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Differentiated Instructions in Indian Inclusive Education

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Abstract –

Inclusive learning environment can be facilitated through differentiated instructions as one of the techniques. This is a method, where the teacher tailors the curriculum according to the needs of the class focusing on the quality of teaching and learning. It can also be helpful for general education teachers to engage their class and teach the students up to their zone of proximal development. It is a method to implement a variety of strategies that involve teaching the same curriculum to students using a variety of instructions, or the teacher may differentiate the content, process, and product of the curriculum based on the readiness of the learner, level of difficulty, environment and learning patterns. We must understand that the concept of differentiated instruction is developed with the base in learner-centred educational theories like Thorndike's readiness, Gardener's multiple intelligence theory and varied learning style, Vygotsky's zone of proximal development. This article aims to explore differentiated instructions that would maximize learning among students and engage diverse learners in class and to understand the above-mentioned theoretical basis of differentiated instructions. This would help us to perceive the need of implementing differentiated instructions in everyday teaching and why is it one of the most effective technique to cater inclusive education.

Keywords: *Inclusive Education, Differentiated Instructions, Learning Styles, Teaching Learning Strategies, Education Theories, teaching techniques, teaching instructions*

Introduction –

Every Indian classroom is diverse and heterogenous. It consists of students with - highly advanced cognitive abilities, with average cognitive abilities, students with disabilities, creative, diverse extra-curricular skills, diverse language backgrounds, diverse economic backgrounds, diverse family structures, diverse cultural and social backgrounds are few to name. Every student in class comes with a different learning profile, interest areas, diverse skill sets and different emotional level. Consequently, every learner in the classroom manifests differing levels of readiness in various subjects. (Tomlinson, 2017) One of the major challenges that our teachers face in India is attending to the diversity in classrooms with the given vast curriculum and

the marks-oriented school systems. It becomes difficult for the teacher to maintain the school grades and at the same time attend to every learner in the classroom with a teacher student ratio of 1:32. (Statista, Journal of Education and Science, 2017) What hinders inclusive education in mainstream schools in India is that students with disabilities are often lagging behind in learning and coping with various subjects which ultimately leads to drop-outs. On the other hand, the advanced learners in the classroom often finds the curriculum boring and not challenging enough which leads to lack of exploring the cognitive abilities that the student might have to achieve maximum potential. Indian classrooms are often teacher driven; the learner becomes mere spectator which leads to the tendency of rote learning instead of gaining mastery over the concepts in various subjects that are taught in schools. Inclusive Education is a relatively new concept in India and has gained popularity after the Education for All campaign and the Right to Education Act 2009. With the 'zero rejection policy', India paved way for Inclusive Education. The recent National Educational Policy (NEP) 2020 highlights inclusion and equity as the main principles of the policy. The definition of inclusive education as mentioned in NEP 2020 is an education system wherein students with and without disabilities learn together and the teaching and learning is adapted to meet the learning needs among students. (National Education Policy, 2020) Therefore, it is a time when Indian education systems can no longer deny inclusive education in mainstream schools. However, the teacher's challenges are paramount when it comes to setting up inclusive education systems.

Some of the challenges that the teacher faces in the classroom are – lack of support from school and colleagues, lack of resource room help, lack of parental involvement, managing diversity in classrooms. Keeping in mind the Indian education systems where the teacher is the active participant and the student is the passive learner, attending to diversity and engage every learner in a classroom with strength around 32 students can be extremely stressful and challenging for the teacher. Some of the common features in an Indian classroom is every learner grasps the concepts taught in class at different levels based on their readiness and interest. Therefore, for teachers to meet the curriculum deadlines as well as ensuring every learner in the class has mastered the concepts becomes difficult. Carol Ann Tomlinson points out that as one-size of clothing does not fit all and everyone has a choice similarly, in education one-instruction does not meet the learning needs of diverse students in the classroom. (Tomlinson, 2018) It must be acknowledged that students learn at different speeds and in diverse ways. Therefore, teachers must also approach a diverse classroom with flexible instructions and adapt pacing approaches to response to the different needs among students. The NEP 2020 highlights that the teacher role in the education system will be to facilitate learning and let the students be active participant in their learning process. To make this a reality our regular teachers must be trained to apply various techniques in classroom. The teacher training programmes in India are based on content delivery approach which limits the scope for regular teachers to implement new and contemporary techniques in the classrooms. Indian students are used to rote-learning methods and does not become active participants in learning. Majority of Indian schools are driven by grades and consequently, it creates immense pressure on the teacher to meet grade expectations and at the same time attend diverse needs in classrooms. But it is important to understand that Indian education policies highlights Inclusive education as one of the major aims in Indian education systems and to create learners with global learning experiences. Therefore,

Indian schools can no longer be ignorant of diversity in classrooms and accepting students with disabilities at schools. Also, with proper teacher training and continues professional development programmes, regular teachers in Indian classrooms can attend to diverse needs in classrooms and make sure NEP 2020 achieves its goals to set up inclusive education system in India.

One of the methods that can be used to make inclusion a reality is the use of Differentiated Instructions at schools. According to Carol Ann Tomlinson, differentiation means tailoring instructions to meet individual needs. The success of the teacher's instruction depends on the level of differentiation in either content, process, product or the learning environment. (Tomlinson, 2018). Differentiation is the effort that the teacher puts in to respond to diversity in classrooms. Every time the teacher reaches out to every learner in the classroom by any means, which is either through grouping or differentiation in teaching techniques or curriculum it creates the best learning experience for the learner. The teacher can differentiate four classroom elements based on the readiness, interest or learning profile of the learner.

- Content – what the student needs to learn and how will the student get access to the objectives
- Process – the activities that the student engages with to master the content
- Product – culminating the student understanding of the content and the level of mastery
- Learning Environment – the classroom setting

The history of differentiated instructions dates back to the 1600s in USA. It was observed that when students were allowed to work at their own pace without the fear of failures the differences among students emerged on many grounds than expected. Further with the Individuals with Disabilities Education Act (IDEA) Act in 1975 at the Congress, it provides guidelines for schools to provide an individual education program (IEP) for students with diagnosed special needs. These helped teachers develop differentiated instruction for students who needs special attention. Post implementation it was realized that Differentiated Instructions just do not meet the needs of children with disabilities but also high achievers in the classroom. Later scholars like Gersten, Carol Ann Tomlinson, Susan Demisky Allan developed that one-size-fits all approach does not work in general classrooms and differentiated instructions are mandatory to serve diverse needs in classrooms.

This paper will analyse DI and its implementation in Indian classrooms.

Theory of Differentiated Instructions –

Carol Ann Tomlinson has grounded her theory in deep educational theory and research. Her ideas advocate collaborative learning, with variance in readiness, interest and learning profiles. References of many notable scholars are present in the theory of differentiated instruction, for example, Tomlinson advocate that every learner has a unique way of learning which is developed from their unique background and needs. This concept takes us back to Vygotsky's Social Developmental Theory where he stresses that the fundamental role of social interaction develops our cognition. He believed that our community plays a major role in the process of "making meaning." (Langford, 2005) He argued that our cognitive abilities are socially guided and our culture plays an important role to develop specific skills among us like memory, attention, problem-

solving. Tomlinson further stresses how important it is to encourage collaborative learning among students to let them develop a deep understanding of newer concepts and allow each learner to share their understanding and create new meaning based on their former understanding.

One of the most notable concepts of Vygotsky's theory is the Zone of Proximal Development which refers to the difference between what a learner can do without help and what he or she can achieve with guidance and motivation. Therefore, "proximal" refers to those skills that the learner is close to mastering. Vygotsky argued that scaffolding techniques facilitate the learner to achieve his/her zone of proximal development. (Langford, 2005) The theory of differentiated instructions too aims to scaffold learners up to their zone of proximal development. Following this, Tomlinson advocates that teachers must differentiate instructions which are slightly above the learner's level of readiness to encourage engagement and challenge the learners thinking skills. This idea encompasses the views of Brynes who argues that instruction must always be higher than the ability level of the students to facilitate growth. (Bryne, 2005) This creates a scope for the learner to look forward and challenge their skills to perform better.

According to Csikszentmihalyi's flow theory engagement and concentration can be achieved only by completing a task that challenges own skills. On similar lines, Tomlinson argues that the teacher must offer students with assignment choices to cater to their level of interest and encourage students to engage in the learning process. (Csikszentmihalyi, 2004) However, it must be kept in mind that for the flow to occur student activities must be based on their readiness level with clear goals and instructions. Tomlinson's theory has always advocated the concept of providing choices to learners based on their level of readiness, so that each one gets a chance to learn but according to their level of interest and readiness. This helps the learner take active role in the learning process.

One of the major influences in Tomlinson's theory is from Gardner's theory of 'Multiple Intelligences'. In 1999 Gardner proposed that every individual has varied strengths and weaknesses. According to him, there are eight bits of intelligence that assert the strengths of the individual namely – verbal, visual, logical, musical, bodily, interpersonal, intrapersonal and naturalist. Gardner also advocates that the teacher must be aware of the multiple intelligences to capitalize on the strength of the class. Tomlinson too asserts that the teacher needs to attend to the learning profile of the learner to facilitate the maximum growth among students in the class. Both strongly argues that the learning preferences and background of the students affect their learning processes. In fact, the teacher can differentiate instructions, create choices for learners based on the learning profile of the class. This not only enhances the scope of effective teaching and learning but also create scope for students to become active participants in the learning process.

Though we can view differentiated instruction in a wide array of research and theory, Tomlinson advocates the use of differentiated instruction through her experience as a teacher and her support that influenced student success. She stressed on the use of student-focused teaching strategies to engage learners and facilitate them to maximize their strengths and potential. The concept of differentiated instruction aims to attend the unique needs of learners.

It must be highlighted here that; India is a diverse country and Vygotsky's theory that social interaction develops our cognitive abilities is a very relevant concept in India. Similarly, the concept of multiple intelligences, and it must be acknowledged that every student in the classroom comes with unique set of skills. Indian societies are different and students come from various backgrounds to school having different levels of cognitive abilities. Therefore, a teacher in the Indian subcontinent must keep in mind that our society is diverse and heterogeneous so is our classrooms.

Differentiated Instructions –

Carol Ann Tomlinson defines differentiated instruction as tailoring instructions to meet individual needs, whether by differentiating content, process, products or the learning environment. The use of ongoing assessment and flexible grouping makes this a successful approach for instruction. (Tomlinson, 2019)

Before we understand what differentiated instructions stand for, it is important to understand what it's not. To begin with, we must have a clear understanding that differentiated instruction is not individualized instruction. Even though differentiated instruction caters to meet individual needs, it specifically does not talk about separate assignments for each learner. It tries to enhance the scope to engage various learners in meaningful tasks, with the same curriculum. It is more reminiscent of one-room-schoolhouse than of individualization. Whereas, on the other hand, individualized instruction expect that each student will have a separate learning assignment and the teacher is expected to alter the curriculum according to the needs of each student in the class. This process drains out the teacher and practically not possible as it does not meet the common curriculum goals for all. According to Tomlinson, teachers can differentiate instruction in 4 ways – **content, process, product and learning environment.**

By **Content** here we understand, what the student needs to learn and how the student will get access to the information. A teacher can differentiate the content based on Bloom's taxonomy from lower-order thinking to higher-order thinking skills. Students who are not familiar with the content can be introduced with lower-order thinking skills like remembering and understanding. The content may be chunked for the class through graphic organizers, vocabulary boards, jigsaw grouping. Content can also be chunked through various processes and introduced in the class. The student therefore, gets a clear understanding on the curriculum outline and focus to choose the content based on their interests.

When we think about differentiating the **Process**, we must first keep in mind that every student in the class, has different learning styles. Here the teacher must engage the students in a way they make sense and master the content. Some students in the class work well in pairs, small groups, independently and some may require teacher's support. The teacher here supports the student's learning styles and initiates the process of learning through their learning styles. Some common differentiating methods are providing textbooks for visual learners, providing audiobooks for auditory learners, engaging the kinaesthetic learners into small groups to let each individual reach their zone of proximal development. The teacher here can allot extra time for students who require extra help with assignment submissions.

Product in differentiated instruction is what the student creates at the end of the lesson to demonstrate their mastery over the content. This can be in the form of tests, projects, reports, any other activity. The teacher here can provide an option to the student to demonstrate his understanding of whichever way he/she is comfortable based on their learning style. It is important that the teacher give choices to students to express themselves better. The whole purpose of an assessment is to check for understanding and it can be done the best through offering choices and letting the student express the way he/she can do their best.

The **learning environment** in differentiated instruction is the ideal condition to enhance learning. A flexible classroom is a space where students explore their potential. The teacher may have work stations, flexible grouping, break corners for students to make the learning environment flexible and suitable for all.

The teacher can differentiate instructions according to the student's level of the following:

Readiness – The readiness among students depends on multiple factors like the prior knowledge among students, general communication, thinking and reasoning skills to attend to the content. Current physical and mental health, attitude towards the school, subject, topic or teacher. Therefore, we understand that readiness among students is not a single facet phenomenon. However, the teacher can attend to this through tiered activities or small group instructions, to begin with. (Demenski, 2017)

Interest – Another important factor that influences the learners' profile is based on their interest in the subject, skills, teacher. But teachers must keep in mind that the student's interest is the determining factor for his/her class engagement.

Learning Profile – This refers to the variety of ways the learner prefers to learn which includes their attention, intelligence preferences, learning styles, cultural background. Teachers must address the various learning profiles in the class to differentiate her lesson and capitalize on the learning profiles of the learners.

The above discussion gives us an idea about how differentiated instructions can be used by teachers to enhance the learning capabilities among students. The teacher builds lessons and develops teaching materials to approach all students, regardless of their abilities, they learn the common curriculum effectively according to their needs. (Weselby, 2018)

It must be highlighted here, that a class consists of diverse learners – some with learning difficulties, high IQ, varied interests and other differences. For the teacher to include everyone in the class, it is important that he/she uses various strategies to keep the class engaged. Although the whole process of differentiated instructions is yet to be validated by scientific research, there are evidence to show that it has positive impact on the student's learning process.

Strategies for Differentiated Instructions-

Before, we understand the strategies we as teachers must keep in mind that this method is a rational approach to handle learners and aim to bridge the learning gaps among students. The strategies aim to maximize the student's learning and engaging them in the learning process. Also note, the below mentioned strategies are beneficial for Indian schools, keeping in mind the structure, environment, cultural and social background.

The following are 10 strategies that teachers can use to differentiate instructions in classrooms –

1. **Curriculum Mapping and Power Standards** – this is the process to make a visual diagram of the curriculum to identify academic needs, gaps, learning standards, expectations, the effectiveness of the curriculum. It also helps the student to understand the aligning skills required to attend the curriculum needs. This helps students to become active participants in the learning process. The power standards help the students to understand the highest priority of the learning standards. This enables the students and the educator to determine the essentials of the curriculum for the student to learn.
2. **Inquiry-based Learning and Project-based Learning** – This is a method where the teacher begins the lesson by posing questions, problem scenarios which enhance the student's capacity to think rather than the teacher pouring information. The teacher can also extend a project work to involve students to attend to the lesson being taught. This helps the students develop problem-solving and thinking skills.
3. **Tiered Instruction** – The teacher is always under pressure to teach all students the required learning objective of the lesson. To meet this criterion tiered instruction is one of the most effective strategies. It is a process that considers the learners' readiness to address the curriculum or the learning objective and adapt it to the readiness of the learner. This is a practice that allows students to attain the grade-level standards but through tiered assignments and instructions. The teacher prepares tiered assignments into ability boxes and sets the assignment based on the learners' profile. The 6 main principles for tiered assignments are the **level of challenge in the task, level of complexity, expected outcome, process, product, and resources**. To maintain tiering invisible to the class the teacher can set different assignments for the different ability groups but ensure a knowledge sharing session so that students understand that even if they are working on different assignments from the same lesson there is scope for knowledge sharing and each tiered assignment is equally important for all. This can be done through the *Jigsaw* activity.
4. **Grouping** – One of the best practices is grouping. It depends on the teacher how effective can the groups be, depending upon the nature of the activity. Each student has their level of understanding, intelligence, maturity, needs, and strengths. Therefore, flexible grouping enhances the chance for students to share and learn also known as collaborative learning. As many educational theories have advocated, that students learn best in groups and the different academic levels create scope for each learner to learn something from their peers in the group. Research has time and again proved that group-based teaching and learning methods are far more effective than whole-class teaching and learning.ⁱ

5. **Provide Infographics** – One of the basic techniques used by teachers is providing an infographic for the lesson in progress. This is a visual representation of information or data but is specific to a topic. This practice helps struggling readers and addresses other visual learners in the class.
6. **RAFT techniques for Writing Assignments** - It is a method of writing that helps students to identify their **R**ole as a writer, **A**udience they are writing for, **F**ormat of writing and the **T**opic. This strategy empowers the student to organize his/her writing assignment.
7. **Sync Teaching Method** – It is a self-directed learning method. This is a method that aims to engage the teacher and the student in the learning process, it aims to sync the content on one hand with tools, resources catering to the content on the other hand. This enables us to create a free space to extend, create and connect learning.
8. **Concept Attainment Model** – It is an instructional strategy introduced by Jerome Burner. This aims to enable students to learn through a series of structured inquiry like identifying the main concept, key features of the learning process, analysis, comparison, and contrasting examples. This can be a whole-class activity empowering each student to understand their level of understanding from the lesson.
9. **Socratic Seminar** – This is a strategy that offers formal discussion based on a text in which the teacher asks open-ended questions and students share their thinking and articulate their thoughts. This teaching-learning method creates scope for students to share their opinion and also creates a space for multiple outlooks and sharing.
10. **Rubric** – Provide students with the assessment tools that indicate the parameters the student has to achieve across all components. This helps the students to track their progress and identify the areas for improvement.

Benefits of Differentiated Instructions –

Differentiated Instructions help teachers to address the varied abilities, strengths, and needs of students. To address the whole-class with common curriculum objectives is a challenge faced by teachers. This method of differentiated instruction caters to student abilities and needs in class. Research shows that the use of differentiated instruction in classrooms is beneficial for high-ability to mild to severe disabilities in the classroom. Also, it is observed that when students are given choices for the materials, assessment and class activities, students take on more responsibility for their independent learning. Differentiated instructions, therefore, it is one of the best instructional strategies used to cater to diverse learners in the class. It must be highlighted that, schools in India is aiming for an inclusive education set-up which can be achieved only if diverse needs in the classroom are addressed with equal attention. Students with or without disabilities can learn the common curriculum only through the use of differentiated instruction where the curriculum

outcomes remain unchanged and the content, process and product is tailored according to the needs of the class. This leads to an environment where students with disabilities too become active members in the learning process and in return it generates a sense of belongingness towards the community welfare. Education should be a space which creates opportunities for everyone to participate and develop potentials to their level best. Also, Indian academic councils like the NCERT and AISCE with continuous development have come to a point where it provides enough scope for differentiation in the curriculum.

Criticism of Differentiated Instructions –

Teaching and learning are dynamic procedures, there cannot be one best for all teaching or learning method. Therefore, as our learning profiles are unique, our teaching methods also differ. The concept of differentiated instruction is not free from criticism. Teachers have argued that differentiated instructions create pressure for the teacher to plan. The lack of time makes it difficult for the teacher to provide choices for all students based on their abilities. Further critics argue that the prep time involved in preparing differentiated instructions often becomes challenging for the teacher. Especially for Indian schools, the teacher-student ratio in classrooms creates a huge challenge for teachers to cater to diverse needs in class. Some strategies like activity corner, group movement in class is difficult to implement in our schools keeping in mind the classroom structures and space available in many schools.

Conclusion –

The above discussion highlights that differentiated instruction is a teaching strategy used to cater to the diverse needs of the classroom. We must understand that the teacher's role has always been a critical one in terms of catering diverse needs in the class. However, with changing teaching strategies teachers must make an attempt to address diversity. As responsible professionals of the education industry, the role of the teacher is important to build an inclusive education space for everyone with or without disability. The teachers are often exhausted and over-burden with the school requirements and curriculum delivery; therefore, it is important that teachers keep modifying their teaching strategies to cater to diversity and changing needs of the society. Differentiated instruction can be one of the strategies for teachers to address their challenge dealing with diversity in classrooms. It is important to highlight that with the extensive discussion earlier; it is proved the concept of differentiation has a strong theoretical basis in student-centric approaches. The strategies mentioned above also do not require months of planning, rather what is important is that teachers know the learners in class. Differentiated instructions just require flexibility and adaptability of the teacher to address class concerns. However, it is also true that with packed curriculum goals it becomes difficult for teachers to apply differentiated instructions on a daily basis but we must also acknowledge that this is a strategy that aims to address all learners in class which should be a mandatory feature of any general classroom. The effectiveness of differentiation in classroom must not also be forgotten.

Keeping the Indian context in mind, with the NEP 2020 paramount stress on inclusive education, it is important that our teachers also revise their teaching strategies to meet the changing demands of the society. Our teachers in both public and private schools must be equipped and trained to accommodate all learners.

Our school administration must also focus on training teachers to be sensitive to the needs of learners in a classroom. If we look back, education system in India has come a long way from Brahminical education to making it available for all. But, the concept of common curriculum has often ruled out students with difficulties and students from a low-income background family who cannot spend on child's education. From this history to making education for all, the Government initiatives to spread education among all have gradually developed over the years and now have reached a point where inclusive education system must be established for a healthy growth among all.

Here when I use the word 'all' – it is important that we include everyone, students with or without difficulties, high and low ability thinking skills, high- and low-income group, everyone whoever is a learner in the class. The concept of differentiated instructions can be beneficial because it attends to high, average and low performances. It structures the common curriculum based on the student needs and provide adequate scaffolding for students who are struggling. It has been observed that if the teacher uses simple and basic instructions to teach a lesson the high order thinking student often gets bored and lacks interest in the subject. To attend to this, where no learner is left behind differentiated instructions can be one of the best possible way to accommodate everyone in the class.

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