TEACHING IN DIVERSE CLASS ROOM AND LEARNING IN AND OUT OF SCHOOL

Introduction:

Diverse teaching in a diverse classroom is a buzz word echoing in the recent scenario of education because diversity means understanding and appreciating interdependence of humanity, cultures, and the natural environment. In this regard, planning the course with the multicultural classroom in mind by considering syllabi, course assignments, examples, stories, and potential classroom dynamics for the diverse students is important. Likewise the role of the teachers is very significant to handle diverse students. The teachers should have adequate professional knowledge, skills, and dispositions to have an impact on diverse learners in diverse settings.

Learning inside school gives pleasure and enthusiasm to the students. It is a natural way of learning. This learning is linked to students' lives and a variety of different teaching methods are used in school whereas, out of school learning consists of curricular and non – curricular learning experiences for pupils. Out of school experiences are organized with community partners such as museums, sport facilities, charity initiatives, and more. So, students should be enlightened the advantages of learning in and out of school.

Meaning and Definition of Diverse Classroom

The concept of diversity encompasses acceptance and respect. It means understanding that each individual is unique, and recognizing our individual differences. These can be along the dimensions of race, ethnicity, gender, sexual orientation, socio-economic status, age, physical abilities, religious beliefs, political beliefs, or other ideologies. It is the exploration of these

differences in a safe, positive, and nurturing environment.

Diversity is a reality created by individuals and groups from a broad spectrum of demographic and philosophical differences. It is extremely important to support and protect diversity because by valuing individuals and groups free from prejudice, and by fostering a climate where equity and mutual respect are intrinsic.

"Diversity" means more than just acknowledging or tolerating difference. Diversity is a set of conscious practices that involve:

> Understanding and appreciating interdependence of humanity, cultures, and the natural environment.

> Practicing mutual respect for qualities and experiences that are different from our own.

> Understanding that diversity includes not only ways of being but also ways of knowing;

> Recognizing that personal, cultural and institutionalized discrimination creates and sustains

  privileges for some while creating and sustaining disadvantages for others;

> Building alliances across differences so that we can work together to eradicate all forms of discrimination.

> Diversity includes, therefore, knowing how to relate to those qualities and conditions that are different from our own and outside the groups to which we belong, yet are present in other individuals and groups.

Teaching in a diverse class room

Knowing who your students are as a group and as individuals is an important part of good teaching. In recent years, higher education has become increasingly diverse. The variety of students is far greater, and their needs are very different, than in the past.

Preparations of teachers for diverse classroom

The opportunity to obtain a quality education is one of the most important points of access in our society. In many cases, and for many reasons, children and adolescents do not have

access to an equitable education. To address this opportunity gap and at the same time meet the important national, state, and local goals for improving learning outcomes for all students, teachers require sophisticated professional knowledge, skills, and dispositions to have an impact on diverse learners in diverse settings. This in turn requires a comprehensive teacher education program that can prepare new teachers for this important work.

Diversity in the Classroom

The goal of this teaching module is to highlight a few of the key challenges and concerns in promoting diversity, and illustrate ways to incorporate an understanding of diversity in the classroom and beyond.

- ➤ Diversity is a term that can have many different meanings depending on context. This module will not offer a comprehensive definition of the term; instead, this module will highlight two key areas related to diversity:

  - Identify how diversity affects the classroom
  - Provide practical tips for promoting an inclusive classroom

- ➤ Much discussion about diversity focuses on the following forms of marginalization: race, class, gender, and sexual orientation — and rightfully so, given the importance of these forms of difference. In fact, students come to the university classroom with different backgrounds, sets of experiences, cultural contexts, and world views.

- ➤ Diversity is an issue that plays a role in the classroom beyond these categories.
  For example, much educational and psychological literature demonstrates that students have diverse ways of learning.

- ➤ Some learn visually, through charts, graphs, tables and drawing; others may learn primarily   through aural means (i.e. through listening to lecture); and others still may be primarily kinesthetic (i.e. learning by doing, project work, etc.).

- ➤ Attention to learning preferences is an important aspect of addressing differences among all students.

- ➤ Issues of diversity play a role in how students and teachers view the importance of the classroom and what should happen there. For example, assumptions about what a typical

student should know, the resources they have and their prior knowledge are extremely important.

➢ Students may perceive that they do not "belong" in the classroom setting a feeling that can lead to decreased participation, feelings of inadequacy, and other distractions.

➢ Teachers may make flawed assumptions of students' capabilities or assume a uniform standard of student performance. Teachers may themselves feel out of place based on their own attributive traits.

PURPOSE OF LEARNING IN SCHOOL

It is a concept of traditional but it adopts the natural way of learning. It's a pleasure to learn inside the school rather than outside leaning. For the budding children inside learning helps a lot to learn abundant in naturally. Students learn new and newer things only in school setting with the help of the teachers and with models. School is where we have our first experience of formal learning, and how things go for us here can affect how we learn throughout our lives. When school is exciting and involving, it gives us confidence in ourselves as learners, but when it isn't, we can be turned off and think we can't learn or that learning is boring. To make sure children today and tomorrow have good school experiences to sustain their learning in future, the campaign works with schools and teachers to develop good practice.

1. The Classroom

➢ The classroom itself is the locus of regular and sustained interactions among students and teachers around curriculum.

➢ If the classroom is at the heart of students' opportunities to learn, the quality of teachers' instructional practices are of paramount importance. Inside school Quality instructional practices include linking learning to factors that are important in students' lives are taught.

➢ Different method is used to make the learning effective and interesting.

➢ Using formative and summative assessments in a systematic manner provides available information to students and significantly improves learning and achievement.

➢ Setting objectives and providing regular feedback (including praise) on student progress.

2. Teacher Communities

➢ Teacher communities can affect instruction and other aspects of the classroom, and thereby can exert an indirect influence on student outcomes.

➢ Teacher communities have a strongly positive impact on student outcomes in the school.

3. Features of Learning in School

➢ Learning is linked to students' lives

- ➢ A variety of different teaching methods are used
- ➢ Different learning styles are respected
- ➢ High expectations for all students
- ➢ Formative evaluations are used systematically
- ➢ Teachers set clear objectives, monitor progress, and provide feedback
- ➢ Opportunities for classroom participation
- ➢ Diversity and individual differences are respected
- ➢ Social and emotional learning is valued
- ➢ Positive student-teacher and student-student relationships
- ➢ Classroom management strategies are systematic
- ➢ Disciplinary strategies are consistent and non-coercive

PURPOSE OF LEARNING OUT OF SCHOOL

Out of school learning is an educational concept first proposed by Lauren Resnick in her 1987 AERA presidential address, which consists of curricular and non-curricular learning experiences for pupils and students outside the school environment. She points Out of School Learning is to overcome learning disabilities, development of talents, strengthen communities and increase interest in education by creating extra learning opportunities in the real world. Out of school learning is typically not coordinated by the school itself. Out of school experiences are organized with community partners such as museums, sport facilities, charity initiatives, and more. Out of school experiences can range from Service Learning to summer school and expeditions or more commonly occur in day to day experiences at after school with creative ventures such as arts courses and even sports. Some other examples of out of school learning are:

- ➢ Homework and homework clubs
- ➢ Study clubs extending curriculum
- ➢ Mentoring by other pupils and by adults, including parents
- ➢ Learning about learning
- ➢ Community service and citizenship
- ➢ Residential activities study weeks or weekends

It has been found that out-of-school learning can be a great opportunity to discover and develop talent.

IMPORTANCE OF OBSERVATIONAL LEARNING

Observation learning is learning that occurs through observing the behavior of others. It

is a form of social learning which takes various forms, based on various processes. In humans, this form of learning seems to not need reinforcement to occur, but instead, requires a social model such as a parent, sibling, friend, or teacher. Particularly in childhood, a model is someone of authority or higher status.

According to Bandura's social cognitive learning theory, observational learning can affect behavior in many ways, with both positive and negative consequences. It can teach completely new behaviors, for one. It can also increase or decrease the frequency of behaviors that have previously been learned.

1. Causal learning

Humans use observational causal learning to watch what other people's actions and use that information to find out how something works and how we can do it ourselves.

2. Apprenticeship

Apprenticeship can involve both observational learning and modeling. Apprentices gain their skills in part through working with masters in their profession and through observing and evaluating the work of their fellow apprentices.

3. Peer model influences

Observational learning is very beneficial when there are positive, reinforcing peer models involved. Peers will always enhance learning. Peers observe their friends good behavior and try to imitate.

4. Cultural variation

Cultural variation can be seen in the extent of information learned or absorbed by children through the use of observation and more specifically the use of observation without verbal requests for further information.

EXTENDING CURRICULUM LEARNING TO THE LOCAL AREA

Learning outside the classroom can be used to facilitate Education for Sustainable Development. This includes short visits into the school grounds and local community, as well as visits to farms, factories, offices, neighborhood science centers and natural settings such as a forest, beach or a national park.

Providing students with high quality learning activities in relevant situations beyond the walls of the classroom is vital for helping students appreciate their first hand experiences from a variety of different perspectives. An experience outside the classroom also enhances learning by providing students with opportunities to practice skills of enquiry, values analysis and

clarification and problem solving in everyday situations.

However, taking students outside the classroom requires careful planning of the learning activities and attention to the health and safety risks that might be faced.

Constraints on Learning Outside the Classroom

Despite the arguments in favor of learning outside the classroom, several key challenges do need to be faced:

➢ Organizational factors such as the difficulty of supervising a large group of students and providing them with the assistance they may need.

➢ The 'normal' lessons missed by teachers and students, and alterations that have to be made to the school timetable.

➢ Time needed to plan a worthwhile field trip.

➢ Cost of transport and accommodation, if required.

➢ Lack of detailed knowledge of the locality.

➢ Safety of the students.

➢ Lack of necessary skills in students.

Despite these challenges it should not be forgotten that often the most meaningful and lasting learning takes place when students are actively exploring the great variety of environments outside the classroom.

Learning outside the classroom also provides opportunities for teachers and students to get to know each other better through interacting outside the structures of the classroom and school grounds.

APPROACHES TO LEARNING OUTSIDE THE CLASSROOM

Two common approaches are (i) Field Teaching and (ii) Field Research.

1. Field Teaching

➢ Study of topic or theme in class. Teacher talk, textbook study, note taking, slide viewing, videos, etc.

➢ Field observations (often teacher directed). Recording of information in the field.

➢ Back in the classroom – further interpretation and explanation together – writing up field report.

➢ This is the traditional approach to teaching and learning outside the classroom. It involves taking students to a field location and delivering a mini-lecture from which students are expected to take notes.

➢ Little opportunity exists for student input and reaction.

- This approach can involve students in the careful observation and description of a scene or activity and in suggesting possible explanations based on previously acquired information.
- It is useful if students are inexperienced in making their own observations or if they lack confidence in their ability to solve problems.
- It provides a structured way for them to find their own examples as an integral part of the learning experience.

2. Field Research

- Identification of a problem as the result of direct observations; or from class work; or from special interests of students.
- Formulation of and hypothesis as a result of reading, discussion, thinking.
- Field activities to collect data to test hypothesis.
- Data analysis – processing information.
- Hypothesis testing – accept or reject.
- Discussing and writing up of possible ways to solve the originally identified problem using information gathered in the field.
- This approach represents an inductive approach to learning. It involves observation, description and explanation but with a problem solving focus.
- Students often use techniques similar to those used in historical enquiry, geographical research or scientific explanation.
- This is the inductive approach to fieldwork.

OPPORTUNITIES FOR LEARNING OUTSIDE THE CLASSROOM

Students can learn in a number of outside environments including:

- The school grounds and environment
- Urban centers
- The local community
- Rural and natural areas

ADVANTAGES OF LEARNING OUTSIDE THE CLASSROOM

- Learning outside the classroom supports the development of healthy and active lifestyles by offering children opportunities for physical activity, freedom and movement, and promoting a sense of well-being.
- Learning outside the classroom gives children contact with the natural world and offers them experiences that are unique to outdoors, such as direct contact with the weather and

the seasons.

- Playing and learning outside also help children to understand and respect nature, the environment and the interdependence of humans, animals, plants, and lifecycles.

- Outdoor play also supports children's problem-solving skills and nurtures their creativity, as well as providing rich opportunities for their developing imagination, inventiveness and resourcefulness.

- Children need an outdoor environment that can provide them with space, both upwards and outwards, and places to explore, experiment, discover, be active and healthy, and to develop their physical capabilities.

- The outdoor environment offers space and therefore is particularly important to those children who learn best through active movement. Very young children learn predominately through their sensory and physical experiences which supports brain development and the creation of neural networks.

- For many children, playing outdoors at their early years setting may be the only opportunity they have to play safely and freely while they learn to assess risk and develop the skills to manage new situations

- Learning that flows seamlessly between indoors and outdoors makes the most efficient use of resources and builds on interests and enthusiasm.

- Anyone who takes children outside regularly sees the enjoyment, and sense of wonder and excitement that is generated when children actively engage with their environment.

MODERN STRATEGIES OF LEARNING

1. Crossover Learning

Learning in informal settings, such as museums and after-school clubs, can link educational content with issues that matter to learners in their lives. These connections work in both directions. Learning in schools and colleges can be enriched by experiences from everyday life; informal learning can be deepened by adding questions and knowledge from the classroom. These connected experiences spark further interest and motivation to learn.

An effective method is for a teacher to propose and discuss a question in the classroom, then for learners to explore that question on a museum visit or field trip, collecting photos or notes as evidence, then share their findings back in the class to produce individual or group answers.

These crossover learning experiences exploit the strengths of both environments and provide learners with authentic and engaging opportunities for learning. Since learning occurs over a lifetime, drawing on experiences across multiple settings, the wider opportunity is to support learners in recording, linking, recalling and sharing their diverse learning events.

2. Learning Through Argumentation

Students can advance their understanding of science and mathematics by arguing in ways similar to professional scientists and mathematicians. Argumentation helps students attend to contrasting ideas, which can deepen their learning. It makes technical reasoning public, for all to learn. It also allows students to refine ideas with others, so they learn how scientists think and work together to establish or refute claims.

Teachers can spark meaningful discussion in classrooms by encouraging students to ask open-ended questions, re-state remarks in more scientific language, and develop and use models to construct explanations. When students argue in scientific ways, they learn how to take turns, listen actively, and respond constructively to others. Professional development can help teachers to learn these strategies and overcome challenges, such as how to share their intellectual expertise with students appropriately.

3. Incidental Learning

Incidental learning is unplanned or unintentional learning. It may occur while carrying out an activity that is seemingly unrelated to what is learned. Early research on this topic dealt with how people learn in their daily routines at their workplaces.

For many people, mobile devices have been integrated into their daily lives, providing many opportunities for technology-supported incidental learning. Unlike formal education, incidental learning is not led by a teacher, nor does it follow a structured curriculum, or result in formal certification.

However, it may trigger self-reflection and this could be used to encourage learners to reconceive what could otherwise be isolated learning fragments as part of more coherent and longer-term learning journeys.

4. Context-Based Learning

Context enables us to learn from experience. By interpreting new information in the context of where and when it occurs and relating it to what we already know, we come to understand its relevance and meaning. In a classroom or lecture theater, the context is typically confined to a fixed space and limited time. Beyond the classroom, learning can come from an enriched context such as visiting a heritage site or museum, or being immersed in a good book.

We have opportunities to create context, by interacting with our surroundings, holding conversations, making notes, and modifying nearby objects. We can also come to understand context by exploring the world around us, supported by guides and measuring instruments. It follows that to design effective sites for learning, at schools, museums and websites, requires a deep understanding of how context shapes and is shaped by the process of learning.

5. Computational Thinking

Computational thinking is a powerful approach to thinking and problem solving. It involves breaking large problems down into smaller ones (decomposition), recognizing how these relate to problems that have been solved in the past (pattern recognition), setting aside unimportant details (abstraction), identifying and developing the steps that will be necessary to reach a solution (algorithms) and refining these steps (debugging).

Such computational thinking skills can be valuable in many aspects of life, ranging from writing a recipe to share a favorite dish with friends, through planning a holiday or expedition, to deploying a scientific team to tackle a difficult challenge like an outbreak of disease.

The aim is to teach children to structure problems so they can be solved. Computational thinking can be taught as part of mathematics, science and art or in other settings. The aim is not just to encourage children to be computer coders, but also to master an art of thinking that will enable them to tackle complex challenges in all aspects of their lives.

6. Learning By Doing Science (with remote labs)

Engaging with authentic scientific tools and practices such as controlling remote laboratory experiments or telescopes can build science inquiry skills, improve conceptual understanding, and increase motivation. Remote access to specialized equipment, first developed for scientists and university students, is now expanding to trainee teachers and school students. A remote lab typically consists of apparatus or equipment, robotic arms to operate it, and cameras that provide views of the experiments as they unfold.

Remote lab systems can reduce barriers to participation by providing user-friendly Web interfaces, curriculum materials, and professional development for teachers.

With appropriate support, access to remote labs can deepen understanding for teachers and students by offering hands-on investigations and opportunities for direct-observation that complement textbook learning. Access to remote labs can also bring such experiences into the school classroom. For example, students can use a high-quality, distant telescope to make observations of the night sky during daytime school science classes.

7. Embodied Learning

Embodied learning involves self-awareness of the body interacting with a real or simulated world to support the learning process. When learning a new sport, physical movement is an obvious part of the learning process. In embodied learning, the aim is that mind and body work together so that physical feedback and actions reinforce the learning process.

Technology to aid this includes wearable sensors that gather personal physical and biological data, visual systems that track movement, and mobile devices that respond to actions such as tilting and motion. This approach can be applied to the exploration of aspects of physical sciences such as friction, acceleration, and force, or to investigate simulated situations such as the structure of molecules.

For more general learning, the process of physical action provides a way to engage learners in feeling as they learn. Being more aware of how one's body interacts with the world can also support the development of a mindful approach to learning and well-being.

8. Adaptive Teaching

All learners are different. However, most educational presentations and materials are the same for all. This creates a learning problem, by putting a burden on the learner to figure out how to engage with the content. It means that some learners will be bored, others will be lost, and very few are likely to discover paths through the content that result in optimal learning. Adaptive teaching offers a solution to this problem. It uses data about a learner's previous and current learning to create a personalized path through educational content.

Adaptive teaching systems recommend the best places to start new content and when to review old content. They also provide various tools for monitoring one's progress. They build on longstanding learning practices, such as textbook reading, and add a layer of computer-guided support.

Data such as time spent reading and self-assessment scores can form a basis for guiding each learner through educational materials. Adaptive teaching can either be applied to classroom activities or in online environments where learners control their own pace of study.

9. Analytics of Emotions

Automated methods of eye tracking and facial recognition can analyze how students learn, then respond differently to their emotional and cognitive states. Typical cognitive aspects of learning include whether students have answered a question and how they explain their knowledge. Non-cognitive aspects include whether a student is frustrated, confused, or distracted.

More generally, students have mindsets (such as seeing their brain as fixed or malleable), strategies (such as reflecting on learning, seeking help and planning how to learn), and qualities of engagement (such as tenacity) which deeply affect how they learn.

For classroom teaching, a promising approach is to combine computer-based systems for cognitive tutoring with the expertise of human teachers in responding to students' emotions and dispositions, so that teaching can become more responsive to the whole child and learner.

10. Stealth Assessment The automatic data collection that goes on in the background when students work with rich digital environments can be applied to unobtrusive, 'stealth', assessment of their learning processes. Stealth assessment borrows techniques from online role-playing games such as World of Warcraft, in which the system continually collects data about players' actions, making inferences about their goals and strategies in order to present appropriate new challenges. This idea of embedding assessment into a simulated learning environment is now being extended to schools, in topics such as science and history, as well as to adult education.

The claim is that stealth assessment can test hard-to-measure aspects of learning such as perseverance, creativity, and strategic thinking. It can also collect information about students' learning states and processes without asking them to stop and take an examination. In principle, stealth assessment techniques could provide teachers with continual data on how each learner is progressing.

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