Certificate Course

Capacity Building and Professional development of Teachers and teacher Educators for Successful Implementation of Inclusiveness

Block - III

INCLUSIVE TEACHING-LEARNING PROCESS

Inclusive Education...

NETAJI SUBHAS OPEN UNIVERSITY
School of Education, Kolkata
&
Commonwealth Educational Media
Centre for Asia, New Delhi

CEMCA

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Preface

Equity and access to quality education is a serious challenge and to face this challenge the role of teachers, the role of University and process of learning are required to be completely overhauled. The advent of new technology in the domain of information and communication has enabled us to provide quality education to the mass overcoming the distance barrier at a minimum course fee. Accordingly, the Institutions are working together to make this happen in near future.

The present endeavour of Netaji Subhas Open University (NSOU) and Commonwealth Educational Media Centre for Asia (CEMCA) is also a part of such initiative. The competent minds of these two organizations came together to start such collaborative work taking help and inputs from experts with vast experience and exposures in their respective areas of specialisation. As a platform of new initiative, both the organizations resolved to launch this academic programme with special emphasis on Inclusive Education, as this area of academic deliberation is prioritised both at the national and international levels to make the society truly inclusive in all dimensions.

The study materials, as prepared for the above Course, are segmented in blocks and units, each representing a coherent concept. It provides opportunity to break away from the 'one size fits all' system of education. Thus, the course has been made more customized, flexible and acceptable to the learners.

I sincerely believe that the Course which have been designed so meticulously will be appreciated by the learners. Hope the learners will imbibe the discourses in this innovative platform so that critical thinking and reflective ideas can be encouraged and addressed.

I take this opportunity to proffer my sincere thanks to the authorities of CEMCA for their generous financial assistance in this endeavour.

With best wishes,

Dt. June 15, 2017

Subha Sankar Sarkar

Vice-Chancellor

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BLOCK – III

INCLUSIVE TEACHING –

LEARNING PROCESS

UNIT -1	**PLANNING & CREATING LEARNING EXPERIENCES IN INCLUSIVE CLASSROOM**
UNIT – 2	**DESIGN FOR LEARNING AND INSTRUCTION**
UNIT – 3	**ACCOMMODATION & ADAPTATION**
UNIT – 4	**LEARNER SUPPORT SERVICES IN SCHOOL**

BLOCK – III

INCLUSIVE TEACHING –
LEARNING PROCESS

Broad Objectives:

After the Completion of this module, you will be able to -

➢ plan and create learning experiences for the students;

➢ engage the students meaningfully in teaching-learning process;

➢ apply the essence of Differentiated Instruction (DI) & Universal Design for Learning (UDL);

➢ make accommodation and adaptation plan and implement for the students with special needs;

➢ plan and utilize different learner support services.

BLOCK – III
INCLUSIVE TEACHING –
LEARNING PROCESS

INTRODUCTION

Learners,

Through this Block-III of the course, you are introduced to an inclusive set-up where you may plan and define learning experiences for the diverse learners. This block further gives a detail essence of universal design for learning (UDL), Differentiated Instruction (DI), accommodation and adaptation plans as well as different learner support services as spelt out in an inclusive setting or classroom.

The block comprises of **four** Units.

- The first unit caters to the conceptual framework of UDL and DI
- The second unit creates the core components of accommodation and adaptation strategies for diverse learners.
- The third unit comprehends the various teaching-learning strategies in an inclusive classroom.
- The fourth unit outlines the specialized services in the form of individualized educational programme (IEP), students support programme for health & hygiene, sports & other life-skills.

UNIT-1: PLANNING AND CREATING LEARNING EXPERIENCES IN INCLUSIVE CLASSROOM

Structure

1.0 Introduction

As the learners enter the classroom, they bring with them a unique background, set of skills, and educational needs. No two learners can ever learn the same, for each possesses his or her own set of individualised qualities, skill sets and acumen levels. Diversity in the classroom thus refers not just the cultural diversity, but also diversity in skills, knowledge, and needs. It is important to understand these attributes in order to create effective teaching-learning conditions. These days the growing number of learners from diverse backgrounds entering classrooms has reinforced the importance of making schools more inclusive. With a greater variation in the talents, and social, cultural, economic and political backgrounds of the learners, the challenges to inclusivity in education are a tangible reality. Thus the class-room in India faces a challenge to use this diversity constructively so that the teaching-learning processes and practices can be made democratic, thereby, achieving the larger goals of social justice. In this context the agenda of "inclusive education" has gained importance. There has been a further incentive with the enactment of the Right of Children to Free and Compulsory Education (RTE) Act, 2009.

As you have completed two blocks and have developed clear understanding about diversity in learners, learners with various disabilities, barriers in learning, inclusive practices in education and so on, this is high time to develop knowledge in planning and creating learning experiences in inclusive classroom.

While a few learners with disabilities present very unique learning needs, they are by far the exception. Learners with disabilities share similar learning features like problems with memory retention, retrieval, strategy use, vocabulary development, and language coding. As learners' transition to the secondary level, there is need to address these areas of difficulty. A careful designing of instruction of priority areas supported by frameworks and abundant practice and review, can maximize learner understanding. The

majority of learners with disabilities can access the general education curriculum meaningfully.

Meeting this goal will make all the difference.

Keeping the above in view, the present unit will discuss about diverse learning needs, diverse learning styles, various types assessment like diagnostic assessment, formative assessment, important teaching learning strategies like collaborative, active, peer mediated strategies and so on.

1.1 Objectives

Upon completion of the unit, you will be able to-

❖ describe the diverse learning needs and learning styles of the learners and nature of inclusive classroom;

❖ explain assessment for planning learning experiences;

❖ plan learners' engagement and learning experiences;

❖ discuss how to create learning experiences and engage the learners meaningfully; and

❖ describe appropriate instructional strategies.

1.2 Nature of Inclusive Classroom

1.2.1 Diverse Learning Needs

Knowing your children including those from diverse backgrounds will help to develop your subjective understanding of their strength and needs, and thereby build the first bridge between you and your learner. This understanding helps you to teach in better ways. There are several means to assess a child with disability even by using the same tools that you use with the rest of the class. But in case of children with disabilities, your assessment needs to be more intensive and may be time consuming, but you can have accurate and valid results by using several ways such as:

i. Observation: You need to be active while observing the child in the classroom so that you can exactly find out what the child has learnt, how the child learns and what the child likes. It is better to note down, so that this vital information can be used while teaching.

ii. Testing the child: It is important that suitable adaptation in the procedure needs to be done while assessing/testing children with various disabilities. For example, if you have a child with intellectual disability, you need to adopt specific testing procedures such as testing after demonstration, or making testing procedure easier by asking the child to match, choose, point etc. On the contrary, when dealing with a child who is overactive (hyperactive) in the class, you may assess him/her on the basis of markings in books, oral responses, tape/video recorded responses and the like.

iii. Interview: Other teachers, parents, older siblings and sometime peers can provide you important information for assessment.

iv. Work samples: It provides evidence of child's actual classroom performance; child's worksheets on particular skill development such as spelling test, arithmetic drills, handwriting etc.

v. Portfolios: It focuses on child's emerging abilities, accomplishment over time recorded on worksheets, drawings, photographs, writing samples, and audio-video records.

So for the teacher, it is important to know how s/he can transact the class in the best possible way. Here are some ways in the form of examples or brief illustration for better inculcation:

i. Get a sense of how learners feel about the cultural climate in your classroom. Let learners know that you want to hear from them if any aspect of the course is making them uncomfortable.

How comfortable do you feel participating in this class? What makes it easy or difficult for you?

In what ways, if any, does your ethnicity, race, or gender affect your interactions with the teacher in this class? How does that work out with fellow Learners?

ii. Introduce discussions of diversity at department meetings. Include topics such as classroom climate, course content and course requirements, graduation and placement rates, extra-curricular activities etc

iii. Become more informed about the history and culture of groups other than your own. Avoid offending out of ignorance.

iv. Aim for an inclusive curriculum. Ideally, a curriculum should reflect the perspectives and experiences of a pluralistic society.

v. Emphasize the importance of considering different approaches and viewpoints. One of the primary goals of education is to show Learners different points of view and encourage them to evaluate their own beliefs.

vi. Re-evaluate your pedagogical methods for teaching in a diverse setting. In a class various categories of Learners are found as far as their learning style and assumption about teaching and teachers are concerned. There can thus be no one method of imparting instruction; you need to work out your pedagogical method in an evolutionary pattern.

vii. Speak up promptly- if a Learner makes a distasteful remark even jokingly

viii. Avoid singling out Learners as spokespersons. It is unfair to ask any one Learner to speak for his or her entire race, culture, or nationality.

ix. Advise Learners to explore perspectives outside their own experiences

x. Involve Learners in your research and scholarly activities. Whenever you allow Learners to see or contribute to your own work.

xi. Recognize any biases or stereotypes you may have absorbed.

xii Rectify any language patterns or case examples that exclude or demean any groups.

(Adapted from Tomlinson, 1999)

Do you discourage female learners from undertaking projects that require quantitative work?

Do you undervalue comments made by speakers whose English is accented differently than your own?

Do you-

i.   Use terms of equal weight when referring to parallel groups: men and women rather than men and ladies?

ii. Use both 'he' and 'she' during lectures, discussions, and in writing, and encourage your learners to do the same?

iii. Recognize that your learners may come from diverse socioeconomic backgrounds?

iv. Refrain from remarks that make assumptions about your learners' experiences, such as, "Now, when your parents were in college . . ."?

v.   Refrain from remarks that make assumptions about the nature of your learners' families, such as, "Are you going to visit your parents during summer recess break?"

xiii Do your best to be sensitive to terminology: Terminology changes over time, as ethnic and cultural groups continue to define their identity, history, & relationship to the dominant culture.

xiv Convey the same level of respect and confidence in the abilities of all your learners.
     For example, tell all your learners that you expect them to work hard in class, that you want them to be challenged by the material, and that you hold high standards for their academic achievement.

xv   Don't try to "protect" any group of learners. Do not refrain from criticizing the performance of individual learners in your class on account of their ethnicity or gender.

For example, A teacher mistakenly believed she was being considerate to the learners of colour in her class by giving them extra time to complete assignments. She failed to realize that this action would cause adverse feelings on all sides: the learners she was hoping to help felt patronized and the rest of the class resented the preferential treatment.

xvi Be impartial in how you accept Learners' good work.

For example, one learner complained about her teacher repeatedly singling out her papers as exemplary, although other learners in the class were also doing well. The teacher's extravagant public acclaim, as well intended, made this learner feel both uncomfortable and anxious about maintaining her high level of achievement, while interacting on even terms within her peer group.

Xvii Make it clear that you value all comments.

For example, if male learners tend to ignore comments made by female learners, reintroduce the overlooked comments into the discussion.

xviii Encourage all learners to participate in class discussion.

xix Provide opportunities for all learners to get to know each other.

xx Dealing learners of different learning styles.

For example, Use of different teaching methods like lectures, small groups, discussions, collaborative learning, group work to meet the variety of learning needs.

Xxi Give assignments that recognize Learners' diverse backgrounds and special interests.

(Taken from NSOU B.Ed Spl Ed SLM, 2016)

Self-assessment Questions 1:

Answer the following questions in about 40 words each.

i. What is meant by diversity and learning needs?

ii. Mention any two components of diverse learning needs.

1.2.2 Diverse learning Styles

No two human beings are alike on earth. Hence, they possess different characteristics. Apropos to this, they have diverse needs. This give rise to diverse learning styles too.

Why Incorporate Learning styles in our Teaching?

The following points will help you to understand why you need to incorporate learning styles in your teaching.

Making Teaching and Learning a Dialogue: For example, it may include a variety of active learning techniques that actually involve learners in the collective dialogue.

Responding to a more diverse learner group- The increase in diversity, not only in terms of ethnicity and gender, but also in terms of age, nationality, cultural background can affect classroom setting in many ways.

For example, older learners who can draw from their life experience are more likely to be independent self-directed learners.

(Montgomery & Groat, 1998 ; Solomon, 1992)

The discussion of learning styles here focuses mainly on the following types of learners:
i.   Print learners
ii.   Visual learners
iii. Auditory learners
iv.   Tactile learners
v.   Kinaesthetic learners

The first and greatest challenge facing the teacher lies in identifying the special abilities of each Learner. Whereas physical disabilities are usually relatively easy to identify, learning disabilities can be very difficult to detect and classify. Classifying learners solely on assessment scores and previous classroom performance may be misleading and should be avoided.

It is often noted that environmental factors may have a negative impact on a Learner's ability as well as motivation to succeed academically. These provide a unique challenge since the teacher has little control to spot on difficulties in the environment-home, or choice of friends. Effective instructional strategies for diverse learners are the need of the hour indeed. Let us begin accordingly in the subsequent sections of this discourse (Adapted from Shabha, 2006):

Visually-Impaired Learners

There are various kinds of visual impairments that have been dealt in the previous block. The teacher and Learner should develop an individualized programme that creates a time frame for achieving specific learning objectives. Supplementary notions for supporting visually impaired learners include:

i.   Creating confidence in the learner's ability.

ii.   Encouraging learners to prepare an oral or written report that profiles a successful person who is visually impaired.

New resources may be nurtured and provided for a better learning and transition to the real world.

Hearing Impaired Learners

Hearing impaired not only means those who are deaf but also those who are hard of hearing. (You have read about it in details in the previous block). However, their learning styles necessitate instructions to be simple and clear, and the use of as many printed materials or other visual materials as possible to convey the lesson. Technology - driven resources may be made available in schools.

Attention Deficit Disorder (ADD)

Attention deficit disorder (ADD) is distinguished by critical and persistent difficulties with attention span, impulse control, and sometimes hyperactivity. The two types of ADD are attention deficit hyperactivity disorder (ADHD) and undifferentiated ADD.

This part is thoroughly discussed in Block-I, Unit-2

Print-Learners

i.   Print learners prefer to read out learning materials in printed form:

ii. When presenting key terms and concepts, refer to the textbook and use the textbook examples. Print learners can later go back and study the material.

iii. Consider using handouts and study sheets. Learners can also make their own study sheets.

iv. Word games can help print learners grasp key terms and concepts.

Visual-Learners

Visual learners need to "see" the concept. This is achieved through visualization. This requires the following:

i.   Textbooks filled with images are supportive to this learning style.

ii. For some Learners, these images are the key to learning; for others, they offer reinforcement.

iii. In addition to the images in the textbook, overhead transparencies, videotapes, slides, and presentation graphics can all be used to help Learners visualize concepts and skills.

iv. Web sites with rich multimedia components can be used effectively to demonstrate processes or explore concepts through flow chart, schematic diagram etc.

All print learners are visual learner but all visual learners are not print learners.

Auditory-Learners

Auditory learners learn best by hearing. Auditory learners who read a textbook lesson benefit from spoken reinforcement of key ideas. For example- ask learners to summarize their reading as part of discussion activities. Read directions for assignments aloud and be sure to tell auditory learners the steps involved in a new process/concept/ explanation etc

Tactile-Learners

Tactile learners learn best by touching or handling objects. Tactile learners gain learning activities that use fine motor skills including writing. Manipulative are particularly important to tactile learners. They also benefit from participating in hands-on activities, role playing, and creating displays. Tactile learners remember what they did and how they did it; they do not necessarily remember what they saw others do or what they heard.

Kinaesthetic-Learners

Kinaesthetic learners achieve best by taking an active part in classroom instruction.

Motion is an important part of kinaesthetic learning style.

For example, walking to the board to explain a problem require the motions of walking and writing.

This discussion has so far provided a palate of diverse learning styles. These learning styles are very common in our classroom and nearby environment, thereby providing a wide range of features in an effort to help you accommodate the learning styles of all your learners. In some cases' activities or projects are identified as appropriate for a specific learning style. Although it is not possible to incorporate every feature into your teaching learning plans, it is well worth your time to review the features and determine which ones might work well for you and your learners.

1.2.3: Teaching all learners

Teaching all learners beacons "The Inclusive Classroom".

Inclusion is a controversial concept in education whereby each learner is integrated to the fullest extent possible in a general education classroom (Burke & Sutherland, 2004).

Pre-requisites

Well-planned inclusive services, general education teachers and co-teaching teams often struggle with how to effectively teach learners with disabilities in general education classrooms. It is therefore required to provide guidelines for inclusive practices that will assist general education teachers in meeting the educational needs of their learners with disabilities.

Guidelines for Planning

Collaborate with special education teachers, related service providers, and para professionals on a regular basis. If you are co-teaching, commit to planning at least once a week with your co-teaching partner and determine your respective teaching responsibilities. Write your plans down and share the work load.

Use of variety of co-teaching methods: This includes:

(Baker, Wang, & Walberg, 1995).

i.   Interactive Teaching - Teachers play alternate roles of presenting, reviewing, and monitoring instruction.

ii.   Alternative Teaching - One person teaches, re-teaches, or enriches a concept for a small group, while the other monitors or teaches the remaining Learners

iii.   Parallel Teaching - Learners are divided into mixed-ability groups, and each co-teaching partner teaches the same material to one of the groups.

iv.   Station Teaching - Small groups of Learners rotate to various places in the school for instruction, review, and/or practice.

Guidelines for Classroom Management

This requires the following:

i.   Create a structured classroom.

ii.   Designate separate areas for group and individual work.

iii.   Create a daily class schedule.

iv.   Display classroom rules.

     a. Post the daily schedule using different colour.

     b. Opportunities for purposeful movement.

     c. Develop classroom indications for settling down to work, getting out materials, and calming down.

v.   Plan for transition times (between subjects or class, before and after lunch, changing classes).

vi.   Help Learners organize their materials by using checklists, folders, and containers

vii. to keep materials

viii. Organized activity desks.

ix.   Visually monitor Learner activity.

<div align="right">(Adapted from Bender, 2002)</div>

Guidelines for Structuring Lessons

According to CAST, 2014, three qualities of inclusive design have been incorporated when planning lessons:

i.   Multiple means of representing content (visual and oral strategies),

ii. Multiple means of Learners' expression of content (writing, illustrating, speaking), and

iii. Flexible means of engagement as Learners learn (videos, software, and role-playing).

These are discussed thoroughly in the next unit of this block

Inclusion depends on teachers' attitudes towards learners with special needs, Teachers need to possess a set of skills, expertise, knowledge, pedagogical approaches, adequate teaching methods and materials and time if they are to address diversity in their classrooms.

The findings regarding classroom practices reveal five groups of factors that are effective for inclusive setting: The following discussions are dealt elaborately in the later section of this unit.

Co-operative teaching

Peer tutoring or co-operative learning is effective in cognitive and affective (social-emotional) areas of learners' learning and development. Learners who help each other, especially within a system of flexible and well-considered pupil grouping, profit from learning together.

Collaborative problem-solving

Learning together to solve problems in teaching-learning.

Heterogeneous grouping

Heterogeneous grouping and a more differentiated approach in education are necessary and effective when dealing with a diversity of learners in the classroom.

Effective teaching

All learners with Special Educational needs, improve with systematic monitoring, assessment, planning and evaluation of the work. The curriculum can be geared to individual needs and additional support can be introduced adequately through the Individual Educational Plan (IEP). This IEP should fit within the normal curriculum.

1.3: Assessment for Learning

Successful Assessment for learning strategies result in improved learner progress on a continual basis. The principal characteristic of Assessment for Learning is effective feedback provided by teachers to learners on their progress. The value of the feedback is dependent on two factors:

    i.   the quality of the feedback

    ii.   how learners receive and eventually use it.

Teachers, therefore, need training and support to enable them to make valuable assessment decisions, to provide quality feedback to learners, and to teach learners to receive feedback positively and use the information contained within it effectively to improve their work.

Why teachers perform assessment?

    i.   helping Learners meet certain standards

    ii.   using the assessment data to identify strengths and weaknesses in Learner performance, and to improve the quality of teaching and learning

Types of Assessment

There are 3 types of assessments, namely,

i.   Diagnostic,

ii.   Formative, and

iii.   Summative

You will find below a clear explanation of assessment for learning-the process:

i)   Explain the learning objectives and feedback opportunities.

ii)   Check learner understanding of learning objectives

iii)   Brief learners on what they have to do and what they have to hand in.

iv)   Introduce the assessment criteria to the learners and check their understanding

v)   Provide opportunities to apply the assessment criteria.

vi)   Provide the necessary guidance and support to learners individually and provide oral feedback.

vii)   Provide peer assessment opportunities.

viii) Undertake the teacher-led assessment of learner's work.

ix)   Provide written feedback to learners.

x)   Create opportunities for learners to undertake remedial action.

<div align="right">(Jones, 2005)</div>

1.3.1 Diagnostic Assessment

Meaning:

Diagnostic assessment can include both classroom (educational) assessments and, where appropriate, professional assessments (i.e., speech and language, medical, and psychological assessments providing information and/or diagnosis of specific conditions that affect learning).

When to conduct:

Diagnostic assessments are conducted before instruction begins, and they provide teachers with information about learners' readiness to learn, about their interests and attitudes. This information creates the starting point for new learning, and helps teachers and Learners set appropriate learning goals. It enables teachers to plan instruction and assessments that are differentiated and personalized to meet Learners' learning strengths, needs, interests, and learning preferences.

Strengths:

Diagnostic assessment helps identify what the Learner brings to his or her learning, in general or with respect to a specific subject. Information can be gathered from various sources - from the Learner, the Learner's previous teachers, and the Learner's parents, as well as from formal sources- school or institutions. The information gathered provides a baseline that informs further assessment, the results of which can be used in developing a Learner profile and/or a class profile (discussed in details in the next unit)

1.3.2 Formative Assessment

Meaning:

Formative assessment refers to frequent, interactive assessments of Learner progress and understanding to identify learning needs and adjust teaching appropriately.

When to use:

Those teachers who use formative assessment techniques are better equipped to cater to diverse Learners' needs by the help differentiation and adaptation of teaching (these two concepts are thoroughly discussed in the next unit) to raise levels of Learner achievement and to achieve a greater parity of Learner consequences.

Barriers:

Although there are major barriers to wider practice, including perceived tensions between classroom-based formative assessments, and traditional summative tests to hold schools accountable for Learner achievement.

Prospect:

The formative assessment may be applied at the school and policy levels, in order to identify areas for improvement emerged from the assessment.

Strengths:

More consistent use of formative assessment throughout education systems may help stakeholders address the very barriers to its wider practice in classrooms. Formative assessment methods play a pivotal role to raise overall levels of Learner achievement. Research evidence on formative assessment has shown that it may be one of the most important involvements for promoting high-performance.

Though formative assessment is not a "silver bullet" that can solve all educational challenges but it is a silver lining in meeting goals for high-performance, high-equity of Learner outcomes, and for providing Learners with knowledge and skills for lifelong learning.

The Six Key Elements of Formative Evaluation:
   i)   Use of varied approaches for assessment of learner's understanding.
   ii)   Use of varied instruction methods to address diverse learner needs.
   iii)   Establishment of learning goals.

iv) Active involvement of learners in the learning process.

v) Feedback and adaptation of instruction.

vi) Establishment of classroom culture for the use of assessment tools.

OECD/CERI, 2008

1.3.3 Planning Assessment and Instruction

Why planning is crucial:

i. a plan increases teacher awareness of curriculum outcomes and Learner needs, and enhances teaching practices.

ii. Topics can be sequenced in a logical way, providing important linking for Learners.

iii. Planning reduces many management shortfalls in the classroom.

iv. Planning guarantees a thorough basis for presentation to parents, Learners, and administrators. This yields collaborative planning.

How to develop Plans

i. read and understand the general and specific outcomes provided in the curriculum consider Learner needs, background knowledge, and experience

ii. select the appropriate outcomes and the sequence in which they will receive focus

iii. select teaching and learning activities

iv. select learning resources

v. considers assessment and evaluation

Steps to execute the plans:

The instructional process comprises three basic steps below:

i. developing class profile

ii. planning instruction,

iii. delivering the planned instruction, or in other words, teaching them assessing learners' learning or outcomes.

Developing a Class Profile

Two highly effective tools that can assist teachers in getting to know their Learners and in planning effective instruction and assessment are the class profile and the individual Learner profile.

The class profile is an information-gathering tool, a reference tool, and a tracking tool, all in one. It helps teachers plan effective assessment and instruction for all the Learners in the class, monitor Learner progress, and provide timely interventions when needed.

Meaning:

A class profile is a basket of the strengths, needs, interests, and readiness of the Learners in the class. It is a resource for planning and provides critical information at a glimpse. It acts as an inventory of gathered data of a Learner. It is a profile that gives a reference tool for planning assessment and instruction at the beginning of the year, semester, or term. It also serves as a pursuing tool for monitoring progress, recording changes, adjusting instructional strategies, planning subsequent instruction or interventions, and sharing information with the stakeholders-teachers, friends, peers and parents.

Use of Class profile:

Regarding the diverse need of the learners and subsequent diverse learning styles, class profile is an important pointer that should be factored in setting up desired learning goals of a class. The following points throw light on the use as well as significance of Class profile sorting, categorizing, and summarizing classroom data;

i. detecting patterns of similarities and differences among the Learners that will help guide the planning of assessment & instruction

ii. engaging in evidence-based teacher inquiry centred on Learner learning;

iii. using data to design differentiated instruction;

iv. forming flexible groupings;

v. monitoring Learner progress by noting results of ongoing assessments;

vi. making adjustments in response to assessment results to better focus instruction;

vii. sharing information among fellow educators and parents.

<div align="right">(Retrieved from: Learning for All....2013)</div>

Developing Learner Profile

Just like a class profile, Learner profile provides detailed information about the Learner to guide the selection of assessment tools, instructional strategies, and, where appropriate, individualized supports that are best suited to that Learner's learning style, preferences, strengths, needs, interests, and readiness.

<div align="right">(Retrieved from: Learning for All....2013)</div>

During this rigorous exercise of preparing Learner profile, the stakeholders whose contribution is immense is regulated and promoted accordingly. They are:

Core team:

Classroom Teacher (S, Students, Parents

In-School team:

Principal, School Counsellor, Educational assistant, Resource Teacher, Special education teacher

School Support Team:

Family Physician, Special Education Consultant, Speech language Pathologist, Physiotherapist, Consultant for Deaf, hard of Hearing, Blind, Low vision, etc., Psychologist, Community Resources Personnel, Behavioural Consultant, Occupational Therapist, Nurse, Special Services Worker, Psychiatrist, Social worker, Mental Health Professional etc.

<div align="right">(Adapted from: Rethinking Classroom Assessment ....n.d)</div>

Planning for Learner Transition:

One of the core purposes of any Educational Institution is to ensure that the whole system is organised in such a way that there is effective delivery of education and support services to all learners who experience barriers to learning and development in both public ordinary as well as public special schools.

Education White Paper 6 (Department of Education Framework and Management Plan for the First Phase of Implementation of Inclusive Education retrieved from www.eenet.org.uk/ resources/docs/managing_transition.pdf) outlines six strategic levers for initiating the change which has to occur within any system as a whole. These are:

Strategy-i: Within mainstream education, the general orientation and introduction of management, governing bodies and professional staff to the inclusion model, and the targeting of early identification of learners who experience barriers to learning (including learners with disabilities) and intervention in the Foundation and Intermediate Phase.

Strategy ii: Mobilization of the large number of disabled and other vulnerable out-of school youth.

Strategy iii: Phased conversion of 500 primary schools into full-service schools over 20 years.

Strategy iv: Establishing district-based support teams.

Strategy v: The qualitative improvement of special schools and settings for the learners that they serve and their conversion to resource centres that are integrated into district-based support teams

Strategy vi: Engaging in advocacy and development of educators and all other stakeholders to understand the new approach and our programmes.

Such strategies may be adapted to local settings while planning for Learner transition.

1.4 Teaching-Learning Strategies

This section will explain several teaching-learning strategies which will help you to tailor your instructions to address the needs of your learners.

1.4.1 Collaborative Teaching and Learning Strategies:

Collaborative teaching and learning is an instructional strategy where learners team together on an assigned task. Here, learners can produce the individual parts of a larger assignment individually and then "gather" the final effort together, as a team. Cooperative learning is sometimes confused with collaborative learning. It refers to a technique where learners work together in small groups on an organized activity. Learners are individually responsible for their work but also for the work of the group as a whole, and both products are evaluated.

Collaborative learning and the community building that it supports can greatly enhance the learner's experience (Collaborative learning-Wikipedia)

Collaborative learning can be carried out in the following situations of study. (Smith & MacGregor, 1992)

i. Case studies

ii. Discussions

iii. Learner-moderated discussions

iv. Debates

v. Collaborative writing

vi. Collaborative presentation

vii. Games

viii. Demonstrations

So, what do you think is the most important aspect of collaborative learning?

Well, it is the Team Building & communication (bond) link between the group members. Let us see how it works.

When a group of learner is teamed up, the following considerations come into play:

i.   Purpose of the team-what the team will accomplish

ii. Expectations for the team as a whole as well as for individual members

iii. Roles for each individual

iv. Conflict-resolution strategies to employ when the team encounters disagreements, doesn't meet deadlines, or doesn't deliver on milestones

v.   Meeting schedules, locations, agendas, and minutes

vi. Communication strategies: e-mail, phone, face-to-face

vii. Decision-making policy: consent, guidelines, etc

viii. Project plan: deadlines, objectives, activities, and so forth (Johnson & Johnson, 2005)

.The task of developing a team bond is something that can be first introduced in class and then completed on learners' own time outside class.

Outcome of the learning strategy:

Learners ultimately become more actively involved in their learning; and are more likely to complete the course. With such collaborative activities, starting initially and continuing throughout the course, participants can foster and encourage community, collaboration, and team building among their learners.

1.4.2 Active Learning in small groups:

The major characteristics associated with active learning strategies include:

i.   Learners are involved in more than passive listening

ii. Learners are engaged in activities like reading, discussing, writing etc

iii. Less importance placed on information transmission and better stress placed on increasing learner skills

iv. Emphasis laid on the consideration of attitudes and values

v. Learner motivation is increased (especially for adult learners)

vi. Learners can receive instant feedback from their instructor/facilitator/teacher

vii. Learners are engaged in higher order thinking like analysis, synthesis and evaluation

Active learning in small class:

Size of the class: a group of 3-25 Learners but it varies from country to country. "Teaching and Learning in small groups has a valuable part to play in the all-round education of Learners. It allows them to negotiate meanings, to express themselves in the language of the subject, and to establish more intimate contact with academic staff than more formal methods permit. It also develops the more instrumental skills of listening, presenting ideas and persuading" (Exley & Dennick, 2004)

Active learning in small groups can be divided under three broad headings:

i. content (theme or topic)

ii. task

iii. processes (the activities and social relationships)

There are certain threats towards the group climate in a small group learning environment. Given the consideration of group dynamics in the class, such kind of active learning in small group can be assessed and lacunae may be addressed. The individual in a group interacts within a dynamic where all the group members are involved in the effective functioning of the group.

Active learning in large classes

Actually, a large class has no "exact size." Usually it is measured in terms of the number of Learners per teacher (Learner-teacher ratio). In some countries, it is 25-30 Learners per one teacher is considered large, while in other countries this is seen to be normal or even quite small. From a teacher's perspective, though, a class is "large" whenever it feels large. While a class of more than 50 Learners is usually considered a large class, to those of you who normally teach 25 or fewer Learners, a class of 35 can be large.

Please remember, however, that there is no "best way" to teach large classes. You must develop the approach that works best for your teaching style, the characteristics of your Learners, and the goals and objectives of your lessons and curriculum.

The Classroom Environment

Virtually all of us have little to or no control over how many learners we must teach. However, we do have control over the classroom environment in which they learn. This is very important, since this environment affects how well your Learners can learn.

After the initial shock, or maybe in response to it, what questions you may ask yourself? The first question that would come to mind is "How am I going to manage them all?" Your ability to create well-managed physical and psycho-social environments can make the difference between a calm and functioning classroom and a classroom in chaos.

Organizing a large classroom:

i.   Maximize classroom space

ii.   Facilitate movement.

iii.   Use space outside of the classroom

iv.   Display Learner work creatively

v.   Involve your learners

vi.   Use introductions

vii.   Actively use Learners' names

viii.   Break class into small groups

ix.   Create Learner profiles

x.   Be personal

xi.   Allow Learners to express themselves.

xii.   Encourage questions and comments.

xiii.   Acknowledge difficult concepts and anticipate difficulties.

xiv.   Use positive discipline techniques

xv.   Conduct interactive "getting to know you" activities

(Johnson, et al, 1991; Kumar & Kumar, 2007.

Teaching strategies:

No one method is best; they all mutually support one another like:

i.   lectures,

ii.   in class exercises,

iii.   brainstorming,

iv.   simulations & games,

v.   concept models,

vi.   Problem Solving and Demonstrations,

vii.   Peer Teaching or Learning Cells,

viii.   Poster Sessions and

ix.   giving assignments

1.4.3: Experiential learning

The following lines are taken from a book authored by Gentry, 1990

I HEAR AND I FORGET

I SEE AND I REMEMBER

I DO AND I UNDERSTAND

What is the essence of the above three lines?

The answer is it is learning by experience. Various terms have been used to label the process of learning from experience. Learning by doing paved the way for "experienced-based learning."

Experiential learning can take many forms, including field trips, laboratory experiments, role playing, and work placements. All share common features, including (Gentry, 1990)

i.   Mixture of content and process: there should be a balance between the activities and the underlying content/theory.

ii.   Engagement in purposeful, meaningful endeavours that encourage a "big picture" perspective: the activities must be personally and emotionally relevant to the

Learner, and allow them to make connections between the learning they are doing and the real world.

iii. Opportunities for reflection: Learners should critically reflect on their own learning, connecting their experience to theory and gaining insight into themselves and their interactions with the world. Learners can also consider how their new skills, knowledge and experiences are transferrable to other situations or environments, including those outside of academia.

The experientially-based approaches involve four phases- Design, Conduct, Evaluation and Feedback. All these components work in a cyclic manner like a system.

PEDAGOGIES FACILITATING EXPERIENTIAL LEARNING:

i.   Problem-based learning (PBL)

ii.   Project method

iii. Discovery method

iv.   laboratory method

v.   Experiential exercises,

vi.   Case discussions,

vii. Study group discussions, and

viii. Individual case write-ups.

ix.   Role-playing

x.   Field trips

(Adapted from Gentry, 1990)

Assessment Strategies for experiential learning:

Some of the following strategies can be used to assess experiential learning:

i.   Creating a reflective journal or a portfolio

ii.   Reflection on critical events that took place during the experience

iii. Essay, report, or presentation (could be arts-based, multimedia or oral) on what has been learnt (preferably with references to excerpts from reflective writing)

iv.   Self-awareness tools and exercises (e.g., questionnaires about learning patterns)

v.   Short answers to questions of a 'why' or 'explain' nature (e.g., "What did you learn during this assignment? What did you not learn that you would like to?")

a.   One-on-one oral assessments with the instructor

b.   A project that develops ideas further (individually or in small groups)

c.   Self-evaluation and/or group evaluation of a task performed

1.4.4 Co-Teaching Methods:

What is it?

i.   Two (or more) teachers or other certified staff

ii.   Contract to share instructional responsibility

iii.   For a single group of Learners

iv.   Primarily in a single classroom or workspace

v.   For specific content (objectives)

vi.   With mutual ownership, pooled resources, and joint accountability

vii.   Although each individual's level of participation may vary.

What it is not?

i.   Collaboration

ii.   Team teaching

iii.   Inclusion

Ideally, co-teaching includes collaboration in all facets of the educational process. It encompasses collaboratively assessing Learner strengths and weaknesses, determining appropriate educational goals and outcome indicators, designing intervention strategies and planning for their implementation, evaluating Learner progress toward the established goals, and evaluating the effectiveness of the co-teaching process.

Strengths of co-teaching method:

1.   Increase instructional options for all Learners.
2.   Improve program intensity and continuity.
3.   Reduce disgrace for Learners with special needs.
4.   Increase support for teachers and related service specialists.

Adapted from Cook & Friend, 1995

1.4.5 Peer-mediated Instructions

Concept:

i.   Peer mediated instruction (PMI) is a method in special education where peers of the target Learners are trained to provide necessary tutoring in educational, behavioral, and/or social concern.

ii.   In PMI, peers may mediate by modelling appropriate behavior themselves, using prompting procedures to elicit appropriate behavior from the target Learners, and reinforcing appropriate behavior when it occurs.

iii.   The peer tutors are chosen from the target Learners' classrooms, trained to mediate and closely observed during mediation.

iv.   Among the advantages noted to the technique, it takes advantage of the positive potential of peer pressure and may integrate target Learners more fully in their peer group.

v.   Conversely, it is time consuming to implement and presents challenges in making sure that the peers follow proper techniques.

vi.   It may be an effective technique for a wide range of Learners, including those with autism spectrum disorder/condition.

Adapted from (Chan et al., 2009).

Application to General Education classroom settings:

The following characteristics have been identified by Kulik, 1992 as central for successful implementation of Peer Mediated Instruction.

i.   Teachers should establish high expectation levels.

ii.   No Learners are expected to fall below the level of learning needed to be successful at the next level of education.

iii.   Careful orientation to lessons.

iv.   Teachers must clearly describe the relationship of a current lesson to previous study.

v.   Learners are reminded of key concepts or skills previously covered.

vi.   Clear and focused instructions to participants.

vii.   Close teacher monitoring of Learner progress.

viii.   Frequently formal and informal monitoring of Learner learning by teachers.

ix.   Teachers must require that Learners are accountable for their product and learning.

1.5 Let Us Sum Up

In a nutshell the unit can be summarized as no learners are alike in all aspect because diversity is the spice of life. As a consequence of this they possess different learning needs and education should cater to these varied needs. This calls for diverse learning styles that will suit the different learning needs. To cope with such conditions, teachers have to devise certain make-shifts as and when required out of basket of strategies. Teaching all learners requires proper and rational assessments also This unit outlines various modes of assessment.

1.6 Answers to Self-Assessment Questions (SAQ)

Answers to Self-Assessment Question-1

i.   Diversity here means diversity in skill, knowledge and needs of the learners in the classroom. Learning need is knowing your children/learner those from diverse background that will help you develop subjective understanding of their strengths and gaps and thereby build bridge between the teacher and the learners.

ii.   Two components of diverse learning needs are:

•   Varying teaching to match a wide range of learning needs.

•   Creating positive environment in the classroom.

Answers to Self-Assessment Questions-2

i.   Three uses of planning instruction:

•   reduces management shortfalls in the classroom

•   increases teacher's awareness of curriculum outcomes and learners needs and enhances teaching practices.

ii.   To name a few: Mental health professional, Special Education consultant, Psychiatrist, occupational therapist and physiotherapist.

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1.8 Unit End Exercises

1. What is meant by instructional strategies?
2. Give the pre requisites of co-teaching method.
3. What is active learning?
4. Differentiate between small class size & large class size.
5. What is the weakness of peer-mediated instruction?
6. List any four characteristics of learning styles.
7. State some significance of assessing learning needs.
8. Which teaching strategy is regarded as a panacea for all learning?
9. Give the rationale behind PMI.
10. Mention any four functions of diagnostic assessments.

Reflective Exercises:

1. Why teachers should have the knowledge of diverse learning styles? State two reasons.
2. Do you agree with NCLB Act, 2001? State two reasons to substantiate your answer.
3. What else can be regarded as a potent factor for identifying special abilities of a learner?
4. List two characteristics of tactile learners.
5. Does your school have provisions to evaluate learning styles of the learners through available inventories?
6. Give your views on flexible use of resources. Give one example.
7. What is the role of the teachers in the assessment process?
8. Do your school practices involve diagnostic assessment? Think & write few lines on it.

9. Make a flow chart of developing plan.

10. Write two problems you may face as a teacher in preparing a class profile.

11. Plan a collaborative learning team on a project work assigned on causes of child labour.

12. Close your eyes and imagine yourself as a new teacher who is assigned to teach a class containing 60 or more Learners.

13. How will you organize a lesson of your own subject by the help of learning?

14. Give a brief outline only.

15. Is formative assessment a panacea to diverse learning style?

16. Is it at all required to interact with learners in ways that manifest double standards?

17. Does the teacher treat learners equally and even-handedly in the classroom?

18. Is PMI possible? Give two reasons.

UNIT - 2: DESIGN FOR LEARNING AND INSTRUCTION

Structure

2.0. Introduction

You have learnt about the diverse learning needs and diverse learning styles in the previous unit, this unit provides you the scaffold for teaching all learners. This takes the name of inclusive practices. At times as a teacher you need to take the assistance of accommodation and adaptation techniques as well. Taking the challenge to meet the learners' needs and individual styles, such practices are chosen as diverse strategies. Also to make the practices real and pragmatic, various teaching-learning strategies are adopted as and when required. To do justice to the assessment process, the whole teaching-learning practice takes an innovative turn and rejects the "one size fits all" notion. This unit is a voyage into these concepts in detail. A systematic presentation will lead you to an interesting journey of teaching-learning altogether.

2.1 Objectives

Upon completion of the unit, in the inclusive classroom, you will be able to -

❖ Describe the role of Universal Design learning (UDL)in classroom learning;

❖ Explain the different principles and strategies of UDL;

❖ Describe the role of differentiated instruction (DI); and

❖ Apply the concept of UDL and DI in classroom instruction.

2.2. Universal Design for Learning (UDL)

2.2.1: Concept of UDL:

Universal Design for Learning (UDL) is a framework that provides all learners equal opportunities to learn. It encourages teachers to design flexible curricula that meet the needs of all learners. Using UDL principles in general education classrooms makes curriculum and instruction accessible and engaging. Curriculum barriers are reduced; learning is supported; learners gain knowledge, skills, and enthusiasm for learning; and their learning is validly assessed (Rose & Meyer, 2014).

Focus of UDL:

UDL focuses on the ability of teachers to meet the diverse learning needs of all learners, even those with impairments that affect their mobility, vision, hearing, and learning. Teachers must recognize that there are multiple and flexible ways of providing effective instruction while adhering to curricular standards and objectives. Thanks to technology, universal design enables learners to respond to and interact with curricula and achieve learning standards.

What do all UDL practices have in common?

They reach and engage the maximum number of learners.

They recognize that Learner possess different skills, experiences, and learning styles. They emphasize flexible and customizable curricula. They use multiple modes of presenting content, engaging Learner, and assessing comprehension.

In what ways does UDL provide curriculum transaction (teaching-learning) in real situation?

The answer is- many people think of access in the purely physical sense.

Let us go through some examples:

i.   A student in a wheel chair might use an elevator to access higher floors in a building. Although, this type of access is very important, access to learning is far more complex. The UDL framework addresses this complexity by encouraging thoughtful planning of flexible curricula (goals, methods, materials, and assessments) from the start, which meet the needs of all learners.

ii. Only providing Learner with paper text could be problematic, but providing Learner with flexible digital text is one way to make instructional materials more accessible to all Learners.

iii. A student who has difficulty accessing printed text due to a visual impairment or dyslexia could still 'access' the same text by using text-to-speech feature

iv. While a student who needs cognitive access could use comprehension supports, such as vocabulary definitions, highlighted abstract literary concepts, foreign language translations, or animated coaches that assist with answering comprehension questions.

The role of teachers in UDL implementation:

i. Teachers as facilitators are the key to UDL implementation.

ii. They can promote the use of UDL by serving on curriculum selection committees and encouraging school districts to purchase curriculum materials that incorporate UDL principles;

iii. Adopting UDL principles in designing and planning curricula for their classrooms; Demonstrating and sharing how to use UDL principles with their teaching colleagues;

iv. Requesting professional development on UDL for all educators in their school or district;

v. Collaborating with colleagues on experiences with UDL and how to better implement UDL in the future.

2.2.2. Principles of Universal Design

The principles of UD intend to focus attention on those characteristics of design that most impact all users -- younger and older, larger and smaller, left- and right-handed, with and without disabilities. The UD enable to better integrate features that meet the needs of as many users as possible toward the focus of Universal Design. The UD may be applied in different ways, depending on the design of discipline/ subject of study. These can be clubbed as under (Rose & Meyer, 2014):

1. Equitable use. The design is useful and marketable to people with diverse abilities. Career services example: Job postings in formats accessible to people with a broad range of abilities, disabilities, ages, racial, and ethnic backgrounds.

2. Flexibility in use. The design accommodates a wide range of individual preferences and abilities. Campus museum example: A design that allows a visitor to choose to read or listen to the description of the contents of display cases.

3. Simple and intuitive use. Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level. Assessment example: Testing in a predictable, straightforward manner.

4. Perceptible information. The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities. Dormitory example: An emergency alarm system with visual, aural, and kinaesthetic characteristics.

5. Tolerance for error. The design minimizes hazards and the adverse consequences of ac-accidental or unintended actions. Instructional software example: A program that provides guidance when the student makes an inappropriate selection.

6. Low physical effort. The design can be used efficiently and comfortably and with a minimum of fatigue. Curriculum example: Software with on-screen control buttons that are large enough for Learner with limited fine motor skills to select easily.

7. Size and space for approach and use. Appropriate size and space is provided for approach, reach, manipulation, and use regardless of the user's body size, posture, or mobility. Science lab example: An adjustable table and work area that is usable by Learner who are right- or left-handed and have a wide range of physical characteristics and abilities.

Attributes of UDL

Here, an outline is provided, the detail discussion is done in the next subunit. Universal Design for Learning is about providing multiple means of:

Presentation – to offer learners various ways of acquiring information and knowledge.

Expression – to provide Learner alternatives for demonstrating what they know. Engagement - to tap into Learner' interests, challenge them appropriately, andmotivate them to learn.

These three attributes are considered as the backbone of UDL, according to the Center for Applied Special Technology (CAST, 2011) and is a widely accepted one.

i. UDL surrounds accessible features into curriculum design from the beginning; it is "proactive", like having built-in accommodations that provide immediate accessibility for all Learner.

ii. UDL characteristically provides multiple (alternative) and flexible instructional practices to ensure that all Learner can access, participate in, and progress in the curriculum.

iii. UDL meets the diverse learning needs of all Learners.

iv. UDL correspond to the concepts of differentiated instruction (DI); that there are four classroom elements that should be taken into account to ensure differentiated instruction:

1. content,

2. process,

3. product, and

4. Learning environment.

Success string of UDL-you will now see how far it is reached:

Digital technology makes UDL curriculum solutions possible.

For example, digitized textbooks enable Learner to take responsibility for their own learning by allowing them to highlight words, enlarge text type, increase the volume, use links to look up unfamiliar words, just to name a few. Teachers can easily infuse digitized texts into their instructional methods and other classroom technologies; and technology in turn offers the flexibility "upfront" that is needed when addressing Learner' diverse learning needs. A teacher's first step in adopting a UDL framework in the classroom is to assess and identify the Learner' diverse learning needs.

Here, in this section, let us clear some doubts on terminologies that are used more often in the discourse of UDL.

What is the difference between UDL and Assistive Technology (AT)?

Assistive technology devices and services are considered by the individualized education plan (IEP) team. AT strategies are developed for the individual student whereas UDL benefits all Learners.

What is the difference between UDL and Accommodations?

Appropriate instructional accommodations do not change curriculum content and standards or decrease content difficulty. Teachers provide accommodations to Learner with disabilities as add-ons to the standard curriculum materials and methods. UDL inserts accommodations, or "front-loads" them and integrates them into the overall design of curriculum instruction.

2.2.3. Multiple Means of Representation

The Centre for Applied Special Technology (CAST), defines UDL as "a research-based set of principles that together form a practical framework for using technology to maximize learning opportunities for every student" (Rose & Meyer, 2002)

When UDL is applied, curriculum designers create products to meet the needs of Learner with a wide range of abilities, learning styles, and preferences. The UDL curriculum "reflects an awareness of the unique nature of each learner and the need to address differences" by proposing:

i.   Multiple means of representation, to give learners various ways of acquiring information and knowledge;

ii. Multiple means of action and expression, to provide learner's alternatives for demonstrating what they know; and Multiple means of action and engagement, to tap into learners' interests, offer appropriate challenges, and increase motivation. (Rose & Meyer, 2002)

2.2.4. Multiple Means of Action & Expression:

It is the how of learning. It rests on the following attributes:

i. Providing multiple means of action and expression means providing different ways for Learner to demonstrate what they know and what they have learned.

ii. Assessments are designed to measure knowledge, skills, and abilities.

iii. Providing Learner with a single method of evaluation such as multiple choice exams or written assignments can create barriers for Learner with Learning Disabilities and Learner from different cultural backgrounds.

iv. Application of Universal Design for Learning (UDL) to assessment used in education has the potential to ensure that the variability among learners is addressed.

(Adapted from CAST, 2011)

Need of the hour:

Learners differ in the ways that they can traverse a learning environment and express what they know. Individuals with significant movement impairments (e.g., cerebral palsy), those who struggle with strategic and organizational abilities (executive function disorders), those who have language barriers, and so forth - all approach learning tasks very differently. Some may be able to express themselves well in written text but not speech, and vice versa. It should also be recognized that action and expression require a great deal of strategy, practice, and organization, and this is another area in which learners can differ. In reality, there is not one means of action and expression that will be optimal for all learners; providing options for action and expression is essential.

There is no medium of expression that is equally suited for all learners or for all kinds of communication. On the contrary, there are media, which appear poorly suited for some kinds of expression, and for some kinds of learning. While a learner with dyslexia may excel at story-telling in conversation, he may falter when telling that same story in writing. It is important to provide alternative modalities for expression, both to the level

the playing field among learners and to allow the learner to suitably express knowledge, ideas and concepts in the learning environment.

<div align="right">(Adapted from CAST, 2011)</div>

2.2.5. Multiple Means of Engagement

Engagement represents a crucial element to learning, and learners differ markedly in the ways in which they can be engaged or motivated to learn. There are a variety of sources that can influence individual variation in affect including neurology, culture, personal relevance, subjectivity, and background knowledge, along with a variety of other factors. For example, some learners are highly engaged by impulse and novelty while other are disengaged, even frightened, by those aspects, preferring strict routine. Some learners might like to work alone, while others prefer to work with their peers. In reality, there is not one means of engagement that will be optimal for all learners in all contexts. Hence providing multiple options for engagement is an essential prerequisite.

How can education change to meet the demands of effectively educating an increasingly diverse student population with the skills, knowledge, and abilities' they need to be productive and successful citizens in the 21stcentury? The key to this locking condition is the environment (CAST, 2011)

Role of external environment:

Since it is important to design the external environment so that it can provide support, motivation and engagement, it is also important to develop learners' innate abilities to regulate their own emotions and motivations. These can be achieved by (CAST, 2011):

i.   The ability to self-regulate -at coping and engaging with the environment. It is a critical aspect of human development.

ii.   It is seen that individuals develop self-regulatory skills on their own, either by trial and error or by observing successful adults; many others have significant difficulties in developing these skills.

iii. Some classrooms do not address these skills explicitly, leaving them as part of the "hidden" curriculum that is often inaccessible or invisible to many.

iv. Those teachers and settings that address self-regulation explicitly will be most successful in applying the UDL principles through modelling and prompting in a variety of methods.

v. A successful approach requires providing sufficient alternatives to support learners with very diverse aptitudes and prior experience to effectively manage their own engagement and affect.

vi. One possible key is to create classrooms, teachers, and schools that embrace the progressive and inclusive practices supported by Universal Design for Learning (UDL).

Self-Assessment Question-1

Answer the following questions each within 40 words:

i. What are the attributes of UDL?

ii. List the components of DI

Please Check your answers with the answers given at the end of this unit

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2.3. Differentiated Instruction (DI)

Having equipped with the understanding of UDL, this subunit delves into the aspect of inclusive teaching-learning system- the Differentiated Instruction. Not all Learners are alike. Based on this knowledge, Differentiated Instruction applies an approach to teaching and learning that gives Learner multiple options for taking in information and making sense of ideas (Willis and Mann 2000). It encompasses the following facts:

i. DI is a teaching principle based on the idea that teachers should adapt instruction to student differences because 'one size doesn't fit all'

ii. It is a way for teachers to recognize and react responsively to their Learner' background knowledge, readiness, learning styles, language and interests.

iii. It represents the rationale that all Learners can learn, and that educational activities will be much more successful when teachers purposefully plan and deliver lessons that address diverse learner.

iv. It also develops a curriculum aimed for the common student.

v. Teachers are required to revise their instruction to meet individual student's readiness levels, preferences, and interests.

vi. The challenge lies in motivating each of the struggling, average and advanced learners and ensures that they are all equally engaged in a quality work.

Meaning:

Differentiated instruction is a teaching theory based on the premise that instructional approaches should vary and be adapted in relation to individual and diverse Learner in classrooms (Tomlinson, 2001; Guild & Garger, 1998).

Role of the Teacher:

The model of differentiated instruction requires teachers to be flexible in their approach to teaching and adjust the curriculum and presentation of information to learners rather than expecting Learner to modify them for the curriculum. Many teachers and teacher educators have recently identified differentiated instruction as a method of helping more Learners in diverse classroom settings.

Differentiated Instruction and Implications for UDL Implementation

Differentiated instruction recognizes Learner' varying background knowledge, readiness, language, preferences in learning and interests, and to react responsively. Differentiated instruction is a process to teaching and learning for Learner of differing abilities in the same class. The intent of differentiating instruction is to maximize each student's growth and individual success by meeting each student where he or she is, and assisting in the learning process.

According to the authors of differentiated instruction, several key elements guide differentiation in the education environment. Tomlinson (2001) identifies three elements of the curriculum that can be differentiated: Content, Process, and Products

2.3.1. Differentiate Content:

Of the three elements of the curriculum in a DI, the first one that comes in action is the content. In a differentiated classroom the teacher has a clear "destination for learning" in mind, but also understands that Learner will progress towards that destination on varying timetables, through differing routes, and needing a variety of support systems to continue making progress toward the designated learning goals. With this in mind, the differentiated classroom teacher plans on two levels-

i.   firstly, what learners must learn; and

ii.   secondly, substitute routes for ensuring that learners who are not "a rendered set"
        Hence, Content includes-

      a.   what is to be taught (the goals or outcomes),

      b.   what level of understanding, knowledge, and proficiency Learner are to demonstrate; and

      c.   what materials and options are available to give all Learner a point of entry to learning.

The first focus is on WHAT to TEACH -

These are the learning outcomes that will be addressed within the lesson or unit. Teachers need to be 'very clear' about what they are trying to teach. Once the 'What to Teach' aspect of content is determined then decisions about content differentiation for 'How to Teach' become the priority.

Go to Differentiating Instruction Wiki for illustration

Teachers provide specific Learner with access to various means of representation.

Case Study

Ms. Preeti Roy, a class 7 teacher, states: "I was surprised by the excellence of work handed in when allowed my Learner to show-what-they-know in ways they prefer. Learner who rarely speak in class have made oral presentations of more than five minutes. The pride they felt in their work was quite obvious. Because it appealed to the interests in my inclusion Learner while simultaneously addressing the issue of their readiness, the work they produced was comparable to the strongest of Learner. Such incidence compelled me to teach with differentiating my instruction."

2.3.2. Differentiate Process

Process identifies what teacher plans for instruction, how grouping/set of learners are constituted and how deliverables are presented to ensure maximum learning. These are carried out in some below stated lines:

Several elements and materials are used to support instructional content- These include acts, concepts, generalizations or principles, attitudes, and skills. The variation seen in a differentiated classroom is most frequently in the manner in which Learner gain access to important learning. Access to the content is seen as crucial.

Align tasks and objectives to learning goals- Designers/teachers of differentiated instruction view the alignment of tasks with instructional goals and objectives as essential. An objective-driven list of options makes it easier to find the next instructional step for learners entering at varying levels.

Flexible grouping is consistently used- Strategies for flexible grouping are essential. Learners are expected to interact and work together as they develop knowledge of new content. Grouping of Learner is not fixed. As one of the foundations of differentiated instruction, grouping and regrouping must be a dynamic process, changing with the content, project, and on-going evaluations.

Classroom management benefits Learner and teachers. To effectively operate a classroom using differentiated instruction, teachers must carefully select organization and instructional delivery strategies (Tomlinson, 2000).

Self-Assessment Question-2

Answer the following questions each within 40 words

i.   What is meant by DI?

ii.   What is the role of Teacher in DI?

Please Check your answers with the answers given at the end of this unit

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Customization of the curriculum

CAST has devised three sets of broad teaching methods that support each of the 3 UDL principles.

Network-Appropriate Teaching Methods

i.   To support diverse recognition networks:

ii.   Provide multiple examples

iii.   Highlight critical features

iv.   Provide multiple media and formats

v.   Support background context

To support diverse strategic networks:

i.   Provide flexible models of skilled performance

ii.   Provide opportunities to practice with supports

iii.   Provide ongoing, relevant feedback

iv.   Offer flexible opportunities for demonstrating skill

To support diverse affective networks:

i.   Offer choices of content and tools

ii.   Offer adjustable levels of challenge

iii.   Offer choices of rewards

iv.   Offer choices of learning context

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2.3.3. Differentiate Product:

It is the assessment of the content. It is characterized by –

i. Initial and on-going assessment of student readiness and growth are essential. Meaningful pre-assessment naturally leads to functional and successful differentiation.

ii. Integrating pre and on-going assessment informs teachers so that they can better provide a menu of approaches, choices, and frameworks for the varying needs, interests and abilities that exist in classrooms of diverse Learner.

iii. Assessments may be formal or informal, including interviews, surveys, performance assessments, and more formal evaluation procedures.

Role of the Teacher:

Learners are active and responsible explorers. Teachers respect that each task put before the learner will be interesting, engaging, and accessible to essential understanding and skills.

Items to which Learner respond may be differentiated so that different Learner can demonstrate or express their knowledge and understanding in different ways.

The design and development of differentiated instruction as a model began in the general education classroom. The initial application came to practice for Learner considered gifted but whom perhaps were not sufficiently challenged by the content provided in the general classroom setting. As classrooms have become more diverse, differentiated instruction has been applied at all levels for Learner of all abilities.

Differentiated instruction is an instructional process that has excellent potential to positively impact learning by offering teachers a means to provide instruction to a range of Learner in today's classroom situations.

A well-designed student product allows varied means of expression and alternative procedures and offers varying degrees of difficulty, types of evaluation, and scoring.

2.3.4. Differentiate Affect/Environment

Differentiating through the environment is important as it creates the conditions for optimal learning to take place. According to Tomlinson (2003), "Environment will support or deter the student's quest for affirmation, contribution, power, purpose, and challenge in the classroom," The learning environment includes the physical layout of the classroom, the way that the teacher uses the space, environmental elements and sensitivities including lighting, as well as the overall atmosphere of the classroom.

The teacher's goal is to create an environment that is positive, structured, and supportive for each student. The physical environment should be a place that is flexible with varied types of furniture and arrangements, and areas for quiet individual work as well as areas for group work and collaboration. This supports a variety of ways to engage in flexible and dynamic learning.

Teachers should be sensitive and alert to ways that the classroom environment supports Learner' ability to interact with others individually, in small groups, and as a whole class. They should employ classroom management techniques that support a safe and supportive learning environment.

2.4 Classroom strategies supporting UDL & DI

2.4.1, 2.4.2, 2.4.3 -strategies have been already discussed. Please refer Unit-1.4 of this Block.

2.4.4: Explicit Instruction:

Explicit instruction is systematic, direct, engaging, and success oriented-and has been shown to promote achievement for all Learners. This highly practical and accessible resource gives special and general education teachers the tools to implement explicit instruction in any level or content area.

Explicit Instruction shares similar goals with other approaches to teaching (e.g., constructivist, holistic, or student centred). These goals include teaching Learner to enjoy

and be competent at reading, writing, and math; to understand what they read and how math works; and to apply their skills in meaningful way. [Goeke, 2008]

2.5 Let Us Sum Up

The UDL approach uses multiple means of representation, action & expression to support learners' recognition network, addressing diverse need, abilities and learning styles. Multiple means of expression support Learner' strategic networks. Although Learner in a UDL classroom is expected to work toward the same learning purposes, they may use a variety of ways to practice and demonstrate their knowledge. Multiple means of engagement support Learner's affective networks, accommodating different interests and motivating learners. Teachers use flexible grouping and provide levels of challenge that are suited to Learner' abilities and interests. Apropos to this, DI (Differentiated instruction) theory reinforces the importance of effective classroom management and reminds teachers of meeting the challenges of effective organizational and instructional practices. Engagement is a vital component of effective classroom management, organization, and instruction. Therefore, teachers are encouraged to offer choices of tools, adjust the level of difficulty of the material, and provide varying levels of framework to maintain learner attention during the instructional process. By providing varying levels of framework when differentiating instruction, Learner has access to varied learning contexts as well as choices about their learning environment.

2.6 Answers to Self-Assessment Questions (SAQ)

Answers to Self-Assessment Question-1
i.   Attributes of UDL are
•   Multiple means representation
•   Multiple means expression
•   Multiple means engagement
ii.   The components of DI are
•   Content

- Process
- Product
- External environment

Answers to Self-Assessment Questions-2

i.   DI is a process to teaching and learning for learner of differing abilities in the same class. Its intent is to differential instruction in order to maximize each learner's growth and individual success by meeting their needs and assisting in the learning process

ii. The role of teacher in DI is to adjust the curriculum and present information to rather than expecting learners to modify themselves for the curriculum.

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2.8 Unit End Exercises

1. Define UDL?
2. What is DI
3. State briefly the means of UDL.
4. List the components of DI
5. Give the significance of DI in UD learning situation.
6. Point out the strengths of explicit instruction.
7. What are the similar goals (any 4) shared by explicit instruction & other teaching strategies?
8. State two benefits of UDL?
9. What is the focus of access?

10. What are the principles of multiple engagements?

Reflective Exercises:

1. List any four characteristics of a teacher in an inclusive classroom?

2. Give two features that you can change in your classroom to make it an inclusive classroom.

3. What is meant by the how of learning?

4. What can be the potent assessment strategies in your inclusive classroom?

5. What is meant by goal-directed learners?

6. What is the rationale behind DI? Write 2 lines to support your view in this regard.

7. How can a teacher create a positive environment? Give two statements in this favour.

8. State two features of UDL?

UNIT-3: ACCOMMODATION & ADAPTATION

Structure

3.0: Introduction

We are heading towards making dreams come true by "restructuring classroom instruction work for all learners". The challenge is to see this as a mission that has the prospect of raising goals for all learners by creating a unified education system that works for all learners. In reducing the gaps between the worlds of special and general education, how can special education programs help learners to meet the challenging education standards, curriculum, and assessments that are now being developed in the general education system? Therefore, the general public education system needs to be tailored and individualized to serve better to the diverse learners. Under these circumstances special and general educators have much to offer one another in finding answers to these questions.

3.1 Objectives

Upon completion of the unit, the learner will be able to-

❖ Explain the need of 'Accommodation' & 'Adaptation' in Teaching-Learning(T-L) Process;

❖ Describe different accommodation & adaptation strategies required in classroom practices; and

❖ Make accommodation and adaptation plans as per needs of the learners Implement accommodation & adaptation strategies in Teaching-Learning process.

3.2. Accommodation & Adaptation

Concept of Accommodation

Meaning:

Accommodations are changes in course content, teaching strategies, standards, test presentation, location, timing, scheduling, expectations, learner responses, environmental structuring, and/or other attributes which provide access for a learner with a disability to

participate in a course/standard/test, which DO NOT essentially alter or lower the standard or expectations of the course/test (Jackson et al, 2000).

Characteristics:

It is characterized by -

i.   They do not significantly change instructional level or content provides learner an equal access to learning

ii.   Provides learner equal opportunity to demonstrate what is known

iii.   Based on individual strengths and needs

iv.   May vary in intensity and degree

Types of Accommodations: According to Prater, 2003 & Rose, 2001, the types are in terms of:

i.   Size - adapt the number of items that the learner is expected to learn or complete.

ii.   Time - adapt the time allotted and allowed for learning, task completion, or testing.

iii.   Level of support - increase the amount of personal assistance with a specific learner.

iv.   Input - adapt the way instruction is delivered to the learner (differentiated instruction).

v.   Difficulty - adapt the skills level, problem type, or the rules about how the learner may approach the work.

vi.   Output - adapt how the learner can respond to instruction.

vii.   Participation level - adapt the extent to which a learner is actively involved in the task.

viii. Alternate expectations - adapt the goals/expectations while using the same materials.

ix.   Parallel/alternative curriculum - Provide different instruction/materials and alternate activities to meet a learner's individual outcomes.

x.   Techniques utilized to help learners access curriculum

xi.   Strategies that validly demonstrate what learners have learned

xii. Methods used that alter the academic setting or environment so that learners can easily access information

xiii. Approaches to information that level the field for learners with disabilities in terms of:

    a.   Extended time

    b.   Large print

    c.   Braille

    d.   Signed instruction

Use accommodations only when necessary: Here two important cautions apply regarding its use:

a) creating a situation where learners become dependent on others unless become independent learners and (I didn't get the meaning)

b) not providing the instruction needed to benefit entirely from the accommodation.

3.2.1: Concept of Adaptation:

Adaptations do not represent unfair advantages to learners. In fact, the opposite can be just. If appropriate adaptations are not used, learners could be unfairly punished for having learning differences, creating serious negative impacts to their achievement and self-concept as well (Lee et al, 2010).

When to adapt/use:

Accommodations in the form of adaptations occur when teachers differentiate

instruction, assessment and materials in order to create a flexible learning environment.

Resources used for adaptation:

Adaptations include, but are not limited to (Lee et al, 2010; Nelson, n.d):

i. audio tapes, electronic texts, or a peer helper to assist with assigned readings.

ii. access to a computer for written assignments (e.g. use of word prediction software, spellchecker, idea generator etc.)

iii. alternatives to written assignments to demonstrate knowledge and understanding.

iv. advance organizers/graphic organizers to assist with following classroom presentations:

v. extended time to complete assignments or tests; support to develop and practice study skills;

vi. use of computer software which provides text to speech/speech to text capabilities.

vii. entry level behaviour; multiple exposure to materials

viii. working on local learning outcomes starting from a primary level if possible

Adaptation in practice:

In order to create a best practice in teaching, a record of successful adaptations for any learner should be kept within a learner's file. This helps current practice and supports future instructional needs. In the case of a learner with special needs who has an IEP, successful adaptations are recorded in these plans to document how the learner is being supported presently. This further augments other teachers to know what works well for that learner.

3.2.2: Relationship between Accommodation & Adaptation:

It is important to note that teachers should pair instruction along with the use of adaptations or accommodations in two areas (Rose, 2001).

First, sometimes learners need instructions regarding the use and application of adaptation or accommodation in their learning. (Example: The teacher should not accept that the learner will be able to benefit from the adaptation or accommodation without instruction).

Second, adaptations or accommodations increase dependence in the learner.

It is hence advisable to select accommodation & adaptation strategies judiciously to avoid or minimize haphazard instruction leading to undesirable learning.

Self-Assessment Question-1

Answer the following questions each within 40 words.

i.   What is accommodation?

ii.   List two resources of adaptation.

Please Check your answers with the answers given at the end of this unit

3.3. Accommodation and Adaptation Strategies for Learner with Sensory Disabilities

3.3.1. Learner with Visual Impairment.

Learner learns on their tactile and auditory senses. In this view, the following is a list of accommodation and adaptation strategies for Learner with Visual Impairment in the regular classroom. (Sharma, 2012).

i.   Braille books, handout in Braille writer, stylus, tactile teaching materials e.g., 3-D geometric shapes, tactile line maps, life-size models, loaded memory card, Pen drive. Desktop/Laptop computer with speech output etc.

ii. Introduce Plus Curriculum. These are: Orientation & Mobility training, Braille system, Daily living skills, Sensory training, Social skills etc.

iii. Connecting with normal peers to assist with editing of visual information in the environment for student with visual impairment.

iv. To give extra instructional time to learn new concepts of math and sciences subjects

v.   Teacher should be speaking continuously s/he writes on the chalkboard and call learner by name rather than pointing.

vi. Teacher should give of feasible physical education classes accessible and safe for learner with visually impairment.

3.3.2 Learner with Hearing Impairment

Hearing is the ability to perceive sound. A person suffering from hearing impairment has difficulty in perceiving or identifying sound clearly due to auditory problems. The impairment may be unilateral or bilateral ears. In this view, the following is a list of accommodation and adaptation strategies for Learner with Hearing Impairment in the regular classroom. (John F. Kennedy Centre, 2005).

i.   Provide proper Amplification Options. These are Hearing aid, cochlear implant, tactile device, auditory trainer and speech trainer.

ii.   Provide proper Assistive Devices. These are Hardwire System, Induction Loop System, Frequency Module System and Infrared System (John F. Kennedy Centre, 2005)

iii. Learner must sit in front of the desk to easily understand the teachers lip for the development of verbal communication.

iv.   Class room environment should be noise free or sound treated.

v.   Class room instruction should be simple as per the need based and use visual clue with the help of Educational interpreter (Sign Language).

vi.   In order to understand the underling meaning of a learning content a teacher should modify and shorten the length of the content as per need of the learners.

vii. Provide extra time to complete tests and

viii. Evaluation daily work

3.3.3. Learner with Multiple Sensory Disabilities

Accommodation and adaptation strategies for Learner with Multiple Sensory Disabilities mean deaf-blind. That is why deaf-blindness is world of "invisible silence". In this view the following is a list of accommodation and adaptation strategies for learner with deaf-blind in regular classroom. The adaptation techniques to be taken are (NSOU, B.Ed. Spl. Ed SLM, 2016,):

i. Creation of effective environment, which helps in acquiring maximum learning, is the prime thing that teacher needs to act upon in a systematic way.

ii. Adaptations to the physical environment, e.g. arrangement of the room, lighting, noise level, location of materials and resources, accessibility to other rooms, etc. are all considerations for environmental modifications.

Adaptations in the daily class schedule include:

i. Allowing more time for the task

ii. Pacing the lesson differently

iii. Ensuring a variety of ways of processing information

iv. Setting up structures that enable achieving smaller steps to the goal

v. Checking more frequently than usual for understanding

vi. Giving more frequent feedback

vii. Simplifying questions/instructions

3.4 Accommodation and Adaptation Strategies for Learner with Neuro-Developmental Disabilities

3.4.1. Learner with Intellectual Disability

According to Küpper, and Hamilton, (n.d.), Intellectual disability (ID) is a limitation in cognitive functioning that affect attention, memory and behaviours. Accommodation& Adaptation Strategies for learner with Intellectual Disability are:

i. Create opportunities for success by emphasizing the strengths and interests of the learners.

ii. The learners IEP team must be active and they must develop an individualized education program (IEP) for the learners and that lists learning goals on short term and long term for the learners.

iii. Each and every movement of teaching to go step by step and by breaking up longer tasks into shorter sub-sections.

iv. Immediate feedback helps the learner make a connection between their answers, behaviors, or questions and the information you are presenting as the teacher.

v. Schools play an important part in helping learner with ID learn life skills, which include health and safety, personal hygiene, manners, getting along with others, basic math and reading, money management and skills for the workplace.

vi. Teachers can play a positive role in socializing and help the learners in inclusion of learner with intellectual disabilities in classrooms and throughout the school.

3.4.2. Learner with Cerebral Palsy

Cerebral Palsy is a condition whereby brain trauma adversely affects a child's motor abilities and refers to a disorder of movement or posture. So accommodation & adaptation Strategies for learner with cerebral palsy are (Cerebral Palsy Modifications &Accommodations… n.d):

a. For the development of Physical Environment, a teacher must be aware of-

i. learner's impairment and severity.

ii. arrangement of the classroom mobility to all areas and activates for learners using a wheelchair or crutches.

iii. arrange of the classroom seating for learners using special chairs, and spaces for wheelchairs and,

iv. provision of proper transportation accessibility and barrier free environment. (BFF)

b. For the development of Instructional Activities, a teacher must be aware of -

i. taping the learners paper to their desk

ii. attaching their pencil to the desk with a piece of string and masking tape for easy retrieval, pencil grips

iii.   assigning a learner to deliver and collect appropriate papers for the learner

iv. allowing learners to answer questions orally and,

v.   providing the learner with lecture notes

vi. physical therapists who can teach children with cerebral palsy to learn better ways to move and balance.

vii. occupational therapists who can teach children better ways to use their hands, arms, and upper body.

viii. speech and language therapist who can teach children to speak more clearly, speak in sentences, improve their listening skills and communication with other

3.4.3. Learner with Autism Spectrum Condition (ASC)

Autism Spectrum Condition is considered to be the result of a neurological disorder that affects the functioning of the brain and is some of the most common developmental disabilities. (Kira, 2006).

As adapted from Wright, 2001, the following are the accommodation & adaptation strategies for learner with Autism Spectrum Condition:

i. Develop and use visuals for instruction. These are visual program, highlighting important information, using completed models, Colour coding relevant information and providing visual directions

ii. Evaluate and assess sensory needs and schedule sensory activities throughout the day.

iii. Develop social stories and social scripts and to be given to the learner's choices and control.

iv. Provide trained peer support for the autistic individual and the teacher should assist with peer social interaction, as well as provide additional support as and when needed.

v. Conduct training programme in autism spectrum conditions for all staff members who come in contact with the learners.

vi. Actively use a home/school communication book that outlines specific progress and challenges that occurred during the home and school environments.

vii. Provide small group instruction, rather than large group instruction.

viii. Use role-play and develop the using rules. These are social, communication, behavior, and general action.

ix. Develop and use a communication system across home and school environments.

x. Provide activities to teach and support social/emotional skills.

3.4.4. Learner with Other or Multiple Conditions

The term Learner with Other or Multiple Conditions suggests that disability category combination of those learners who have physical, cognitive and communicative impairments (Multiple disabilities,2017).That is why success in the classroom activities of the learner with other or Multiple Conditions it should have provisions of appropriate accommodations and adaptations strategies. New Teacher Induction Program.2011, suggest the follows Accommodation& Adaptation Strategies for Learner with Other or Multiple Conditions are:

i.   Curriculum should be learners need based. That is why curriculum should have more emphasis on long and short-term planning.

ii.   Selecting and using effective strategies to improve learners'self-monitoring, self-assessment, and goal-setting for their own learning.

iii. For the purpose of better achievement of the learner's classroom assessment and evaluation strategies should be ongoing and continuous.

iv.   To assess and evaluate learners' work simple achievement charts should be used.

v.   Informing and helping learners and parents to understand the assessment and evaluation strategies to be used and giving the mmeaningful feedback for improvement.

Self-Assessment Question-2

Answer the following questions each within 40 words.

i.   Write two elements of physical environment accommodation.

ii.   Give two adaptation strategies for learners with I.D.

   Please Check your answers with the answers given at the end of this unit

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3.5: Planning and Implementing Accommodation & Adaptation:

The accommodation and adaptation learnt so far are basically the theoretical concepts. In order to make such support/strategies, teacher can assess the need for support/strategies, development of plan for such/strategies, support for introduction and lastly implementation of the support/strategies.

3.5.1: Assessing need for Accommodation & Adaptation:

As teachers, you know the best ways learners with special needs learn is by having adaptations and accommodations that can be used for that specific child, to meet their needs. According to Special Education Unit Arkansas, Department of Education, 2005 these are some ways to assess the need.

i. Allow the learner to access information in ways that do not require them to visually read standard print. These alternate modes of access include visual, auditory and a combination of visual and auditory.

ii. Allow the learner to complete assignments, tests and activities in different ways or to solve or organize problems using some type of assistive device.

iii. Change the acceptable length of a test or assignment and may also change the way the time.

iv. Change the location in which a test or assignment is given or the conditions of the assessment setting.

3.5.2. Developing Plan for Accommodation and Adaptation

Natalie Oling house, 2008, carried out the following simple steps for developing plan for accommodation and adaptation:

i. Create a plan for adapting materials effective adaptations require sustained development and support.

ii. Develop goals for teaching strategies and making adaptations-

iii. Determine whether content or format adaptations are needed

iv. Identify the features of the materials that need to be adapted

v. Determine the type of adaptation that will enable the learner to meet the demand

3.5.3. Implementing Accommodation and Adaptation Strategies

According to Oxley, 2010, the strategy of the adaptation involves 5 steps. These are:

i. learner's strengths and needs

ii. demands of the classroom

iii. adaptations

iv. perspectives and

v. teaches and assess of the learner.

Implementing accommodation & adaptation strategies in a classroom situation, a variety of options are available and to meet the needs of each exceptional learner. So accommodation strategies in the classroom situation are as follows (Oxley,2010):

i. Learner is placed in the regular class for the entire day and the teacher receives advice and consults from the special education resource teacher.

ii. The learner is placed in the regular class and receives specific instruction (depending on degree and type of disability) within the regular class from a qualified special education teacher.

iii. The learner receives instruction from qualified special education teacher and attend some academic (depending on degree and type of disability) classesin regular classroom.

iv. The learner receives instruction from a qualified special education teacher and attend some non-academic (depending on degree and type of disability) regular classes like art, physical education and vocation education.

v. The learner is placed in a special education class but is integrated with a regular class for at least one instructional period daily.

3.5.4 Accommodation & Adaptation Provisions by Examining Boards/Councils

The Government of India's ministry hereby lays down the following uniform and comprehensive guidelines for conducting examination for the persons with disabilities as recommended by CCPD, 2010:

I. There should be a uniform and comprehensive policy across the country for persons with disabilities for written examination taking into account improvement in technology and new avenues opened to the persons with disabilities providing a level playing field. Policy should also have flexibility to accommodate the specific needs on case-to-case basis.

II. There is no need for fixing separate criteria for regular and competitive examinations.

III. The facility of Scribe/Reader/Lab Assistant should be allowed to any person who has disability of 40% or more if so desired by the person.

IV. The candidate should have the discretion of opting for his own scribe/reader/lab assistant or request the Examination Body for the same. The examining body may also identify the scribe/ reader/lab assistant to make panels at the District/Division/ State level as per the requirements of the examination. In such instances the candidates should be allowed to meet the scribe a day before the examination so that the candidates get a chance to check and verify whether the scribe is suitable or not.

V. Criteria like educational qualification, marks scored, age or other such restrictions for the scribe/reader/lab assistant should not be fixed. Instead, the invigilation system should be strengthened, so that the candidates using scribe/reader/lab assistant do not indulge in malpractices like copying and cheating during the examination.

VI. There should also be flexibility in accommodating any change in scribe/reader/lab assistant in case of emergency. The candidates should also be allowed to take more than one scribe/reader for writing different papers especially for languages.

VII. Persons with disabilities should be given the option of choosing the mode for taking the examinations i.e. in Braille or in the computer or in large print or even by recording the answers as the examining bodies can easily make use of

technology to convert question paper in large prints, e-text, or Braille and can also convert Braille text in English or regional languages.

VIII. The candidates should be allowed to check the computer system one day in advance so that the problems, if any in the software/system could be rectified.

IX. The procedure of availing the facility of scribe should be simplified and the necessary details should be recorded at the time of filling up of the forms. Thereafter, the examining body should ensure availability of question papers in the format opted by the candidate as well as suitable seating arrangement for giving examination.

X. The disability certificate issued by the competent medical authority at any place should be accepted across the country.

XI. The word "extra time or additional time" that is being currently used should be changed to "compensatory time" and the same should not be less than 20 minutes per hour of examination for persons who are making use of scribe/reader/lab assistant. All the candidates with disability not availing the facility of scribe may be allowed additional time of minimum of one hour for examination of 3 hours' duration which could further be increased on case to case basis.

XII. The candidates should be allowed to use assistive devices like talking calculator (in cases where calculators are allowed for giving exams), tailor frame, Braille slate, abacus, geometry kit, Braille measuring tape and augmentative communication devices like communication chart and electronic devices.

XIII. Proper seating arrangement (preferably on the ground floor) should be made prior to the commencement of examination to avoid confusion or distraction during the day of the exam. The time of giving the question papers should be marked accurately and timely supply of supplementary papers should be ensured.

XIV. The examining body should also provide reading material in Braille or E-Text or on computers having suitable screen reading software's for open book examination. Similarly, online examination should be in accessible format i.e.

websites, question papers and all other study material should be accessible as per the international standards laid down in this regard.

XV. Alternative objective questions in lieu of descriptive questions should be provided for Hearing-Impaired persons, in addition to the existing policy of giving alternative questions in lieu of questions requiring visual inputs, for persons with Visual Impairment.

It is requested to ensure that the above guidelines are scrupulously followed while conducting examination for persons with disabilities. All the recruitment agencies, Academics/Examination Bodies etc. under your administrative control may be advised appropriately to ensure compliance of implementing these guidelines. Action taken in this regard may be intimated to this office. The above guidelines are issued with the approval of Hon'ble Minister (Office of the Chief Commissioner of Persons with Disabilities, Ministry of Social Justice & Empowerment, Govt of India).

3.6 Let us sum up:

This unit provides a basket of accommodation & adaptation strategies for Learner with sensory disabled learners. It has been vividly covered pertaining to Learner with visual impairment and their teaching-learning arrangements according to their needs. Learner with hearing impairment and their accommodation & adaptation strategies are also dealt. The needs and arrangements of Learner with multiple sensory disabilities are also discussed. There is discussion on accommodation & adaptation strategies for learners with neuro-developmental disabilities. The types included for supports are categorized as intellectual disability, cerebral palsy ASC and other multiple conditions. Assessing their needs and thereby providing specific support to meet their learning style by providing appropriate teaching-learning Resources. This unit also encompassed the various aspect of accommodation & adaptation in terms of assessing the need of adopting these supports. Also developing plan for these strategies so that it can be effectively implemented accordingly. The final step i.e implementation of these as prescribed in the

plan for maximum output-learning. The accommodation and adaptation adopted or directed.

3.7 Answers to Self-Assessment Questions (ASQ)

Answers to Self- Assessment Question-1

i. Accommodation are changes in course content, teaching strategies, standard, test presentation, location, timing, expectation, learner responses, environmental structuring and other attributes which provide access for a learner with a disability to participate in T.L. process.

ii. Access to computer for written assessments and

Audio tapes, electronic tests or peer helper

Answers to Self- Assessment Question-2

i. Noise reduction by use of carpet and other sound absorption material and Room design modification.

• Achieve learners IEP.

• Emphasizing strength and weakness of the learners.

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3.9 Unit End Exercises

1.   How can you assess the need for accommodation & adaptation in a classroom?

2.   Mention some steps of development of plan for accommodation & adaptation.

3.   What are the criteria of implementation of support strategies?

4.   List few guidelines issued by the ministry for provisions by examining boards/ council.

5.   What is accommodation?

6.   Give two features of accommodation.

7.   Mention two scopes of accommodation.

8.   What is Multiple Sensory Disability? Give one example

9. What are the devices used for accommodation of children with hearing impairment?

10. What is Neuro-Developmental Disability?

Reflective Exercises

1. Enlist environmental modifications in your inclusive classroom.

2. What are the resources you prescribe for a learner with visual impairment in the general classroom?

3. Select any 3 qualities the teacher should possess in such kind of class.

4. State 4 challenges of ASD learners in an inclusive classroom.

5. Can you identify few limitations of adaptation?

6. Do you support that accommodation is necessary in a classroom with diverse learners? If yes, why? Provide two reasons behind your statement.

UNIT - 4: LEARNER SUPPORT SERVICES IN SCHOOL

Structure

4.0. Introduction

An activity required for successful execution of a product or program or process is known as support service. The support services are managed by a separate department for any organization. Support services play an important role in augmenting the impact level of the basic services being provided to learners or in this case, the stake holders of inclusive education.

4.1 Objectives

Upon completion of the unit, the learner will be able to -

❖ identify the stakeholders and their responsibilities;

❖ describe the process of Individualized Educational Plan (IEP) in identifying instructional needs, personal difficulties for counselling and planning adaptation and accommodation strategies; and

❖ explain how learner support program can be planned for health and hygiene, sports & other life-skills.

4.2. Need for Support Services

Apart from curricular transaction in the class room by means of various accommodation, adaptation and modification, diverse learners also require support services. These support services are all inclusive of various physical, medical, spiritual, moral and cognitive as per the need based facilities of the diverse learners, (NCSE, 2014).

4.2.1. Concept of Support Services

Support in the present case denotes an inclusive education system that enables children with special educational needs to realise their potential. According to National Council for Special Education, 2013, there are six types of principal requirement needed for support services of the learner. These are:

i. All children with special educational needs are welcome and are able to enrol in their local schools

ii. All educational supports are allocated equitably to schools in line with the educational needs of Learner.

iii. All Learners with special educational needs have access to available educational supports in line with their needs.

iv. Learner with special educational needs have an individualised assessment which informs teaching and learning, and forms one part of an ongoing and cyclical process of assessment, intervention and review of outcomes.

v. Available resources are used to maximum effect to derive improved outcomes for children; State services work together to achieve this.

vi. Parents' role as the natural and primary educators of the child is respected.

4.2.2. Types of Support Services

According to Government of Newfoundland and Labrador Department of Education (2001), there are different types of support services in this related area, which ought to be made available. These are Health Service, Early Intervention, Speech and Language Therapy Service, Occupational Therapy Service, Psychology Counselling, Physiotherapist, Child Protection and Welfare Social Work Service, Teacher, Special Educator and Dental Service.

Self-Assessment Question -1

Answer the following Questions each within 40 words.

i.   What are the Support Services?

ii.   Mention any two points from the check list of Support Services

Please Check your answers with the answers given at the end of this unit

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4.2.3. Role sand Responsibilities of stake holders towards Support Services

The most important work of a stakeholder towards learner support services is to carry out tasks at various levels. If you are successful, the system is going to be successful. Let us understand the role of stake holders in the process. According to Lantz,(2001). there are:

i.   To develop the Personal Care of the learner's stake holders should be developing and mobilized about learner's daily activity skills, mobility support, medical

procedures, healthy/safe environment and lastly, independence/self- management skills.

ii. To develop the Social Skill of the learner's stake holders should be developing and mobilized about learner's self-esteem, self-control, self-reliance and self-advocacy skills.

iii. To develop the Behaviour Skill of the learner's stake holders should be developing and mobilized about learner's appropriate alternatives to undesirable behaviour ie, replacement behaviour and non-violent and

iv. To develop the Cognitive Skill of the learner's stake holders should be developing and mobilized about learner's age appropriate strategies and   equipment which will achieve the learner about their optimum cognitive functioning and level of independence

4.3. Individualized Educational Program (IEP) Services

IEP means "a written statement for a child with a disability that is developed by a team of persons for better understanding of how and what a learner needs to succeed in his/her education (Ontario Ministry of Education,2004).

4.3.1. Role of teacher and inclusion specialist

As adapted from Ontario Ministry of Education (2004), the roles teacher and inclusion specialist are:

i. A general teacher must be included where the learners are participating in the regular education environment where as inclusion specialist contributes to the development of the IEP as per learners needs to succeed in his/her education

ii. A general teacher must be contributing to the first-hand knowledge of the learner's strengths, needs and interests, whereas inclusion specialist must contribute diagnostic assessments to determine the learners learning strengths and needs.

iii. A general teacher must be fulfilling the role of the key curriculum expert on how the IEP can be developed to help the learner progress whereas inclusion specialist provide support to the learner's classroom teachers by generating ideas and

suggestions for developing modified expectations, alternative programs or accommodations and

iv. A general teacher must implement the teaching strategies that will help the learners achieve his or her learning expectations whereas inclusion specialist must provide materials, resources and develop any modified or alterative learning expectation.

4.3.2. Planning and Implementation

IEP and Student Support in Learning Planning and Implementation is the most important part of IEP. So Planning and Implementation includes:

Table-1: Planning & Implementation guidelines

Planning	*Implementation*
i. It should include essential demographic information about the learnerlike medical history, social background, economic status and the present levels of educational performance. ii. It should include of assessment criteria for measuring achievement of progress toward objectives and iii. It should include adaptations and accommodations.	i. For the effective implementation of a learners IEP, provide opportunities, ongoing assessment, Identification and review and revision of the daily plan. ii. Establish and implement a daily plan. It should be instructional, effectiveness of materials, communication among team members and accountability and iii. Effective daily plan should include learner's environment, team member responsibilities and evaluation criteria

Source: Inclusion Support services, 2016

4.3.3. Monitoring of Adaptation and Accommodation Plan

According to accommodations and adaptations, 2008 for students with disabilities in an inclusive setting and meeting the needs of English language learners program guidelines Commonwealth of Pennsylvania Department of Education (2008) Monitoring of adaptation and accommodation plan depends on:

i. Understanding the types of disabilities and implications for learning. These are ability to plan for types, characteristics of different types of disabilities, legal rights, practices and adaptations.

ii. Specify the experiences children need from birth to age eight to prepare them to learn, read, and succeed in school.

iii. For the development of cognitive skill about the learner, it should be design learning environments for improvement of memory, attention, perception, action and problem solving skill and

iv. Understanding the plan of instruction regarding the types of assessment. These are: Authentic, Screening, Diagnostic, Formative and Summative Evaluation.

4.3.4. Use of Assistive Technology in Classroom

It has been thoroughly discussed in Block IV, Unit II.

4.3.5. Support to Parents

When parents learn that their child has a disability or a chronic illness, they begin a journey that takes them into a life that is often filled with strong emotion, difficult choices, interactions with many different professionals and specialists, and an ongoing need for information and services. Support is a variety of service options and assistance to parents provides them with "whatever it takes" for them to live as much like other parents as possible and enables them to stay together.

According to the "In their own words (n.d.), the supports are-

i. Parents should be provided the opportunities about their children.

ii. Parents should be disability conscious about children regarding any additional disabilities. Such as visual, motor, cognitive, attention/behaviour, other condition and demographic factors.

iii. Parents should help to make their child acquire moral development.

iv. Parents should be provided with the knowledge of how people keep link with each other.

v. Availability of best educational options in mainstream support services also self-contained classroom and work schedules.

vi. Knowing about the expectations regarding benefits of assistive devices.

4.4. Specialized Services:

Specialized Services seek to provide learner with special needs the opportunity to participate fully in the educational programs and benefit from all aspects of life through the use of reasonable and appropriate accommodations and support services. This enhances the achievement of the learner as a hole, (Woods, 2017)

4.4.1. Disability Specific Multi-disciplinary services

According to A guide to services for children with disabilities (n.d.) the services will provide equipment and modification service assessors, assessment, intervention and management services to promote rehabilitation / habitation outcomes for children who suffer with different disabilities. So the types of services are specific disability related services. They are:

i. physiotherapy,
ii. occupational therapy,
iii. seating and mobility,
iv. clinical gait analysis (study of how a child walks),
v. speech and language therapy,
vi. nutrition and dietetics,
vii. nursing,
viii. educational technology,
ix. assistive technology,
x. social work,
xi. psychology,
xii. medical and orthopaedic services,
xiii. home respite services, and
xiv. clinical feeding and swallowing assessments.

(Adapted from A guide to services for children with disabilities, n.d.)

4.4.2. Adaptive Physical Education (APE) & Sports

According to Guideline for Adapted Physical Education, (n.d.) adapted physical education is an individualized program of instruction created for learner with disabilities that enables success in physical education. In the given context, to "adapt" means the ability "to adjust" or "to fit" modifications to meet the needs of learner. APE is a sub discipline of physical education and encompasses the same components associated with physical education, providing safe, personally satisfying and successful experiences for learner of varying abilities.

Physical activity is one of the few areas that allows for the development of all three domains that are so important to growth and development. The following table summarizes its essence:

Table- 2: Effect of Physical activities in the three domains: In a nutshell

Psychomotor Domain	Cognitive Domain	Affective(Social/Emotional)
i. Balance, coordination, eye-hand coordination, etc. ii. Gross motor development iii. Development of body/ kinaesthetic/tactile and spatial learning styles iv. Cardiovascular fitness v. Muscular strength and endurance vi. Flexibility	i. Development of learning styles: musical/ rhythmic, verbal/spatial, auditory/verbal, naturalist, &mathematical/logical. ii. Number awareness & math concepts. iii. Vocabulary, literacy, and reading skill development. iv. Learning and following directions v. Following auditory cues or visual cues vi. Sequencing skills vii. Problem solving	i. Non-competitive ii. Non-aggressive iii. Non-violent iv. Gender equal v. All-age inclusive vi. Culturally adaptive vii. Work alone, with a partner, or in a small Group viii. Development of intra- and interpersonal learning styles

Adapted from Davis (2012).

4.4.3. Promoting Braille for Learner with Visual Impairment

National Braille Press (n.d.), Braille is technically defined as a tactile writing system used by the blind and visually impaired persons to improve their means of communication. Braille was named after its creator, Frenchman Louis Braille, who lost his eyesight due to a childhood accident. Braille characters are small rectangular blocks called cells that contain tiny palpable bumps called raised dots. To aid in describing these characters by their dot or dots, the six dots of the cell are numbered 1, 2, 3, downward on the left, and 4, 5, 6, downward on the right".

This system consists of two columns of three points with three different levels of encoding. These are:

    i.   a letter-by-letter transcription used for basic literacy

    ii. an addition of abbreviations and contractions

    iii. various non-standardized personal shorthand.

4.4.4. Promoting Communication of Learner with Hearing Impairment

Speech is an oral and verbal manifestation of language. Speech refers to the actual production of sounds making words. These sounds are produced by the coordination of facial muscles and the flow of air through the human voice box (larynx). Language refers to our complex system of symbol used to communicate. Moreover, the spoken word is the foundation of all languages. While comparing the various aspect of language, one can conclude that ear language (spoken/oral aspect) and another is eye language (writing language). Ear language (spoken aspect) or oral language is the means of human linguistic communication among people and it is used in daily life because it is the medium for conversation. So human linguistic communication depends on four modes. These are

    i.   Aural/Oral (Listening/Speaking)

    ii. Visual/Graphical (Reading/Writing)

    iii. Visual/Manual (Sign Language)

    iv. Speech reading

and three methods,

i. Oralism

ii. Total Communication

iii. Education Bilingualism

Adapted from: NSOU, B.Ed. Spl.Edu. SLM, B-7, (2016)

But unfortunate deaf student cannot perceive the sound about nature with the help of ear that's why they are already delayed to ear language which is oral language in spoken aspect. In this view, Promoting Communication of Learner with Hearing Impairment depends on the degree of loss and type of hearing loss.

dB level	Type of Impairment	Promoting Communication
-0 to 25 dB HL	Normal Hearing	Speech and language normal and normal pattern of development with good auditory perceptive skills.
26-40 dB HL	Mild Hearing Loss	Speech and language developments are within normal limits. May exhibit occasional auditory perception problems some educational retardation likely.
41-55 dB HL	Moderate Hearing Loss	Language development and speech are mildly affected. Difficulty with rarely used words, minor differences in meaning of words and idioms, defective articulation but still intelligible speech loss quality and inflection almost normal. Reading and writing delayed. Vocabulary training, reading and writing to be special attended train addition to schooling.
56-70 dB HL	Moderate-Severe Hearing	Grammar, vocabulary, articulation and voice are affected understand in loud speech. Early speech is unintelligible. Even with hearing aids show difficulty in understanding. Reading and writing need special assistance.
71-90 dB HL	Severe Hearing Loss	Speech and language do not develop spontaneously. Sound produced very loudly at a distance of 1ft. and near the ear. The voice will be high-pitched and articulation distorted.
>90 dB HL	Profound Hearing Loss	They do not rely on hearing for their communication. Language and speech develop only by training and they are educationally deaf. Communicate mostly through gestures, voice, inflection, articulation greatly affected. Required regular speech and language training regarding subject's expert.

Source: NSOU, B.Ed. Spl.Edu. SLM, B-7, (2016)

4.5 Let us sum up

This unit deals with various support services apart from curricular transaction. Support in the present unit delineates an inclusive basket of various physical, medical etc. as per need facilities of the diverse learners. The various roles & responsibilities of the stake holder's functionaries are dealt with precision. Also, all educational supports are allocated equitably in tandem with the educational and physical education needs of the diverse learners.

4.6. Answers to self-assessment questions (SAQ)

Answers to Self-Assessment question-1

i. Support services are an essential part of CWSN, with the help of which a child can optimise the impact of education and thereby achieve more in life. It is fostered by the school and other professionals who work with CWSN.

ii.

❖ Use your own knowledge of tour child's learning and social needs.

❖ Collect information on all the educational options that may be accessible to your child.

Answers to Self-Assessment question-2

i. Screening assessments are used to determine which learners may be at risk. It identifies those learners needing additional in-depth assessment of strengths and weakness.

ii. Two characteristics of APE are:

❖ It is an individualized programme of instruction created for learners with disabilities

❖ It provides successful experiences for learner of varying abilities.

4.7. References

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4.8. Unit End Exercises

i.   What are the role of Speech and Language Therapist?

ii.   What is the role of Physiotherapist?

iii.   What is a Disability Specific Multi-disciplinary service?

iv.   How many domains are there for growth and development?

v. What is Braille? Who invented the Braille system and how many dots are there in the Braille System?

vi. What do mean by Eye Language and Ear Language?

vii. How many modes of linguistic communication are there?

viii. List the methods of linguistic communication?

Reflective Exercises

1. Point out three special needs of children and indicate the required support services for them.

2. Mention three activities to bring up a change favourable towards special need learner of your community.

3. Does your school provide any nutrition services to the learners? How far are parents open to accepting this?