A Paradigm Shift in Best Practices adopted in Teaching-Learning and Evaluation.

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Abstract: Teaching and Learning are to join hands and have a synthesis to bring about desired changes in the behavioural pattern of the learner. The evaluation tests are designed to test the cognitive skills, the rote memory but not the creative abilities of the learner. Pedagogy is by far the most indispensable factor in the success of an educational effort. The teacher-dependant pedagogy of the past has to be necessarily transformed into learner- centric as the learner has to face the challenges of a more competitive and complex world than before and also because of the advancement of technology which has made available several devices for the teacher to actively use for the benefit of the learner. The paradigm shift from teacher-dependant protective learning often manifested in reproduction of ideas borrowed or stored, to learner-centred independent inquiry is a welcome change. It is greatly facilitated by sharing a large quantity of information at the quickest possible time through information technology (IT) devices such as the internet. Innovation proneness in an institutional ethos encourages teachers to try and develop breakthroughs in academic as well as other aspects of functioning. The way institutions are coming to terms with these is remarkable. The paper deals with the framework outlining the new paradigm and some of the best practices to be found useful for higher learning institutions of this country.

Key words: *Pedagogy, learner- centered, protective learning, information technology.*

I. INTRODUCTION

Teaching is an intricate process for it transcends from the classroom to the real-life situation (Palmer, 1997).

Andy Hargreaves and Michael Fullan share their definition for "best practices," which they define as existing practices that already possess a high level of widely-agreed effectiveness.

In education how much a child has succeeded in his aims, can only be determined through evaluation. Thus, there is a close relationship between evaluation and aims.

Evaluation plays an enormous role in the teaching-learning process. It helps teachers and learners to improve teaching and learning. Evaluation is a continuous process and helps in forming the values of judgement, educational status, or achievement of a student. Evaluation in one form or the other is inevitable in teaching-learning, as in all fields of activity of education judgements need to be made.

The Teaching-Learning process has four components: *teacher, student, learning process and learning situation.* Teaching and learning are interlinked. Teaching remains central to both learning and evaluation. There is an

inter-relatedness between teaching objectives, learning experiences and evaluation. Evaluation is a process of determining the extent to which an objective is achieved.
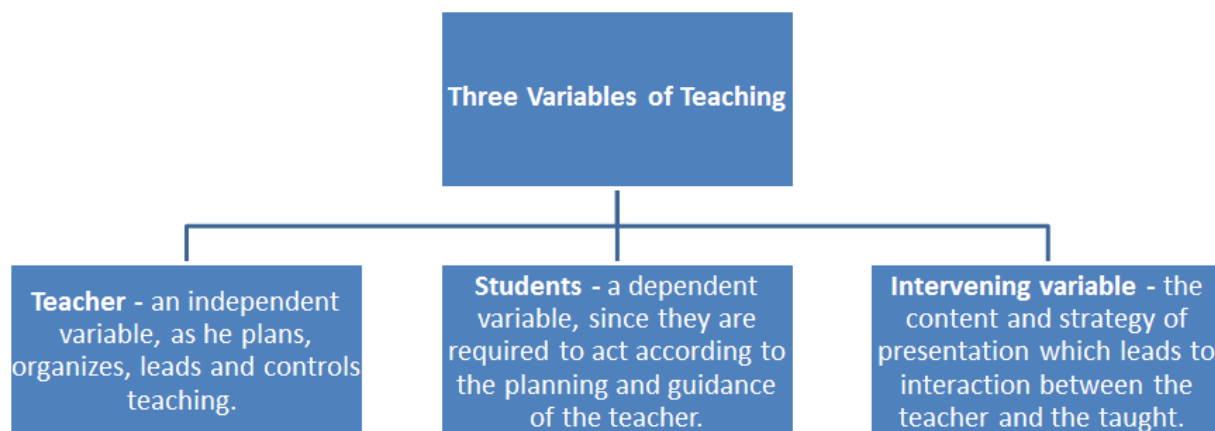
The functions performed by teaching are *diagnostic, prescriptive and evaluative functions.*

There are three phases of the teaching process:
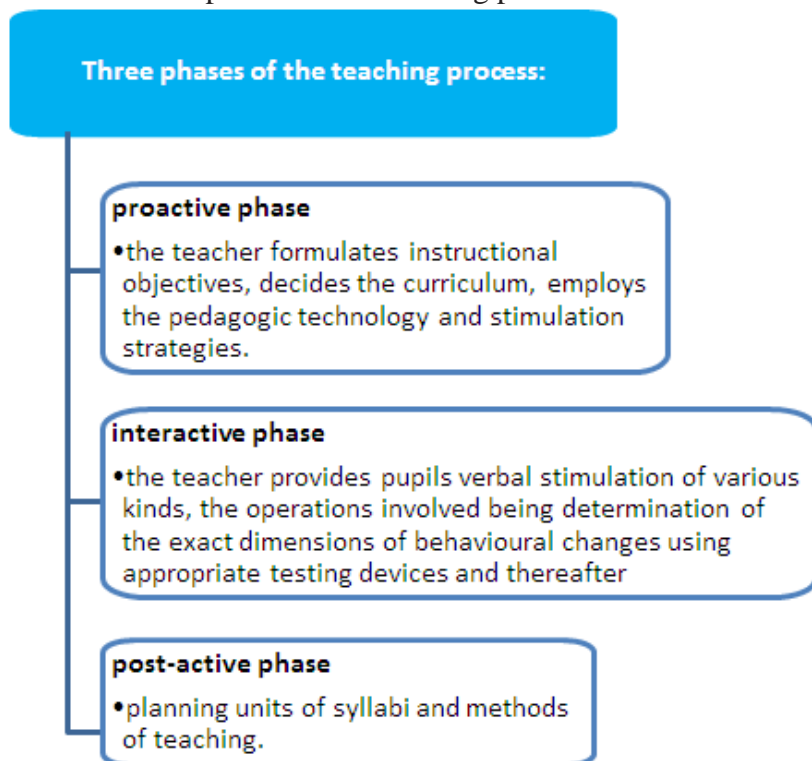

Important functions of evaluation:
(i) diagnostic, (ii) proactive, (iii) selective selection, (iv) grading and counselling; and (v) motivation to learning.
Categories of evaluation techniques:

'the quantitative technique' which includes oral, written and practical techniques.
'the qualitative technique' comprises cumulative record, anecdotes, observation, checklist and rating scales.

Information and Communication Technology has made many innovations in the field of teaching and also made a drastic change from the old paradigm of teaching and learning, moving to technology based teaching. Today the role of students is more important than teachers. The concepts of paperless and pen less classrooms have replaced the old teaching learning method.

Pyramid of Learning (Williams and Shellenberger 1996).
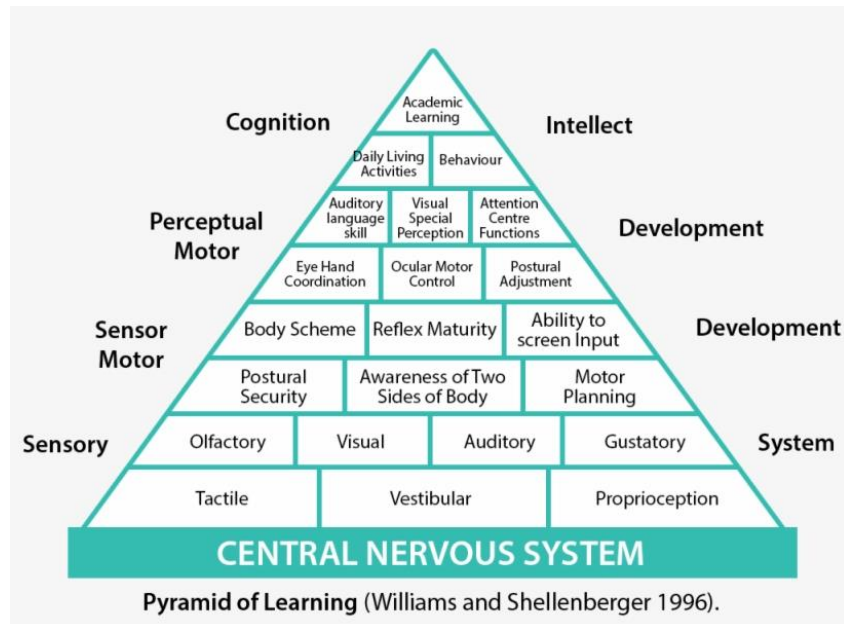
Educational technology is broadly classified into three forms: *hardware approach, software approach and system analysis.*

● Hardware approach includes the radio, television, tape-recorder, video tape, computers, etc. These are used as aids for teaching and instruction, like teaching machines. These are used to present programmed instructional material. These machines should not be confused with audio-visual aids. Audio-visual aids are used to make the presentation interesting and effective. These may provide some motivation in learning. Teaching machines include the whole process of stimulus response.

● The software approach is also known as instructional technology. In this technology, the teaching-learning principles are applied in order to motivate behaviour. This view is closely connected with the modern principles and theory of instruction and principles of programmed learning. The software approach is concerned with learning aids, like programmed learning.

● The third approach is instructional designs. It is a new management approach. This technology is also known as system analysis. This technology covers three instructional designs, viz., training psychology, theory of reinforcement and system analysis.

II. REVIEW OF LITERATURE

Dr. M. Joseph Dyvasirvada Rao in his paper on "Teaching Learning and Evaluation practices in Undergraduate Colleges Ideals and Realities" discussed that Teaching and Learning are to join hands and have a synthesis to bring about desired changes in the behavioural pattern of the learner.

The opening lines of the Education Commission 1964-66 report again emphasizes the value of education: "The destiny of India is now being shaped in our classrooms. This, we believe, is no mere rhetoric. In a world based on science and technology, it is education that determines the level of prosperity, welfare and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction."

In the words of William Lyon (1970): " In my mind, teaching is not merely a life work, a profession, an occupation or a struggle, but a passion. I love to teach as a painter loves to paint, as a musician loves to play, as a singer loves to sing, and as a strong man rejoices to run a race".

On the quality of education, a policy perspective (1985) entitled '*Challenges of Education*', it is said that "it is difficult to define quality, particularly, with reference to the educational process. However, it could be stated that a quality-conscious system could produce people who have the attributes of functional and social relevance, mental ability and physical dexterity, efficacy and reliability, and, above all, the confidence and the capability to communicate effectively and exercise initiative and make innovation and experimentation with new situations. To these personal attributes, one could add the dimension of a value system, conducive to harmony, integration and the welfare of the weak and the disadvantaged."
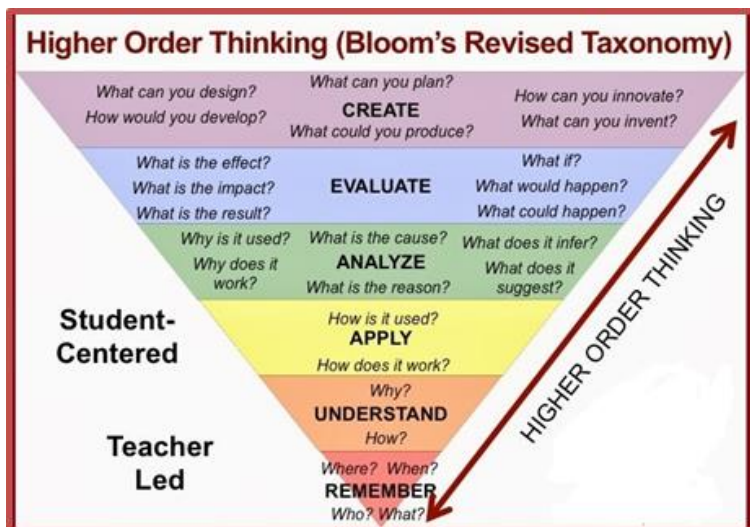
III. RESEARCH METHODOLOGY

The study is based on secondary data which is collected from various websites, online journals, news articles and research papers of various authors.

Objectives of the study:

1. To study the *framework outlining the new paradigm.*

2. To provide *some of the best practices*.

IV. DISCUSSION

Criteria of Best Practices:

(1)   Teaching Faculty Personality

The personality component of the teaching faculty becomes extremely important in the assigned task of disseminating knowledge and thereby developing the all-round personality of students.

(2)   Admission Policy:

Though the admission policy will vary in all these institutions, yet it is important that transparency in the admission process is observed.

(3)   Preparation of Teaching Plan:

      (a)   Unitization of syllabi;
      (b)   Distribution of curriculum vis-à-vis number of lectures;
      (c)   Strategies to be evolved in teaching;
      (d)   Comprehensive teaching plans;
      (e)   Record of teaching, daily diary, etc.

(4)   Knowledge of Pedagogical Teaching Technology:

      (a)   Competence of teachers to handle different methods of teaching;
      (b)   Expertise in handling the tools of teaching including teaching machines;
      (c)   Capacity of teachers to produce of audio-visual aids; and
      (d)   Expertise of teachers in the use of e-media and computer- aided packages.

(5)   Reading Habits of Teachers:

(a)   Reading habits of teachers as observed through the use of the library based on the frequency of use during the past three years as recorded by the library;

(b)   Availability, on the stacks, of the latest books on subjects

(c)   Average amount spent by the teachers annually on purchase of books; and

(6)   Teaching Process:

(a)   Use of the lecture method and other teaching methods

(b)   Competence in the use of the black-board and other teaching aids;

(c)   Promotion of active listening in the classroom by teachers and students;

(d)   Competence of teachers to design enrichment and remedial programmes for advanced learners and slow learners, respectively;

(e)   Competence of teachers to identify and group students according to ability, need for remedial coaching, potential for peer teaching-learning and group learning;

(f)   Competence of teachers to play the role of group leader/ facilitator/ provider of group structure vis-à-vis types of learning tasks; and

(g)   Competence of teachers to solve problems arising out of the gap between lecturing and its impact like short attention span of students, inaudibility of lecture, dependence on rote learning, absence of social interaction, scope for limitless boredom, etc.

(7)   System of Evaluation:

(a)   Information about the evaluation programme given to students at-least a month before admission;

(b)   Policy of internal assessment and conduction of tests;

(c)   Transparency in evaluation;

(d)   Providing transcripts to students at the terminal stage of the career vis-à-vis the college / university;

(e)   Preparation of question banks; and

(f)   Evaluation to be made a tool of motivation to learning.

(8)   Faculty Evaluation:

(a)   Assessment by Head of the Department (HoD) and Principal and peers

(b)   Evaluation by outgoing students through a structured questionnaire on a 5- point scale and through an open-ended questionnaire. This structured questionnaire should definitely reflect the following components of the teacher assessment:

(i)   Evaluation of teacher performance with special reference to teaching attributes, knowledge, academic qualification and research qualification

(ii)   Steps taken by the teachers for improving their subject knowledge

(iii)   Evaluation of the four components of teacher's authority, viz., social authority, subject authority, professional authority and charismatic authority

Best Practices in Teaching-Learning and Evaluation.

Teaching, learning and evaluation,a vital academic activity of any educational institution requires meticulous planning and responsible execution through teamwork and coordination. Where any one of these receives inadequate attention, the other two may fall away bringing the whole educational efforts to little or no value. In the light of this caution, we may

look upon these best practices as signposts that lead towards the goal of excellence to be reached only through quality enhancing measures.

It needs to be noted that the quality of education and excellence of an institution is directly linked with the quality of output of its graduates in all the spheres. Every institution is known for its personality, thrust areas and quality of teaching. It is, therefore, important to improve the standard of teaching, learning and evaluation.

Certain small changes implemented by the educational institutions will help the learning climate. These could be:

- Recognize that the efficacy of an evaluation depends on the instructor.
- Create policies and procedures consistent with the institution.
- Clearly communication of expectations.
- Employ a balanced teaching-evaluation system.
- Include authentic formal and informal measures.
- Adopt a mastery orientation for formative evaluation.
- Adopt flexible evaluation schedules.
- Ensure the accuracy of the system.
- Be sensitive to cultural and group differences.
- Use statistics appropriately.
- Colleges that observe transparency in admission are highly appreciated by students, parents and the society at large. The admissions made on merit and statutory reservation are always appreciated.
- The preparation of the enrichment programme for advanced learners and remedial teaching to slow learners goes a long way to improve learning. Advanced learners can be helped by providing extra handouts / reading material.
- Promote the practice of forming quality circles where teachers act as facilitators.
- There should be a provision for teaching aids and teaching machines with every department. However, where it is not possible, a central facility could be created for teachers of all departments for their classroom use.
- There has to be some kind of mechanism by which students could be motivated, vis-a-vis, the accomplishment of completing the undergraduate or the postgraduate programmes to avoid dropping out in the middle particularly in rural areas.
- Teachers should be given orientation in student counselling to know the socio-metric and psycho-metric techniques and identify different categories of students.

To add the sustainability dimension as the next best practice it is proposed that the incorporation ie adoption aspect of sustainability be emphasized at all three stages of Higher Education - Teaching, Learning and Evaluation.

i. Teaching
- Integration of sustainability with teaching such that whatever be the nature of the course it can always be related to sustainability.
- Ask students to join sustainability related online social groups and at the end of each month let the group share their findings. Example - Green Market Oracle.
- Compile a set of Readings - relevant to the student's main course option and local issues. Eg - create a compendium of related Ted Talks, of Blogs etc.
- Placement Cell to arrange Career Opportunities Talks - with speakers invited from Companies practicing sustainable development. Eg- Tata Sustainability Group, AdityaBirla Sustainability Cell, Wipro etc.

- Orientation for teachers to use the latest pedagogical teaching technology including audio-visual aids and teaching machines and discuss their problems arising out of the use of the above.
- Departmental meetings of teachers to prepare teaching plans to be spread over the year.
- A centralized media facility is available in some colleges to augment and support the teaching learning process. Audio-visual equipment, such as over-head projector (OHP), slide projectors, models, charts, liquid crystal display (LCD) and teaching machines are made available.
- The facilities of reprography, internet, multimedia, CDs and video cassettes are made available in the library which go a long way to supplement the lecture method.
- Learner-centred teaching methods such as group work, role play, project work, field visit, case study, debates, etc. supplement classroom teaching.
- Some colleges have established language laboratories to develop communication skills and also to teach different groups of students simultaneously according to their abilities.
- Formation of Peer Study Groups consisting of strong and weak students in which the better performers help slow learners in their studies. Such peer learning benefits students much better than conventional teaching.

ii. Learning

- Use of Live Projects - related to your local area and issues, GRI Based reporting of the institution and neighbouring organizations.
- Faculty Research Projects - Every faculty takes up a small local sustainability related research project annually, and introduces students to their research - make it personal, that inspires students.
- Use of online resources - that add a practical dimension to learning. Eg. UN Academic Impact etc.
- Encourage students to share their learnings - arrange and promote multi-disciplinary projects

- Guidance to prospective students for the selection of subjects to be taken by them for their undergraduate programme.

- Self-learning through books and journals, internet, CD-ROMs and computer assisted learning packages is encouraged.

- Some colleges make some innovative approaches to teaching-learning processes such as e-group and phone-groups for assignments and projects. Extensive use of e-mail is made for different groups.

- Field trips, educational trips, projects, surveys, seminars at departmental and institutional levels and guest lectures by experts from outside help students to develop the ability to learn on their own. Diverse teaching methods are used including focused group discussions, brainstorming sessions, role plays, games, case discussions, home assignments, etc.

iii Evaluation

Types of Evaluation		
According to functions	**According to approaches**	**According to nature of reference/ interpretation**
1. Placement 2. Formative 3. Diagnostic 4. Summative	1. Formative 2. Summative	1. Norm-referenced 2. Criterion-referenced

- Adding a new dimension to Evaluation - that would assess the practicing, incorporation component along with sustainability.
- Recognition of Student Learnings / Projects - on College Days, Science Days, Republic Day etc.
- Involvement of Alumni and local Bodies in evaluating student projects.
- Organizing a week's induction programme for students to introduce them to various college activities throughout the year.
- Conduction of post-entrance diagnostic tests to assess the aptitude of students. Assessed by teachers through frequent interactions. Such a practice helps teachers to classify students into different groups for providing the required kind of academic tasks.
- Concept of 'Class Guide and Mentor System' whereby each teacher is assigned about 20 students. The teachers / tutors look after the academic programmes of their students and also give them educational-cum-personal guidance.
- Corrected answer scripts of tests and terminal examinations are returned to students and discussed in classes and this has improved the rapport between teachers and students. Such a transparency facilitates effective teacher-student interaction
- Computerized examination work to speed up the process. Some colleges declare results within a month after the examinations are held.
- Objective-type tests, group discussions, oral presentations, open book tests and routine tests are employed in order to make assessment more skill-oriented.
- The performance of the teaching faculty is evaluated by students by means of a Teacher Assessment Questionnaire and feedback is obtained by the Principal through the Students' Council. In addition, as per university rules, teachers are required to fill in the self-assessment form at the time when the staff member is due for placement on a higher scale.
- Teachers are given confidential feedback about their teaching effectiveness on the basis of an institutionalized mechanism of evaluating them. There is a scientifically designed Training Effectiveness Evaluation Model.

The best practices selected above have already proved to be instrumental in raising the performance level of certain institutions to that of a five star or A grade.

It is clear from what has been said above that none of these practices requires big financial support. The basic requirement is the attitude of the teacher who can easily produce audio-visual aids. Teaching hardware may be obtained with grants from the UGC and other bodies.

V. CONCLUSIONS

Teaching does not aim at rote learning, or mere comprehension but at effective learning involving application of mind and competency of communication. Audio-visual aids, and teaching machines will help generate greater interaction between teachers and learners. When done effectively, evaluation of teaching can create a growth mind-set that instills confidence in instructors. Rather than being demoralized by performance rankings, faculty can concentrate on their individual efforts and compare their current progress to past performance. They can then focus on developing better teaching methods and skills, rather than fearing or resenting comparisons to others. Effective evaluation is complex and requires the use of multiple measures—formal and informal, traditional and authentic—as part of a balanced evaluation system. The student voice, a critical element of that balanced system, is appropriately complemented by instructor self-assessment and the reasoned judgments of relevant other parties, such as peers and supervisors. Integrating all three elements allows instructors to take a mastery approach to formative evaluation, trying out new teaching strategies and remaining open to feedback that focuses on how they might improve. Such feedback is most useful when it occurs within an environment that fosters challenge, support, and growth. By taking these steps, evaluation of teaching becomes a rewarding process, not a dreaded event.

VI. SUGGESTIONS

- An innovative practice could be a pathway created to develop interest of the student and the institution, for internal quality assurance, inclusive practices and stakeholder relationships.
- In today's democratization of knowledge, the role of the teacher is changing from the "sage on the stage to guide on the side". Thus there is a need to have interactive teaching and this changing role is inevitable with the introduction of multimedia and the spawning of a technologically-savvy generation of youths.
- Thus there is a need for upgrading the quality of education in HEI's. Instead of mere lecture methods, we should use case studies, group discussions, paper presentations, assignments, seminars, preparation of reports, curriculum related quiz etc. so as to make the teaching learning process more effective, student-centered, interesting and activity oriented.
- The teaching learning process has to be planned based on the science of active learning and motivate the students to develop a spirit of inquiry. This would result in more reasoning, self-confidence and learning. Thus we can say flexible pedagogies are the order of today's Teaching learning process in HEI's.
- A changeover of activity from flipping the classroom to Information transmission outside the class by providing the student with videos ,materials ,ppts etc which is a much easier task and having assimilation inside the class by practicing active learning strategies in class.
- The Open-Book system could be tried for evaluation tests.
- To overcome the learning problems of the rural students, Communicative English must be made compulsory under common core syllabus. Short-term Computer Literacy programmes for students may be introduced.
- Job-oriented and need based interdisciplinary professional courses have to be introduced.
- Faculty must be encouraged more to attend Refresher Courses, Orientation Programmes, Seminars and Workshops to update their skills and techniques.

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