goals and criteria for determining attainment of objectives. However, the family service plan assesses performance in the following areas:

- Physical development
- Cognitive development
- Language and speech development
- Psychological development
- Self-help skills

The law requires a statement of a family's strengths and needs related to their child and mandates a justification of the extent, if any, to which services will not be provided in a natural environment. In this regard, we can understand the role of assessment in planning programs for all children with disabilities. Moreover, IDEA mandates use of diagnostic-prescriptive approach to assessment and intervention by requiring the following aspects:

- Identification of present levels of performance (Diagnosis)
- Development of an intervention program based on goals (Prescription)
- Follow-up evaluation to determine attainment of objectives (Diagnosis)

- Revision of objectives (Update of the prescription)

This legislation also calls for nondiscriminatory assessment procedures. To ensure nondiscriminatory testing, evaluation materials must be provided in the child's native language or other appropriate communication mode. In addition, the tests given to children with impaired sensory, manual, or speaking skills should accurately reflect the child's ability level rather than the child's impaired skills. This means that tests must be carefully selected to avoid discrimination. obviously, for teachers to meet all of these legal mandates by themselves is difficult if not impossible. Therefore, teachers serve as members of a team that includes other professional and parents. Further information about nondiscriminatory assessment including considerations regarding sociocultural influences appears in the accompanying Multicultural Considerations feature.

5.4 Concept and Uses of Developmental Screening

Like all assessment, developmental assessment includes a variety of different instruments. Each instrument has a different goal and produces specific assessment results. Developmental assessment instruments include screening tests, diagnostic scales, readiness tests, and specialized tests. Although overlap exists among instruments, each fulfills a different purpose. Developmental screening tests produce thumbnail sketches of overall development. In contrast, developmental scales furnish in-depth information about strengths, weaknesses, and gaps in development. Most readiness tests help determine whether a student is ready for the typical first-grade curriculum. The readiness tests focus on preacademic skills and concepts. Finally, specialized tests include scales and procedures for assessing children with unique needs, including infants and children with severe and profound disabilities. In most situations, developmental assessment begins with screening.

Developmental Screening

Developmental screening helps identify the general performance levels of young children from birth to approximately 6 years of age. Screening alerts parents and

professionals to children who may have a developmental delay or learning disability. In addition, teachers often rely on developmental screening to develop initial programming goals with new students. When professionals conduct developmental screening, they use concise, abbreviated tests and evaluation procedures that provide an overall picture of functioning. Although developmental screening is an efficient way to identify children with possible delays, professionals must avoid using screening to label children or diagnose developmental disabilities.

Limited Predictive Validity of Developmental Screening Tests

Compared with diagnostic assessment, developmental screening tests and procedures exhibit limited predictive This is due to the short length of screening tests coupled with the instability and the rapidly changing behavior of young children. As a result, evaluators must interpret results from developmental screening cautiously. Although screening provides useful information regarding possible levels of performance, professionals should treat screening results as estimates rather than exact or precise measures.

5.5 Guidelines for Developmental Screening

Screening guidelines are available from a variety of sources including the Committee on children and Disabilities (2001) and the Illinois Association for Supervision and Curriculum Development (1990). These guidelines include practical considerations for meeting the needs of young children, such as:

- Rely on play as a key part of all screening activities.
- Conduct interactions with the child in a positive manner.
- emphasize hand-on activities rather than paper-hand-pencil tasks.
- Provide parents with written information about the purpose and limitations of screening.
- Allow parents to stay with their child during screening.

- Include a parent interview as part of the screening.
- Give parents immediate feedback about the results of the screening.
- Involve parents as active members of the screening team.
- Ensure that all evaluators have experience with the children being screened.
- Certify that all screeners are specifically trained, sensitive to sociocultural issues, and knowledgeable about the limitations of screening instruments.
- Follow developmental screening with formal audiological testing and vision screening.

Although these guidelines pertain to the screening process with young children, they are applicable to assessment activities in general. The emphasis on parent's participation highlights the key role of the family in the assessment process.

Many professionals use developmental screening with young children. Special education teachers rely on screening tests when they conduct initial observations and form first impressions of new students. Teachers screen new students to identify levels of performance and determine the special needs and interests of the child and the family. Intervention specialists, who serve infants and toddlers in home-based programs, employ similar screening techniques as they begin working with children and their families. Specialists, such as speech and language pathologists, occupational therapists, and physical therapists, also depend on screening to identify children who may need therapy services.

A different use of screening involves conducting group screening at daycare centers and preschool kindergarten programs to identify children who are potentially at risk. Medical professionals, including pediatricians, nurses, medical and social workers, also employ developmental screening to identify children who may need to be referred for diagnostic assessment. Psychologists and educational diagnosticians also rely on screening tests as one of the initial steps in the assessment process. Some examples of screening tests are as follows:

- **AGS Early Screening Profiles**

The AGS Early Screening Profiles (ESP) (Harrison et al., 1990) measures performance in cognitive/language, motor and self-help/social skills, and surveys the child's articulation, home environment, health history, and behavior. Designed to provide practical information to help make accurate screening decisions, the norm-referenced ESP is for children from 2 through 6 years of age and can be administered individually or to groups of children using a format in which children move from station to station.

The entire instrument takes about 45 minutes to administer and offers two levels of scoring. Level I scores, which can be obtained quickly consist of three descriptive statements like as, above average, average, or below average, for the three subtests. Level II scores include standard scores, normal curve equivalents, percentiles, stanines, and age equivalents for the three subtests and the total test. Level II scores also include descriptive statements of above average. average, or below average for the three subtests and the total test. The ESP was standardized on more than 1,000 children, and the manual provides considerable evidence regarding the reliability and validity of the instrument.

- **FirstSTEP: Screening Test for Evaluating Preschoolers**

FirstSTEP: Screening Test or Evaluating Preschoolers (Miller, 1993) is an individually administered, norm referenced screening test for children from 2 years 9 months to 6 years 2 months and is designed to identify preschool children who are at risk for developmental delays in the five areas mandated by IDEA: cognition, communication, motor, social-emotional, and adaptive behavior. FirstSTEP also provides an optional parent/teacher scale that adds information about the child's typical behavior at home and at school to the behavior observed during screening. FirstSTEP takes about 15 minutes to administer.

- **Early Screening Inventory, Revised**

The Early Screening Inventory Revised (ESI-R) (Meisels, Marsden, Wiske, & Henderson, 1997, as cited in Venn, 2007) is a norm-referenced, individually administered, developmental screening instrument for children 3 to 6 years for age. The purpose of the ESI-R is to help identify young children who are at risk for school failure and who may need special services. it takes about 15 to 20 minutes to give the ESI-R. The ESI-R includes preschool version (ESI-P) and a kindergarten version (ESI-K). A complete Spanish version is available. The inventory assess development in visual-motor/adaptive, language and cognition, and gross motor skills.

5.6 Developmental Indicators for the Assessment of Learning

Two representative developmental screening tests in widespread use are the Developmental Indicators for the Assessment of Learning. Third Edition (DIAL-3) and the Denver ll. The DIAL-3, which is designed for use in group and individual settings, represents one of the leading tests of its type. Originally published in 1954. the Denver ll was one of the first developmental screening tests and is still used today by many professionals.

- **Developmental Indicators for the Assessment of Learning, Third Edition (DIAL-3)**

The Developmental Indicators for the Assessment of Learning, Third Edition (DIAL-3) (Mardell- Czudnowski & Goldenberg, 1998) assesses learning in motor development, conceptual development, language skills, self-help skills, and social development. This test is designed for individual administration by a single evaluator or group administration by a team of professionals and paraprofessionals, it requires 30 to 45 minutes to give. The DIAL-3 (summarized in the Test Review box) identifies children who need a complete diagnostic evaluation and is easy to use, with well-designed administration procedures and many supplemental features.

The DIAL-3 is a norm-referenced screening instrument. It is meant to identify young children (ages 3 to 6 years) at-risk or with delays in one or more of the following five developmental areas: cognitive/basic concepts, language, motor, self-help, and social-emotional. The DIAL-3 is available in English and Spanish versions. Screening teams frequently give the DIAL-3 to all of the children in a particular site such as a day-care center, a preschool program, a group of kindergarten classes, or a Head Start program. Children scoring below the cutoff level are referred for a complete developmental evaluation as a follow-up to the screening process. In addition, the DIAL-3 is useful for assessing children on an individual basis.

- **DIAL-3 Materials**

The DIAL-3 kit consists of a large canvas carrying bag that contains a manual, score sheets, parent questionnaires, manipulatives, dials, operator's handbooks in English and Spanish, and a training packet. The well-designed materials appeal to young children, making it easy to conduct assessment in a play like atmosphere. Moreover, optional materials include a training video, a computer-assisted scoring program, and scannable software for exporting data. Further information about the computer scoring software appears in Technology Focus box which is given below:

TECHNOLOGY FOCUS

Computer scoring software

Available DIAL-3 software includes a Computer ASSIST for DIAL-3 program that enables fast, convenient, and accurate along with the ability to print a complete scoring report and a report for parents. The report includes identifying information, a score summary, a narrative account of the screening results, and recommendations. The

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DIAL-3 also includes a scannable form for exporting data in a format usable by statistical and database programs for further analysis.

School districts are increasingly relying on software like this. For example, schools in Wichita, Kansas use the DIAL-3 to screen kindergarten children in the fall and the spring (American Guidance Service, 2001). In 1999-2000, the district screened 4,000 students to identify their overall developmental level, to identify students with potential developmental delays. and to measure progress. The school district used scannable forms that enabled developing customized reports and moving the testing data into a database for further analysts. In the 2000-2001 year, the district expanded this successful screening program to include prekindergarten children.

- **DIAL-3 Administration and Scoring**

When given to a group of children at a prearranged screening site. administration begins with a warm-up period for the children. After the children feel comfortable, they are guided through different testing stations. A play area serves as a waiting station. The DIAL-3 provides standard deviation and percentile cutoff points by chronological age at 2-month intervals for total and subtest scores in motor, concepts, language, self-help, and social areas. Percentile ranks, and standard scores are also provided. A sample from the DIAL-3 showing decisions for the five screening areas.

- **DIAL-3 Technical Characteristics**

Standardized on a sample of 1,560 English speaking and 650 Spanish-speaking children, the DIAL-3 exhibits adequate technical qualities for use as a screening measure. The test developers conducted appropriate reliability and validity studies as part of the revision process, and additional studies using the DIAL have been conducted during the past two decades, providing further evidence of validity.

- **DIAL-3 Summary**

The primary purpose of the DIAL-3, which is useful in a variety of settings, is to identify children with potential delays who need further evaluation. The instrument can be given to individuals or groups of children. The test kit includes well-designed materials for training an assessment team, making the DIAL-3 an excellent instrument for personnel preparation, especially in assessment courses that emphasize early intervention.

Test Review

Developmental Indicators of the Assessment of Learning, Third Edition (DIAS-3)

Type of Test: Norm referenced group or individually administered

Purpose: A screening test of developmental learning

Content Areas: Motor development, concept development, language skills, self- help skills, and social development

Administration Time: 30 to 45 minutes

Age Levels: 3 to 6 years

Suitable for: Identifying students with potential delays who need further evaluation

Scores: The Dial-3 provides standard deviation and percentile cutoff points for total subtest scores, Percentile ranks, and standard scores are also provided.

In Short: The well-designed DIAL-3 is a global screener for individual administration by a single evaluator or group administration by a team of professionals and paraprofessionals.

Let Us Sum Up

Developmental assessment is a specialized type of assessment for measuring the performance of young children, especially infants, toddlers, and preschoolers from birth to approximately 6 years of age. By utilizing predictable patterns that children follow as they grow, developmental assessment helps to determine whether a child lowing the normal sequence of skill acquisition

at expected age levels. For example, the developmental milestones (critical skills in early childhood development) such as walking, saying one or two words, and toilet training, all occur at about the same age for most children. Children normally learn to walk and to say one or two words at about I year age, and most children are toilet trained by age 2.

Most developmental scales measure performance in several specific skill areas, often called developmental learning areas. The curriculum in most educational programs for infants, toddlers, and preschoolers includes these learning areas. the traditional learning areas consists of the following aspects: Fine motor (small muscle) skills, gross motor (Large muscle) skills, communication and language development, social development, cognitive functioning, and self-help skills.

Developmental screening helps identify the general performance levels of young children from birth to approximately 6 years of age. Screening alerts parents and professionals to children who may have a developmental delay or learning disability. In addition, teachers often rely on developmental screening to develop initial programming goals with new students.

Many professionals use developmental screening with young children. Special education teachers rely on screening tests when they conduct initial observations and form first impressions of new students. Teachers screen new students to identify levels of performance and determine the special needs and interests of the child and the family.

Intervention specialists, who serve infants and toddlers in home-based programs, employ similar screening techniques as they begin working with children and their families. Specialists, such as speech and language pathologists, occupational therapists, and physical therapists, also depend on screening to identify children who may need therapy services.

Unit-End Activities

- *Objective Questions:*   *Group "A"*

Tick (↓) The Best Answer.

1. Measuring the performance of young children, especially infants, toddlers, and preschoolers from birth to approximately 6 years of age is types of assessment related to…
   a. **Developmental assessment**
   b. Inclusive assessment
   c. Formal assessment
   d. Standardized assessment

2. The main uses of developmental assessment are concerned to…
   a. Value determination
   b. Future prediction
   c. **Evaluate the growth and progress of children from infancy through primary grades**
   d. Diagnostic assessment

3. Which one is not related to principles of developmental assessment.
   a. Predictable sequence of development
   b. **Verbal reasoning**
   c. Lower skills precede higher skills
   d. Teachable moments

4. ……..mandates focus a free, appropriate public education for 3 to 5 years old children with disabilities.
   a. CEC
   b. ADA
   c. DSM
   d. **IDEA**

5. Which aspect is not related to IDEA mandates use of diagnostic-prescriptive approach to assessment and intervention.

   a. **Self-help skills**
   b. Diagnosis
   c. Prescription
   d. Update of the prescription

- **Short Answer Questions:** Group "B"

  1. Define the concept of developmental assessment.
  2. List-out the uses of developmental assessment.
  3. Define the concept of developmental screening.
  4. Show the importance of provisions for infants and toddlers in IDEA.
  5. List the guideline for developmental screening.

- **Long Answer Questions:** Group "C"

  1. Explain the principles of developmental assessment.
  2. Illustrate the guidelines for developing screening in special needs education.
  3. Describe the principle of developmental assessment in special needs education.

- **Points for Discussion**

  - Concept and uses of developmental assessment in special education.
  - Concept and uses of developmental screening.
  - Principles of developmental assessment in special education.
  - IDEA Provisions for infants and toddlers in special needs education.
  - Guideline for developmental screening.
  - Developmental indicators for the assessment of learning.

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