



## APPLICATION OF ADVANCED PEDAGOGY

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### Abstract

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*Advanced Pedagogy means teachers can integrate, different innovative teaching strategies , techniques, ICT tools, decision making tools etc. into their teaching , also design and implement different modes of learning processes through alternative delivery systems for courses. There are many teaching- Learning strategies which teachers can use to plan classroom activities in Advanced Pedagogy. Teacher should plan for Techno- pedagogic analysis of the computer based instructional Strategies. Interactive teaching – learning strategies, are beneficial in achieving desirable educational goals for learners in present and future. We may imagine and hope that there will also be a third and subsequent generation of online learning and that it will bring about definite pedagogical innovations as part of the transformation process.*

**Key words:** - *Advanced Pedagogy, Interactive teaching – learning strategies, Techno -pedagogic analysis, Desirable educational goals, Pedagogical innovations.*

Advanced Pedagogy is a skillful planning of a working system by which objective can be achieved conveniently. Strategies are never the same. They change according to the learning situation. Advanced Pedagogy means the determination of some policy by planning before presenting the contents, with the help of which student's force is faced and the teaching objectives are achieved and it seeks to establish the relationship between teaching and learning. Advanced Pedagogy have been regarded as broad ways of instruction.

To cope up with the fast changing and volatile environment, teachers need to adopt strategies ,skills that would address the issue of internal efficiency, external competitiveness and being a leader in the global educational field. Teachers must be imaginative . They need to foresee the potential of the emerging technologies, look into other areas of the curricula and across disciplines, make links that enhance and value learning in other fields to leverage this knowledge and reinforce their teaching and the learning of their students.The 21st century teacher should be fluent in the use of communication and information technologies , know how to facilitate, stimulate, control, moderate and manage them.

Advance Pedagogy bridges the past with present and future and makes the individual learn continuously.

“ Advanced Pedagogy means developing and implementing planned activities to engage the participant as a PARTNER in the learning activity.”

“Advanced Pedagogy means teachers can integrate, different innovative teaching strategies , techniques, ICT tools, decision making tools etc. into their teaching , also design and implement different modes of learning processes through alternative delivery systems for courses”.

### **Advanced Pedagogy**

There are many teaching- Learning strategies which teachers can use to plan classroom activities in Advanced Pedagogy .

### **Learning Strategies are as follows :-**

- Thinking Skills strategies such as De Bono’s Six Thinking Hats and Mind Mapping;
- Gardners’ Multiple Intelligences;
- Bloom’s Taxonomy
- Habits of Mind (16 Intelligences) - Art Costa
- Co-operative learning
- Constructivism.
- Brain based learning
- Blended Learning.
- Flipped Classroom.

It is acknowledged that some of these have also been used as a vehicle for curriculum planning but it could be argued that as a strategy per se, they may not meet the full range of the four dimensions of the Productive Pedagogies. A brief summary of these strategies follows.

**De Bono's Six Thinking Hats–**

This method, invented by Dr Edward de Bono in the early 1980s, is a framework for thinking and can incorporate lateral thinking. The six hats represent six modes of thinking and are directions to think rather than labels for thinking. As such, the hats are used proactively rather than reactively. The key theoretical reasons for using the Six Thinking Hats are to:

- encourage parallel thinking
- encourage full-spectrum thinking
- separate ego from performance

**White Hat** - thinking covers facts, figures, information needs and gaps.

**Red Hat** - thinking covers intuition, feelings and emotions. The red hat allows the thinker to put forward an intuition without any need to justify it.

**Black Hat** - thinking is the hat of judgement and caution. It is not in any sense an inferior or negative hat. Rather it is used to point out why a suggestion does not fit the facts, the available experience, policy being followed etc.

**Yellow Hat** - thinking is the logical and positive. 'Why something will work and why it will offer benefits?' It can be used in looking forward to the results of some proposed action, but can also be used to find something of value in what has already happened.

**Green Hat** -thinking is the hat of creativity, alternatives, proposals, 'what is interesting?', provocations and changes.

**Blue Hat** - thinking is the overview or process control hat. It looks not at the subject itself but at the 'thinking' about the subject. In technical terms, the blue hat is concerned with meta-cognition.

## **Bloom's Taxonomy**

In 1956, Benjamin Bloom headed a group of educational psychologists who developed a classification of levels of intellectual behaviour important in learning. This became a taxonomy including three overlapping domains; the cognitive, psychomotor and affective.

Categories in the **Cognitive domain** remain the most familiar to educators:

- **Knowledge** of terminology; specific facts; ways and means of dealing with specifics. Knowledge is defined here as the remembering (recalling) of appropriate, previously learned information.
- **Comprehension**: Grasping (understanding) the meaning of informational materials.
- **Application**: the use of previously learned information in new and concrete situations to solve problems that have single or best answers.
- **Analysis**: the breaking down of informational materials into their component parts, examining such information to develop divergent conclusions by identifying motives or causes, making inferences and/or finding evidence to support generalizations.
- **Synthesis**: Creatively or divergently applying prior knowledge and skills to produce a new or original whole.
- **Evaluation**: Judging the value of material based on personal values/opinions, resulting in an end product, with a given purpose, without real right or wrong answers.

## **Gardner's Multiple Intelligences**

Gardner defines intelligence as “the capacity to solve problems or fashion products that are valued in one or more cultural settings (Gardner & Hatch, 1989). Using biological as well as cultural research, he formulated a list of seven intelligences. Gardner defines them as follows:

**1. Logical-mathematical Intelligence** – consists of the ability to detect patterns, reason deductively and think logically. This intelligence is most often associated with scientific and mathematical thinking.

**2. Linguistic Intelligence** – involves having a mastery of language. This intelligence includes the ability to effectively manipulate language to express oneself rhetorically or poetically. It also allows one to use language as a means to remember information.

**3. Spatial Intelligence** – gives one the ability to manipulate and create mental images in order to solve problems. This intelligence is not limited to visual domains; Gardner notes that spatial intelligence is also formed in blind children.

**4. Musical Intelligence** – encompasses the ability to recognise and compose musical pitches, tones and rhythms. (Auditory functions are required for a person to develop this

intelligence in relation to pitch and tone, but it is not needed for the knowledge of rhythm).

**5. Bodily-Kinaesthetic Intelligence** – is the ability to use one’s mental abilities to coordinate one’s own bodily movements. This intelligence challenges the popular belief that mental and physical activity are unrelated.

**6. Personal Intelligences** – include **interpersonal** feelings and intentions of others, AND **intra-personal** intelligence – the ability to understand one’s own feelings and motivations. These two intelligences are separate from each other. Nevertheless, because of their close association in most cultures, they are often linked together.

**7. Naturalist Intelligence** designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations).

Although the intelligences are anatomically separated from each other, Gardner claims that the intelligences very rarely operate independently. Rather, the intelligences are used concurrently and typically complement each other as individuals develop skills or solve problems.

Teaching implications:

- The theory of Multiple Intelligences implies that educators should recognise and teach to a broader range of talents and skills.
- Another implication is that teachers should structure the presentation of material in a style, which engages most, or all of the intelligences. For example: when teaching about revolutionary war, a teacher can show students battle maps, play revolutionary war songs, organize a role play of the signing of treaties and have students read novels or journal entries of the respective period being studied.

All students come to the classroom with different sets of developed intelligences. These sets determine how easy (or difficult) it is for a student to learn information when it is presented in a particular manner. This is commonly referred to as a **learning style**. Many learning styles can be found within the classroom. Therefore, it is impossible as well as impractical for a teacher to accommodate every lesson to all of the learning styles found within the classroom. Nevertheless, the teacher can show students how to use their more developed intelligences to assist in the understanding of a subject that normally employs their weaker intelligences (Lazear, 1992).

### **Co-operative Learning**

Co-operative learning is a successful teaching strategy in which small teams, each with students of different levels of ability, use a variety of learning activities to improve their understanding of a concept or subject. Each member of a team is responsible not only for learning what is taught, but also for helping team mates learn, thus promoting academic achievement and cross-cultural understanding.

Quality of achievement and other outcomes depend on the implementation of co-operative learning methods that are characterized by at least two essential elements: **positive interdependence and individual accountability**. In a group task, each member is individually accountable for part of an outcome that cannot be completed unless the members work together - in other words, the group members are positively interdependent.

Some co-operative learning methods include:

- **Group investigations** to emphasize higher order thinking skills and produce a group project;
- **Jigsaw** - used with narrative material where each team member is responsible for learning a specific part of a topic, becoming the “expert” and then sharing their findings with the group.
- **Guided reading** and other integrated cooperative reading strategies

‘Thus, when students work in cooperative teams in which ‘all work for one’ and ‘one works for all’, team members receive the emotional and academic support that helps them persevere against the many obstacles they face in school’

### **Constructivism**

**Constructivism** holds that **learning is essentially active**. Constructivists argue that by definition, a person who is truly passive is incapable of learning. In constructivist learning, each individual structures his or her own knowledge of the world into a unique pattern, connecting each new fact, experience or understanding in a subjective way that binds the

individual into rational and meaningful relationships to the wider world (Wilson & Daviss, 1994).

As scientists study learning, they are realising that a constructivist model reflects their best understanding of the brain's natural way of making sense of the world (Feldman, 1994). "Constructivism is not only an open-ended form of learning; it is essentially about reality, connectivity and the search for purpose" (Abbot & Ryan, p.69). Growing evidence suggests that a constructivist form of learning aligns with brain-based learning.

### **Brain-based learning**

#### **Brain-based learning**

Brain-based learning stresses the importance of *patterning*, that is, the fact that the brain does not easily learn things that are not logical or have no meaning. Because our natural tendency is to integrate information, we resist learning isolated bits of information. Because the specifics of instruction are always tied to larger understandings and purposes, teachers and students should use stories and complex themes and metaphors to link information and understanding – and ICT should be integrated into all these types of work.

Brain-based learning also stresses the principle that the brain is a *parallel processor* – it performs many functions simultaneously. Therefore, all meaningful learning is complex and non-linear. This means that teachers must use all available resources - including community resources to orchestrate dynamic learning environments. Teachers must overcome the natural preference for conveying information tied to clear directions and opportunities for students to "do it right" rather than to explore and experiment – in other words, in an active, constructivist way.

### **Blended learning**

Blended learning as "combining online delivery of educational content with the best features of classroom interaction and live instruction to personalize learning, allow thoughtful reflection, and differentiate instruction from student-to-student across a diverse group of learners.

Graham, Allen, & Ure, 2003, found that overwhelmingly people chose BL for three reasons: (1) improved pedagogy, (2) increased access/flexibility, and (3) increased cost effectiveness.

We live in a world in which technological innovation is occurring at break-neck speed and digital technologies are increasingly becoming an integral part of our day-today lives. Technological innovation is also expanding the range of possible solutions that can be brought to bear on teaching and learning. Whether we are primarily interested in creating

more effective learning experiences, increasing access and flexibility, or reducing the cost of learning, it is likely that our learning systems will provide a blend of both F2F and CM experiences.

Ross and Gage (this volume) make the statement that future learning systems will be differentiated not based on whether they blend but rather by how they blend.

- The ability for schools to maintain their central role in managing a student's educational process and personalizing instruction;
- Providing curriculum developers and teachers the flexibility to address standards and maintain curriculum fidelity while integrating digital content and learning experiences that better engage 21st century learners; and
- Giving teachers valuable experiences in using technology effectively in their professional development courses, preparing them to use blended models creatively and strategically as this approach becomes more and more prevalent in the classroom.

### **Flipped classroom**

The term "flipped classroom" describes a reversal of the traditional teaching method that gives students video lectures to watch in their own time at their own pace at home and then go to their classrooms for discussions, coaching and interaction with teachers and between peers. In the flipping classroom, learners are encouraged to construct their own ideas on the basis of their prior knowledge and experiences with the help of different pedagogies.

Characteristics of the flipped classroom :

- Discussions are led by the students where outside content is brought in and expanded.
- These discussions typically reach higher orders of critical thinking.
- Collaborative work is fluid with students shifting between various simultaneous discussions depending on their needs and interests.
- Content is given context as it relates to real-world scenarios.
- Students challenge one another during class on content.
- Student-led tutoring and collaborative learning forms spontaneously.
- Students take ownership of the material and use their knowledge to lead one another without prompting from the teacher.
- Students ask exploratory questions and have the freedom to delve beyond core curriculum.
- Students are actively engaged in problem solving and critical thinking that reaches beyond the traditional scope of the course.



- Students are transforming from passive listeners to active learners.

To develop competence in an area of inquiry, students must: a) have a deep foundation of factual knowledge, b) understand facts and ideas in the context of a conceptual framework, and c) organize knowledge in ways that facilitate retrieval and application”

21<sup>st</sup> Century Flipped classroom requires changes in teachers’ knowledge and classroom behaviors. Flipped Classrooms of the future are places where learning will happen in fundamentally new ways. Students will be more connected with their peers in a knowledge community, teachers will co-ordinate the social experience, and learning materials will be “smart” enough to actually learn from the students. Intelligent agents of technology will be in service of teachers to enhance their abilities to capture interesting patterns and enable formative assessment. The rapid and continuing developments in the areas of lecture capture technologies, OER, digital textbooks, search, social network tools and mobile devices will change students’ learning experience within and outside the classroom.

**Selecting and planning interactive teaching - learning strategies in Advanced Pedagogy the following considerations are recommended:**

- Select strategies that support your overall educational goal and specific objectives.
- Each objective for the activity should be supported by an interactive learning opportunity.
- Select those strategies which are most comfortable for you to implement-let your style and personality shine .
- Plan and practice the strategies you have selected. In a live presentation this is critical to a successful session. List the supporters you will need and what additional support you will need to accomplish the activity.
- Remember-most activities take longer than you think they will.
- Solicit feedback from the participants on their satisfaction and the success of the interactive activities.
- Modify your presentation or future self study educational activities based on the feedback you receive.
- Continually update or modify your presentation to assure continuous improvement of the activity.
- Plan for Techno pedagogic analysis of the computer based educational instructional Strategies.

## **Conclusion**

Teachers should grow professionally with interactive teaching – learning strategies, accept and apply these strategies in current and future teaching learning process. Workshops and seminars should be organized for the teachers to promote these strategies at national level. Interactive teaching – learning strategies, are beneficial in achieving desirable educational goals for learners in present and future. We may imagine and hope that there will also be a third and subsequent generation of online learning and that it will bring about definite pedagogical innovations as part of the transformation process.

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