Popular Article

Teaching -Learning Process: Emerging Methods of Pedagogies

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INTRODUCTION

"Everyone is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid"

-Albert Einstein

Pedagogy is the art, science or profession of teaching. In today's classroom we have students with different needs, interests, learning capacity, language abilities and background. In this context pedagogy plays a crucial role in the education system by shaping the learning experiences of students. With increasingly diversified need of the world, it has become imperative for pedagogy to adapt and cater to the needs of students. Diversified students bring unique perspectives and learning styles to the classroom and all-inclusive pedagogical approach helps to create an equitable and supportive learning environment for all.

Pedagogies promotes students at the centre of the educational process. It recognizes the diverse needs and abilities of student, allowing educators to tailor made instruction to meet individual learning style. As the education evolves in 21st century, the need for emerging pedagogies in teaching and learning becomes increasing evident. It offers innovative and effective methods that facilitates acquisition of knowledge and skills. Emerging pedagogies are revolutionizing the way educators want to rejuvenate the students by providing a more encouraging and personalized learning experience. There are many institutes, universities and schools who have incorporated innovative pedagogies in teaching-learning process.

EMERGING METHODS OF PEDAGOGIES

1. Flipped classroom

The flipped classroom is an innovative teaching method that has gained popularity in recent years, particularly in higher education settings. This approach flips the traditional model of in-class lectures

and homework assignments by providing students with pre-recorded video lectures to watch at home and utilizing class time for interactive discussions and hands-on activities. This method offers several benefits to students, including increased engagement, personalized learning experiences, and improved critical thinking skills.

One of the key benefits of the flipped classroom is that it enhances student engagement. By watching pre-recorded lectures at their own pace and convenience, students have the opportunity to engage with the materials on their own terms, leading to increased motivation and participation. Moreover, in-class activities and discussions allow students to apply the knowledge they have gained from the video lectures, fostering a deeper understanding of the subject matter.

Another advantage of the flipped classroom is that it promotes personalized learning experiences. The use of pre-recorded lectures allows students to pause, rewind, and re-watch the content as needed, catering to their individual learning styles and preferences. Additionally, students can access the lectures outside of the classroom, giving them the flexibility to review the material at their convenience. This personalized approach not only accommodates different learning speeds but also ensures that every student can grasp the concepts before moving on to more complex topics.

Furthermore, the flipped classroom fosters the development of critical thinking skills. In traditional teaching approaches, students often rely on teachers for answers and explanations during class time. However, the flipped classroom encourages students to become active learners by engaging in discussions, problem-solving activities, and debates during class. This collaborative learning environment challenges students to think critically, analyze information, and articulate their thoughts effectively.

Flipped classroom teaching has been adopted across various top premier institution, universities, business schools across India. Some of the examples are as follows-

Example: a) IIT Kharagpur, IIT Delhi, IIT Bombay, IIIT Bangalore, IISWBM Calcutta adopted flipped classroom teaching for application-oriented business courses.

b) IIM Sambalpur, IIM Ahmedabad, IIM Bangalore, IIM Kolkata, IIM Kozhikode, MDI Gurgaon flipped their classroom teaching for PhD course.

c) Indian School of Business, Hyderabad adopted flipped classroom teaching for entrepreneurial decision-making course.

d) SP Jain Institute of Management and Research, Maharashtra flipped their classroom teaching for executive MBA course.

e) Harvest International school and Shantinikethana school, Karnataka adopted flipped classroom teaching for some topics in science for school students.

2. Game-based learning

Game-based learning is an innovative educational approach that utilizes games and gaming elements used to enable and engage students in effective learning, *viz.* Using card games, board games, video games, quiz and puzzles along with the classroom teaching and learning.

In recent years, it has gained significant attention and recognition for its potential to enhance student learning outcomes in various academic subjects. One of the major benefits of game-based learning is its ability to foster critical thinking skills. Games often present students with challenging problems or puzzles that require them to think critically, analyse information, and come up with creative solutions. This process not only improves their problem-solving abilities but also enhances their overall cognitive skills.

Another significant advantage of game-based learning is its capability to improve student engagement and motivation. Traditional methods of teaching often fail to capture students' interest and enthusiasm, resulting in disengagement and passive learning. Games, on the other hand, are designed to be interactive and visually appealing, which makes the learning experience more enjoyable and captivating for students. By incorporating game-based learning strategies, educators can create a more dynamic and immersive learning environment, where students actively participate and stay motivated to achieve their educational goals.

Furthermore, game-based learning can also help students develop important social and collaborative skills. Many educational games offer multiplayer options that allow students to interact and work together, promoting teamwork and cooperation. Through these collaborative experiences, students learn effective communication skills, negotiation of ideas and collective problem solving skills. These skills are crucial for their future success in the 21st-century workforce, where collaboration and teamwork are highly valued.

3. Crossover learning

Crossover learning a strategy that combines formal classroom instruction with learning that place outside of the formal classroom setting. Incorporation of such teaching method in education helps students to enhance critical and analytical thinking skills, fosters creative thinking and deep comprehension.

Example: Students going for field trips, visiting museum, theatre, exhibition after a formal lecture to gain in-depth knowledge on the content being taught in the classroom.

4. Personalized learning

Personalized learning, often referred to as customized education is an approach to teaching and learning that tailor's education to each student's unique needs, interests, and pace of learning.

Example: Self- paced through e-textbooks, online videos.

This approach focuses on individualized learning experience in order to facilitate improved outputs from students. Personalized learning offers wide range of advantages to students which

2356

including more involvement, deep understanding of subject matter which lead to higher sense of achievement among the students.

One of the key benefits of personalized learning is its ability to foster student engagement. By customizing learning experiences to align with students' interests and strengths, educators can pique students' curiosity and motivation. When students are engaged, they are more likely to actively participate in the learning process, ask questions, and gain knowledge. Additionally, personalized learning allows students to expose to topics that resonate with them personally, encouraging a sense of leadership and autonomy in their education.

Furthermore, personalized learning has been shown to lead to improved academic achievement. Because the instruction is tailored to meet the specific needs of each student, they are able to progress at their own pace. This facilitates a deep understanding of the material before moving on to more complex concepts. Students who receive personalized instruction are also more likely to take risks and persevere through challenges, as they feel a stronger connection to their learning

5. Collaborative learning

Collaborative learning is an instructional approach that encourages students to work together in small groups to achieve a common goal, for example revision of entire course syllabus one day before exam through interaction among the peers or co- learners under the guidance of teacher.

This method has proven to be highly beneficial to students across various academic disciplines which promote deeper learning, critical thinking, and problem-solving skills. Collaborative learning, enhances students' intelligence and comprehension by tapping their peer groups knowledge and experiences collectively.

One of the key benefits of collaborative learning is the development of critical thinking abilities. By encouraging group discussions and debates to widen students' perspectives and viewpoints. This exposure allows them to broaden their understanding of complex subjects and consider alternative solutions and strategies. Through active participation in collaborative activities, students can strengthen their analytical and evaluative skills, thereby improving their decision- making skills in respective fields. Additionally, collaborative learning promotes the acquisition of teamwork and communication skills, which are vital in professional settings. As a student, being able to effectively collaborate and communicate with colleagues is essential for research projects, group assignments, and presentations. Through working collaboratively, students learn how to effectively contribute to a team, resolve conflicts, and express their ideas coherently and persuasively. These skills not only benefit students academically but also prepare them for future career success, as employers value team players who can effectively interact and cooperate with others.

Furthermore, collaborative learning fosters a more engaging and inclusive learning environment. Through group activities, graduate students can exchange ideas, ask questions, and share knowledge, which enhances the overall learning experience. Collaborative learning allows students to

2357

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take ownership of their education and be actively involved in the learning process. It encourages them to become independent thinkers while also honing their ability to cooperate and empathize with their peers.

6. Incidental learning

Incidental learning is a type of learning that occurs outside the framework of class room and in an informal educational setting, such as in everyday life experiences or by simply observing and engaging with the surrounding environment, like new words while reading a book and social skills while playing with others.

While formal education remains paramount in equipping students with essential knowledge and skills, incidental learning offers numerous benefits to students at all educational levels. One of the major benefits of incidental learning is its ability to broaden students' knowledge base beyond the confines of their textbooks or academic curriculum. Through everyday experiences, casual conversations, or exposure to diverse environments, students are constantly exposed to new information and concepts, allowing for a more comprehensive understanding of the world around them. This type of learning encourages critical thinking, as students are compelled to make connections between what they have learned incidentally and their formal education, fostering a deeper comprehension of complex topics.

Moreover, incidental learning promotes a well-rounded education by developing a range of skills that extend beyond academic subjects. For instance, students may acquire problem-solving skills through real-life challenges, such as fixing a broken appliance or navigating public transportation. Similarly, interpersonal skills can be honed as students interact with diverse individuals in their surroundings. By being exposed to such experiences, students develop adaptability, autonomy, and a sense of confidence in their ability to navigate the complex world they are a part of.

Furthermore, incidental learning encourages curiosity and a lifelong love of learning. By exposing students to various real-world scenarios and unexpected information, incidental learning sparks a natural inquisitiveness that fuels intellectual growth. This self-driven exploration allows students to develop a thirst for knowledge that extends beyond the classroom, which can have long-term benefits in their personal and professional lives. Moreover, incidental learning empowers students to take agency over their own education, as they become active seekers of knowledge rather than passive recipients of information.

7. Embodied learning

Embodied learning, also known as experiential learning or learning by doing, is an educational approach that emphasizes physical engagement and sensory experiences to enhance the learning process, for example performing experiments and conducting research.

Embodied learning offers numerous benefits to students, especially in terms of enhancing their cognition, increasing retention of knowledge, and supporting emotional well-being. Firstly, embodied learning promotes enhanced intelligence and comprehension among students. When students actively

2358

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engage in physical activities, such as performing experiments, conducting research, or participating in hands-on projects, they are more likely to grasp complex concepts and understand their real-world applications. By connecting abstract ideas with concrete experiences, embodied learning facilitates deeper understanding and critical thinking skills. This approach encourages students to actively think and reflect upon their actions, leading to a more profound comprehension of the subject matter.

Secondly, embodied learning significantly improves knowledge retention. Research has shown that active learning experiences enhance long-term memory compared to passive forms of learning, such as reading or listening to lectures. Through embodied learning, students are more likely to remember information due to the multisensory experiences associated with physical engagement. By involving multiple senses like touch, sight, and movement, embodied learning creates a stronger neural connection within the brain, leading to better recall and retention of learned material.

Furthermore, embodied learning supports students' emotional well-being. Traditional classroom settings can sometimes be stressful or monotonous, leading to disengagement and limited motivation. However, through embodied learning, students are actively involved, which can reduce anxiety and increase enjoyment in the learning process. Physical activities and interactive experiences foster a sense of achievement, boosting students' self-confidence and self-efficacy.

8. Adaptive learning

Adaptive learning is a progressive approach that tailors' educational materials and strategies to meet the unique needs and abilities of individual students. By leveraging sophisticated data analytics and machine learning algorithms, adaptive learning technologies can assess students' knowledge and skills, identify areas of weakness, and provide personalized recommendations and resources to improve learning outcomes. This method has been widely adopted across various educational institutions and has proven to offer numerous benefits to students.

One of the key advantages of adaptive learning is its ability to promote student engagement by addressing their specific learning needs. Traditional classroom settings often adopt a one-size-fits-all approach, which can leave some students either disengaged or struggling to keep up. Through adaptive learning, students receive customized content and activities that are adapted to their proficiency levels and learning styles, making the learning process more personalized and meaningful. This personalization not only enhances motivation but also maximizes the potential for knowledge retention and understanding.

Another benefit of adaptive learning is its potential to accelerate students' learning progress. The adaptive nature of this approach allows students to move at their own pace, focusing more time and effort on challenging concepts while quickly moving through areas where they excel. This individualized advancement ensures that students are not held back by the average pace of the class, enabling them to reach higher levels of achievement. Adaptive learning also provides instant feedback, allowing students to address misconceptions immediately and facilitating real-time adjustments in their

2359

learning strategies. By identifying and addressing knowledge gaps promptly, students can make continuous progress towards their learning goals.

Furthermore, adaptive learning provides valuable insights into students' learning patterns and performance, allowing instructors to identify areas that require additional support or intervention. This data-driven approach enables educators to make informed decisions about instructional methods, resources, and interventions to better support individual students. By receiving targeted and timely guidance, students are more likely to overcome challenges and reach their full potential. Additionally, adaptive learning platforms can offer personalized recommendations for additional learning resources, further augmenting students' overall learning experience.