Hindi VidyaPracharSamitis'

Ramniranjan Jhunjhunwala College of Arts Science & Commerce

Ghatkopar(West), Mumbai – 400 086,
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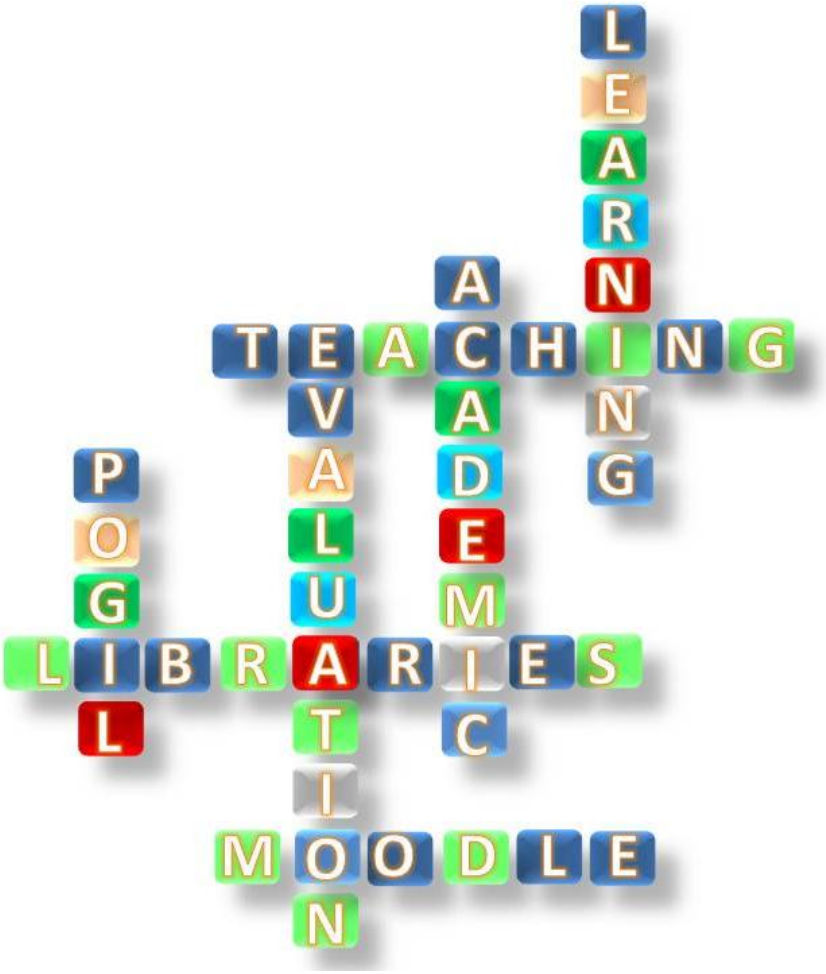
2014 NAAC Re-Accredited 'A' Grade (CGPA: 3.50)



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Message from the Principal

In the continuing debate over how to improve the quality of Higher Education the focus has greatly shifted from teacher to a learner. There are few important questions like what should be taught? How can the curriculum best be taught? Which are the best teaching tools? How to evaluate what the learner has learnt? Is there a need to revamp the examination system? The two days seminar on the theme of "Teaching, Learning and Evaluation beyond classrooms" is an attempt to explore for an answer for some of the above mentioned questions. The seminar would encourage faculty to become more aware of how they teach and how effectively they can teach. New faculty will find about various teaching tools including digital classroom teaching and senior faculty can explore new avenues for learning teaching tools in keeping with the availability of plethora of digital teaching tools which will rejuvenate their courses.

This seminar would highlight the various technologies available for teaching which will facilitate academic achievement in new and innovative way. Teachers need not vie for student attention instead provide the learner a new educational environment that encourages student participation. The seminar would dwell about 5 common areas that are important for teachers' viz. Organization, project based learning, class Management, presentations and assessment. Let us come together and share our learning experiences to make ourselves better teachers.

Dr. Usha Mukundan
Principal

From the Desk of the Convener

In ancient India under the Gurukul system the teaching learning was predominantly outside the classroom.

"Swadesh Pujyate Raja, Vidvan Sarvatra Pujyate"

It means that the king's respect is limited to his own kingdom whereas learned man is honored everywhere. That is why, India has increasingly focused on the teaching-learning process. Innumerable resources have been used from both, within and outside the classroom, from ancient times. For instance, the Gurukul system encouraged both these forms of interactive learning.

However, in post-independence era, education has been in flux in tune with the changing times. Initially, in the sixties, the Education commission Report emphasized that "The destiny of India is now being shaped in our classrooms". But now in the 21stcentury, the focus has once again shifted to 'Teaching, Learning and Evaluation beyond classroom'.

This contemporary need is reflected in the theme of this seminar. Besides, the quality of education and excellence of an institution is directly linked to the quality of the graduates that it churns out in different spheres. Hence, it is desirable to improve the standards of teaching, learning and evaluation.

This seminar highlights the various emerging tools in achieving this goal.

Dr. Seema Ratnaparkhi
IQAC Coordinator

College Profile

On the auspicious day of Shri Krishna Janmashtami, 15th August 1938, the people of Ghatkopar and the surrounding suburbs witnessed the birth of Hindi Vidya Prachar Samiti, brain child of a visionary, Late Shri Nandkishore Singh Jairamji. The Samiti was established with the objective of catering to the educational needs of the Hindi speaking community. The Samiti made a humble beginning by starting a primary school, which gradually expanded into a full-fledged secondary school.

The Hindi High School with its high academic standards has carved a niche for itself not only among leading secondary schools in Mumbai but also amidst educational institutions imparting instructions in Hindi throughout Maharashtra. With its primary objective achieved, the Samiti decided to extend its frontiers and broaden its horizons. As a result, Ramniranjan Jhunjhunwala College came into existence in 1963, enabling a larger section of the society to take advantage of the facilities of higher education provided.

In 1976, the Junior College section was introduced and in 1981 the Commerce faculty commenced both at the Junior and Degree College level.

From 1999-2000 the College has added a number of self-financing courses like BMS, B.B.I, B.Sc. in C.S., I.T., Biotech, M.Sc. in Computer Science and Biotechnology as well as add on courses, in order to hone the special skills of the students.

The year 2014 saw a change in education system with the focus shifting to employability of youth. As an initiative towards realizing the dreams of Make in India, Digital India, Clean and Green India, a skill based program supported by University Grants commission known as Bachelor in Vocation was started.

The college has been re-accredited with **'A'** Grade by **NAAC in 2014** with a **CGPA of 3.50** and received the **Best College Award (2007-2008)** from the University of Mumbai. The College has been bestowed with **IMC Ramkrishna Bajaj Performance Excellence Trophy** in 2010. The Government of Maharashtra conferred the college with **Jaagar Jaanivancha** (First in Mumbai Suburban in 2013 and Second in Mumbai Suburban in 2014) for safety of girls. The Principal of the college was awarded **Best Teacher** by Government of Maharashtra in 2011. She also received the **Smt. Savitribai Phule Adarsh Shikshika Puraskar**in 2015-16.

VISION

- To empower students through focused teaching and research.
- To foster a world of joy through sharing and learning.
- To create and enhance teamwork and leadership qualities.
- To excel in interaction through the art of communication.
- To provide extension services to serve self and the society.

MISSION

- Knowledge is all Ambrosia.
- Academic excellence with character development.
- Enthusiasm is the propelling force behind our success.

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Report on the seminar

GUEST ARTICLES

OERS AND MOOCS: GAME-CHANGERS IN THE PRESENT EDUCATIONAL LANDSCAPE

Dr. Agnes D'Costa, Pushpanjali College of Education, Vasai
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Consider this scenario. Some undergraduate Commerce students wish to take up careers in Banking. They are interested in learning about Corporate Finance, and Accounting for Managerial Decisions. The course prescribed by the University does not have much scope for them to learn these topics. So they approach their teacher. The teacher finds some free online resources for these topics. But they are not entirely suited to the level of the students. The teacher finds out that these resources can be downloaded and edited to suit one's needs. They can also be shared with others in a non commercial way. The teacher collates the resources, adapts them and in a fortnight a course customized to meet the needs of the students is ready to be used. After the students have used the same, more modifications are made based on their experience. The teacher finds out some e-platforms that support the creation of Massive Open Online Courses (MOOCs). The resources are uploaded on this platform, arrangements are made to integrate discussions and students undertaking the course are also awarded free certificates. Students find it an interesting way to go beyond their rigid course and at the same time garner skills and knowledge for the world of work. The networked world is truly becoming an Aladdin's lamp for teachers who want to go beyond the set framework of prescribed syllabi and structured tests. Welcome to the era of Open Educational Resources (OERs) and Massive Open Online Courses (MOOCs)!

What are Open Educational Resources (OERs)?

OER are teaching, learning, and research resources that reside in the public domain or have been released under an intellectual property license that permits their free use and re-purposing by others. Open educational resources include full courses, course materials, modules, textbooks, streaming videos, tests, software, and any other tools, materials, or techniques used to support access to knowledge. (Hewlett Foundation)

In the present knowledge economy, Information and Communication Technology is a key driver. The introduction of Web 2.0 helps learners (especially adult learners) learn in a constructive environment. They are also co-creators of knowledge. Open Education Resources can be created by such learners. Open Education Resources (OERs) refer to digitized materials offered freely and openly for educators, students and self-learners to use and reuse for teaching, learning and research. OER includes learning content, software tools to develop, use and distribute content, and implementation resources such as open licenses. In 2005 the UNESCO International Institute for Educational Planning (IIEP) launched a discussion forum on OER wherein Prof. John stone provided an overview of the OER movement existing then by saying that the OER movement would require many creative people willing to contribute and to use the resources. It can be seen to represent a grand, but achievable undertaking to share intellectual capital. In his letter dated 2 November 2007 Sam Pitroda, Chairman of National Knowledge Commission Ltd said "Our success in the knowledge economy hinges to a large extent on upgrading the quality of, and enhancing the access to, education. One of the most effective ways of achieving this would be to stimulate the development and dissemination of quality Open Access (OA) materials and Open Educational Resources (OER) through broadband internet connectivity. This would facilitate easy and widespread access to high quality educational resources and drastically improve the teaching paradigm for all our students."

OERs include textbooks, course readings, and other learning content; simulations, games, and other learning applications; syllabi, quizzes, and assessment tools; and virtually any other material that can be used for educational purposes. OER typically refers to electronic resources, including those in multimedia formats, and such materials are generally released under a Creative Commons or similar license that supports open or nearly open use of the content.

The Five Rs of OERs

David Wiley proposed the five Rs of OERS.

1. Retain: This includes the right to make, own, and control copies of the content including the right to download, duplicate, store, and manage the resources.

2. Reuse: this includes the right to use the content in a wide range of ways e.g., in a class, in a study group, on a website, in a video

3. Revise: this includes the right to adapt, adjust, modify, or alter the content itself e.g., translate the content into another language or add to/ delete from the original content.

4. Remix: This includes the right to combine the original or revised content with other open content to create something new e.g., incorporate the content into a mash up.

5. Redistribute: this includes the right to share copies of the original content, your revisions, or your remixes with others e.g., give a copy of the content to someone else.

While traditional learning materials such as textbooks come with copyrights, OERs have more flexibility regarding the terms of use. Creative Commons is an organization that provides ready-made licensing agreements that are less restrictive than the terms of standard international copyright. Licenses under Creative Commons provide variety of options such as share Alike (where the OER is shared with a similar license as the original one), No derives (where the original work is not to be modified), Attribution By license (where the work must be attributed to the original creator) and Non Commercial (where the work cannot be used for commercial purpose). A combination of the above mentioned options can be used to license one's OER.

OERs have changed the educational landscape by benefiting faculty and students. Students can now avail of courses, textbooks and other learning resources as OERs are an affordable option. Students can have a look at the course materials and make an informed decision whether to take a particular course. After taking a particular course, students can revisit the material if they need to reinforce their learning. Since more than one faculty could be involved in creating an OER, students stand to benefit from the experience of many teachers. Students can also contribute to refining an OER based on their experiences when they use the material. In the Indian context, OERs have great potential. Good teachers can reach to every corner of the country through OERs. OERs can be translated and this aspect of OERs is a big boon in a multilingual country like India. From the faculty point of view, flexibility to draw from multiple resources is an

advantage as different OERs can be integrated to customize learning material according to the students' needs.

Massive Open Online Courses

Just like OERs, Massive Open Online Courses (MOOCs) too have opened new doors to faculty, students and professionals. A MOOC is a web based, distance learning programme designed to include students spread over a geographical expanse. Some MOOCs are free others may be paid courses. Some MOOCs offer academic credits. The word MOOC was coined in 2008 by Dave Cormier, from the University of Prince Edward Island for a course offered by the University of Manitoba entitled 'Connectivism and Connective Knowledge'. In 2011, the Massachusetts Institute of Technology (MIT) Open Courseware (OCW) became the first largest collection of MOOCs offered by a University. In the following year MIT and Harvard spearheaded the edX initiative to promote MOOCs.

MOOCs could be classified as c-MOOCs (Connectivist MOOCs) and x-MOOCs (Instructivist MOOCs). In c-MOOCs, discussions and networking are very important. Stephen Downes, a Canadian specialist in online learning technology, identified four key principles for c-MOOCs. These include openness (in terms of access, content and assessment), autonomy of learner, diversity (in terms of tools and content) and interactivity (in terms of co-operative learning, communication between participants, resulting in emergent knowledge) as vital elements of c-MOOCs. In case of x-MOOCs, transmission of information with focus on high quality content delivery and computer-marked assessment seem to be more important than interactivity. There could also be task MOOCs, where a learner has to indulge in tasks to successfully complete the course.

A laudable initiative in MOOCs was the launching of SWAYAM (Study Webs of Active –Learning for Young Aspiring Minds) in August 2016. The website of SWAYAM indicates that the platform is 'designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM

seeks to bridge the digital divide for students who have hitherto remained untouched by the digital revolution and have not been able to join the mainstream of the knowledge economy.' The courses hosted on SWAYAM are be in 4 quadrants – (1) video lecture, (2) specially prepared reading material that can be downloaded/printed (3) self-assessment tests through tests and quizzes and (4) an online discussion forum for clearing the doubts. Presently, courses in SWAYAM are monitored by seven national co-ordinators that include NPTEL for engineering, CEC for undergraduate education, UGC for post graduate education, NCERT and NIOS for school level education, IGNOU for out-of-school students and IIMB for management education. While students can avail of free courses, a nominal fee is charged for certification. At the end of each course, students are assessed through an examination and the marks/grades secured in this exam can be transferred to the academic record of the students. UGC has issued the UGC (Credit Framework for online learning courses through SWAYAM) Regulation 2016 advising the Universities to identify courses where credits can be transferred on to the academic record of the students for courses done through SWAYAM.

MOOCs can boost the economy as they can bridge academic deficit experienced in remote areas. MOOCs can support professional growth of those already in the service sector and thus boost productivity and profits.

Sharing my own experience

My OER journey began in 2010 when I enrolled for a course on Wiki educator and started preparing Open Education Resources. The interaction with the global community of educators was very enriching and soon I had many OERs hosted on my page www.wikieducator.org/User:Agnes. The journey took a pleasant turn when my research on 'OERs in Teacher Education' was acknowledged as an innovative practice in Education by the NCERT in June 2012. Since then I have created many OERs and also motivated over 300 college teachers to create and upload OERs on different platforms. This was possible due to the orientation and refresher course sessions conducted by UGC-Human Resource Development Centre (UGC-HRDC), University of Mumbai campus where I had the opportunity to be a resource person. In case of MOOCs, I first

participated in a MOOC by Commonwealth of Learning and IIT Kanpur. This MOOC entitled 'MOOC on MOOCs' was helpful to understand the architecture of a MOOC and see how a MOOC functions. Another interesting MOOC was conducted by SNDT University's Department of Educational Technology. This was a task oriented MOOC where we saw how online resources can be used to leverage one's classroom experiences. I also created a couple of MOOCs using Eliademy as a platform and used them successfully with students to complement my classroom teaching –learning. The advantage of OERS and MOOCS is that both provide 24x7 learning in a constructivist environment. Since most learners today are very comfortable with the digital world, such experiences must be used more frequently. MOOCs and OERs are flexible in many ways. Content can be revised depending on feedback got from learners. Learners can revisit the material at their pace and at any time. Online assessment can be incorporated. Students can have peer-peer and peer-tutor interaction. Videos, audios, text and pictures can all be integrated into OERs and MOOCs.

The terms OERS and MOOCs may sound like terms of this century, but the idea is not entirely new to India. The Chinese scholar Hsuen Tsang, who visited India during the time of Emperor Harshavardhan, went back to his country with 657 Buddhist texts which he then translated to Chinese. Those were times when books were painstakingly written by hand. Yet the Indian scholars were magnanimous enough to hand over their precious possessions to Hsuen Tsang. No thoughts of copyright issues could have crossed the minds of the scholars. Knowledge is free and is meant to be disseminated. We can do well to take inspiration from this incident and gear ourselves to the OER and MOOC movement so that we help to transmit knowledge to those who seek it.

□□□

EXCURSIONS AS AN AID TO LEARNING BEYOND CLASSROOMS

Dr. Meher Mistry, mehermistry76@gmail.com

Tell me and I Forget. Teach me and I may remember, Involve me and I learn-Benjamin Franklin

Learning is a complex process and it has often been confused with memorizing concepts. True learning however is about understanding, assimilating and processing knowledge. Learning automatically results when a suitable environment that introduces or reinforces concepts. Films, Field trips, projects are therefore a vital aid to learning and a desired appendage to classroom teaching.

The focus of this paper is to understand the role of excursions or field trips in the learning process. There is very little in teaching pedagogy on the use of field trips as an aid to classroom teaching. Whatever little is available is focused on use of field trips at primary and secondary level of education. This article is based on primary data, collected through a qualitative sample survey of various departments imparting education at an under-graduate level at the Ramniranjan Jhunjhunwala College, Mumbai, India. The experiences of teachers conducting field trips on a fairly regular basis spanning across several disciplines and personal observations forms the basis of this article. The findings of this survey have also been compared with research on fieldtrips done in other countries.

Excursions can be of several types. It can be a one day or half day field visitor can even be an overnight educational excursion. Many excursions, particularly in the field of science and commerce, consist of industrial visits. Whatever be the nomenclature used the main aim of field trips fundamentally remain the same.

Aim:

Excursions can be termed as experiential learning. They expand the walls of the classroom. In a setting different from the regular classroom, unfettered by the regular norms and restrictions, here learning takes place in an informal and less structured

manner. Excursions are a perfect way to expand one's horizons. Many students often have very little experience of the wider world and require practical exposure. Excursions aim towards creation of long term memories and knowledge in place of short term factual knowledge. Students are able to relate what they have learnt in course of lectures during field trips and vice-versa. Most teachers agree that outdoor interactions and experiences promote learning. It also helps in cultivating appreciation of cultural and historical heritage. The students also develop sensitivity and appreciation for natural heritage. It also provides an opportunity for teacher student bonding and offers a break from hectic schedules.(Survey, 2017)

Choice of Venue:

Different subjects have to choose venues to make the field trip relevant to the subject of study. The respondents to our questionnaire affirmed that the venue chosen by them helped to enhance learning in their subject area and to develop an interest in the subject. Science departments often take their students to laboratories, science centers, natural history museums and exhibitions like Nehru Science Centre or Homi Bhabha Centre in Mumbai. They also visit industries to illustrate the application of scientific principles and concepts. Chemistry and Physics students learn much from such industrial visits. Students of biological sciences can visit herbariums, aquariums, wildlife sanctuaries, flower valleys and other scenic natural destinations where they can explore flora and fauna. Students of Political Science and Civic administration benefit from rural visits where they interact with the headmen of the village and understand governance and administration at the grass root levels. They can also be taken to the Vidhan Sabha, Mantralaya for a visit to understand it's working. Commerce, Economics and Finance departments also have a variety of options such as visiting small scale business units to understand entrepreneurship, procurement of goods, marketing, inventory management etc. They may also visit industries, self-employed groups, Export Marketing Organizations, Packaging industries, Stock exchange, Monetary Museums etc. Geography department may take students to places with environmental issues or natural environment. Philosophy departments may visit art galleries, meditation and yoga centers or Caves expounding Buddhist or Shaivite philosophy such as Kanheri or Elephanta

caves in Mumbai. Language departments can organize visits to Literary Festivals such as Sahitya Sammelan, Times Literary Festival, Book Release functions, poetry recitals or Radio-stations. They can also organize visits to libraries or to serene destinations and have a nature-inspired writing session. History department can choose venues with historical and cultural significance such as monuments, caves, museums. Heritage walks are also ideal to understand local history and cultural heritage.(Survey, 2017) Thus there are a plethora of options for organizing field trips relevant to the subject.

Inter-departmental field trips can be arranged when the venue has multi-disciplinary relevance. Many departments in our institution often get together for field trips and choose locations having relevance to many subjects. For example the hill station of Matheran, which is close to Mumbai can be chosen to study various aspects of tourism and commerce. The place also has a rich colonial history. Interactions with horsemen, shopkeepers, hoteliers, chikki making units, to understand their problems and the seasonal nature of their employment can be useful to economics, commerce, sociology and geography departments. The rich flora of Matheran also makes it an ideal destination for biology department. History and English Department may find it fruitful to have a joint visit to an old theatre or opera house. The American Center is another inter-departmental trip venue for English, History and Political Science students. Politics and Sociology departments may jointly visit NGO's. Multi-disciplinary field trips are useful to classes which have not yet selected their area of specialization.(Survey, 2017)

Accessibility, safety, budget, students' interest, are also considerations in choosing a venue. Many educational institutions do not arrange overnight trips if parents do not give consent. Overnight excursions involving hotel stays and outside food escalate the cost of field trips and therefore do not take up such exposures, several departments particularly, if their students are from a marginalized socio-economic background. Safety of students is a major consideration. Several accidents have taken place in beach areas or waterfalls and therefore only low risk areas are approved by authorities for field trips. The venue should also stimulate students and interest them or there will be few takers. A combination of learning, fun and leisure will be more productive rather than a fieldtrip with too much to absorb.

Educational material available at venues- maps, audio-guides, brochures, maps also score as venues for field trips. A guided tour by the curator of the museum or an audio-guide giving intricate details and history of exhibits at a palace or museum enhances the whole experience. Some venues also help to understand Career opportunities associated with a subject. An ideal venue coupled with adequate preparations can make the whole exercise a fruitful venture.

Benefits:

There are obvious benefits of conducting excursions due to which most schools and colleges highlight fieldtrips as a tool of learning in their prospectus or brochures. It creates enthusiasm for the subject. Students are energized at the prospect of seeing something new, leaving the class environment behind and get actively involved in the learning process. The learning that takes place during excursion is student oriented and not teacher or curriculum driven. The students explore the place on their own. They may spend more time at an exhibit that they are interested in and glance over some. Learning at field trip thus is based on interest and self- motivation. The experience will be more holistic and will illustrate concepts more vividly than what can be achieved in a classroom setting. Field trips offer multi-media experiences. One is able to take the benefit of professional partners who have designed the museum or other study venue using their intellectual and creative expertise to actively engage and stimulate the visitor.(www.teachthought.com/learning/the-benefits-of-learning-through-field-trips/)
Respondents to the survey also concur that field trips help to give practical knowledge and develop a research orientation. It also trains the students in management and organizational skills particularly if the students were part of organizing the logistics of the excursion. It also helps in teaching group behavior etiquettes. Many topics related to the subject, but not a part of the curriculum, are also sometimes covered during excursions. Learning thus takes place beyond the prescribed syllabus.

Many teachers are skeptical about the real gains of a field trip. No doubt that a lot of socializing happens at excursions and learning may not take place exactly in the direction that the teacher intended but research abroad also shows that there is evidence of learning

at the end of a field trip. So, the impact of field trips is undeniable Falk and Dierking who studied museum field trips write "Museum field trips – regardless of type, subject matter, or nature of the lessons presented – result in highly salient and indelible memories. These memories represented evidence of learning across a wide array of diverse topics." (Falk & Dierking 1997) A study conducted by Katherine Stewart, Royal Botanic Gardens Sydney, Australia also concludes that , student recollections after visiting the gardens, correspond to the learning outcomes required by their teachers and in some cases, students' long-term recollections relate to their teachers' learning expectations. (www.bgci.org/education/1659/) There is a lot of research on the web establishing its relevance for science subjects at school level. The survey undertaken at the Ramniranjan Jhunjhunwala College affirms its relevance for study of humanities and sciences at the under-graduate level.

Making Field trips more effective:

Excursions can become a powerful medium of learning. To make excursions more meaningful, they have to be effectively integrated into the teaching curriculum.(www.teachthought.com/learning/the-benefits-of-learning-through-field-trips/) It is necessary to have a pre-excursion orientation about the place that is to be explored. Through a lecture or power point presentation before the trip, the students can be briefed about what they will be able to observe during the field trip. For historical monuments, giving a brief history of the place and explaining its importance in class before the actual field trip can be very fruitful. Circulating notes or brochures, directing students towards web links, giving information on the place can be part of the preparation. To involve the students in a more active manner, on site presentations can be allotted to students. Recapitulation sessions over campfire during long excursions also can prove effective. The students can also be involved in organizing treasure hunts, crosswords and games which can aid learning during the visit and also make it more interesting. Briefing parents and authorities also helps in establishing its relevance to learning and securing permissions. A Follow up with Projects or report writing related to the excursion is also recommended. Wherever there is scope, a field trip must include interaction with a local guide or resource person who can explain the site or exhibit. In case of Industrial visits

interaction and guidance from the industry experts is vital. (Survey, 2017) The effectiveness of a field trip can be enhanced by adequate preparation and follow up and absence of the same can dilute the quality of learning.(www.informalscience.org/news-views/field-trips-are-valuable-learning-experiences)

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THEME I: CONTEMPORARY TEACHING METHODS

BE IN! BEFORE BEYOND TEACHING, LEARNING AND EVALUATION BEYOND CLASSROOM

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Abstract:

Rabindranath Tagore asserted that the primary task of a society is to find a real teacher. He viewed that a real teacher is one who performs his duty with perfection and dedication and is a perfect moral example for the society.

Quality of a nation depends upon the quality of its citizens, which in turn depends upon the quality of their education. Quality has become the key word in the process of teaching, learning and evaluation process and strategies in the education system. A good teacher has "King Solomon's Wisdom"' Sigmund Freud's insight, Albert Einstein's Knowledge and Florence Nightingale's dedication.

Every teacher has his or her own and a unique style of teaching. An effective style of teaching engages students in the learning process. It helps the students to develop their critical thinking skills. Different styles are used in different subjects of humanities and pure sciences. This depends on the subject you teach, the students you serve, the skill you need to be mastered and the context of performance. This paper highlights on the learning theories, styles and strategies in today's global and competitive era. It will highlight the need of coordination between C-Learning and E-learning.

Keywords: Effective teaching, Qualities of a good teacher, Quality teaching, Teaching strategies and skills

Rabindranath Tagore asserted that the primary task of a society is to find a real teacher. He viewed that a real teacher is one who performs his duty with perfection and dedication and is a perfect moral example for the society.

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Three C's: Blend of Learning Theories:-

Here we have classified the learning theories in three broad categories namely COGNITIVISM, PERFORANCE AND CONSTRUCTIVISM.

I. COGNITIVISM: In this let us study the ideas given by the following thinkers' viz. Bloom, Clark and Gagne.

Bloom developed the model of Taxonomy of Cognitive Objectives. It has been adapted for classroom use as a planning tool and is one of the most universally applied models. Blooms taxonomy reflects different forms of thinking. He reorganized the subcategories of the six major categories. These categories are,

- Create: Creating means generating new ideas, products or ways of viewing things. It also includes designing, constructing, planning, producing, inventing new methods or ideas. It means combining parts to make new whole.
- Evaluate: Evaluating means justifying a decision or course of action. It means checking, hypothesizing, criticizing, experimenting or judging. To be more specific, it includes the judging the value of information or ideas.
- Analyze: Analyzing means breaking down the information into components parts. It includes breaking of information into parts to understand, compare, organize etc.
- Apply: Applying means using or implementing the information in another familiar situation. It includes the application of the facts, rules, concepts, and ideas.
- Understand: It includes the explanation of ideas, interpretation of concepts, and understanding what the facts means.
- Remember: It means recognizing and recalling the facts or information.

Later on **Clark** gave an experimental learning cycle. He gave lot of attention to students thinking and knowledge acquisition. His cycle explains the relation between Concrete Experience (Feeling), Reflecting Observation (Watching), and Abstract Conceptuallsation (Thinking) and Active Experimentation (Doing). In order to make the

students to remember and understand what need to be learned, he prepared learning material that is organized from simple to complex, and used multimedia to present to students in a neat and coherent way. He also gave real life examples to explain the theories, so that the students can have a clear understanding.

Robert Gagne explained the theory of Conditions of Learning. He identified five major categories of learning which includes verbal information, intellectual skills, cognitive strategies, motor skills and attitudes. Different internal and external conditions are necessary for each type of learning. His theory also outlines nine instructional events and corresponding cognitive processes. These are,

- Gaining Attention (Reception)
- Informing Learners of the Objective (Expectancy)
- Stimulating Recall of Prior Learning (Retrieval)
- Presenting the Stimulus (Selective Perception)
- Providing Learning Guidance (Semantic Encoding)
- Eliciting Performance (Responding)
- Providing Feedback (Reinforcement)
- Assessing Performance (Retrieval)
- Enhancing Retention and Transfer (generalization)

II. PERFORANCE: -In this we will highlight the concepts develop by Gery and Jean Piaget.

Gery talks about Blended Learning and Support Model. In this the Performance Support includes Access on the job, task specification, and support at time of need. Learning includes attitudes, concepts, facts, processes and procedures. The Knowledge Base includes automated knowledge capture, repository of knowledge objects, sharing of best practices and lessons learned and connection to experts and high value information.

III. CONSTRUCTIVISM: - In this **Jean Piaget** talked about four stages of development viz. Sensor motor, Preoperational, Concrete, Operational and Formal Operational. We come across few key points of constructivism which state that learning

is an active and constructive process, students learn by doing, students form or construct what they learn based on previous knowledge, new information is linked to prior knowledge and the learner uses past experiences and cultural factors to build upon their learning. According to Jean Piaget three mechanisms are used in learning theories and teaching methods in education. These are

- Assimilation- It means fitting a new experience into an existing mental structure
- Accommodation- Revising the existing structure because of new experiments.
- Equilibrium- seeking cognitive stability through assimilation and accommodation.

Later on **Vygotsky** talked about the socio cultural theory. He was concerned with how children come to understand their social world. He believed that students construct their knowledge. He said that the development cannot be separated from social context and the prior conception and new concepts are interwoven. In this whole process language plays a central role.

DIFFERENT STYLES OF TEACHING

Every teacher has his or her own and a unique style of teaching. An effective style of teaching engages students in the learning process. It helps the students to develop their critical thinking skills. Different styles are used in different subjects of humanities and pure sciences. This depends on the subject you teach, the students you serve, the skill you need to be mastered and the context of performance.

It is the responsibility of a teacher to engage the students in the learning process.. Selecting a style that addresses or caters to the needs of diverse students at different learning levels begins with the personal inventory. It is essential for a teacher to do a self evaluation- knowing one's strengths and weaknesses. Effective teaching style blended with effective classroom management will bring the best results.

Teaching Styles

Let us study few main strategies used by the teachers in teaching process

- Authority or Lecture Style

It is a teacher-centered model. It frequently entails lengthy lecture sessions or one-way presentations. In this method the teacher expects that the students to take notes or absorb information. This method is acceptable for certain higher education disciplines. It has an auditorium setting with large groups of students. It is a pure lecture style method. It is most suitable in the subjects like history. In this subject you need to memories the key facts, dates, names, events etc. But the problem is that in this model of teaching the students have a very little or no interaction with the teacher.

- Demonstrator or Coach Style

  In this style of teaching the demonstrator retains the formal authority role while allowing the teacher to demonstrate his or her expertise. It is done by showing the students what they need to know and understand. In this style, the teacher gets an opportunity to incorporate a variety of formats. The teacher can make use of lectures, multimedia presentation, demonstration etc. Such methods are well suited in the subjects of music, physical education, arts and craft. But it is difficult to accommodate and cater to the individual needs of the students in larger classrooms.

- Facilitator or Activity Style

  In this style the facilitator promotes self-learning activity. The facilitator helps the students to develop critical thinking skills and retain knowledge that leads to self-actualization. In this style the students are trained to ask questions. It helps to develop the skills to find answers and solutions through exploration and investigation. It is ideal for teaching science and similar subjects. Of course in this method the teacher cannot just give a lecture on facts and ask the students to memories. Instead the teacher faces a challenge to interact with students and promote them towards discovery.

- Delegator or Group Style

  This method of teaching is good for those subjects in which we focus on the laboratory activities, for example the subjects like Chemistry, Biology etc. This method is also applicable to those subjects that warrant peer feedback, such as debate or creative writing. This system requires guided discovery and inquiry-

based learning. In this system, the teacher plays the role of observer. It inspires the students by working in tandem towards common goals. It is a modern style of teaching. But it is also criticized because according to the critics in this method the teacher as more as a consultant than the traditional authority figure.

- Hybrid or Blended Style

  This style follows an integrated approach to teaching. It blends the teachers' personality and interests with the students' needs and curriculum. It is an inclusive approach to the teaching and learning process. It enables the teachers to tailor their styles to students' requirements and appropriate subject matter. But the biggest drawback of this method is that it dilutes learning. It runs the risk of trying too many things to all students.

  Along with these methods we can practice some new methods like empty vessel, active vs. passive teaching, Knowledge vs. information, interactive classrooms, etc. Thus teachers must try different styles to meet different objectives. It is the responsibility of a teacher to find ways to reach the students.

Teaching Strategies

I learned how to wrap a saree by watching my mother every day. In the beginning I did not noticed her actions steadily. Later on I started giving closer attention and then one day I stood next to her with my mini saree and very dearly and meticulously imitated her movements. The same is true with her cooking styles, keeping the house neat and clean, handling the home and work front efficiently, fulfilling the needs of each and every member of the family, her negotiation skills with the vegetable vendor, future planning with my father and so on.

Teaching strategies are the core principles f in the teaching and learning process.. Let us study some important teaching strategies

- **Observation:** Teachers and students will definitely learn many new things just by observing and responding to the changes that are taking place in the global world. Many a times it is better to speak less and observe more. Observation will be a silent teacher.

- **Education Modeling:** Education modeling means giving students a demonstration or example of a process or a product that is representative of the skill or content they are expected to perform themselves. For example we can ask them to create a detail working model on say Green Revolution or White Revolution. This visual presentation will give better understanding of the concept. Modeling as an effective strategy will develop several skills among student, whether it is reading in the class, giving speech, discussion on new ideas or changes. In simple 'showing' and 'experimenting', rather than only 'telling' will make wonders in the whole process.
- **Providing variety and Explanation:** When a teacher gives examples the sharing a variety is always a plus. It is always important to give the examples of the good as well as bad character. It will develop the skill of reasoning. Students will learn the art of choosing the right path.
- **Daily Life Stories:** These stories deal with people, places, things, events which are similar to those which are experienced by many of us. For example we can tell them the stories related to the institution, teachers, alumni etc. Sometimes it is essential to teach subjects like history in story format rather than as a purely academic experiment.
- **Industrial Visits and Field Trips:** These techniques are essential as the students will get a chance to see the actual processes and procedures. Visit to forts, banks, industries mints, etc. will help them to relate the theory with practice.
- **Provide Variety and Explanation:** In this the teachers can ask the students to make presentations on their visits. Teachers can ask the students to prepare say the cost report, advertising campaign, for a particular product.
- **Preparation:** It is always essential to give some background of your future course of action. For example, in a subject like economics, after teaching them the concepts of price discrimination or product differentiation, we can ask the students to make presentation on case studies which will explain the concepts.
- **Organization:** Organization and time management are very much essential in the entire teaching and learning process. It is essential at every stage of this process from preparation to teach and learn to experiment on what is taught and learnt.

- **Story Telling:** This is another important strategy in teaching and learning process. We can explain several concepts in economics, sociology, management, with the help of stories. We can use any form like allegory, fables, fairytales, folktales, sagas and epics, legends, parables etc.

The application of above stated strategies has several advantages

- These strategies require limited infrastructure.
- The method are tried and tested. Thus the chances of failure are lea.
- These strategies are economical in nature.
- They help to develop personal relations between a teacher and a student
- These strategies are interactive in nature.
- They create and develop the skill of cooperation and coordination.
- It will help to have a perfect blending between C-Learning to E-Learning.

Conclusion

From the above discussion we can conclude that these learning methods and strategies will modify the role of the teacher from the translator of information to the organizer and coordinator of the educational process. Today's teachers must develop instructional styles that work well in diverse classrooms. Effective teaching methods engage gifted students, as well as slow-learning children and those with attention deficit tendencies. This transference of knowledge from expert to student is an art and a skill. We as teachers have to learn, develop ad perfect this art and skill. As James Madison said the "Knowledge……is the only guardian of true liberty. Our ultimate goal is to reach out to the students, students in and beyond the classrooms.

New friends (E-Learning) may be Poems
But old friends (C-Learning) are Alphabets
Do not forget the Alphabets because
You will need them to Read the Poem

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CONTEMPORARY TEACHING METHODS AND THEIR APPLICATIONS IN THE TEACHING OF MATHEMATICS AND STATISTICS

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Abstract

*This paper discusses several Contemporary Teaching Methods and their applications in the teaching of **Mathematics and Statistics**. A brief introduction of Contemporary teaching methods is presented and their application with the help of examples in the subject of Mathematics and Statistics is discussed.*
The paper intends to convey benefits of such innovative methods in students learning process and in generating interest in the subjects of Mathematics and Statistics.
In this paper, an attempt has been made to blend the old traditional teaching methods with new contemporary teaching methods to enhance theoretical and practical knowledge of students.
In order to create an overall positive attitude about the subject contemporary teaching methods applications in day to day life have been discussed with the help of few simple case studies

Keywords: *Assignments, Chalk - duster method, ICT tools, projects, Formulae*

Introduction

Education is a light that shows mankind the right direction to surge forward. The purpose of education is not just to make a student literate but to make them knowledgeable think rationally, with ability to become self-sufficient. When there is a willingness to change, there is hope for progress in any field. Creativity can be developed and such innovations benefits both students and teachers.

The higher education landscape is undergoing significant change as a result of technological innovations. These innovations have brought about changes in the way higher education is imparted and in the way students learn. While the conventional setting of the lecture hall will continue to form the bedrock of higher education systems, it will be enhanced by the integration of new tools and pedagogies, and it will be complemented by many more online learning opportunities and a greater variety of providers in higher education.

A) Traditional teaching methods and contemporary teaching methods

	TRADITIONAL APPROACH	CONTEMPORARY APPROACHES
Person	Teacher-centered instruction: • Educational essentialism • Educational perennialism	Student-centered instruction: Educational progressivism
Main Objective	High test scores, grades, graduation	Learning, retention, accumulation of valuable knowledge & skills
Classroom	Students grouped by age, and possibly also by ability. All students in a classroom are taught the same material.	Students dynamically grouped by interest or ability for each project or subject, with the possibility of different groups each hour of the day. Multi-age classrooms or open classrooms.
Teaching methods	Traditional education emphasizes: • Direct instruction and lectures • Seatwork • Students learn through listening and observation	Progressive education emphasizes: • Hands-on activities • Student-led discovery • Group activities
Materials	Instruction based on textbooks, lectures, and individual written assignments	Project-based instruction using any available resource including Internet, library and outside experts
Subjects	Individual, independent subjects. Little connection between topics	Integrated, interdisciplinary subjects or theme-based units, such as reading a story about cooking a meal and calculating the cost of the food.
Content	Memorization of facts, objective information; Correct knowledge is paramount	Understanding the facts, Application of facts, Analysis, Evaluation, Innovation; Critical thinking is paramount
Social aspects	Little or no attention to social development. Focus on independent learning. Socializing largely discouraged except for extracurricular activities and teamwork-based projects	Significant attention to social development, including teamwork, interpersonal relationships, and self-awareness.

	TRADITIONAL APPROACH	CONTEMPORARY APPROACHES
Multiple tracks	• A single, unified curriculum for all students, regardless of ability or interest. • Diverse class offerings without tracking, so that students receive a custom-tailored education. • With School to work, academically weak students must take some advanced classes, while the college bound may have to spend half-day job shadowing at local businesses.	Students choose (or are steered towards) different kinds of classes according to their perceived abilities or career plans. Decisions made early in education may preclude changes later, as a student on a vo-tech track may not have completed necessary prerequisite classes to switch to a university-preparation program.
Equity		• Context learning integrates personal knowledge within the school environment. • Individualized expectations simplify individual supports and keeps focus on the student.
	• Present and test methods favor students who have prior exposure to the material or exposure in multiple contexts. • Requirements to study or memorize outside school inadvertently tests homes not students. • Students from homes where tested subjects are used in common conversation, or homes where students are routinely given individual help to gain context beyond memorization, score on tests at significantly higher levels.	• Community study settings include multiple cultures and expose all students to diversity.
Student and teacher relationship		In alternative schools, students may be allowed to call teachers by their first names. Students and teachers may work together as collaborators.

B) Fundamentals of mathematics

Most of the students are under the impression that Mathematics is just about getting the `right' answer but in reality, this perception it is not true. Mathematics and Statistics involve the art of finding problems and solving them logically and mentally. Teaching methods for this subject should be such that it has been prepared to empower students as mathematicians and to teach students that mathematics makes sense.

"The book of nature is written in language of Mathematics": Galileo
"Logic is the foundation of certainty of all knowledge we acquire". Euler

	Traditional approach	**Contemporary approaches**
Mathematics and Statistics	Traditional mathematics: • Emphasis is on memorization of basic facts such as the multiplication table and mastering step-by-step arithmetic algorithms by studying examples and much practice. • One correct answer is sought, using one "standard" method. • Mathematics after elementary grades is tracked with different students covering different levels of material. • Mathematics is taught as an independent discipline without emphasis on social, political or global issues. There may be some emphasis on practical applications in science and technology.	• Curriculum de-emphasizes procedural knowledge drills in favor of technology (calculators, computers) and emphasizes on conceptual understanding. • Lessons may include more exploratory material supportive of conceptual understanding, rather than direct presentation of facts and methods. • Emphasis may be on practical applications and greater issues such as the environment, gender and racial diversity, and social justice. • Mathematics lessons may include writing, drawing, games, and instruction with manipulative rather than filling out worksheets. • Lessons may include exploration of concepts allowing students to invent their own procedures before teaching standard algorithms. • Grading may be based on demonstration of conceptual understanding rather than

	Traditional approach	Contemporary approaches
		entirely on whether the final answer is correct. • In some countries (e.g. the United States), there may be expectations of high achievement and mastering algebra for all students rather than tracking some students into business math and others into mathematics for math and science careers.

C) Innovative Changes in teaching Mathematics and Statistics:

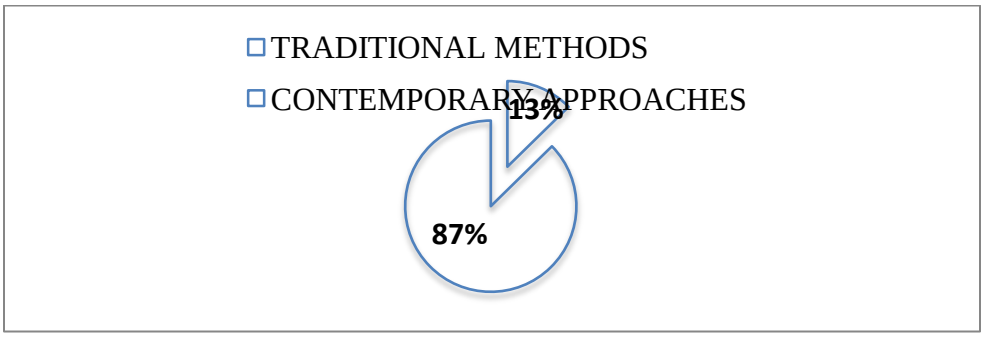
Objective:

1) To Study Overall Attitude of Student towards the subjects of Mathematics and Statistics

2) To study Impact of contemporary teaching methods on Students.

Methodology

A survey of **150 students** of Degree College studying Mathematics and Statistics was carried out in which they responded to some questions regarding the current teaching methods, their approach towards these subjects, their interests and their motivation for learning this subject and the changes they expect in current teaching strategy.



Summary report of this interview

a) Students' expectation from the teacher and the subject:

I. Actual application areas of any concepts or topics that they are learning.
II. Printed notes of theory because they feel dictation is boring and time consuming.
III. More focus on problem solving
IV. Use of ICT tools to enhance knowledge
V. Field visit or industrial visit
VI. Hands on training of software to solve problems
VII. Live projects related to current topic to draw conclusions using theoretical techniques.
VIII. Improvement in grading system and attendance restrictions.
IX. Case studies

b) Following changes can be introduced in teaching.

I. Introduction of topic or subject with its actual application in day to day life.
II. History and evolution of that topic in brief with the help of examples.
III. Objective and need of learning that topic.
IV. Connection and application with other subjects through examples.
V. Research opportunities
VI. Increase in use of software rather than manual calculations during practical.
VII. Suggest some free software so that students can carry out hands on practice at home.
VIII. Printed notes of theoretical topics should be given; but for theorems and derivations the **chalk duster** method is the best.
IX. Case studies can be discussed in the class so that students can complete project work efficiently
X. Make use of ICT tools and real life applications of topics so that students find the lectures interesting.
XI. Make students aware of a void in their knowledge and capitalize on their desire to learn more. For instance, you may present a few simple exercises involving

familiar situations, followed by exercises involving unfamiliar situations on the same topic. The more dramatically it is done, the more effective the motivation.

XII. Setting up a contrived situation that leads students to "discovering" a pattern can often be quite motivating, as they take pleasure in finding and then "owning" an idea. An example could be the adding of numbers from 1 to 100. Rather than adding in sequence, students add the first and last (1 + 100 = 101), and then the second and next-to-last (2 + 99 = 101), and so on. Then all one has to do to get the required sum is multiplying 50 X 101 = 5,050. The exercise will be an enlightening experience for students.

	VALUE	**DF**	**ASYMP.SIG.(2-SIDED)**
PEARSON'S CHI-SQUARE	**21.80904**	**1**	**0.0000**

Chi square test of independence of attribute

H_0: Student's interest in learning mathematics is independent of teaching methods.

H_1: not H_0

Teaching method	**Interested**	**Not interested**	**Total**
Traditional approach	**10**	**9**	**19**
Contemporary approaches	**120**	**11**	**131**
Total	**130**	**20**	**150**

Since P value <0.05 Reject H_0,
Student's interest in learning mathematics depends on teaching methods.

Contemporary teaching methods and its applications

A. Case studies
B. Problem based learning (PBL)
C. Concept mapping
D. Development of critical thinking skills
E. Technology inside and outside of the class room

F. Course website and videos of lectures
G. Presentations by students
H. Encouragement through organization of quiz, games, poster making, charts etc.

Case studies

A **case study** is a report about a person, group, or situation that has been studied.

I) Quality Control: Students are supposed to write long theoretical notes in lectures to test their efficiency in writing; a paragraph containing 250 words is dictated to them. Then the number of spelling mistakes committed by each student is counted. Average number of mistake can be calculated and the benchmark for acceptance of an assignment is decided if numbers of spelling mistakes are less than average.

II) Analysis of variance: If in a class of 50 students, students have used 5 different reference books from the library and some students have used their class notes only then after their results, the teacher may want to know which reference book is best or whether the class notes are enough. This can be done using one way ANOVA.

III) Case studies by different organizations are explained to students. These will help to understand real life applications of that topic.

Problem based learning (PBL)

Problem based learning is a curriculum development and instructional system that simultaneously develops both problem solving strategies and disciplinary knowledge bases and skills by placing students in the active role of problem solvers confronted with an ill-structured problem that mirrors real-world problems. (Finkle and Torp, 1995)

I) To explain concept of permutation and combination with the help of examples like tossing of coins, throwing of dice, 52 playing cards, arrangement of objects, alphabets in particular word etc. can be taken.
Thus students can observe the outcome and accordingly perform the necessary calculations.

This method enables students to themselves observe results and there by understand the concept of permutation and combination well.

II) Tabulation and graphical representation of data:

It is difficult to understand and study complex data. So, if data is arranged in tabular form then without losing its important component it can be represented in a better manner.

a. Data about students' academic progress in Mathematics from High school to

Graduation can be represented with graphs. So they can observe graphs to get an idea about their performance in subject

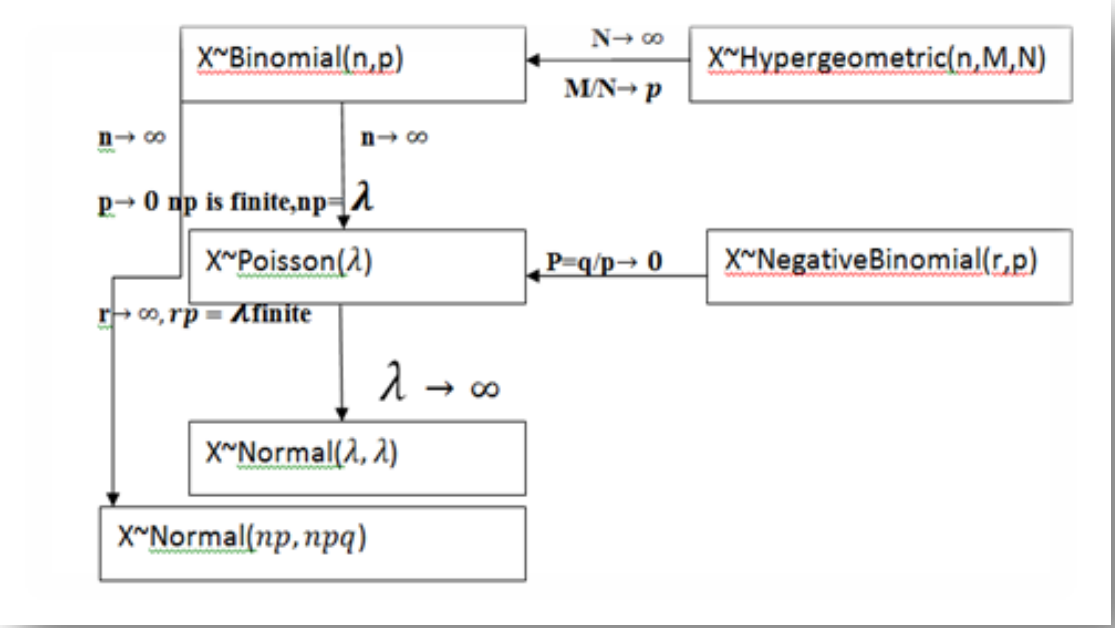
b. As cricket is the most popular game among students, they can summarize data of performance by Indian cricket team year wise in various matches like one day, test, 20-20 matches. Further they can represent this data graphically to get an overview of the team.

III) Introduce a practical application of genuine interest to the class at the beginning of a lesson. For example, in the high school geometry course, a student could be asked to find the diameter of a plate where in all the information he or she has is a section smaller than a semicircle. The applications chosen should be brief and uncomplicated to motivate the student rather than to detract him from it.

Concept mapping

I) A logical sequence of concepts: This differs from the previous method in that it depends on students' desire to increase, but not complete, their knowledge. One example of a sequential process is how special quadrilaterals lead from one to another, from the point of view of their properties.

II) Various approximations of distributions in statistics can be shown in one map.



Development of critical thinking skill

A Critical thinking skill is to know how to make connections between ideas and evaluate information critically.

I) After studying different case studies students can be given a project work which will comprise of applications of most of the concepts which they have been taught. They can find link between different topics on their own. They can identify which concept or method is to be used in the given condition.

II) At the beginning of new topic, the teacher should provide its history, need and connect it with other topics which are already taught. For example; while teaching completely randomized design we must explain difference between one way ANOVA and completely randomized design by mentioning that one way ANOVA is a technique used in completely randomized design.

III) To motivate basic belief in probability, a very effective motivation is a class discussion of the famous "Birthday Problem," which gives the unexpectedly high probability of two birthdays matching in relatively small groups. The result is amazing, unbelievable even, and will leave the class in awe.

IV) If the intellect students are challenged, they react with enthusiasm. Great care must be taken in selecting the challenge. The problem (if that is the type of challenge) must definitely lead to the lesson and be within the reach of the students' abilities.

Technology inside and outside the class room

I) Technology has made it easy for students to use their computers and mobile devices to continue learning outside the traditional classroom.

II) Many students find that they are able to use digital notes more effectively than handwritten notes by conducting keyword searches to locate specific information quickly.

III) Today's college students are also able to share notes with study group using Google drive, blackboard technology etc.

Course website and video of lectures

In this context, video as a medium continues to have an impact on higher education and teaching learning moulds the role of the student, challenging the (traditional) role of the lecturer and the format of delivering course content via a lecture. It makes it possible to connect with world and open free sources of knowledge become available. Video has certain functions that can enhance the learning experience.

Presentation by student

Student will learn to use PowerPoint to capture their ideas in outline form and convert those ideas into multimedia presentations. They will also learn how to use the application to create their own presentations both from scratch as well as with the help of one of the PowerPoint Wizards.

Encouragement by organization of quiz, games, poster making competition, charts etc.

I) Recreational motivation consists of puzzles, games, paradoxes or facilities. In addition to being selected for their specific motivational gain, these devices must be brief and simple. An effective execution of this technique will allow students to complete the "recreation" without much effort.

II) A story of a historical event (for example, math involved in building the Brooklyn Bridge) or contrived situation can motivate students. Teachers should not rush while telling the story. A hurried presentation minimizes the potential motivation of the strategy.

III) Teachers of mathematics must understand the basic motives already present in their learners. The teacher can then play on these motivations to maximize engagement and enhance the effectiveness of the teaching process. Exploiting student motivations and affinities can lead to the development of artificial mathematical problems and situations. But if such methods generate genuine interest in a topic, the techniques are eminently fair and desirable.

Conclusion

It is desirable to teach the course using these methods. Further, one may introduce the methods to one's colleagues too. It is contemplated that if these methods can improve the undergraduate mathematics teaching at the university. It would enhance the quality of teaching and learning.

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BLENDED LEARNING STRATEGY FOR FOSTERING CONCEPTUAL CLARITY OF UNDER GRADUATE STUDENTS IN COMMERCE: AN EXPERIMENT

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Abstract

This study was based on quasi experimental research design. 32 Students of second year bachelor of commerce, from MPSPS College, Bandra, and Mumbai participated in this project. There were two groups: one group was control group and other was the experimental group. The experimental group was chosen for instructional design based on Blended Learning Strategy (BLS), while content for control group was transacted by traditional lecture method. The intervention module lasted for 7 days. The intervention design comprised of several strategies based on BLS aiming at fostering conceptual clarity of under graduate students in topic of Banking Sector Reform in India (BSRI). The pre and post test were administered to find the effect of the treatment. According to the statistical analysis of the result achievement level of the experimental group, BLS was significantly higher than the control group with a traditional teaching method. Hence it can be concluded that the BLS helps in enhancing the conceptual understanding of the Commerce content.

Keywords: *BLS, Banking Sector*

Introduction

The idea of blended learning is to synthesize a number of different approaches in order to create high impact learning. While a blended approach is not a new concept, many organizations are now combining on-line learning resources with classroom training or mixing the use of a self-paced workbook with one-to-one coaching. In this way, organizations are maximizing and optimizing the use of resources. Blended learning is important as it allows for a variety of different teaching modes and can address different learning needs and styles. Blended learning is not about providing learners with a number of choices on how to complete their training but it is mixing different kinds of media and resources in order to achieve an optimum training solution

Aims & Objective

Aims of the study:

1. To develop blended learning strategies for teaching of commerce to under graduate student.

2. To study the effect of blended learning strategies on conceptual clarity of commerce topics among the learners.

Objectives of the study:

1. To ascertain the pre test conceptual clarity scores of second year B.Com students;
2. To design and implement blended learning strategies for teaching of commerce to second year B.Com students;
3. To ascertain post test scores of second year B.Com students;
4. To compare pre test and post test of conceptual clarity scores of second year B.Com students

Research questions and hypothesis

Research Questions

In pursuit of the objectives of the study, the following research questions were raised:

1. What is the extent of effectiveness of Blended Learning Strategy (BLS) in developing the conceptual understanding & boosting the retention among under graduate students in commerce?

2. What is the perceived interest of under graduate students towards learning Commerce using blended learning strategy?

Hypothesis

H_o1 There is no significant difference between the pre test scores of experimental and controlled group on the topic Banking Sector Reform in India.

H_o2 There is no significant difference at both the level in the post test scores on the topic Banking Sector Reform in India.

H_o3 There is no significant difference between the conceptual Clarity of experimental and control groups as indicated by difference in their pre test and post test scores.

Methodology:

Design

The present study is a quasi experimental study following the Pre test-Post test non-equivalent group design.

O_1 C O_2

O_3 X O_4

Where, O_1 and O_3 are the pre test scores and O_2 and O_4 are the post test scores

C is the control group and X is the experimental group

Participants

Participants of the present study comprised of 64 students. Out of which 32 students were part of control group and the remaining 32 were of experimental group. The participants were selected through Non probability sampling technique.

Tools

Following tools were formulated for data collection:

Criterion reference test: A pre test and post test was developed by the researcher.

The instructional intervention planned consisted a pre test, five sessions of one hour each followed by a post test for experimental group.

Days	Lessons	Topic of lesson
Day 1	-----	Pre test on *Banking Sector Reforms in India (*BSRI)
Day 2	Lesson -1	Banking System in India: video based discussion
Day 3	Lesson -2	Structure of Banking ; Power point presentation
Day 4	Lesson -3	Scheduled vs Non Scheduled Banks: debate
Day5	Lesson-4	Phases of banking ; Case study
Day 6	Lesson-5	Performance of Commercial Banks; fish bowl method
Day 7	---	Post test

Data analysis

Descriptive Analysis

They are used to describe simple summaries about the sample and the measured. Together with simple graphic analysis, they form the basis of virtually every quantitative analysis of data. Descriptive statistics simply describe what the data shows. The statistical measures in describing and analyzing data were

Measure central tendency; Mean, Median, Mode,

Measure of variability: Standard Deviation

Measure of divergence from normality: skewness, kutosis

Measure of probability: fiduciary limits of mean and standard deviation

Descriptive Statistics of Pre-test of Control and Experimental groups indicating the Conceptual Understanding about Banking Sector Reform in India

Group	N	Mean	Median	Mode	SD	Skew	Kurt	%mean
Control	32	3.03	3.00	2.00	1.56	0.66	0.06	33.83%
Experimental	32	3.50	3.00	3.00	1.30	-0.29	-0.42	50%

Descriptive Statistics of Post-test of Control and Experimental groups indicating the Conceptual Understanding about "Banking Sector Reform in India"

Group	N	Mean	Median	Mode	SD	Skew	Kurt	%mean
Control	32	13.22	13.00	12.00	3.21	0.35	-0.52	43.35%
Experimental	32	19.53	19.00	18.00	3.32	-0.09	-0.44	54.41%

Inferential Analysis

To find out the significance difference between the means "t" tests was used

To find out the extent of significance between the means ω^2_{est} was used

Findings

BLS has the potential to be used in support of these new educational methods, enabling students to learn by doing. BLS can make it possible for teachers to provide students with self-directed problem-based or constructivist learning experiences, as well as to test students learning in new, interactive and attractive ways that may better assess the depth of their understanding of content.

Conclusion

The post –test scores could be observed after the instructional intervention for 7 days. A definite improvement in the performance can be attributed to the instructional module which was prepared for the participants. On the basis of this, the researcher could conclude that the instructional module has had a definite impact on the ability of participants to gain conceptual clarity and can thus contribute to learning of new concepts in their regular classroom process more effectively and efficiently and add up to their long term memory.

Thus the instructional module prepared by the researcher helped the students to enhance their conceptual clarity for BSRI.

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ON THE THRESHOLD TO NEW DIMENSIONS IN EDUCATION

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Abstract

The 21st Century has seen a new dimension of the traditional teacher who was always busy with the old chalk and duster method. With the advent of new technology the teacher is empowered with new skills that helps keep her/him be in vogue with the trend of the times. The learner is looking for newer methods of inputs which make the class interesting. Evaluation techniques too need to be changed. Within the current scenario not much can be done with the evaluation system, however, the way the learner is educated can certainly be changed. An example of modern techniques of educating the learner is the case of TYBA Political Science students of Mumbai University who have a paper, namely, 'Learning Indian Politics through Films'.

Keywords: *Education, Evaluation, Learner, Traditional Teacher.*

A learning institution is a secondary agent of socialization. An individual moulds himself/herself in this place and gets equipped with the necessary skills to face life as a professional. Obviously this becomes a very important agent in the life of the individual. Hence, it is most essential for a person to get all the necessary training and foundation by getting groomed in values, beliefs, attitudes, etc. other than the subjective knowledge that is imparted.

The educational system in India is more focused on rote learning than on critique or analysis. This is seen in the school curriculum, and to a lesser extent at the college level. There isn't a political will on the part of the State to bring about a change that will see a transition in the educational sector. The establishment of a clear set of priorities in education is very important, considering especially the financial condition of India. Educational priorities should, however, be established with due regard to the overall needs and goals of society, rather than to those of the educational system alone. The maximization of returns from the input into education through human resource development should be one of the important considerations in the determination of priorities. (Jayasuriya, 1981).

The Indian educational system is marred by the fact that a vast number of students are churned out every year. It is almost like a factory churning out mass-standardized products for the market. The students' only desire is to obtain marketable knowledge and skills. They are not liberated but indoctrinated. Their learning is determined by others, especially the teachers, who exercise control over them. (Khora, 2011).

This being the 21st Century, plenty of visible changes have rocked the educational world. The earnest effort of the Prime Minister of India is Skills Development which can come through a systemic change in education. On the one hand, we have the chalk and duster method being supplemented by the Smart Board to bring in the audio-visual component and to make learning more effective and on the other hand, we have the old evolutional methods which fail to truly assess an individual's learning. A student attains a particular grade which is very situational. For instances/he who is unwell during an examination will get grades on the basis of performance at that moment. Such a student may actually be outstanding but the situation puts him/her at a disadvantage.

What method do we adopt then to bring about this change and make learning more effective, and, of course, interesting for the student? What kind of evolutional method should be adopted that would truly assess the capability of a student? In the true sense, are our graduates employable? Something is seriously wrong with the system that needs to be corrected. Let's look at it in order. There is the traditional teacher whose attitudes, philosophy, ideas about his/her function as a teacher, techniques and methods used in the teaching process, etc. are different from the new teacher. (Arbuckle, 1950). The traditional teacher sticks to the old methods, which by themselves are not wrong. However, given the changing times and the new generation that is to be dealt with, to command respect and acceptability one needs to adapt to the changing circumstances.

Once the traditional teacher is ready to change his or her attitude, then comes the system. In the system we have a curriculum to be followed, a fixed infrastructure and a given agenda to be followed, which includes an evaluation system. Obviously when things are fixed one can't change what has to be taught, but one can certainly change the way it is

taught. Here we should not ignore the fact that in the teaching process the three most important focal points are the teacher, the learner and the subject. (Tejwani&Tejwani, 1995). If the teacher is getting ready at his/her end to gear up to changes, the learner should also get prepared with an open mind to adapt to the changes s/he is going to face. The third aspect, namely, the subject automatically becomes effective because the other two ends are now ready.

Dealing with the subject matter differently is what matters most. The way a teacher handles a dry and drab subject could arouse interest in the student. Case studies have proved to be very helpful because the heart of the case method is discussion analysis. Another method that can be adopted is the Discussion method. Discussion essentially embodies the basic properties of the democratic process. It is based upon the assumption that individuals are sufficiently informed on issues and are capable of decision making in such an atmosphere where there is an exchange of ideas and expressions. The environment is that of open reflection. In International Relations, Paper VI, at TYBA Political Science, semester VI, Module II – India and the Major Powers, there are three sub-topics, namely, India & the USA, India & Russia, and, India & China. Handouts are given about India's relations with these countries to 3 groups of students. They prepare presentation on their respective topics by adding on to their matter further library and internet references.

Another way to get the subject across is Debate. It often occurs when the process of ordinary discussion breaks down. Sometimes two opposing factions are formed which creates a conducive environment for debate. Each of the groups that is unable to resolve its differences, tries to sell its idea or proposal to others. In TYBA, Sem VI, Paper IX, Electoral Politics in India, there is a topic in Psychology which deals with Opinion Polls and Exit Polls, where students who agree that Opinion and Exit Polls should be banned are on one side and those who oppose the ban are on the other. This creates an environment for a debate. Through the debate, all points for discussion are brought to the fore.

Another good method could be the Review Method. Students could be encouraged to review literature related to the topic and present their view points by making analyses. (Hoover, 1976). In TYBA, Sem V, Paper VI, International Politics, Module II – World Order, there is a subtopic dealing with the Post Cold War: uni polarity, Multi polarity and Non-Polarity. Students are given Articles to be reviewed and they present their points of view.

Other methods that could be used are the questioning method after the lecture is over, conduction of survey within the group, providing opportunity of working in pairs, sharing of examples, encouraging reading and analyzing passages, delivering guided lectures wherein students listen to the lecture for 10 to 15 minutes and then make notes thereafter, presenting a quiz after the lecture, storytelling, etc. (Drummond, 1995).

A decade ago a teacher could keep students engaged with a handful of good quality transparencies. But advances in mobile technology, particularly in smart phones and tablets, mean today's learners have higher expectations of how staff will use these technologies. Most learners regularly access information from a variety of media sources, particularly social networking platforms like Face book and Twitter, which can make traditional teaching methods look uninspiring and outdated in comparison. (Noble, 2013).

For such a system to be effective it is essential for the teacher to understand the learner. Learners are of various types. The teacher should attempt to understand them through the following objectives:

1. Differentiating learners on the basis of safety, compliance and evasion culture.
2. Differentiating between the audio, visual and kinesthetic learner.
3. Differentiating between the performances oriented learner and creativity oriented learner.
4. Appreciating that the motivated learner has a clear goal.
5. Differentiating the willing learner from the competent learner.

6. Distinguishing between the mental presence and physical presence of the learners. (Achutan, 2005).

Once identified, the teacher should have clarity as to how the subject matter can be delivered as creatively as possible without any compromise. It may so happen that in the process of being creative it may become "mere entertainment" and the main objective of subject delivery could get lost. It being a student-centered teaching method, the focus of activity shifts from the teacher to the learner. It is an active learning process wherein the students solve problems, answer questions, formulate questions of their own, discuss, explain, debate or brainstorm during the class. It is also a cooperative learning process in which students work in teams on problems and projects under conditions that assure both positive interdependence and individual accountability. (Felder, n.d.).

Today we live in the media age which directly affects us in different ways. It also impacts the teaching process. Students have other options if they do not understand a particular concept. The YouTube is the most widely used portal to impart information to learners. Of course that does not do away with the teacher because teachers are needed to interpret the information that is imparted in the form of knowledge. (Traditional vs. Innovative, 2016).Another very good way of explaining concepts or even a lesson is through peer instruction, wherein a learner who has understood the concept is in all likelihood able to explain the same to someone who has not understood, by making use of the right type of reasoning. (Hanford, n.d.).

A very novel way of teaching students is through films. Films can reach students with a variety of learning styles, including those with a visual approach to learning. Also, students enjoy commercial films and their use can help decrease levels of monotony from daily lectures. Feature films also provide a context that relates theories to students' real life experience and illustrate different viewpoints in a situation which may expose students to diverse perspectives and experiences.

There are several colleges in Mumbai that have Political Science at TYBA and have offered Paper IX, namely, Understanding Politics through Films. In Semester V the aim is to understand how films are an expression of popular culture, creating political awareness through films, understanding concepts of power and authority through films, understanding concepts of war and futility of war in international relations. The researcher learnt from reliable sources that students have viewed the films suggested in the syllabus, like, God Father, Sarkar, Rajneeti, Gulal, Simhasan, Haqeekat, No Man's Land, Border, Saving Private Ryan, etc. with good interest and it has made learning more interesting. Students are able to critically analyze concepts after viewing the films and have a proper understanding of political science as a subject.

The same paper in Semester VI has more topics like the process of nation-building, development, People's movements, and internal security challenges. These being very practical topics, class room teaching does not suffice to make concepts clear. Showing films on such topics makes it easier both for the teaching and learning process.

On an experimental basis, films are used as an important component in teaching political science. For instance, 'Madras Café' is screened to provide a glimpse if Indian politics. Twenty Four documentaries on Cold War are screened when International Relations is taught. Each documentary portrays the cold war with immense depth that the students get a fuller understanding of world events at the time. The impact of films and documents on students is tremendous. The audio-visual medium is indeed very helpful in supplementing the teaching material provided in the class. The learners are able to understand the material very effectively and it helps them in their examinations.

In order to have an evaluation of the students on the basis of the documentaries that were screened, the students were asked questions in class when the same matter was being taught through the lecture method. The students were able to recollect what they had seen and associate with what was being taught in the classroom. It was indeed very satisfying because efforts bore fruit. What can also be done in addition is to make students write reviews on the documentaries shown. This will enable us to understand

how much has been grasped. Of course, another aim was to help students improve their language skills because all the documentaries were in British English.

To conclude, in order to know how much a learner has benefitted, one has to conduct an evaluation. The evaluation has to be different from the traditional forms of evaluation, namely, examinations. Keeping in mind the given structure and system within which one has to operate, there is little scope for a modified evaluation system. At most, one could make use of the ongoing evaluation technique of internals wherein such methods could be adopted. Film screening followed by discussion could help analyze how much a learner has benefitted from the whole process. Debates, discussions, literature review, etc. could be linked to the evaluation methods, thereby making evaluation more interactive, interesting and practical.

The modern teacher as opposed to the traditional teacher is no different. S/he is as knowledgeable as the latter. It is just that s/he must get equipped with the latest technology that is available and enhance her/his skill. This will help the teacher be synchronized with the latest and make learning more interesting and effective. Ultimately, s/he would not want to be outwitted by technology.

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CO-OPERATIVE AND COLLABORATIVE LEARNING IN BIOLOGY

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Abstract

Teaching, learning and evaluation are three important aspects involved in the process of Education. Teaching has been emphasized throughout the education system from Kindergarten to Post- Graduation. Two methods which are used in teaching are- formal and informal. Formal teaching method includes lecture whereas informal teaching method includes storytelling and discussion. Collaborative learning is a method of teaching and learning in which students learn together to explore a significant question or create a meaningful project while co-operative learning is a specific kind of collaborative learning in which students work together in small groups on a structured activity. Here students are individually accountable for their work as well as they learns to work as a team.

Effective use of co-operative learning in Biology has led to an increased interest in the subject and it has also helped the students in choosing Biology career option. In this learning method, various techniques like role play, team teaching, brain storming, play-way method, skit, group discussion, creative assignments etc are used while dealing with different topics of biology at plus two level. Co-operative and collaborative learning helps to bring positive results such as deeper and clearer understanding of the content, increased overall achievements in the grades, improved self-esteem and higher motivation to remain on task. Co-operative learning helps students become actively and constructively involved in the subject content, to take ownership of their learning and to resolve group conflicts and to improve teamwork skills.

Keywords: Biology, Co-operative learning, Collaborative learning, role play.

Introduction

Teaching, learning and evaluation are three important aspects involved in education. Teaching is done through formal or informal method. Formal method involves teaching lectures while informal method deals with teaching through storytelling and discussion. For evaluation, various tools are used. Formative evaluation and summative evaluation are two main types of evaluation. Among all the three processes of education learning

plays a key role as it is the basic purpose of teaching. Evaluation is carried out to know how much the student has learned.

Effective teaching always enhance learning, hence various teaching methods are used for making teaching effective. In this era of technology, along with traditional methods, new methods like group learning, flipped classroom, blended learning, activity based learning have evolved. These contemporary teaching methods are found more effective as they exhibit following features:

- In contemporary teaching method, student centric method is used, objectives and activities of education process are designed and implemented keeping student as the focal point.
- Teacher acts as a facilitator and becomes co-learner along with student. In the teaching- learning process, teacher becomes learner at times and learners sometimes teach.
- Use of technology such as internet, ICT, projector becomes integral part of all contemporary teaching methods.
- Creativity involved in teaching – learning process makes it more interesting for student and teacher as well.
- A very significant feature of contemporary method of teaching is that the student remains on a safe learning mode and hence the learning becomes long lasting.

Collaborative and Co-operative learning

Collaborative learning is a method of teaching and learning in which the students team together to explore a significant question or create a meaningful project. Co-operative learning is a specific kind of collaborative learning in which students work together in small groups on structured activity.

Three things are essential for effective co-operative learning. First, safe but challenging environment, second, various activities to engage students to improve their understanding of their subject and lastly, small size of group to encourage active participation of every student. Due to the small size of the group respect is given to every group member,

diversity of group is celebrated and all contributions of the group are valued. While learning in small groups members of the group draw upon their past experiences and knowledge. If any conflict arises students learn skill to resolve the same. Also access to technology is made available to the students.

Best output of co-operative group work is obtained when every student actively participates in the given activity. Students assume personal responsibility and are able to relate well to others. Besides all members reflect to improve. There are various possible group configurations like pair share, jigsaw group, split-class discussion, ability group, interest group or friendship group. It is essential to use appropriate group configuration according to requirements.

Responses given by teacher as facilitator to modify behavior are equally important. Giving respect to every participant and identifying specific and clear expectation from them is important. Structuring the environment according to the need of the technique is also essential. Appreciation of student's positive behavior encourages every participant. Unproductive teacher responses like ignoring disruptive behavior of student, embarrassing the student in front of peers or injury the student in some way may affect the process adversely.

Use of various techniques in collaborative co-operative learning

In the present study, various techniques are used for collaborative and co-operative learning in Biology at higher school level to make teaching- learning process more effective. Techniques like role play, team teaching, play way method, debate, skit, group discussion;brain storming and creative assignments are used while dealing with various topics of Biology in junior college. Initially objective were based on the content of the topic and the best suitable technique was selected. Activities were designed and implemented during teaching learning process.

a) Role play: This is the best teaching learning method in which the student plays a role of object which s/he has to learn. For example the topic of 'Organization of Cell' was dealt using this method for the XI std student. Three small groups of different sizes as per

the number of cell organelles in the cell were made. Every group had selected a group leader who in turn chose their role as 'prokaryotic or eukaryotic cell' and the other members as cell organelle. Every member made a mask of the organelle and introduced its structure, location and function. In H.S.C, while dealing with topic of Health and disease, pair share group configuration was used wherein the students interested in medical profession were selected to play the role of doctor and the other in the pair played the role of patient. During the act, the affected person told symptoms and the doctor discussed the type of disease, its causes, treatment and preventive measures. Later an assignment of dialogue writing of the skit was given to the students. Students not only enjoyed the technique but effective learning occurred in the class.

b) Team teaching: In F.Y.J.C. the topic of morphology of flowering plants was taught in the class using this method. 20 Students were divided into small groups of 5 each. Each group selected a group leader. Each group was asked to bring leaves and flowers of different plants from nearby areas. The group leader later assigned specific task to each member of the group one was required to study the morphology of the leaves, the second one was told to study the morphology of the flowers, the third one to do the identification of the plants, the forth one to study the uses of the plants and the fifth one to study the habit and habitat of the plants. They were asked to refer to the textbook to compare the morphology of leaf and flowers. Identification of plant was done using the internet. Each member of the group later shared the information collected by him/ her with the entire class and the group leader of each group summed up the information. This technique was also employed in teaching the topic of Animal Husbandry to the SYJC students.

c) Play way method: In FYJC, while teaching the chapter on nutrition, a schematic diagram of labels of the Human digestive system was drawn on a blackboard with labels. Then proper diagram of the human digestive system was provided. All Students were grouped and were asked to label the diagram of digestive system accurately referring to the labels in the schematic diagram. For every correct labeling one mark and for every wrong labeling one negative mark was allotted. Involvement of all the students within the group was made compulsory; any non- participation resulted in negative five marks to the group. Besides a unique technique of playing antakshari of biological terms created was

used to interest and destroy phobia of biology amongst students. Making and solving crosswords using biological terms also brought in the elements of fun in the teaching learning process.

d) Debate: Using split class discussion technique of group configuration, the class was divided into two groups while teaching the topic of Evolution to the SYJC Class. Debate between the two groups was carried out by asking the question 'Whether the world was created or evolved?' Each group had to support their views using different theories and evidences. This inspired students to read more and express themselves effectively.

e) Skit and Group discussion: Environment related topics such as Pollution, Sustainable development etc. were dealt with effectively through skit and group discussions.

f) Brain storming: This technique was employed while discussing the Concept of Adaptation. When a question was put forth 'What adaptations will be shown by the students of 21st century for better survival?', a brain storming session amongst small groups of students came up with wonderful responses like – Students of 21st Century would show adaptations like ability of lifelong learning, multitasking, ability to control technology (not vice versa) and eco friendly living.

g) Creative assignments: Assigning creative assignments to the students not only create interest but also helps the students to discover their creative potential. A few of the creative assignments allotted to the students were: Redesigning human body, Enlisting advertisements related to Biology, Enlisting best websites imparting information about careers in Biology, Collecting interesting facts about any subject relevant topic, Downloading best videos related to concept of Biology, Downloading/ Preparing Power point presentations to explain topics of syllabus, making concept maps for the topics, framing Multiple choice questions based on the topic.

Outcome

Use of collaborative and co-operative learning method in Biology have shown positive results in students in terms of

- developing deeper understanding of concepts,-
- taking ownership of self-learning
- improved overall performance and achievements,
- improved self-esteem,
- improved team work skills
- high motivation to remain on the task,
- active and constructive involvement in content presented leading to increased interest in Biology, choosing Biology as a subject for higher studies and building their career in the same.

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TEACHING AND LEARNING LEADERSHIP DYNAMICS: EDUCATORS AND LEARNERS REVAMPING THE TRADITIONAL EDUCATION SYSTEM

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Abstract

The Paper titled Teaching and Learning "Leadership Dynamics- Educators and Learners Revamping the Traditional Education System" highlights significant viewpoints of transformational leaders as revolutionaries infused with a passion of changing the education system. They are not defeated by the limitations posed by the syllabus and can tackle workplace constraints. They work towards generating productive ideas by conducting talent hunt to boost the confidence of learners.

A true teacher- leader creates transformational changes expecting learners to become leaders. His/her vision is the dream of all. S/He shares his vision and energizes the workforce and learners to translate the dream into reality.

Teacher leaders accelerate change by evolving new strategies, framing the curriculum and developing Student Community Practices. A transformational leader shares power and empowers individuals. Educational leaders are lifelong learners and they can join networking groups and form Teacher Learning Communities. They should create opportunities for leadership through technology implementation.

Finally, teachers and Entrepreneurs exhibit similar characteristics. Teachers Entrepreneurs are energetic, opportunistic and futuristic with a spirit for adventure and desire to embrace change. The only difference is that educational leaders are not profit oriented.

Keywords: Collective vision, Shared vision, Emotional Intelligence, Leadership dynamics.

Introduction

Contemporary teaching involves training learners to gain expertise in leadership dynamics. So it becomes necessary to design learning modules to enkindle in the learners the 'desire to lead'. Educators, too, are emerging as transformational leaders as they are gearing up to mould learners to become leaders. A Teacher is a true leader who nurtures a passion for revolutionary change by inspiring staff and learners to stretch the horizons of their imagination. S/he is a visionary who leads by example by influencing minds and

generates a pool of fresh and vibrant ideas. S/he transforms, recreates and builds productive work teams through core leadership activities. Asa transformational leader, s/he conducts a talent-hunt and breaks fertile grounds for fresh ideas.

By providing opportunities "to lead" at all levels, a transformational teacher- leader motivates his students to become leaders of a new generation. S/he promotes a good work culture by creating new leaders in the following ways:

1. Collective and Shared Vision:

A vision is a dream that comes to life only when the collective workforce joins to accomplish a goal. The visionary thirsts to make a difference, to bring progress and change for the institution. The transformational teacher- leader dreams of a vision and shares it with the workforce and the learners. S/he energizes them to work for a common cause which takes the shape of a moral commitment towards the institution and society.

An institutional vision should be a shared vision:

- To lead to commitment-to work and to change.
- To establish strong bonding between teacher-leaders and students.
- To enable the followers to realize the vision of a transformational leader.
- To enable teaching and learning teams to become leaders of the new generation.
- Creating new leaders from optimum human resources by involving community, staff and students.

A teacher's vision is to transform learners into an innovative and productive workforce by designing learning environments that makes them focused, goal oriented and task masters. Only perceiving a vision does not help, an Educational leader keeps his vision alive even in times of crises-accountability, inspection, poor funding, inadequate resources. S/he accepts toughest challenges but cannot afford to lose his/her vision.

2. Teacher leadership in accelerating change:

A teacher leader enhances human capital and potentials by:

a) Inventing new teaching models and formulating strategies.

b) More than transmission of ideas, they create active student centered learning environments designed to generate productive ideas from learners.

c) They are great thinkers as they frame the curriculum keeping in mind recent developments in all fields, the demands of the workforce and the needs of the community.

d) They expose students to situations which require critical thinking and problem solving skills, experimentation with new ideas-much desired in leaders of tomorrow.

3. Transforming work culture by forming a "Student Community" :

a. School communities prevent value erosion.
b. Strengthens a Community Relations Environment.
c. Promotes a good work culture by raising staff and students morale.
d. A School Community practices inclusiveness of all, empowers all and engages everyone in a moral commitment.
e. Provides free and participatory environment that equips him/her to be effective leaders in a democracy.

4. Sharing Power:

A transformational teacher- leader shares power by: Delegating responsibilities.

a) Using of Action Research Teams.
b) Bringing to light invisible leadership of staff and learners.
c) Involving all in reform efforts, decision making and governance functions.
d) Encourage participation by making them in-charges of committees and learning groups, associations and cultural activities.

5. Teacher leader as a learner:

a) Forming and being a part of Teacher Learning Communities (TLC) which includes talented and experienced teachers who come together to exchange

new information, teaching models and strategies in order to generate intellectual ideas through their rich experiences thereby facilitating learning

b) Teacher learner engages in critical evaluation of self and reflects on his/her actions
c) Teacher leaders who are members of the group never stagnate-they are never pleased with the status quo.
d) Their movement is upward and continuous towards improvement.

6. Creating opportunities for leadership through technology implementation:

Learners can become leaders only if they can carve an identity in a technology based world. Research Studies indicate that technological implementation can change the face of education. Technology can help

a) To communicate findings through the internet and disseminate education and information.
b) To use graphs, diagrams, pictures, maps and animation, when necessary.
c) To develop reading and writing skills and also to overcome language problems by teaching grammar, spellings, phonology, vocabulary, comprehension by use of technology.
d) To diagnose and provide remedies to mathematical problems of learners through simulation and solving real problems.
e) To promote research in Science and to encourage them to solve real problems by conducting laboratory experiments through technology.
f) To allow students to use multimedia, power point presentation to simulate events in Social Sciences.
g) To play composition of music to teach musical theory and composition.
h) To view the greatest art works and learn art composition and designs.
i) To create Distance Learning and E-Learning opportunities.

Ref: (Chang, Henriquez, Honey, Light, Moeller, & Ross, 1998; Mann et al., 1999)

Teacher leaders can design effective learning styles by technology implementation to suit the needs of learners. Programmed learning and team

learning are effective strategies to improve performance of students and creating tech savvy leaders.

7. Teachers as Entrepreneurs:

Teacher Entrepreneurs are:

a) Risk bearers.
b) Use new methods of creating products (learners of the future generation) and supply them to the workforce.
c) Futuristic and opportunistic driven with desire to achieve success with a spirit of adventure.
d) Highly energetic.
e) Problem solvers who face challenging situations.

Teachers, however differ from Entrepreneurs as they can lead and produce more staff and student Entrepreneurs without being profit oriented.

The Principal as the leader is a traditional idea. The new emerging concept is that of the teacher as an Educational leader. Many-a-times change can come from within, that is, voluntary change. Teacher Leaders try out new ideas and these are magical moments of change.

To create new leaders, s/he must develop the Emotional Intelligence of learners so that they can tackle personal and workplace crisis. They should also know to rise from failure and learn to survive, compete and lead. At the same time, they must give more importance to ethics and they must understand that community values and needs keep on changing continuously. So the teaching – learning process creates new leaders who will work towards erasing the dissatisfaction of the community by embracing change.

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THEME 2: E-LEARNING

E-LEARNING: THE CONSTANT IN CHANGE

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Abstract

The aim of this paper is to explore various aspects of e-learning. The first part of the paper defines e-learning and traces its evaluation from distance learning to e-learning. The second part considers potential change e-learning will bring to the global education system and education system in India. Various stakeholders of e-learning are cited in the process of studying the effect of e-learning. The paper illustrates features, advantages and tools of e-learning. It presents the study on various e-learning tools and their effectiveness. The e-learning brings about changes in teaching as well as learning. The paper further explores the challenges faced by trainers and learners as well as their possible breakthroughs. The findings are useful in deciding the approach of trainers and learners towards this fast approaching after-effect of rapid advancement in technology in education.

Keywords: e-learning, e-learning tools, web based learning

Introduction

Internet is an overwhelming stream of knowledge for today's learners. It is both, a joyful experience to get the resources we need at a particular point of time and it is a complex maze at other times. E-learning or online learning can be a solution to such a maze where the required resources are not only brought together, but are also effectively presented for us.

The concept of e-learning was introduced in 1995 when it was firstly called as "Internet based Training", and then "Web-based Training"

It has been seen that the World Wide Web can be used for *distance learning*, catering to geographically distant learners, and also for *online learning*. Online learning enables synchronous learning where participants interact with an instructor via the web in real time. Technical features like instant messaging and chartrooms can be used for interaction of learners with their peers.

Electronic learning (or e-Learning or eLearning) is a type of Technology Supported Education/Learning (TSL) where the medium of instruction is computer technology

E-learning is learning, utilizing the said technologies to access educational curriculum outside a traditional classroom. In most cases, it refers to a course, program or degree delivered completely online.

E-learning technologies have great potential to foster learning. It can bring the new horizons of upcoming technologies of today's era closer to the learner. E-learning can quickly connect us to the complex open source tools and application services. These modern methods in teaching and learning are useful for development of the education sector.

E-learning is believed to be learning with the help of technological tools that are web based, web distributed or web capable. It can include resources, contents and instructional methods on CD ROMs and internet, intranet, wireless and mobile learning. It also may include video lectures. However, learners need not be 'online' for e-learning. An e-learner, thus takes *asynchronous* approach.

Asynchronous, which means "not at the same time," allows the participant to complete the web based training at his own pace, without live interaction with the instructor.

Adapting e-learning to teaching-learning process

Chalk and board teaching and a classroom full of half attentive learners with open books, is a common scenario in educational institutes. Technology has brought about changes in this scenario. Today, the scenario remains similar except the chalk and board are replaced by smart boards or ICT tools and books of the learners are replaced by tablets and laptops. However, major change comes through as the lectures could be replayed later.

Technology enables forms of communication and collaboration undreamt of in the past. Learners in a classroom in the rural sector, for example, can learn about the satellite launch operation carried out by ISRO and also communicate with the scientists through

e-mails. Learners in today's era of communication and technology ask questions to the prime minister of our country through video conferencing.

Introduction of e-learning to the conventional teaching learning process will bring about changes for all the stakeholders. Summary of factors associated with various stakeholders of e-learning are listed in table below –

Student	Teacher
Motivation	Technological Confidence
Conflicting Priorities	New Learning style Confidence
Academic Confidence	Motivation and Commitment
Technological Confidence	Qualifications
Gender	Competence
Age	Time
Technology	Course
Access	Curriculum Design
Software and Interface Design	Pedagogical Model
Costs	Subject Content
Localization	Teaching and Learning Activities
	Flexibility
Institution	Availability of educational resource
Knowledge Management	
Training of Teachers and Staff	Support
	Support for students from faculty
Costs	Social Support for students
Technology	Support from employer
Access Rates	Support for faculty
Tution, Course fees	
Books	Society
Institutional Economy and Funding	Role of teacher and students
	Attitudes on e-learning
	Rules and Regulations

Table1: The stakeholders and inhibiting factors in E-learning

Changes due to adaptation

Jean Underwood, Professor of Psychology at Nottingham Trent University illustrates the debate education with or without technology in her book "The impact ofdigital technology." She points out the well-crafted use of technology in bringing out the following changes –

- Increased learner effectiveness or performance gains
- Increased learner efficiency
- Greater learner engagement or satisfaction
- More positive attitude to learning.

E-learning introduces change to both the people and the organization. Change management is the essential force for e-learning. Change management is an activity to get the best outcomes from the change process. It is about managing the changes which are parts or consequences of an organization's context and caters to the type of change required.

India has been using a conventional education system and it has sustained for a considerable period of time. The concept of e-learning is gaining popularity in the country. The pace of technological development is fast; however pace of e-learning is not as fast as it is in other countries. "E-learning is a useful medium through which India can attain the goal of reaching the unreached in rural areas, motivating the learners for higher education as well as woman empowerment through their education" say Arun Gaikwad and Vrishali Surndra Randhir in their paper 'E-learning in India: Wheel of change' published in International Journal of e-Education, e-Business, e-Management and e-Learning (2015)

E-learning is a potential opportunity for change in education. Keeping pace with globalization, e-learning can help create awareness about environment, cleanliness, unity, and social responsibilities.

E-learning authoring tools

E-learning resource creation, in itself, is a humungous field. Although regularly used applications like YouTube and PowerPoint can create e-learning resources, use of specially designed tools is both popular and convenient.

Several tools are available for creating the E-learning resources and for making them available. While many of them are freely available, some are paid authoring tools. As per the directory of learning performance tools of UK, following is the list of E-learning authoring tools and their ranking on top 200 tools in the year 2016.

Tool	Description	Cost	Availability	Rank
TED ED	TED Ed is a tool to create lessons around TED Talks and other videos.	Free	Hosted	21
PowToon	PowToon is an online software tool that allows you to create animated video explainers – for business or education.	Free and Premium versions available	Hosted	22
Camtasia	Techsmith'sCamtasia is a tool to record, edit and enhance on-screen activity in the form of screencasts.	Commercial Free trial available	Download	24
Articulate	Empower rapid e-learning with a set of powerful authoring tools: e.g. E-Learning Studio and Storyline 2. Track e-learning through Articulate Online.	Commercial Free trial available	Download	25
Adobe Captivate	Rapidly create simulations, software demonstrations, and scenario-based training.	Commercial Free trial available	Download	39
Office Mix	From Microsoft, a free PowerPoint app to create interactive lessons.	Free	Download only for PC	42
iSpring	iSpring Suite is e-learning authoring software that integrates with PowerPoint to create e-learning course and video lectures.	Commercial Free trial available	Download	44
Easygenerator	Allows authors from all over the world to work together on creating courses, share/re-use media, apply design etc.	Commercial Free trial available	Hosted	51
Sway	Microsoft's Sway is a free app to create web content. You can embed a variety of resources into Sway, e.g. images, audio, video, maps, animations, presentations from Office Mix etc, and then share it online.	Free	Download	59

Udutu	Udutu's course authoring software lets you build course quickly and easily online either on your own or collaboratively with others.	Hosting per screen cost where required	Hosted	61
EDpuzzle	EDpuzzle lets you take any video off the web, edit it, add notes and questions for students, and create virtual classrooms where you can monitor student work.	Free	Download	81
GoAnimate	GoAnimate is an easy-to-use tool to create professional animated videos.	Commercial Free trial available	Download	89
Adapt	Adapt is a free and easy to use e-learning authoring tool that creates fully responsive, multi-device, HTML5 e-learning content using the award-winning Adapt developer framework.	Free	Download	120

Table 2: some popular e-learning authoring tools

Selection of the tools majorly depends upon features required, as well as the nature of the requirement.

Features

- Intuitive user interface for designers and learners
- Support for collaboration
- Learning object repository
- Adaptive design
- Flexible navigation and personalized Look and Feel.

The adaptability of an e-learning tool authoritative depends upon attributes like quality content, Seamless payment, Videos, Safety Exercises and Quizzes.

Practical use

Practical use of one such tool proves to be a unique experience. An authoring tools like Atriculate, for instance provides all essential features of creating an effective e-learning resource. Features like hotspots (they are called e-learning heroes by some) are used to enable learner to identify parts of the image, as in parts of human body. This can be used effectively in creating a quiz for learners

Practical difficulties in development may arise with change in platforms. When any open source free development environment is needed on a particular platform, finding the correct link and installing the needed support files can prove to be challenging.

Challenges to the change

E-learning challenges are faced by both trainers and learners. Challenges faced by trainers or instructors are summarized by Berge, Z., & Leary, J. (2006, June 12).

Trainers need to gain required technological skills before actual development of the content. Crossing this hurdle can prove even more challenging if their exists gaps between the trainers and developers of the technology. Once the tool is developed, many of them do not have a support system in place.

Another issue arises when the tool used quickly gets 'outdated' with the new development waves in the IT industry. Trainers must then struggle and adapt to the new 'in' tool.

E-learning being still in developing stages, no formal reward system is yet in place. However, many private e-learning platforms designed for corporate learners are also available to naive learners. These programs come at a high cost to the learners and they also pose threat to formal programmed designs.

Trainers face a challenge delivering a video lecture without actual audience. The conventional student-trainer relation is lost somewhere in the rapid technology wave.

Learners face challenges due to the change in education from their perspective. The primitive challenge faced by the learners could be lack of interaction with instructors. They cannot overcome their difficulties and solve their doubts before they proceed to go to the next module.

Lack of interaction with peers can be another pressing issue. This may result in lack of motivation in the learners. Learners can also face difficulties in using the e-learning tools effectively.

In developing countries like India, learners may have problems getting access to basic necessities of e-learning such as computer and internet. Sometimes, even if the resources are made available, learners are unable to avail the use of these infrastructures optimally due to lack of knowledge. This phenomenon is referred as 'digital divide'.

According to Warschauer (2003), "digital divide is marked not only by physical access to computers and connectivity but also by access to the additional resources that allow people to use technology well"

Breakthrough

These challenges can be overcome by a careful examination of the issues involved in e-learning design. Specifically, trainers must be aware of the future potential of e-learning. They should adapt the collaborative nature of e-learning design. Adaption of such designs may become one of the best practices in bringing change in education sector. Trainers should be motivated to adapt trends in the development of e-learning courses and resources.

As e-learning gains popularity, and more formal approach to it is established, a reward system will fall in place. This will encourage the trainers to take active part in e-learning.

Proper feedback systems placed between developers and trainers will ease the problems of trainers in using the e-learning content development tools.

One solution to digital divide challenge is for the instructor to implement a learning environment that encourages collaboration. Providing learners with the opportunity to collaborate, share, and create will increase the learner's use of various technologies, enhance their e-learning experience, and support self-directed and ongoing learning (Clark & Mayer, 2011; Li & Irby, 2008).Trainers and course designers should include more face to face (f2f) interactions with learners using various technologies.

Benefits

As per "How E-learning Works"by Lee Ann Obringer primary benefits of e-learning can be listed as –

- Cost Effective

  With the help of e-learning design and development tools, it is easy to make asynchronous training programs. Once the breakeven point is reached, e-learning is practically free for developers and trainers. Synchronous programs, however, will have constant costs.

- Self-paced

  Most e-learning programs are available on 'when needed' basis. Learner can take the course at his own comfort. The schedules can be regularly or irregularly paced. Module base training can be designed in small parts.

- Faster

  Research indicates that e-learning reduces learning time by at least 25 to 60 percent as compared to traditional learning.

  E-learning session does not take as long to start and wrap up. The pace of sessions is individual, rather than that of a group. There is no travel time needed to get to and from training events. Learner can move to the next level by skipping what they already know, if the e-learning tool so allows and speed up the programme.

- Consistent

  E-learning programme, once developed as per the quality norms specified, remains consistent throughout. This avoids any deviations that can arise if different trainers were training the course.

- Updated easily

If a trainer needs to update or change any course content, it can be done at one place and delivered throughout.

- Easily managed

  As the entire e-learning program can be controlled from a central location, administrative tasks like keeping track of the progress of learnersas well as performance review are automatically managed.

Conclusion

E-learning has covered a short distance since the basic idea of distance learning has transformed into e-learning. E-learning is made possible and convenient by means of various e-learning tools. These tools are undergoing constant changes as technology advances. It is a challenging task to master the constantly changing tools and technologies in order to formulate a fool proof e-learning system.

E-learners can be found in various sectors like rural sector learners, learning from home learners like housewives, working learners etc. The reach of e-learning can be much more than conventional learning.

With the rapid development and growth in technology, alongside the changing face of education system, a change might be the only constant aspect of learning. It can be concluded that e-learning would find methods and tools required to be this change.

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CURRENT TRENDS AND ISSUES IN E-LEARNING

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Abstract

The main aim of education across the world is to create effective learners who are able to collaborate and communicate across cultures and geographies. In this age of globalization and international collaboration, Education in India is going through a massive transformation. Integration of technology in education promises to bridge the learning divide by increasing access to high-quality content for students and teachers. Technology supports both teaching and learning; by infusing classrooms with digital learning tools such as computers and hand held devices, it expands course offerings, experiences, and learning materials. It helps to acquire 21st century skills and knowledge which is very much needed in this era. It also increases student's engagement, motivation, and accelerates learning. E-Learning is rapidly becoming the preferred route to building and maintaining advanced performance capabilities via improved efficiencies and effectiveness. E-learning technologies have great potential to spread learning in India considering her huge population and vast geographical area. Its adoption has been slow and will need marketing and awareness effort. However, to be successful, the benefits of these technologies have to reach the rural masses. This paper concentrates on the opportunities and challenges for E-learning in the Indian education system.

Keywords: *Education, E-learning, LMS, Web*

Introduction

In this age of globalization, our current educational infrastructure and traditional education cannot meet the needs of our country. The rapid progress in technology results in lot of opportunities, but along with that students also need to upgrade their skills; our traditional education fails to incorporate this in its curriculum. Thus educational Institutions cannot remain mere venues for the transmission of a prescribed set of information from teacher to student over a fixed period of time; rather they must promote continuous learning. It requires a shift in the delivery and pedagogy used in the current system. This can be possible by using information and communication technologies in teaching and learning.

Initially computers were used to teach computer programming but the development of the microprocessor in the early 1970s saw the introduction of affordable microcomputers in schools at a rapid rate. Computers and other electronic devices became more pervasive in the society which led to the need for computing skills in everyday life. This calls for the transformation in the communications and technological skills, capabilities, knowledge of people. E-learning will play a big role in bringing about a change in education. E-learning also helps to bridge the gap between the rural and urban communities, motivating the learners for higher education as well as bringing about woman empowerment through their education and thus help in the development of nation.In the current superfast era and globalised world, education needs to meet the additional demands of present time such as creating globally competent work force. E-learning is also a powerful medium to improve inclusiveness of education in our country. If an educational institution is committed to give high quality education, it should be built on values and ethics, and be innovative in offering its teaching programmes. E-learning is not a single strand but is multifaceted, covering a wide range of approaches and methods.

E-learning

E-Learning is an approach to instruction and learning that utilize information and Communication technologies to communicate and collaborate. This includes technological expertise that supplements traditional classroom training with web-based components and learning environments where the educational process is experienced online. Similar to Computer –Based Training (CBT), Internet-Based Training or Web based training, e-learning is often associated with instruction offered via Computer and the Internet.

Rosenberg (2001) defines the term "E-learning as", the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance". E-learning is based on three fundamental criteria suggested by Rosenberg:

- Networked for instant updating, distribution, storage/retrieval and sharing of information.
- Content delivery via computer using www.

- It focuses on the broadest view of learning and learning solutions.

Thus, e-Learning may be taken as the latest form of distance learning mediated by state-of-art technologies like Internet and World-Wide-Web.

The Web is shifting from being a medium, in which information is transmitted and consumed, into being a platform, in which content is created, shared, remixed, repurposed, and exchanged.

Web 2.0 and so forth is radically redefining the way people obtain information and the way they learn. Particularly, the widespread Web 2.0 applications have the capacity for educational institutions and corporations involved in training to extend the possibilities of e-learning. Consequently, e-learning has become one of the most exciting, dynamic, and yet challenging fields.

One of the few innovations directly from e-learning is the learning management system (LMS)for the administration, documentation, and tracking, reporting of training programs, classroom and online events. With the advent of Web 2.0 technologies such as blogs, wikis, social bookmarking, and podcasts, have emerged in a rich, interactive, user-friendly application platform that allows users to read, write, create, share, remix, repurpose, and exchange content on the Web (Davis, Carmean, & Wagner, 2009).

O'hear (2006) points out that the early promise of e-learning has not been fully realized. In the traditional model of e-learning, learning content is provided by courseware authors, structured into courses by learning management system (LMS), and consumed by students. This approach is often driven by the needs of the institution/corporation rather than the individual learner. With the advent of Web 2.0,e-learning has the potential to become far more personal, social, and flexible. E-learning 2.0 takes a 'small pieces, loosely joined' approach that combines the use of discrete but complementary tools and web services - such as blogs, wikis, and other social software - to support the creation of ad-hoc learning communities (O'hear, 2006). E-learning 2.0 can capitalize on many sources of content aggregated together into learning experiences and utilize various tools including online references, courseware, knowledge management, collaboration and research. E-learning 2.0 differs from traditional e-learning. Instead of learners simply

receiving, reading, and responding to learning content in traditional e-learning; e-learning 2.0 allows learners to create content and to collaborate with peers to form a learning network through distribution of content creation and responsibilities. In addition, e-learning 2.0 allows learners to easily access content through search, aggregation, and tagging. E-learning 2.0, therefore, is evolving to be one of the most exciting, dynamic, and challenging fields involving teaching and learning.

There are many commercial as well as open source software available in the market which can be used for developing e-learning contents such as Joomla LMS, Studio'09, Saba, Desire2learn, Moodle, sakaiweb study, learning LMS and many more. Among these Moodle is widely used because of its features and characteristics supporting e-learning. Moodle stands as one of the most popular open source learning management system.

Moodle

Moodle is a course Management system (CMS) – a free, open source software package designed using sound pedagogical principles, to help educators create effective online learning communities. Moodle supports more than 90 languages and its ease of installation and maintenance has been the main reason for more than 100, 000 official registered users of Moodle over 232 countries. Moodle has got one of the best support systems and with its online communities any question could be answered easily and promptly. It is easily customizable for different use and application. Important features of Moodle are Forums(web boards), blogs, and lessons and question Bank.

Features of E-learning

- Certain curricula if delivered by well qualified and renowned professors can help student understand the subject better and also increase their interest in the subject. By using live broadcasts, these professors can remain in one location and provide instructions to students all over the world.
- These lectures can be pre-recorded and made available to students online so that they can use it whenever they need.

- Using the video-conferencing techniques, students can interact with one another , share their knowledge and learn from each other as they do from teachers.
- Up-to-date materials: Learning materials especially text books seldom change. However, virtually all textbooks are updated on timely basis. Textbooks are expensive to purchase, maintain and deliver. Digital delivery solves this issue when coupled with e-readers.
- Computer based training and self –paced learning is becoming common in work place and in higher education, collaboration is needed for research. The advance in Information and Communication has played a vital role in the research activities. **The Broad band co**nnection offers universal coverage for low cost and simple installation. This enables the students in remote area to access the study material and join the course.
- On-Line test facility: Online examinations are likely to become more widely used for students in all or most disciplines. These tests are delivered securely and on-time to meet test schedules used to evaluate students. In India mainly for the competitive exams like JEE, CET, CAT, GMAT, TOFELL, GATE online testing facilities are used.

Objective and Research

The basic objective of this study is to understand the concept of e-learning, its features, to find the current trends and issues in e-learning and to suggest some solutions.

In order to fulfil this objective on-line survey was conducted. A total of 100 students from Commerce, Engineering and Pharmacy and Science field took part in the survey.Out of these 32.8% were male and 67.2% were females. 90.2% students who took part in the survey were undergraduates. They expressed their personal opinions about the challenges they were facing when using e-learning and ICT for the educational purposes. Frequency of computer usage is summarised in Table 1

Computer usage	**People Quest.**
Every day	77%
Sometimes(3-4 times a week)	6.56%
1-2 times a week	14.8%
Rarely	1.64%
Never	0
Total	100%

Table 1: Perceptions of respondents of computer usage

Survey shows that majority of the respondent's use computers soit can be concluded that they are all techno savy and possess adequate computer proficiency skills.

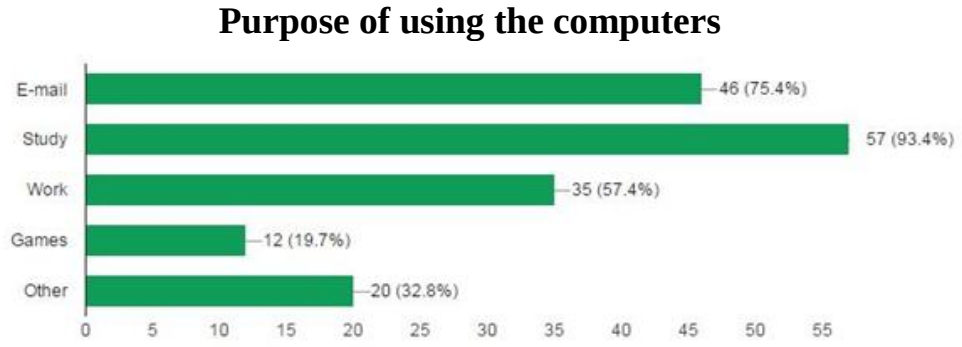

Fig 1: Showing computer usage for various purpose.

93.4% of them used the computers to study than to play games. Out of these 90.2% of them already aware of the on-line courses and 42.6% of them along with their regular studies completed some on-line courses along with their regular studies so that they can upgrade their skills.

Courses

Courses	**Percentage of People**
Related to curriculum	70.5%
Programming/Technology	39.3%
Recent developments	34.4%
Science	50.8%
History	16.4%
Finance/commerce	31.1%
languages	39.3%
Other	3.3%
Total	Multi-option question

Table 2: Courses they prefer on on-line

Although 70.5% students used on-line courses related to curriculum 37.7% preferred class room teaching, 21.3% of them preferred e-learning and 41% of them preferred both the methods of teaching. 59.3% of them would like to recommend e-learning courses to their friends and relatives. 33.9% are unsure about what to do.

Benefits of E-learning:

Flexibility in learning and services availability. One can learn anywhere at any time .one can choose any subject of his choice from the vast number of subjects available and save time and money.

- Useful in improving knowledge, communication skills of the learner.
- It is beneficial when one wants to master a particular field as the instructors are highly qualified.
- It promotes and encourages self-study, getting adapted to new technologies becomes very easy and we get to know various things and are able to compare them and develop a broader perspective.
- E-learning provides consistency in teaching and learning activities.
- Learner can use the learning contents which are regularly upgraded whenever he/she needs it.
- Availability of lectures, demos, etc. in the form of videos and audio makes the learning process more interesting and effective.
- One can share, develop, and modify the resources.
- People living in small towns and cities can get access to the best possible learning resources from across the world.

Challenges in E-learning

- Indians have been traditionally inclined toward conventional, classroom-based academic programs and certification courses; the e-learning industry has very few recognized certification courses.
- Learner should have a computer and internet connectivity. Internet connectivity is a problem in rural area. The vast geographical diversity in India and the network coverage problem in the rural and hilly areas affects internet connectivity.
- As e-learning tools become more advanced, so do their bandwidth requirements. Depending on the applications in use, bandwidth requirements can vary from several hundred kbps all the way to multi-megabit connections.
- Support for time to time assessment services.

- Creates a gap between the learner and the teacher. Teacher has been replaced by media such as radio, TV and computer.
- Teaching and learning are the cornerstones of any Higher Education Institution. However, maintaining the quality of such processes is a continuous challenge. One of the key challenges that e-learning is currently facing is maintaining learner engagements with the content and the platform on a sustained basis. In traditional classrooms, the physical presence of the teacher and desired social behaviour are important motivators; checks which are absent in e-learning. This will become more critical in India as the content reaches varied segments with different needs and motivations. Reaching a large learner base and sustaining interest levels will require integrating social engagement aspects along with learning. If we consider cultural issues then the following factors matter which includes content, style of writing , material used and style of utilization. Some contents may be favorable or unfavorable to some group of people, which need to be considered.

Future of E-learning

India is one of the leading IT service providers. The presence of world class IT infrastructure and IT professionals enable it to be one of the leading e- learning service providers. The government is taking proactive measures in regulatory and financial capacity to boost the e-learning environment in India. In addition to technology adoption, the Indian E-learning content market is expected to grow. With more than 370 million internet users and hundreds of local as well as global business tycoons willing to invest in the future of education, online education in India has picked up pace. In fact, the e-learning market in the country is estimated to be worth more than $3 billion. In addition to technology adoption, the Indian E-Learning content market is expected to grow at a CAGR of 18.4%from FY 2014 to FY 2018.The strong Government initiatives is pushing student enrolments in higher education and distance learning will keep e-learning market growing.

Conclusion

Education is one of the fundamental requirements for providing skilled man power which directly influences the growth of the country. In the present scenario, we have to provide education to meet the demands of new digital era, to educate learners in tune with the market demands, to master them in communication and technological skills. Research finding has shown that E-learning is emerging as the future trend of learning in India. E-Learning has created new dimensions in education; it enhances the learning skills. It helps in learning new skills, prepares one for the ever growing demands at work place. To make the e-learning system more interactive for the learner, researchers need to take decisions at every level of the learning cycle.

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THEME III: EVALUATION TECHNIQUES

WORKING TOWARDS GOALS: THE NEED TO EVALUATE TEACHING AND LEARNING

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Abstract

Any formal educational programme must work towards the achievement of stated goals; these goals may pertain to the curriculum and also include co-curricular activities. While the goals guide the direction of activity, within and beyond the classroom, the objectives help provide specific focus, which in turn, leads one towards goal attainment. This study emphasizes the significance of goal attainment and explores the need to evaluate both, the facilitator as well as learners. The general tendency has been to evaluate only learners and often, facilitators get left out of the evaluation process. Even when learners are assessed, they are assessed with reference to cognitive skills, and within this domain - on their knowledge, understanding, application and skill attainment – mostly in the decreasing order of importance.

This study specifically focuses on curricular activities, namely, testing and examination within the preview of social sciences. It includes an analysis of question papers from various subjects and levels and uses it as a basis to encourage the need to evaluate learners on a wider spectrum of academic criteria. It also seeks to encourage facilitators to reflect on their own teaching methods, testing tools, test construction strategies, and learner feedback mechanisms. These should help in getting facilitators and learners to be better shaped and molded, with a goal of wider human resource development.

Keywords: *assessment, domain, evaluation, feedback, learning outcomes, teaching objectives*

Introduction

The term ‘evaluation techniques’ needs to be understood in the context of the over-riding theme of this seminar, that is, ‘Teaching, Learning and Evaluation beyond the classroom’. It is also interesting to note that the components of the theme are interrelated and inter-dependent.

One cannot imagine a teaching environment without the presence of students, and the process of evaluation is integral to both, the teacher and the taught. Today, it is common place or perhaps even fashionable to use the terms, ‘facilitator’ and ‘learner’ – indeed, because the perception of the roles of the ‘teacher’ and ‘pupil’ have also undergone change. In this paper, the author has consciously used the terms ‘teacher’,

'facilitator' and 'educator' interchangeably; and the terms 'student', 'pupil' and 'learner', likewise. The understanding of the terms 'facilitator' and 'learner' is enriched by the psychology of education. The concepts and roles have therefore also had to undergo necessary expansion and broadening.

The learning environment: Where does learning usually takes place? Well, the typical learning environment is the classroom; in most of our schools and colleges, students spend most of their time within the classroom. However, it is no longer the *only* learning space available to students. Students today learn from multiple sources, within and outside the classroom – the library, playground, peer groups, outreach programmes, computer laboratories, science laboratories, theatre, music, dance, elocution, nature treks, educational excursions, class picnics, games, NGOs, collaborations with other educational institutions, industry or foreign universities and so forth….the list is quite endless. Forward thinking educational institutions, try to provide students with opportunities to learn from diverse learning environments.

The teacher: The starting point in formal education for most of us, is the classroom. This almost always includes teachers and students. The teachers' role is a dynamic one, wherein, she/he is expected to work around a given syllabi, and few or more course materials to engage his/her pupils. One can choose to be confined to the rubric of the syllabi or one can explore wider territory, as long as these are linked with the units and sub-units of a given syllabus. Despite all constraints, and boundaries from within and without, educational boards and universities do not prevent teachers from widening learners' educational experiences. The teachers' personality plays a crucial role in the process of teaching and facilitating.

Traditionally a teachers' role was to teach, and though in a sense, this continues to be the essence even today, the role is now being seen as a facilitator and an enabler; one who facilitates the learning process. Teachers sometimes struggle to move from a teacher-centric and subject-centric process, to a learner-centered process of teaching and learning. In fact, the teacher is not necessarily the one who is meant to do all the teaching. The teacher needs to play the role of learner too. Learning to grow in one's subject knowledge, related subjects, diverse subjects; in using teaching methodologies and very importantly, learning about one's learners – their strengths, weaknesses, previous

knowledge, dreams and aspirations, abilities and interests. Therefore, the role of a teacher has moved beyond conventional roles; educators have to learn to move beyond the 'assigned' or 'prescribed' role set.

The student: The learner today is the centre of our teaching-learning process; the instructional process. The learner is not merely a student who comes from one academic standard to another, but is one who is there out of compulsion, coercion, interest; by default, or conscious choice or motivation. Many of us may work in learning environments which are a mixed bag of student experiences and backgrounds – culturally, academically, economically; also in terms of language, caste; geographical, sexual, gender and/or religious identity; as well as in terms of physical factors. When learners enter a classroom environment, it is hoped that the teacher can set aside these differences and cater to one 'level' or 'type' of learner. This especially happens in mass education environments, in order to reach out to everyone. However, bringing the world of different people into the classroom is just the first step of a very long and never-ending process.

But, once the learners are in our institutions, the next concern ought to be – do we know their profile and how can we cater to the individual and/or group needs. Are we even asking these questions? Are we asking the right questions? Do we understand the needs of our learners – do we begin the process of trying to get to know them better? Has merely recording of physical attendance at lectures and marks helped us achieve obtained the purpose of education? What kinds of skills do we wish to help learners acquire? Do we factor in their variable needs and interests?

Evaluation: The Kothari Commission (1964-66) has defined evaluation as "a continuous process (which) forms an integral part of the total system of education and is intimately related to educational objectives. It exercises a great influence on the pupil's study-habits and the teachers' method of instruction and thus helps not only to measure educational achievements but also to improve it."

The concept of 'evaluation' is more often than not, used interchangeably with the terms 'assessment' and 'examination'. The above definition shows how 'evaluation' has much wider scope; one could say, that it is an umbrella term, within which we have the term 'assessment' (for example, formative, summative, diagnostic) and 'devices' such as

tests, quizzes, assignments and semester end examinations – which are then marked and/or graded. It has a bearing on learner behaviour and the instructional process. It is necessarily linked to educational objectives and these in turn must be inextricably linked to aims and broader goals.

With regard to learners, evaluation today, has to measure a comprehensive range of objectives of the curriculum, rather than be restricted to subject-matter achievement. It should include a wide array of techniques of appraisal, such as achievement, attitude, personality and character tests. All of us know that in the present day scenario, the mark-sheet or grade-sheet says very little about learners' achievement, aptitude, interests, and strengths and so on.

The author's contention is that 'educators' or 'facilitators' need to apply the process of 'evaluation' *at every level*. Evaluation cannot be limited and restricted to learners alone. In order to achieve goal of altering excellence in education, it is imperative that institutions, administrators, teachers and students – all stake holders, are evaluated.

Having stated the need for evaluation for all concerned let us now focus on learner evaluation – which is something that is done in our schools, colleges and universities. Here, it becomes useful to highlight the need to evaluate all the domains of learning namely, cognitive, affective and psychomotor.

Bloom et al (1956) have provided a *Taxonomy of Educational Objectives* is which has focused on the Cognitive Domain. Krawthwohl, Bloom and Maria (1964) have discussed about the Affective Domain. Simpson (1966) and Kibler et al (1970) have written on the Psychomotor domain. These domains help in planning our instructional objectives. The aim(s) of a subject or paper and the instructional objectives are useful in formulating subject syllabi. Units and Sub-Units of a given course, for example, History of Western Art Music have to be given due importance. Taxonomies such as Bloom's classification can give direction to paper setters and evaluators. This can be with regard to formative and summative tests or examinations, as well as co-curricular activities, for example, an industrial visit to a pharmaceutical company.

The author analysed Question Papers set by the university and those set by teachers from an affiliated college of the same university, across three social science subjects, namely, Economics, Psychology and Sociology, at the First Year, Second Year and Third (Final) Year of an integrated BA programme. All the papers in these subjects had five main questions; each carrying a total of fifteen marks. Each main question was classified in terms of the three main domains of learning – cognitive, affective and psychomotor.

Table 1 Classification of papers and subject question papers according to domain

Level	Subject	Cognitive Domain	Affective Domain	Psychomotor Domain	TOTAL
FYBA	ECO	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	PSY	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	SOC	5 (100%)	0 (0%)	0 (0%)	5 (100%)
SYBA	ECO	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	PSY	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	SOC	5 (100%)	0 (0%)	0 (0%)	5 (100%)
TYBA	ECO	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	PSY	5 (100%)	0 (0%)	0 (0%)	5 (100%)
	SOC	5 (100%)	0 (0%)	0 (0%)	5 (100%)

Table 1 above shows that 100% of observations fall in the Cognitive domain. This means, each and every question asked at the various examinations were only concerned with assessment related to the cognitive domain.

Table 2 Analysis of FYBA question papers with regard to the Lower Order Thinking Skills within the cognitive domain

Subject& Paper No.	Remembering	Understanding	Application/Skill	Total
Economics – I	0	3	2	5
Economics – I	1	3	1	5
Psychology – I	0	4	1	5
Psychology – I	2	3	0	5
Sociology – I	0	4	1	5
Sociology – I	1	3	1	5
Total	**4 (13.33%)**	**20 (66.67%)**	**6 (20%)**	**30 (100%)**

Table 3 Analysis of SYBA question papers with regard to the Lower Order Thinking Skills within the cognitive domain

Subject	Remembering	Understanding	Application/Skill	Total
Economics – II	3	2	0	5
Economics – III	0	2	3	5
Psychology – II	2	3	0	5
Psychology – III	3	2	0	5
Sociology – II	4	1	0	5
Sociology – III	2	2	1	5
Total	**14 (46.67%)**	**12 (40%)**	**4 (13.33%)**	**30 (100%)**

Table 4 showing analysis of TYBA question papers with regard to the Lower Order Thinking Skills

Subject& Paper No.	**Remembering**	**Understanding**	**Application/Skill**	**Total**
Economics – IV	0	5	0	5
Economics – V	0	3	2	5
Economics – VI	0	4	1	5
Economics – VIII	2	3	0	5
Psychology – IV	2	2	1	5
Psychology – V	1	4	0	5
Psychology – V	1	4	0	5
Psychology - VI	1	4	0	5
Sociology – IV	5	0	0	5
Sociology – V	0	2	3	5
Sociology – V	0	4	1	5
Sociology – VI	2	2	1	5
Total	**14 (23.33%)**	**37 (61.67%)**	**9 (15%)**	**60 (100%)**

Tables 2, 3 and 4 reveal an emphasis only within the *cognitive* domain, and especially restricted to 'remembering' and 'understanding' (both of which are considered as lower order thinking skills) as specific cognitive skills. Most question items are written with a view to examining the impact of learning on 'cognitive' skills; there are no question items that even hint at assessing the impact of learning on the affective nor psychomotor domains of learning. Question items which are meant to enable learners apply their understanding to new situations or contexts played an insignificant part of the assessment process. Even when questions begin with terms such as "critically evaluate" or "examine" or "analyse", it would be interesting to know whether examination candidates are encouraged to provide their *own* critical appraisal or analyses. Higher order thinking skills (HOTS) include skills such as analysing, synthesizing and creating.

In an age where access to information or data is not quite the challenge, especially for those who have access to the internet and e-books, e-journals and so forth, shouldn't the facilitators role shift away from information transmission to developing critical thinking, analytical and creative skills? The very fact that many agencies conduct their own admission or aptitude tests is an indication that Boards and Universities have failed to develop specific skills. The system continues to largely encourage rote learning and retention of data for its own sake. The instructional process has become examination-centric; teachers and learners are caught in the vicious circle of information dissemination.

There is an urgent need for all who are in academia to evaluate themselves. Teachers need to encourage students to provide feedback about course content, evaluation methods, testing procedures, co-curricular activities and the educational curriculum at large. When setting papers for examinations and tests, there is a need to frame question items which link up with the instructional (teaching) objectives. These objectives are necessarily linked to the expected learning outcomes. A test or examination is meant to be a means to figure out the extent to which these objectives have been achieved. The same holds true for activities beyond the classroom: an activity is held with an aim or aims, supported by specific objectives. It is again important to find out if these objectives are realized or not, and the extent to which they are achieved. Learners need to be made aware of the aim(s) and objective(s) as this will help them not only to modify their learning styles, but it will also form the basis for evaluating their teachers, the course and the programme at large.

Once evaluation of the learner, the teacher or the programme is done, the next logical step is to alter or amend our ways or the programme itself. Perhaps the objectives are too lofty and unrealistic? The facilitator could have used a teaching method that had very limited effect on learners? The question items on a paper might have failed to assess the diverse learning skills of candidates? The training could have neglected certain skills that needed to be focused on? Perhaps there was no 'diagnostic' evaluation before formulating new course objectives? Or perhaps all the objectives were achieved and there is now a need to widen the scope of the paper or the unit or the skill; perhaps to a higher level of expectations? Post-evaluation there could be remedial instruction. Feedback with

remedial work is essential for the goals of evaluation. For example, after a football match, the coach could analyse the game and formulate training to remedy the lacunae of team players or even specific players.

Post-test or post-examination, facilitators could provide feedback - beyond marks and grades. Merely giving verbal feedback has a limited effect. It might be useful to provide remedial instruction so that learners may achieve the instructional objectives. In the present scenario, one is all too familiar with delayed results, in the middle of a subsequent semester; and immediate feedback after internal tests are rare. What purpose would marks alone serve for the learner - in terms of growth? In a system where marks are altered to enable more 'passes', to say, protect workload of teachers or to protect the image of institutions – something is seriously amiss!

There is a need for out-of-the-box thinking, radical thinking; a need to shake us out of our complacency. Evaluation is an important aspect of education. It is necessary if the education that is provided has to help prepare our learners and ourselves for future roles in the ocean of life.

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EVALUATION TECHNIQUES

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Abstract

The term "Evaluation" has a very broad meaning. Evaluation is referred to as series of steps to measure the effectiveness of assessment techniques applied. In our educational system, teaching, learning and evaluation are considered to be the three main pillars. Students, teachers, nonteaching staff, management, sponsors are the main stakeholders of any educational institute. Out of these, students and teachers are two main stakeholders. Every educational institute is recognized by quality of teachers and students. Although the institute is practicing a very good teaching and learning methodology, the evaluation of these practices is an integral part while defining the standard of any institute.

Although Assessment is used as an alternative term to Evaluation, there is a thin line between the two terms. ***Assessment*** *is the study of the result, after application of different techniques on stakeholders. On the other hand,* ***Evaluation*** *in an educational institute means summative report on where the institute stands, before or after applying different assessment techniques on its stakeholders.*

This paper tries to throw light on the actual difference between Assessment and Evaluation and the different assessment and evaluation techniques which can be implemented both on students and teachers.

Keywords: *Assessment, Evaluation, Institute, Student, Teacher*

Introduction

In any educational institute, following are the main stakeholders:

i) Students
ii) Teaching staff
iii) Non-teaching staff
iv) Management
v) Sponsors

Out of all these stakeholders, the two main stakeholders are Students and Teachers. The evaluation of these two stakeholders is important for every educational institute.

Although Assessment is used as an alternative term to Evaluation, there is a thin line between the two terms. ***Assessment*** is the study of the result, after application of different

techniques on stakeholders which are designed to achieve the good result or quality. Assessment results into grade or marks e.g. Teacher conducts exams to test student knowledge and as a result give marks. Assessment is not an on-going process, i.e. it is a process applied to improve the quality of stakeholders as long as s/he belongs to an institute. The different assessment techniques the institute can practice for students include exams/tests, projects, group discussions, debates, quiz contests, participation of students in extracurricular activities, group case studies etc. The different assessment techniques the institute can practice for teachers include conventional teaching methods used by a teacher, students feedback, peer feedback, research and publications, different certifications done by teachers, degrees pursued by teachers, different practices started by teachers to improve the progress of student (E.g. mentorship, remedial coaching, project guidance etc), involvement of teacher in different areas of institute to assist the management to accomplish various institutional tasks

On the other hand, ***Evaluation*** in an educational institute means summative report on where the institute stands, before or after applying different assessment techniques on its stakeholders and to check what standard institute has achieved against the standards set by an Evaluator. ***Evaluator*** is a person or group of people who evaluates the institute whereas; ***Evaluatee*** is a stakeholder of an institute whose evaluation is to be performed.

Evaluation is of two types:

Formative Evaluation: This type of evaluation is done at the beginning of the implementation of assessment technique. It suggests to the stakeholders of an institute, what problems may arise during the implementation of assessment technique, What can be achieved by implementing the assessment technique? What standards / goals the assessment technique should achieve, etc.

Summative Evaluation: This type of evaluation is done at the end of the implementation of assessment technique. In this, the report of evaluation contains whether the assessment technique has achieved the set goals; and is there a gap between the standards set and standards followed by the assessment technique?

The Evaluation helps to check:

i) How effective the assessment technique was?
ii) What are the benefits of the assessment technique?
iii) What are the limitations of the assessment technique?
iv) How we can overcome the limitations of the assessment technique?
v) Is there a scope to implement better assessment techniques?

Methods of evaluation:

i) "Before and After" Evaluation:

Here, evaluator checks the progress achieved by the stakeholder after his/her last evaluation. For instance, the evaluator can compare the result of a student before Institute started practicing remedial coaching and the result after the remedial coaching is finished.

ii) Comparative Evaluation :

In comparative evaluation, Institute uses different assessment technique to achieve its goal and then evaluator evaluates technique best suited. For instance, Institute can start remedial coaching and test programs for student and then evaluate which technique was more beneficial to the student.

iii) Standardized Evaluation:

In standardized evaluation, the assessment technique is tested against the basic standards set by the evaluator say, for example the goal of remedial coaching is that the result should be 100%. This is a standard set for remedial coaching technique. If the actual result of the remedial coaching technique is 100%, we can say the technique was implemented up to the standard.

Evaluation of students:

The student is the main component of an educational institute. The institute is responsible for overall development of a student. Any educational institute is recognized not only by its name but also by the services provided to its students and the efforts taken by the institute to improve the overall skills of students.

The different **assessment techniques** the institute / assessor can practice to assess students include:

i) ***Exams/Tests:*** Conduct a test or exam to check how much the student has learnt? Where s/he is lagging behind?

ii) ***Projects:*** Assigning project to an individual student or group of students and encourage them to implement their ideas practically or theoretically. Projects encourage students to implement new ideas on their own.

iii) ***Group discussion:*** Conduct a group discussion on a particular theme or topic where a group of students study the particular topic and give their views on the topic. It boosts the student's confidence.

iv) ***Debate:*** Conduct a debate between two groups of student's on a particular topic or theme. One group agrees with the topic statement whereas the other group disagrees. This will increase the knowledge of student in particular domain and also improve their communication.

v) ***Quiz contest:*** Conduct a quiz contest where multiple choice questions are asked to students and student have to choose the correct option. This technique may help the student to think logically in limited time.

vi) ***Group case studies:*** Assign case studies among group of students, where the students work together on them and submit the report. This will help foster team spirit.

vii) ***Field Visit:*** Taking students out to visit industries, organizations or institutes where they can see the implementation of the concepts which they have learnt or need to learn.

Evaluation techniques are categorized into two, ***Measurable techniques*** and ***Non measurable Techniques***. The different **evaluation techniques** the organization can practice to evaluate students include:

Non Measurable techniques:

i) ***Observation:*** Evaluator can evaluate the student by observing him/her. If Institute is following a student-mentor technique, then a mentor can note

down the overall changes in the behavior of the student. In this way, evaluator can compare how student has fared before and after the implementation of technique. Besides the student who was quiet or afraid to approach the teacher earlier can now easily approach the teacher.

ii) ***Class participation:*** Evaluator can check the improvement in student's class participation by checking whether s/he is interested in learning the lessons, whether s/he is asking the doubts based on the topics which are taught, whether his/her doubts are valid, etc. If a student is keen to participate in class activity, it means s/he is enjoying the learning.

iii) ***Cooperation:*** Evaluator can check whether the student is willingly cooperating with the institute management or other stakeholders. If the student is not cooperating, it means student is not happy with the management or other stakeholders. If the student earlier disobeyed the teachers, now s/he quietly follows their instructions.

iv) ***Verbal ability:*** Having verbal skill is a strong predictor of success in all fields. The term Verbal ability itself represents the abilities in word power, analogies, sentence correction-formation and verbal reasoning. This means that it demands a good vocabulary and a strong command over English or other native language. If a student's verbal ability is improved, it may boost the confidence of the student. A student who hesitated to talk in English now he is tries to do so.

v) ***Participation of student in extracurricular activities:*** If a student participates in extracurricular activities like sports, dance etc., it indicates that they are keen on developing their skills and showing their potential. The institute goal should not be only to encourage student in studies but also to find out the hidden skills in students and make the platform available to them where they can show their talent.

Measurable techniques:

i) ***Result analysis:*** Evaluator can compare the student's past result with the current result especially after the assessment technique is applied on student to

conclude whether the technique was really helpful. Result analysis is the main component while evaluating the student progress in studies.

ii) ***Attendance:*** Evaluator can check the attendance of the student. If the student's attendance has increased compared to his/her earlier attendance, one can say that the student is taking interest in studies / lecture and the assessment technique was applied successfully.

i) ***Resources used:*** Evaluator can check whether a student is using the resources which are offered to them by an institute whether the student is making use of Gymkhana facilities, whether student visits Library, Etc.

iii) ***One-to-One Discussion:*** Evaluator can discuss with individual student. They can ask the students about the problems they were facing, the technique they or their teacher has practiced to overcome those problems is the outcome of those techniques the student's satisfaction with the outcome, other technique expected by the students etc. After a detailed discussion with students, the evaluator can evaluate what is the impact of the techniques on students.

iv) ***Questionnaire:*** Evaluator can give questionnaire to students, which may consist of questions like

a. Whether the particular assessment technique was helpful?
b. What is the output after implementing particular assessment technique?
c. What are the drawbacks of the assessment technique?
d. What improvisation should be made in the assessment technique?

Evaluation of Teachers:

The different **assessment techniques** which an institute can practice to assess teachers include:

i) ***Use of ICT:*** Institute should motivate teachers to use conventional teaching methods like use of ICT. A teacher can thus use maps, charts, simulators, power point presentation to demonstrate the topic.

ii) ***Research and publications:*** Teachers should be inspired to do more research related work and they should be encouraged to publish research papers.

iii) ***Certifications:*** Institute should ask teachers to do certification which may boost teachers in depth knowledge in their specialized subject.

iv) ***Higher education:*** Encourage teachers to obtain higher degrees to enhance their educational level and thereby help them stay updated with current trends and technologies. Teachers who have obtained Ph.D. degree can guide students in their research work.

v) ***Assessment Programs for students:*** Make it mandatory for teachers to start implementation of different techniques to improve the progress of student. Teacher should start mentorship so that they can pay attention to individual student, understand their problems, if possible solve the student's problems and guide them. Teacher should start remedial coaching where especially the weak students will be paid more attention than other students which may help them to improve their academic performance.

vi) ***Teacher involvement in Institutional work:*** Considering the skills of teachers, involve them in different activities of the institute to assist the management to accomplish various institutional tasks and thereby enhance the productivity and quality of an institute. For example, any teacher who is interested in managing cultural events may look after cultural programs of an institute.

vii) ***Workshops/seminars/training/conferences:*** Workshops, trainings, conferences and seminar are very helpful for teachers as they give crucial information to teachers regarding the current trend and technology, new ways of performing something and new areas of study. Institute should make it compulsory for teachers to attend and conduct workshops, seminars, trainings, conferences etc.

viii) ***Teachers Development Program:*** There are various teacher development programmes like Orientation program, Refresher course, Short term course etc which not only help the teacher to progress in particular domain but it helps

them for their overall encourage and depute growth. Institute should teachers to attend such teachers' development programmes.

ix) ***Soft skills:*** To improve the soft skills of teachers like language, etiquettes, communication etc. institute should implement soft skills development programs for faculty.

x) ***Competitive Exams:*** Institute should conduct Workshops for students and teachers which may help them to succeed in competitive exams like SET, NET, GATE, PET etc.

The different **evaluation technique** the organization can practice for teachers include:

Non Measurable techniques:

i) ***Observation:*** Evaluator can note down the changes in teacher by observing him/her. Earlier if a teacher who was not punctual in lectures now goes on time for the lecture or if the teacher who was not interested in any institutional task now willingly comes forward to help the management, the evaluator can observe these changes and state the effectiveness of assessment technique implemented for teachers.

ii) ***Cooperation:*** If a teacher willingly cooperates with management, it means s/he is satisfied with the services offered by the institute or the strategies followed or programmes conducted by the Institute.

iii) ***Verbal Ability:*** If the verbal ability of teacher is improved (due to programmes like soft skills development), we can say that the technique proved to be very fruitful for teachers.

Measurable techniques:

i) ***Student feedback:*** Student feedback about teacher is very important. We can ask different questions to students to grade the teacher on different parameters like teacher's punctuality, teaching methodology, teaching techniques, doubt solving, counseling, test etc.. If student feedback is good

than the earlier feedback, we can say that the assessment technique was helpful to the teacher.

ii) ***Peer Review:*** For any institute, team work is very important. If there is no bonding among the employees, they will not work as a team to accomplish institutional tasks which may lower the productivity and quality of Institute. We can ask colleagues of a teacher about him/her. Evaluator can then figure out how the teacher was behaving earlier and after the implementation of assessment technique, whether there are any positive changes in his/her behavior.

iii) ***Self Reflection:*** Evaluator can ask the teacher to list down the positive changes in themselves after attending the assessment programme. If teacher could reflect himself/herself positively, it means, the technique worked.

iv) ***Number of certification and degrees:*** If a teacher is pursuing higher education or doing certification it means s/he is keen and interested in updating himself/herself with the current knowledge.

v) ***Student progress:*** If number of PhD students or project students under the teacher's guidance is increased it indicates that the teacher is interested in helping students in research or projects.

vi) ***Qualified / eligible teachers:*** If the number of SET/NET/GATE/PET qualified teachers increased, it shows that the assessment technique was helpful.

vii) ***Research and paper publications:*** If the numbers of research papers published, books authored have increased it means the teacher is interested in sharing his/her knowledge.

viii) ***Teaching plan:*** Evaluator can check whether the teacher has planned the syllabus to be taught well in advance and whether he/she is following that teaching plan. Evaluator can also check the total number of lectures assigned in the syllabus against the number of lectures actually engaged by the teacher.

ix) ***Digital Repository:*** If a teacher has recorded their lectures it may help students to learn particular topic outside the class.

x) ***One-to-One discussion:*** Evaluator can discuss with individual teacher. Evaluator may ask questions like, what problems they were facing during assessment programmes, what other program should be conducted to overcome those problems, what is the outcome of the techniques, whether the teacher is satisfied with the outcome, what were the teacher's expectations and what problems did the teacher still face? After a detailed discussion with teachers, the evaluator can evaluate the impact of techniques on teachers.

xi) ***Resources used:*** Evaluator can check whether a teacher is using the resources which are offered to them by an institute. For example, whether the teacher is making use of ICT? Whether teacher visits Library? etc.

Conclusion

To conclude we can say that, it is the duty of every educational institute to implement different assessment techniques for their stakeholders and to evaluate the effectiveness of these techniques on their stakeholders.

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CONSTRUCTIVISM IN EVALUATION TECHNIQUES FOR VALIDATING THE ACQUIRED KNOWLEDGE IN THE FIELD OF COMPUTER SCIENCE

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Abstract

Performance on a traditional paper-pen test is a poor guide to the students' construction of the rich conceptual models of computer science. Ideally, assessment inspired by constructivism would be based on an instructor's observation and questioning of students engaged in an open-ended activity such as a practical session or an intern project. Instructors must attempt to design written questions that elicit information about the student's mental model rather than about the contents of his or her factual memory.

This paper not only focuses on the shortcomings of traditional evaluation system but also suggests practically implementable techniques of evaluation which helps to assess the knowledge constructed by the student during classroom teaching.

Traditional evaluation technique is more inclined towards the correctness of the final solution to a given problem. On the contrary, Evaluation techniques to assess a computer science student should focus on discovering the students understanding of the problem, his/her logical abilities in perceiving the problem, his/her programming skills and finally how he/she arrives at the result.

The type of problems assigned is also important as opposed to minimalism's emphasis on task performance. Problems should encourage cognitive operations such as reflection and exploration. It should also facilitate students to construct mental models. Educators must provide as much opportunity as possible for individual reflection (for example, analysis of errors) and social interaction (for example, group labs) through effective evaluation techniques.

Keywords: Evaluation, Validation of Knowledge, Traditional Evaluation, Minimalistic Evaluation

Introduction

Constructivism is a theory of learning, which claims that students construct knowledge rather than merely receive and store knowledge transmitted by the teacher. (BEN-ARI, 2001)

According to Audrey Gray (Ogundola I. Peter, 2010), the characteristics of a constructivist classroom are that the learners are actively involved, the environment is democratic and the activities are interactive and student-centered and that the teacher facilitates the process of learning in which students are encouraged to be responsible and autonomous. The guiding principles of constructivism are

(1) Knowledge is constructed, not transmitted.

(2) Prior knowledge impacts the learning process.

(3) Initial understanding is local, not global.

(4) Building useful knowledge structures require effortful and purposeful activity.

Classroom teaching is an evolutionary process which can be shown pictorially as indicated in Fig.1. Assessment has been an indispensable step which happens in every stage of the teaching-learning process.

The word 'assess' comes from the Latin verb 'assidere' meaning 'to sit with'. In assessment, one is supposed to sit with the learner. This implies, it is something we do 'with' and 'for' students and not 'to' students. Green, 1999

(http://www.literacytoday.ca/assessment-for-learning/, 2017)

Assessment for learning is an on-going process that is at the heart of teaching and learning. In order to provide instruction that meets the needs of our students, a teacher must know what students understand and where they are in their learning.

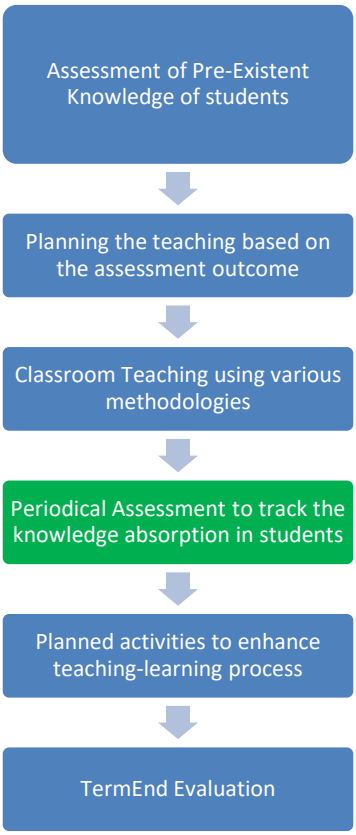


Figure 1: Flow Model of Teaching Learning

Traditional Evaluation is a step-by-step process. It can be divided in three stages as given in Figure 2.

In testing the pre-knowledge acquired by the student, educators can use methods of assessment such as asking informal questions, concept mapping, etc. This will facilitate educators to plan the lecture in a particular direction.

Embedded Assessment is a way of testing the students understanding of the concepts during the teaching-learning process. This can be in the form of quizzes, presentations, group discussions, projects, etc. This assessment is crucial in qualitatively and quantitatively. In terms of qualitative assessment, this is one of the tools where teaching-learning process can be enhanced based on the student understanding. In quantitative terms, this is the first formal assessment where student will be graded for

their performance. This step allows the student to integrate new knowledge with their pre-knowledge which will make a permanent change in their understanding.

Term-End Assessment is the last step in the assessment process which will be conducted at the end of a particular period of time i.e. Semester end or yearly. In this step, students are tested on the whole term of study, based on which they will be graded. This can be in the form of a formal paper-pen test, lab activity, presentations, or a combination of all these.

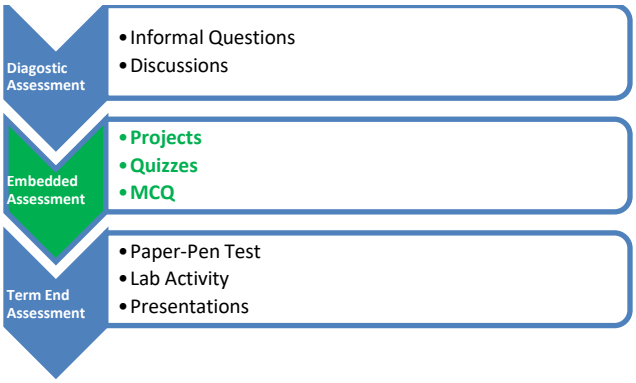


Figure 2 : Existing Model

This paper emphasizes on designing the Embedded Assessment process in an innovative way. In colleges, industrial visit has been arranged to give students a broader outlook of what they learn during the course. To make the most of this industrial visit, Embedded Assessment may be used as an effective tool. There are two ways to implement this model.

Educators can choose to give a questionnaire which contains questions based on the visit. This will allow students to make use of their visit in a more constructive way. The questionnaire will also evaluate the student's observation during the visit, their way of connecting the academic part with the visit, knowledge absorption during the visit, etc.

The questions may be open-ended also. Educators may ask them to give a review on their visit and tell them to share their learning experiences during the visits. It may be in the form of a group discussion or a presentation in front of other fellow students.

I. Literature review

1. Assessing science abilities through an industrial visit report: contrasting views of teachers and students - Bob Campbell, FredLubben& Sylvia Hogarth, Department of Educational Studies, University of York, Paper presented at the Annual Conference of the British Educational Research Association, University of Leeds, England, 13-15 September 2001
2. The Use of Industrial Visits to Enhance Learning at Engineering Courses Marwan Shamel, Edwin Chung, TirunelveliNarayana Pillai Padmesh, Abdulkareem Sh. Mahdi School of Engineering, Taylor's University College, Subang Jaya, Malaysia

I.Proposed system

A. Proposed model

Planning of Industrial Visit to learn "Communication Technology". The objective of this visit is to familiarize the students with various communication technologies and emerging trends in the field of communication devices.

Prerequisites :

Before the visit, students should have learnt the modules of Telecommunication technologies like GSM, CDMA, Wi-Fi, WiMax, Bluetooth, EDGE. They should also be familiar with the Generations of telecom network (1G, 2G, 2.5G, 3G, 4G), EM Spectrum and the steps involved in telecommunication - frequencies used, types of modulation methods, types of propagation and various terminologies used in the language of communication methods. They should also be aware of Smart phone technologies and a comparative knowledge between a feature phone and a smart phone

Planning of the Visit:

Choosing the Company is a crucial step in planning the visit as the students learning process should be directly proportional to the nature and working of the company. When planning the visit, it is to be ensured that the industry has a Manufacturing Unit

which manufactures circuit printing machine, SMT (for surface mounting of circuits components), computerized soldering machine, AOI (automatic inspection Machine), Quality Assurance Unit for Testing of the manufactured components and their working

By arranging Industrial visits, learning happens in three tiers

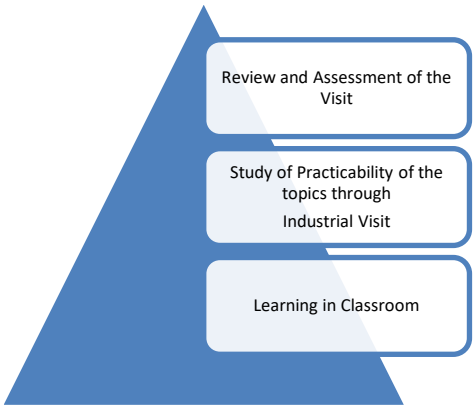


Figure 3: Industrial Visit as a Proposed Tool

If proposed model is observed as indicated in Figure 4, it can be seen how student knowledge can be accelerated in each step. Before learning a concept, students will have some knowledge about that topic which will be assessed in the first step. Then, connecting new knowledge with the existing scheme of knowledge happens in the classroom. During this process, learning gets accelerated with the Embedded Assessment model which happens in a new environment.

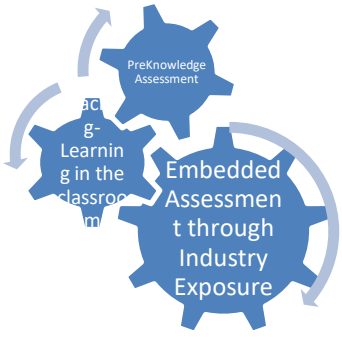


Figure 4: Outcome of the Proposed Model

To support this idea of using Industrial Visit as a tool of Embedded Assessment, a survey was recently conducted among students. The survey questions are given below.

Questionnaire

Gender : _____

1. Which teaching methodology do you prefer to learn a particular topic?
    a. Classroom – Chalk and duster method
    b. PPT
    c. Online Videos
    d. Lab Activity

2. To enhance your learning process, which method do you prefer to adopt?
    a. Revision in the Classroom
    b. Group Discussion
    c. Book Review
    d. Guest Lectures

3. Which assessment method is preferred, to assess your learning outcome?
    a. Quiz
    b. Test
    c. PPT
    d. Industrial Visit

4. What should be the frequency of the above assessment method?
    a. Weekly
    b. Monthly
    c. Quarterly
    d. Semester

5. If Industrial visit is arranged, would you prefer to use it as an assessment tool?

a. Yes
b. No
c. Can't Say

6. If Quiz / Test is used as a tool of assessment, what type of questions do you prefer ?
    a. MCQ
    b. Objective Questions like Fill in the blanks, Match
    c. Descriptive Questions
    d. Combination of the above

7. How seriously do you take Industrial Visit?
    a. Industrial Visit is for having fun with friends
    b. Industrial Visit is a learning tool
    c. Industrial Visit is a way of bridging the gap between the classroom teaching and practicability in Job opportunities

8. If Industrial Visit is planned, will you be ready to bear the cost?
    a. Yes
    b. No

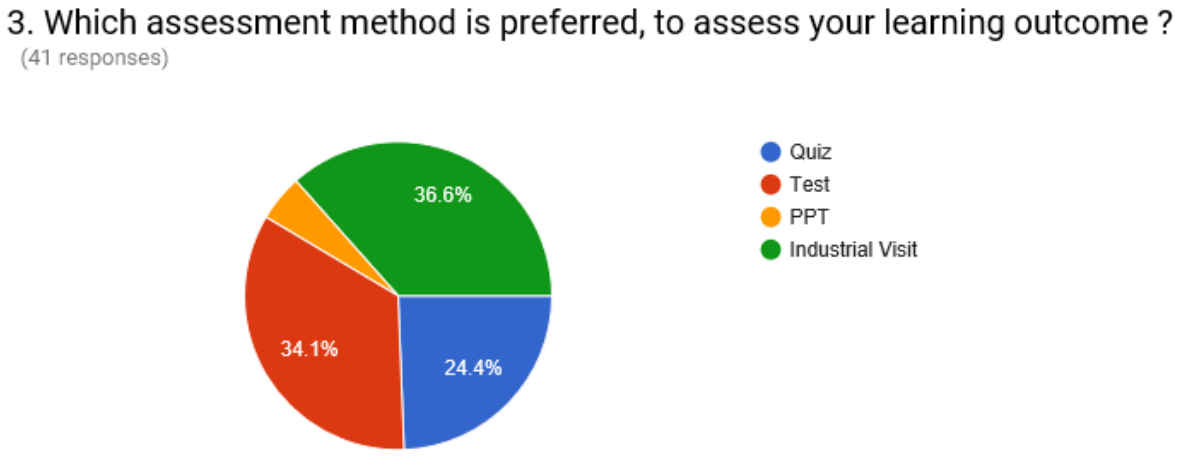
9. After the visit, if you are to give a report on the visit, what type of report do you prefer to give?
    a. Questionnaire
    b. Synopsis
    c. Group discussion
    d. Viva

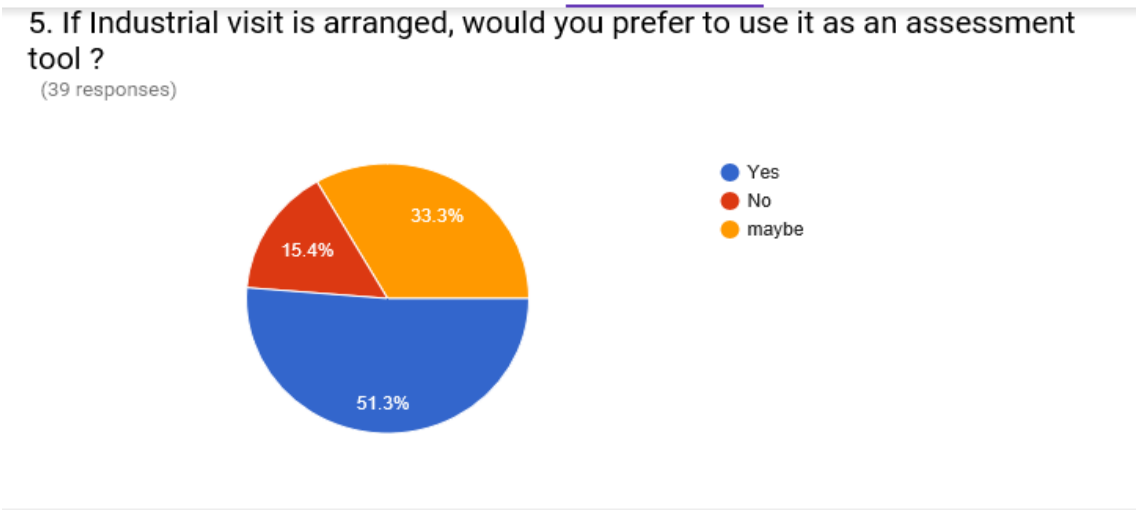
B. Proposed tools of assessment

While Industrial Visit is a way to assess students' understanding of the concept, one of the following tools of assessment may be used to evaluate the proceedings of the Industrial Visit.

- Questionnaire
- Group Discussion
- Synopsis
- Viva

II. DISCUSSION OF THE FINDINGS





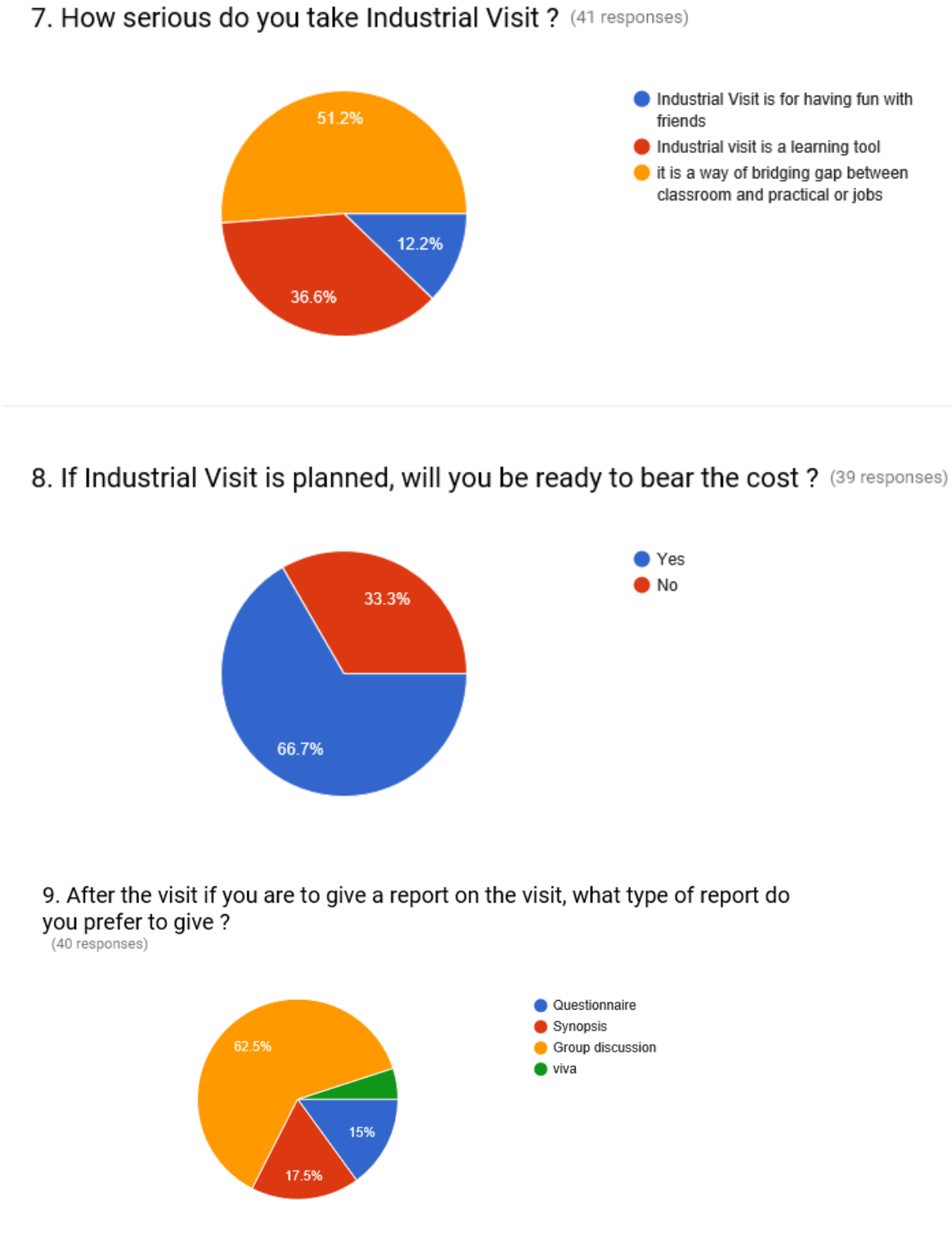


Figure 5 : Results on various Parameters

There are some interesting observations that may be made through the survey results. The survey result summary pertaining to our topic is given below. 36.6 % students have opted for Industrial Visit as a tool of Assessment. 51.3 % has agreed to use Industrial Visit as an assessment tool. 87.8% of the students seriously consider Industrial Visits as a learning tool. Coming to the financial feasibility of this visit, 66.7 % students are ready to bear the cost of the visit. 62.5% of the students have opted to appear for a group discussion on the visit. By arranging group discussion, students will be exposed to others' ideas on the visit, which will provide a new dimension to the learning experience.

While organizing the group discussion, the educator should act as a moderator. The educator may invite one of his/her colleagues as a writer, who records outcome of the each group's talk. Educator should ensure that each student gets an opportunity to share his/her views. The following may be the rubric for assessing the student

- Student Participation
- Clarity on the topic
- Observation made during Industrial Visit
- Being able to correlate classroom learning with Industrial visit

Conclusion

Industrial visits test students' abilities to identify and communicate concept clarity, a requirement in many courses which is difficult to assess through the standard written examination questions, practical work or investigative project work. Furthermore, a majority of students agree that one of the strength assessing a report on a visit is that it encourages the learning of concepts in a real life context.

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USE OF INNOVATIVE EVALUATION METHODS TO BRING ABOUT QUALITY ENHANCEMENT IN THE TEACHING-LEARNING-EVALUATION PROCESS: A CASE STUDY OF THE DEPARTMENT OF PSYCHOLOGY AND DEPARTMENT OF FOUNDATION COURSES OF SMT. MANIBEN M.P. SHAH WOMEN'S COLLEGE OF ARTS AND COMMERCE

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Smt. Maniben.M. P Shah Women's College of Arts and Commerce

Abstract

This paper proposes to present the specific measures that were initiated at Smt. Maniben. M. P .Shah Women's College of Arts and Commerce in response to the recommendation made by the NAAC peer team during the second cycle of NAAC re-accreditation in August 2013.
*On the basis of the NAAC Peer team recommendation, the following Key Result Areas (KRA) were framed under the criterion II Teaching –Learning Evaluation '**Departments to identify social work component relevant to their curriculum' and 'To identify evaluation methods adopted by every department and to encourage departments to adopt innovative formative and summative evaluation methods'** based on the SMART principle: Specific, Measureable, Achievable, Relevant and Time bound.*
The paper is a case study of the how Department of Foundation Courses and Department of Psychology, (a) have facilitated faculty to standardize the evaluation processes, (b) have ensured that every student not only acquires the knowledge and skills but also has the ability to use these competencies in real life situations, (c) have taken feedback of students on the innovations in evaluations and executed corrective measures.

Keywords: Evaluation methods, KRA, SMART principle

Introduction

Smt. Maniben M. P. Shah Women's College underwent its second cycle of NAAC re - accreditation in August 2013. To fulfill the NAAC Peer Team recommendations, Key Result Areas were formulated by the IQAC.

The IQAC designed a structure through which KRAs were implemented and monitored.

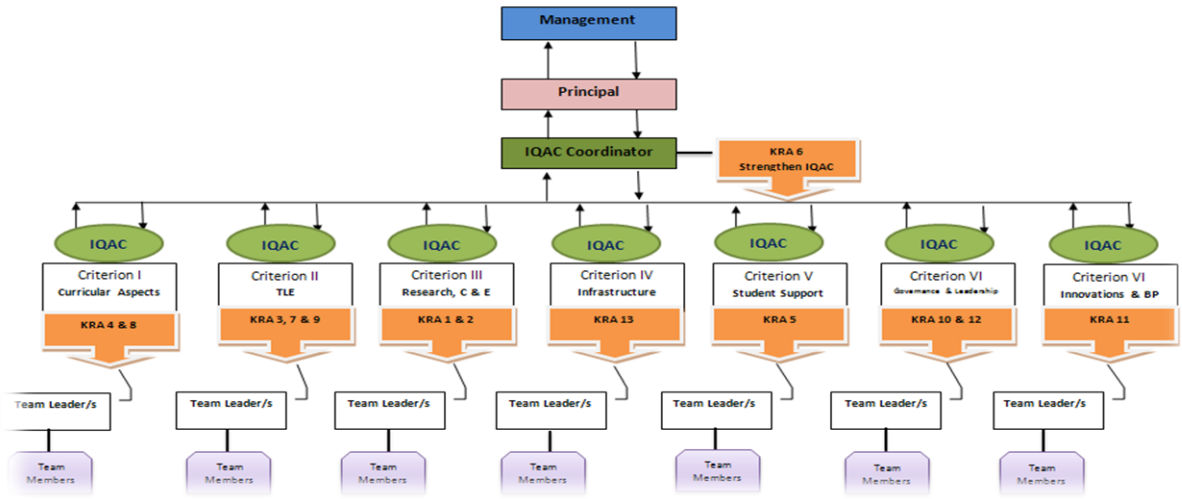


Figure1. shows the Organizational Chart and Process of the KRAs and the KRA teams.

The Key Result Areas pertaining to Criterion II-Teaching Learning and Evaluation were framed. The KRA focusing on evaluation methods was defined as under:

1. To identify evaluation methods adopted by every department by Nov 2014.
2. To encourage departments to adopt innovative formative and summative evaluative techniques by 1st August 2015.

`The KRAs were based on the SMART PRINCIPLES i.e. being Specific, Measurable, Achievable, Relevant and Time bound.

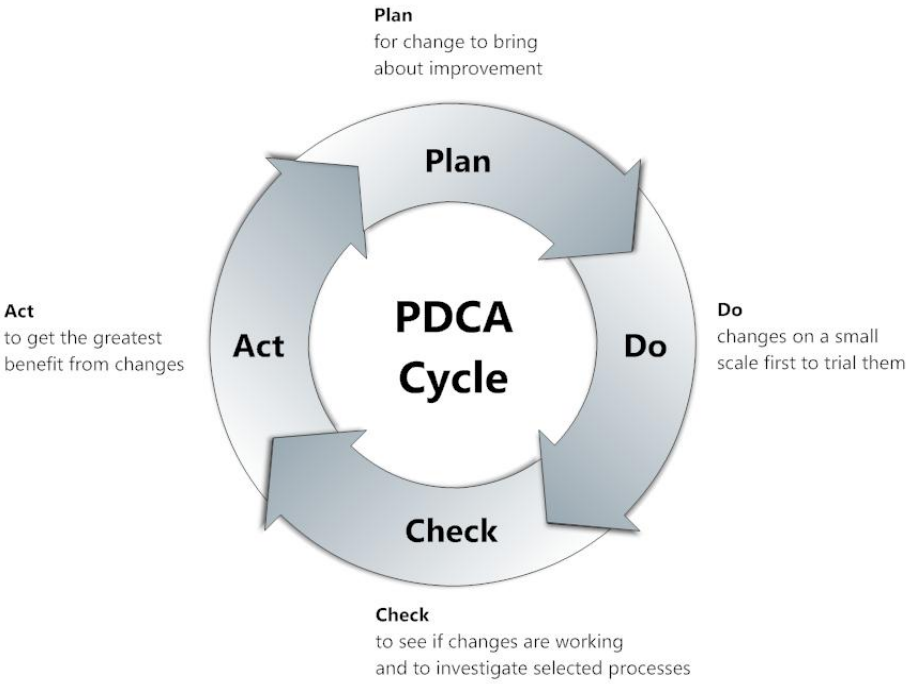
The students should be encouraged to take advantage of innovative teaching learning processes and the stress free atmosphere for evaluation. Simultaneously, faculty members should also have the liberty to choose from different kinds of evaluation processes. The Evaluation Process, thus, ensures that every student not only acquires the knowledge and skills but also the ability to use these competencies in real life situations. It means the regularity of assessment, frequency of unit testing, analysis of learning gaps, use of corrective measures, retesting and feedback of teachers and students for their self-evaluation. In most educational settings, the purposes of evaluation are two-fold: to help steer projects towards a successful outcome and to assess and report the final project outcomes at an appropriate 'end point'.

The participatory learning will be an enriching experience for both teachers and students which will help in creating a dynamic environment.

Objectives of the study

The objectives of the study are:

1. To facilitate faculty to standardize the evaluation processes that they are already using
2. To ensure that every student not only acquires the knowledge and skills but also the ability to use these competencies in real life situations ,
3. To obtain feedback of students on the innovations in evaluations and to execute corrective measures using PDCA model.



Literature Review

The purpose of teaching learning and innovative evaluation for students involves: 1) developing student capabilities for independent analysis, thinking and judgment; 2) stimulating student interest and motivation for learning; 3) tapping student potential in creativity and problem-solving; and 4) enhancing students' learning ability.

In his article titled "Reformation of Education system: education with continuous evaluation", Mukund M Hambarde proposes the following

a. Evaluation has nothing to do with terms like 'pass' or 'fail'. It is expressed in form of a report of performance only, in terms of absolute marks or Grade

b. Evaluation is a continuous process of reporting one's performance during the full tenure of the course in all aspects of the learning process; Sincerity, learning Attitude, grasping ability and presentation of the knowledge, one has acquired.

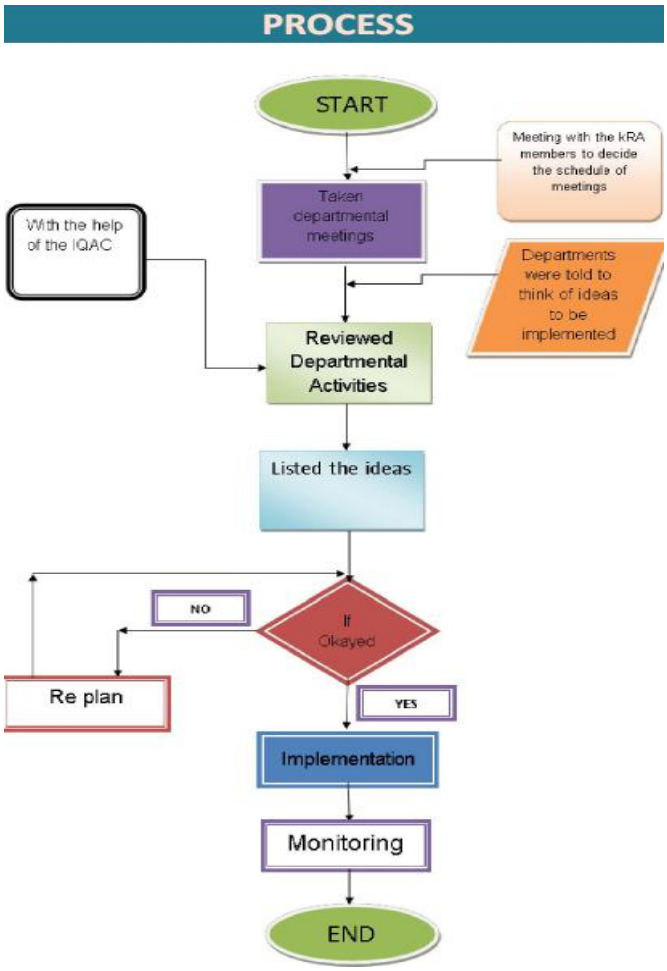
The concept of Transfer of Learning was originally introduced as *transfer of practice* by Edward Thorndike and Robert S. Woodworth, renowned educational psychologists in 1923. Transfer of Learning experts Perkins and Salomon (1992) describe the mechanism of transfer as follows: Transfer of learning occurs when learning in one context or with one set of materials impacts performance in another context or with other related materials. For example, learning to drive a car helps a person later to learn to drive a truck quickly or learning mathematics prepares students to study physics. Other examples include learning to get along with one's siblings may prepare one for getting along better with others, and experience playing chess might even make one a better strategic thinker in politics or business.Transfer is the ability to take what one has learned in one context and use it in a new instance (Salomon and Perkins, 1988)

The opportunity given for reinforcement of learning from theory to the practical could be an effective strategy for positive transfer of learning.(Sathe,2016.)

ZsuzsannaEszterTóth, TamásJónás in their research titled, 'Enhancing Student Satisfaction Based on Course Evaluations' at Budapest University of Technology and Economics ran an extended survey including a questionnaire and various problem solving techniques among students on five different business courses in 2011, in order to acquire deeper knowledge about the factors influencing student (dis)satisfaction and to lay the foundation for long-term course improvement actions. According to PDCA logic, they repeated the student satisfaction measurement process in 2012 to assess the effectiveness of short-run improvement actions. The article summarizes the main results and highlights the improvement actions needed in the long run.

Methodology

Figure 2 shows the project planning and /or implementation of the KRA. The planning includes the steps taken in order to implement the KRA like departmental meetings, review, giving feedback, monitoring and lastly implementation.



The figure also indicates the process in detail through which the KRA was achieved. The process started with KRA members planning and scheduling of meetings with the departments. Departments were told to report the evaluation methods they used for formative and summative assessment. With the help of the IQAC, activities planned by the departments were reviewed. If found suitable the department were told to implement the activities. If found unsuitable departments had to re -plan the activities and then implement. The activities were monitored by the KRA team by taking regular departmental meetings and giving feedback pertaining to the evaluation methods. In order to standardize the evaluation process, KRA teams developed rubrics. The rubrics fulfilled the objective of a systematic way to specify as to what skills will be needed, along with measurement guidelines to assess performance and learning, and give feedback to students.

The paper employs the case study of Departments of Psychology and Foundation Courses to understand the effectiveness of Innovative Evaluation methods to facilitate students' knowledge, Skills and abilities.

Discussion

When challenged by global competition, innovation is an assurance to enhance competitiveness and creativity among students.

The major factors that affect learning effectiveness are learning satisfaction and teaching innovation. The departments of Foundation courses and Psychology have undertaken various methods of evaluation to help students learn how to find relevant information, how to assess it and how to organize disparate information into a cohesive whole. Students of both the departments were made aware of the evaluation process that will be used for every activity so that the process becomes transparent. Both departments have adopted the following strategies for evaluation-

Strategy I

To standardize the evaluation process by developing a Rubric. A Rubric was developed for evaluating the following activities

Activity A. Scrapbook Making:

Objective of the Activity: to encourage students to use their creativity to project their conceptual clarity

Process: Students are instructed to make a scrapbook on a given topic. It is a group activity wherein students are asked to be creative in their discussions and output. Use of colorful images, stimuli and material is encouraged to help them showcase their understanding of the given concept.

Outcome: it helps in conceptual understanding and helps the students explore their creative potential. It also helps liven the classroom environment with colorful scrapbooks.

Examples: Department of Psychology uses Scrapbook Activity to clear concepts related to Cognitive Psychology and Personality Theories.

Department of Foundation Courses uses Scrapbook Activity for concepts such as Globalization, Poverty, Human Health and Gender Disparity.

Activity B:Power Point Presentations

Objective: To help students learn to make use of ICT tools and to encourage creativity among students

Process: The students are given topics related to syllabus and asked to make academic presentations. They are expected to research on their topics, use Microsoft PowerPoint to creatively present the data.

Outcome: The students learn to review data, compile data, present it in an attractive manner and learn to make use of technology

Examples: The department of Psychology asks students to make presentations on topics such as Social Psychology, Neurocognition, Intervention Strategies and Cognitive Psychology.

The Students of the Department of Foundation Courses presented on topics such as Child Labour, Issues faced by the elderly, youth suicide, women trafficking and Terrorism.

Strategy II

To help students apply the knowledge and skills acquired in class to real life situations

Activity ASkit/ Role play

Objective: To encourage students to use problem solving in a given situation

Process: The students are instructed to present given topics through either role play or skit. The students are encouraged to create a plot, write dialogues and act out the scenes.

Outcome: The students get an opportunity to showcase their understanding of concepts through creative writing and performances. There is student audience engagement thus making the activity truly participatory and enriching.

Examples: Students from the department of Psychology presented skits on topics such as Intervention Strategies for Counseling cases, Social Psychology and orientation to Counseling Approaches.

Department of Foundation Courses presented skits on topics such as Farmer Suicide, Substance Abuse, AIDS Awareness and Women Health Issues.

For the purpose of Evaluation, a rubric has been developed.

Activity B -Field Visit

Objective: To help students explore academic concepts beyond classrooms to sensitize and create awareness among students

Process: At least 2 field visits are organized in an academic year to different organizations related to the paper taught. Necessary permissions and procedures are completed before the visit.

Outcome: Students learn concepts through one on one interaction and observation. Students become aware of activities undertaken by the organization and their role in society.

Examples: Visits to Krupa Foundation, Bandra for victims of Substance abuse, Vikas Vidyalaya, Dadar a special school, Home for the Mentally Deficit, Mankhurd, Muktangan Rehabilitation Home, Pune are organized for the students of Psychology.

Visits to Discovery of India, Nehru Centre, Mahim Nature Park, Manav Seva Sangh, Sion, and Shraddhanan and Mahila Ashram, Matunga are organized for foundation course students.

Evaluation is done through written reports and presented in class.

Strategy III

To take feedback of students on the innovations in evaluations andexecute corrective measures using PDCA model.

Objective: To continually monitor if an innovative evaluation technique has been helpful in exploring and enriching the learning experience of students. To modify the evaluation technique or procedure to make it more suitable to measure the learning outcome

Process: Oral Feedback is taken from the students from Psychology and Foundation courses after every evaluation activity.

Outcome: Based on the feedback received from students, the evaluation methods were modified and further monitored

Examples: Students from the department of psychology were of the opinion that innovative evaluation methods helped them in improving their presentation skills and satisfied their quest for knowledge thereby improving their performance in class.

A need was felt by the students of both Psychology and Foundation Courses to acknowledge their individual contribution in a group activity. Thus both departments started using standardized rubrics to have balanced evaluation.

In the department of Foundation Courses, language is not a barrier for students as they can perform skits in a language they are comfortable with. The students' feedback also reported that students with limited writing skills are given opportunities to show their critical thinking, creativity and skills through innovative evaluation methods such as Skit, group discussions, debates, film reviews, extempore presentations.

Conclusion

Strategy I- Foundation Courses and Psychology did not experience any difficulty in implementing the rubrics for their evaluation methods though teachers need to be trained in using the Rubrics

Strategy II- Students from both departments actively participated in activities such as field visit, demonstrations, role play, skits which made learning more enriching.

Strategy III- Collecting feedback helps the teacher and the student to understand the effectiveness of the evaluation methods and to modify them, wherever necessary. However, the limitation was collection of oral feedback. There is a need to design a formal written feedback proforma for bettering the process.

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SCRAPBOOK RUBRICS				
CATEGORY	**3**	**2**	**1**	**0**
Creativity	All of the graphics or objects used in the collage reflect a degree of student creativity in their display.	Most of the graphics or objects used in the collage reflect student creativity in their display.	Only a few graphics or objects reflect student creativity, but the ideas were typical rather than creative.	None of the graphics or objects reflects student creativity.
Design	Graphics are cut to an appropriate size, shape and are arranged neatly. Care has been taken to balance the pictures across the area. Items are glued neatly and securely.	1-2 graphics are lacking in design or placement. There may be a few smudges or glue marks.	3-4 graphics are lacking in design or placement. Too much background is showing. There are noticeable smudges or glue marks.	Graphics are not an appropriate size shape. Glue marks evident. Most of the background is showing. It appears little attention was given to designing the collage.
Number of Items	The collage includes 10 or more items, each different.	The collage includes 7 different items.	The collage includes 5 different items.	The collage contains fewer than 5 different items.
Time and Effort	Much time and effort went into the planning and design of the collage..	Class time was used wisely. Student could have put in more time and effort at home.	Class time was not always used wisely, but student did do some additional work at home.	Class time was not used wisely and the student put in no additional effort.
Title and Explanation	The title is catchy and creative and related to the collage. The explanation provides insight to the purpose/meaning and design of the collage; 1 paragraph or more.	A title is provided that relates to the collage. The explanation describes the purpose and process of creating the collage.	Title and explanation are incomplete and partially relate to the collage.	No title or explanation!

Rubric for Skit/Role play					
Scale	**5**	**4**	**3**	**2**	**1**
Content/Script	There is material collected from at least 5 sources/script clearly written and completely related to the topic	Minimum 4 sources/ script clearly written but 75% related to topic	Minimum 3 sources/ script not very clear	Minimum 2 sources / script ambiguous	Not referred any sources /script very vague
Screenplay	Excellent	Good	satisfactory	Between few team members	Poor
Time-limit	Does the team follow the time limit?	Crossed time limit by 5 min	Crossed time limit by 7 min	Crossed time limit by 10 min	Crossed time limit by more than 10 min
Collaboration and Participation of every team member	Does each speaker have a speaking part? Is every speaker loud and clear?	75% of team have speaking part and are loud and clear	50% of team have speaking part and are loud and clear	30% of team have speaking part and are loud and clear	Less than 30% of team have speaking part and are loud and clear

Student Power Point Presentation Rubric

CATEGORY	4- Exceeds standards	3- Meets standards	2- Approaches standards	1- Below standards
Oral Presentation	Students are well prepared. Volume is loud enough. Establish eye contact always. Team cooperation always smooth.	Students are fairly prepared. Volume is loud enough. Establish eye contact most of the time. Team cooperation most of the time smooth.	Students are somewhat prepared. Volume is loud enough. Establish eye contact sometimes. Team cooperation sometimes smooth.	Students do not seem prepared. Volume is too soft to be heard. Establish no eye contact. Partners do not seem cooperative.
Content - Accuracy	All content on slides is accurate. There are no factual errors.	Most of the content is accurate. There are 1 or 2 factual errors.	There are many inaccuracies in the content.	Content is confusing on many of the slides.
Use of Graphics	All slides have graphics to support all information.	At least 10 of the slides have graphics to support all information	Some of the slides have graphics but don't support the information.	Many of the slides have no graphics.
Text - Font Choice & Formatting	Font formats (e.g. color and style have been carefully planned to enhance the readability and content on all slides.	Font formats (e.g. color and style have been carefully planned to enhance the readability and content on at least 4 of the slides.	Font formats (e.g. color and style have been carefully planned to enhance the readability and content on at least 3 of the slides.	Font formats (e.g. color and style have not been carefully planned to enhance the readability and content on the slides.
Spelling and Capitalization	Project has no misspellings and/or capitalization errors on all slides.	Project has between 1-2 misspellings and/or capitalization errors on all slides.	Project has between 3-4 misspellings and/or capitalization errors on all slides.	Project has more than 5 misspellings and/or capitalization errors.

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Evaluation Techniques for Teaching, Learning and Assessment

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Abstract

Evaluation is the process of observing and measuring for the purpose of judging, determining the learning outcomes to make evaluation as objective as possible. It is a systematic, rigorous and meticulous application of scientific methods to assess the design, implementation, improvement and outcomes of a program. Students are guided on what they are expected to learn and to realize what quality work looks like. Differentiated Assessment Strategies is an ongoing process of evaluation where the teacher gathers information and data before, during and after instruction to better facilitate the learning process. Tools used for Differentiated Assessment Strategies are Questions, Observation, Tests and inventories, Checklist , Rating scale, Anecdotal records, Document analysis, Portfolio, Experiments, Research and Rubrics.

A criterion referenced test provides for translating test scores into a statement about the behaviour to be expected of a person with that score or their relationship to a specified subject matter.A norm-referenced test is a type of test which yields an estimate of the position of the tested individual in a predefined population, with respect to the trait being measured. Rubric is a scoring and instructional tool used to assess student performance using a task-specific range or set of criteria. Reflective Journals are notebooks or pieces of paper that students use when writing about and reflecting on their own thoughts. Modes of Assessment are Performance Tests, Written Test, Open Book Examination and Online examination. All these different modes of Assessment help to improve the quality of evaluation.

Keywords*:* Assessment and Evaluation, Learning, Teaching , Tools and Techniques.

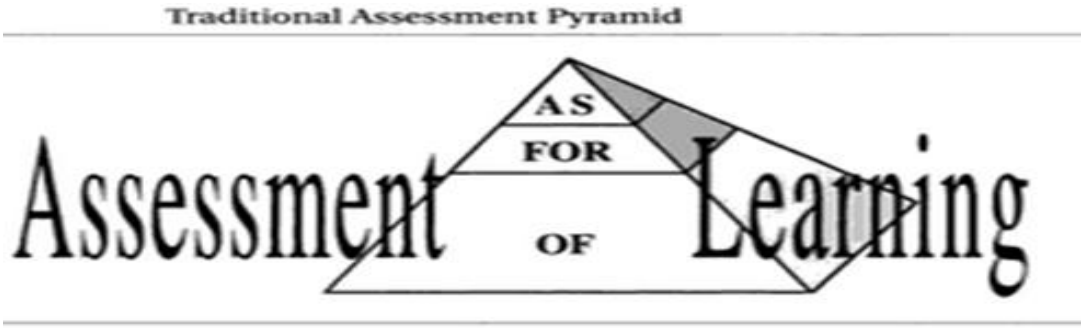
Evaluation is the process of observing and measuring for the purpose of judging to make evaluation as objective as possible. It is a systematic, rigorous and meticulous application of scientific methods to assess the design, implementation, improvement and outcomes of a program. In this paper, evaluation techniques are discussed as given in B.Ed. Syllabus. The paper proposes to show the contribution that these techniques make in enhancing the quality of evaluation.

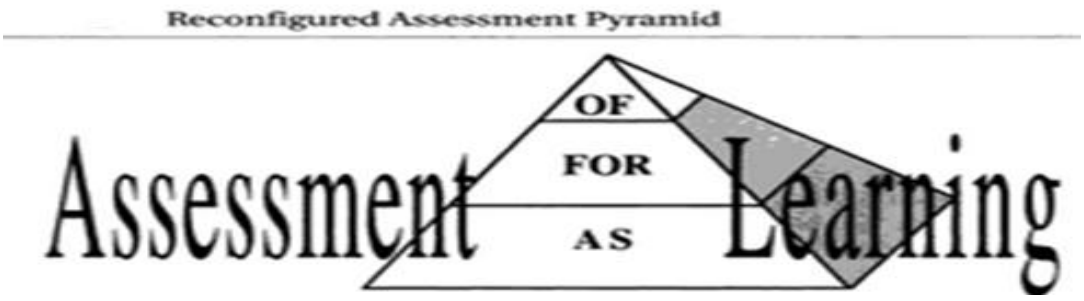
Assessment and Evaluation:

The terms Assessment and Evaluation are often used interchangeably. However, Assessment is defined as a process of appraising something, whereas evaluation focuses on making a judgment about values, numbers or performance of someone or something. While "Formative" assessment is measurement for the purpose of improving the system, "Summative" assessment is what we normally call "evaluation."

Assessment is the systematic collection of data to monitor the success of a program in achieving intended learning outcomes for students. It focuses on teaching and learning outcomes. Evaluation is the process of observing and measuring a thing for the purpose of judging it and of determining its "value," either by comparing it to similar things. Evaluation is a judgment by the instructor to find out whether the instruction has met its Intended Learning Outcomes.

Perspectives of Assessment:





ASSESSMENT FOR LEARNING occurs throughout the learning process. The emphasis shifts to FORMATIVE assessment. It happens during the learning, often more than once, rather than at the end. Students understand exactly what they are to learn, what is expected of them and are given feedback and advice on how to improve their work. Teachers also use assessment for learning to enhance students' motivation and commitment to learning.

ASSESSMENT OF LEARNING is usually SUMMATIVE and is mostly done at the end of a task. It is designed to provide evidence of achievement to parents, educators, students and others. Teachers have the responsibility of reporting student learning accurately and fairly, based on evidence obtained from a variety of contexts.

ASSESSMENT AS LEARNING helps students to take more responsibility for their own learning and monitoring future directions. Students reflect on their work on a regular basis, usually through self and peer assessment which helps to determine what their next level of learning will be. It provides regular and challenging opportunities to practice and make students confident, competent self-assessors.

Instruments of Assessment:

DIFFERENTIATED ASSESSMENT STRATEGIES is an ongoing process of evaluation where the teacher gathers information and data before, during and after instruction to facilitate better learning. Purpose of differentiated assessment is to ensure success for all students in the differentiated class with data provided from a variety of sources assisting in giving an overall view of student achievement.

CONTINUOUS AND COMPREHENSIVE EVALUATION (CCE), the **'**Continuous' aspect takes care of 'continual' and 'periodicity' aspect of evaluation. Before instruction, it helps to determine what a student does and does not know about a topic. It helps to determine how well a student can perform a certain set of skills related to a particular subject. During instruction, the purpose is to determine a student's knowledge and skills, including learning gaps as they progress through a unit of study. After instruction, the purpose is to determine the level of understanding the student has achieved and to mark or grade student's performance against an expected standard.It is done informally using multiple evaluation techniques.

The 'comprehensive' component of CCE takes care of assessment of the all round development which includes assessment of Scholastic as well as Co-Scholastic aspects. Evaluation should be helpful to the learner to know the purpose of learning, performance level, mastery over content, study habits etc. to avoid any confusion.

TEACHER ASSESSMENT is the process undertaken by the teacher to review and use information about educational programs for improving student learning and development. It is a process undertaken by the teacher to make inferences about students learning and development. It includes defining, selecting, designing, collecting, analyzing and interpreting the information to increase students' learning. Students are guided on what they are expected to learn. Teacher should continually check their progress by working towards the feedback they received.

SELF ASSESSMENT is a process whereby student grade assignments or tests based on teacher's benchmarks. Students assess their own contribution/performance as well as their peers using an established set of criteria. The purpose is to make judgments about progress of one's own learning. Self assessment needs to be designed to be appropriate for particular discipline contexts. It can be used in conjunction with peer and teacher assessment.

PEER ASSESSMENT is a process where in students or their peers' grade assignments or test based on benchmarks set by teachers. Grading is based on predetermined list of criteria. Research evidence indicates that peer feedback can be used very effectively in the development of students' writing skills. Purpose of Peer assessment isto increase student responsibility and to strive for a more advanced and deeper understanding of the subject matter. Peer assessment enhances students learning through knowledge and exchange of ideas and motivates students to engage with course material more deeply.

CRITERION-REFERENCED TEST (CRT) type provides details for translating test scores into a statement about relationship to a specified subject matter. Most tests and quizzes that are written by school teachers can be considered criterion-

referenced tests. The purpose is to determine whether each student has achieved specific skills or concepts based on standards. A student's score is usually expressed as a percentage.

NORM-REFERENCED TEST (NRT) is a type of test which yields an estimate of the position of the tested individual in a predefined population, with respect to the trait being measured. This type of test identifies whether the test taker performed better or worse than others. The purpose is to rank each student in order to distinguish between high and low achievers. NRT measures broad skill areas sampled from a variety of textbooks, syllabi and the judgments of curriculum experts.

RUBRICS is typically a task-specific evaluation tool, used to assess student performance based on set of guidelines to promote the consistent application of learning expectations in the classroom to measure their attainment against a set of criteria. It is a scoring and instructional tool using a range of criteria (e.g., Excellent, Good, Needs Improvement) or numerical scores (e.g., 4, 3, 2, 1) for each criterion. It helps to reduce the need for written feedback and to streamline the grading process as a stated objective. It encourages reflective practice for both students and teachers.

PORTFOLIOS are the cumulative assessment or an organized collection of students' work samples, progress and achievement in one or more area to represent students' academic achievements over a period of time. It promotes student self-evaluation, reflection and critical thinking and measures performance based on genuine samples of student work. Portfolio enables teachers and students to share the responsibilities for setting goals for learning and evaluating. It improves student Achievement, Capabilities, Strengths, Weaknesses, Knowledge & Specific skills.

REFLECTIVE JOURNAL is a personal record of student's learning experiences. Reflective journals are notebooks or pieces of paper that students use when writing about and reflecting on their own thoughts. It is a space where a learner can record and reflect upon their observations and responses to situations, which can be used to explore and analyze ways of thinking. The purpose of maintaining a Reflective Journal is to facilitate thinking deeply and writing about a learning experience. This involves writing about What happened (positive and negative), Why it happened, What it means, How successful it was and What you learned from the experience.

Performance Tests: Oral & Practical Assessment

PERFORMANCE TEST evaluates the performance of the students or it evaluates how well the students are able to apply their knowledge. For assessment number of tools and techniques are used. Performance test measures, the skill, techniques or procedure which the students ought to follow to get results and evaluates the product/ result of a particular task, For example, Procedure is emphasized is the field of speech, music, physical

education, laboratory experiments, craft work etc. and composition, maps, drawings, models etc. enable teachers to evaluate the products.

Performance Test is further classified into ORAL TEST and PRACTICAL TEST.
Objectives of Oral Assessment:

- To analyze pupil's presence of mind as exposed through oral questioning.
- To inculcate regular study habits
- To shift the emphasis of mere transmission of knowledge to application level.
- To remove fear and develop positive attitude towards evaluation procedures.

Suggestions for improvement:

- Decide the objectives and the content to be evaluated. Then frame the questions according to the objectives.
- Evaluate only those objectives that cannot be evaluated by written test.
- Prepare a list of questions to be asked. Care must be taken to keep all questions comparable and with same level of difficulty.
- Write possible answers to the questions & decide the number of marks allotted to each of these points of answer.
- The method of grading / assessment should be decided before the test is given.
- Time limit and marks have to be decided in advance.

Criteria for evaluation can be Pronunciation, Grammatical correctness, Vocabulary and Usage, Delivery, Fluency, Manners and Gestures, Tone/ Pitch, Clarity of voice, Validity of the answer, Confidence level of students. etc.

PRACTICAL TEST should be used for those subjects in which pupils are taught to follow specific procedure and/ or to create some products. It is used to evaluate abilities like,

- Knowledge, application, imitation etc.,
- Observation of Activity
- Examining the mode of implementation or creation of product
- Study of mechanical structure of the product

Suggestions to improve practical examination:

- Points for observing an activity/ thing made as well as the expected mechanical structure must be decided in advance.
- Time required by a student to complete the activity should be taken into consideration.
- It is better to allot equal time to all students to complete the activity.
- The time should be adequate and neither too short nor too long.

- It should be ensured that all the students get the equipment's or tools of the same quality.
- Observation by the teacher should be unbiased.

Planning phase, Execution phase, Reporting phase, Completion, Procedure, Stepwise observation, Final answer, Step-wise marks etc. can be considered as criteria for evaluation.

Written Test: Essay Type Test and Objective Type Test

ESSAY TYPE TESTS which are widely used are characterized by no single answer being considered absolutely correct, Freedom of response, Variation in answer, Lengthy, Format, Subjective judgment etc.

"A relatively free written response to a problem situation in which the written answer intentionally or unintentionally reveal evidence regarding the functioning of pupil's mental powers as they have been modified by a particular set of learning experiences." – Wright stone.

Types: EXTENDED RESPONSE and RESTRICTED RESPONSE

Extended Response (open)essay question permits a student to demonstrate his ability to,

- Recall and evaluate the factual knowledge of the students
- Organize/ present his/her ideas in a logical, coherent fashion.
- Discuss and take any point that his/her wishes/ think is important.
- Organize the material in the way he/she wishes.

Restricted Response on the other hand, is limited in the form and scope of their answer.
For example the question,
Explain the chemical changes that take place in our day-to-day life (not more than 100 words), does not allow students to elaborate much.

Suggestions for Improvement of Essay Test

A. Improvement in Construction of Question Paper

- Use of simple and clear language. Questions should not be framed using vague, intricate and puzzling language. Students find it difficult to plan answers. Hence questions should be in clear and simple language.
- Establish a framework (Scope and Length) within which pupils operate
- Provide necessary training to the pupils in responding to essay questions
- The method of providing question-wise internal options increase the comparability of achievement among students
- Provide adequate time as inadequate time allotment lowers the validity of the test and writing with more than average speed will become his predominant intension

B. Improvement in Assessment

- Model answer to be given (Marking Scheme)
- Decide the objectives to be measured
- One who sets the paper should possibly assess
- Once assessment begins standard should not be changed
- Grade same question for all the papers at a time because it minimizes horn effect and brings consistency in scoring
- Grade the paper anonymously in order to reduce halo effect
- Try to score all responses to a particular question without interruption because this will increase reliability
- Appropriate Marking scheme
- Question wise Scrutiny
- Secrecy about name of respondents

Evaluation should be based on proper marking scheme with no marks reserved for irrelevant elements and Language used to answer.

OBJECTIVE TYPE TEST refers to any written test that requires the examinee to select the correct answer from the given alternatives or supply a word for scoring. The response should be based on recall /retrieval of information or recognition of an event which demands an objective judgment.

According to Ebel and Frisbie, "An objective test is one that can be provided with a simple predetermined test of correct answers so that objective opinion or judgment in the scoring procedure is eliminated". -

Suggestions for improvement:

- Test important facts and knowledge for trivial details.
- Construct the items (questions) according to the age and maturity levels of the pupils.
- Avoid ambiguous statements and direct words/ questions to be asked and difficult words should be avoided.
- Avoid inter-dependent items/an item should not provide clues to the answer of questions.
- An item should not be reproduced directly from the textbook but should rather be rephrased in order to discourage memorization.
- Make sure that the expected answer is obtained from the questions and vagueness is avoided.
- The blank space for the answer to be adequately long.
- Instead of giving incomplete statement, question can be given.

Criteria for evaluation

- Relevance of the answer to the content
- Time limit for answering each question
- Pertinent of questions to the given content
- Completeness of answers

Open Book Examination (OBE):

An "open book examination" is one in which examinees are allowed to consult their class notes, textbooks and other approved material while answering questions. It is ideally suited to teaching programmes that especially aim at developing the skills of critical and creative thinking.

Difference between Open Book Examination (OBE) and Closed Book Examination (CBE):

- The main difference between open and closed book examination questions is the way it is used.
- An open book examination question provides the candidates with the theory and the question is examining to demonstrate their ability to apply the theory to a scenario (particular situation).

Example of Open book exam question,
What would be the situation of the country with respect to poverty and unemployment, if Gandhiji was a leader of India today?

Online Examination:

Online Examination helps the students for appearing for the exam online. Its mission is to offer a quick and easy way to appear for the exam and it also provide the result immediately after the exam. Online exam is the most easiest and economic way to assess a student's ability by saving time. It promotes e-learning and e-references.

Conclusion

All these modes of Assessment and Evaluation are theoretically taught during the B.Ed. Program. However, they need to be incorporated by implementing them practically during teaching learning process. It will allow them to have more consciously used choice of evaluation modes in order to improve the quality of education.

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THEME IV: ACADEMIC LIBRARIES

ROLE OF ACADEMIC LIBRARIES IN TEACHING AND LEARNING BEYOND CLASSROOM

Kadambari Manjrekar[1]and Rinku Das[2,] VPM"s B. N. Bandodkar College of Science, Thane

Abstract

Academic library development is always tied with the development of the Institution it serves. With the advent of Information and Communication Technologies (ICTs), the role and position of libraries has dramatically changed. The present-day academic library services in the 21st century is focusing more on the area of digital, virtual or libraries without borders etc. Apart from Websites, blog users can also make use of social media tools like facebook, twitter, Whats app, You Tube, Instant chats etc. The need for e-information services to the users are also growing and becoming very essential

Keywords: Information and Communication Technology (ICT), WEB OPAC, Institutional Repository

Introduction

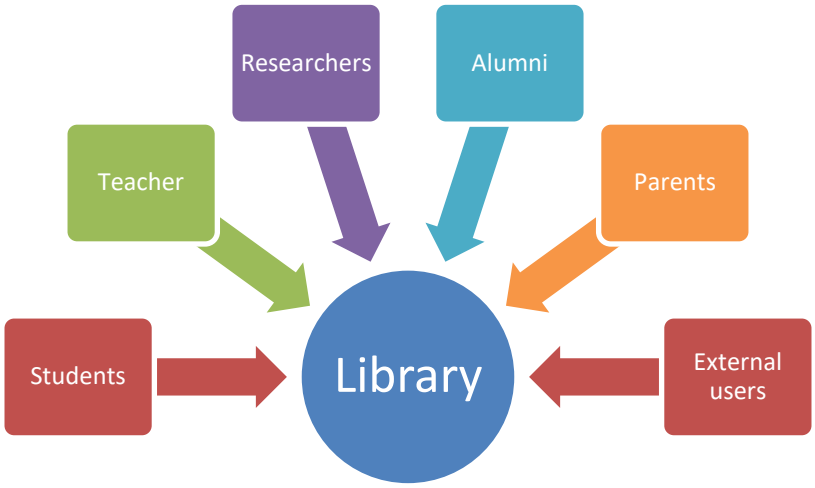
Academic library development is always tied with the development of the Institution it serves. It has been observed that there are many qualitative changes in the areas of higher education and research.

Academic Libraries are the libraries that belong to academic institutions. In the past, library was considered as the place where one can sit and do reference work for their research. However, technology has changed every walk of life and libraries are no exception. Now to refer to the library, one need not visit the library physically. Instead they can make use of library from anywhere or any location that is feasible to them.

With the advent of Information and Communication Technologies (ICTs), the role and position of libraries has dramatically changed.

The present-day academic library services in the 21st century is focusing more on the area of digital, virtual or libraries without borders etc. Library has to cater to the needs of its clientele at different levels.

Library plays an intrinsic role for every stakeholder.



In the present scenario, along with print media , library has to procure different non print material like -

- E-books
- E-Journals
- E-Databases
- E-Newspapers
- E-Newsletter
- CDs and DVDS

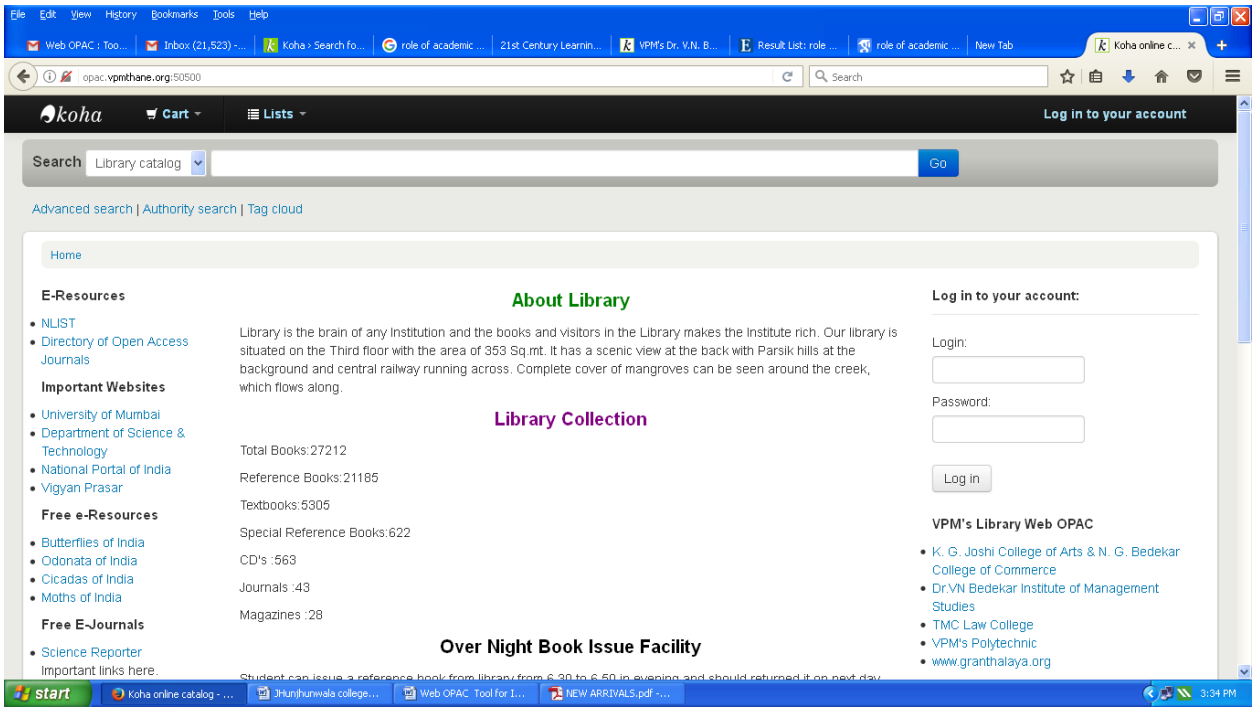
There are various ways through which information is available for users. Apart from Websites and blogs users can also make use of social media tools like facebook, twitter, WhatsApp, You Tube, Instant chats etc.

In keeping with changing needs & situations BNB Library has taken some initiatives to enhance the Learning Process beyond classroom

Web OPAC (Online Public Access Catalogue)

BNB College has computerized the library with the help of Koha open source software. Students do issue the book with their I-card and do not need separate library card.

To make the students aware about collection and library facility, the college has developed our Web OPAC in such manner that on the Web OPAC the students get all the necessary information regarding use of library. However, it is necessary to provide orientation for use of Web OPAC.



Features of WEB OPAC

- Rules and Regulations of Library: Details rules regarding files to be imposed are mentioned on the web OPAC.
- Different Library Services: Details about library services is made available on the OPAC.
- Book Bank Facility: BNB gives various book bank facility available for Scholars, for economically backward students, for socially backward students and for students of unaided section
- E-Resources – Free and Paid: BNB subscribes different paid databases and also free databases. All these databases are available on the web OAC.
- E-Newspapers: Various Marathi and English e-newspapers links are available on the web OPAC.
- How to Search the Book: A special link is created for the users to guide them in how to search the book from the database.
- How to access online Database: A special link is created for the users to guide them in how to search the database and find the article.
- Details of New Arrival: A separate link for the users, where monthly updates about newly added books have been available.
- Details for External Membership Services

Digital Repository

Repositories are important for universities and colleges in helping to manage and capture intellectual assets as a part of their information strategy. An Institutional Repository (I.R.) can hold a wide range of materials for a variety of purposes and users. It can support research, learning, and administrative processes.

Benefits of Institutional Repository

For the user

- Easy access, best quality material in original digital format for the users.
- Grey literature, material not easily found through conventional means, will be actively recruited
- Can include material such as working papers, pre-prints, conference presentations.

For the contributor

- Greater citation, digital platform to publish publications, preservation of the publications in digital form, easy to reuse.

For the Organization

- The scholarly material produced by the university is available in one place, reflecting the intellectual achievements of the institution, and serving as a valuable marketing tool.
- Documents reflecting the institutional history of the university, both scholarly and non-scholarly, are preserved for future use, much like a traditional archive preserves paper material.
- Material that is not traditionally published is included in the repository, including drafts of unpublished articles or book chapters, unpublished research, student works, learning models, and creative works.

Other Benefits

1. Increased visibility to the Library
2. Responsiveness to local user needs and preferences
3. Showcase and preserve, scholarly output and historic documents
4. Support teaching and learning
5. Provide curatorial stewardship for disorganized and scattered digital materials

IN BNB Repository, following material has been uploaded.

Sr. No.	Type of Material	Description
1	**Study Material**	During contact session, it is really difficult for a teacher to complete syllabus, clear the doubts and provide study material. Hence such study material, presentations are uploaded on repository, which help the students to access the material anytime, anywhere.
2	**Question Bank**	To help the students with expected questions, question banks have been uploaded on the repository.
3	**Question Papers**	Students do ask for the past year question papers for reference or preparation through this source, they get past years question papers easily.
4	**Syllabi**	Current syllabus is necessity of student, for which they can get easy access. There is change in syllabus after some year. Some students need the syllabus that they had shaded for higher studies in foreign University. If it is available at one click, then it is always helpful for such past student.
5	**Research Papers**	Many faculty members& research students do conduct their research and publish paper in some Research Journals. Such papers are kept available for others for reference.
6	**Conference Proceedings**	Since 12 years BNB is conducting National conference and from last 2 years International conferences have been held. Proceedings of all the conferences are made available for the students and kept open for all.
7	**Conference Recordings**	During conferences, eminent personalities in respective fields are invited. Their key note addresses are recorded and are available on the repository. The participants as well as nonparticipants can take advantage of the expertise of the speaker.
8	**College Prospectus**	College prospectus is a descriptive manual about college administration work, which changes annually.
9	**College Magazine**	BNB publishes ever year college magazine “SANYUJA” which is also available on the repository.
10	**College Journal**	To inculcate the habit of research in students, BNB publishes e-Journal name “J-BNNB: A Multidisciplinary Journal” with ISSN no. This magazine is available on the repository.

Conclusion

The use of ICT has helped library professionals to improve their library services in many aspects. It perfects in serving the fifth law of the library science "Save the time of the reader". The librarians are then putting in genuine efforts to incorporate new and innovative strategies to keep the library supported within and beyond the walls of the library.

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Report on the Seminar

NAAC has given highest weightage to the Teaching, Learning and Evaluation (T-L-E) criteria as it forms the core and focal point of all academic activities undertaken by educational institutions. All teaching activities are directed towards the learner whose learning and comprehension needs to be evaluated. Today's learners (students) are digital natives having access to different sources of information. The Universe is their classroom and with options like virtual classroom and e- learning, the dynamics of teaching- learning process has undergone change. Student's learning is no longer restricted to the four walls of their classroom, but it takes place outside and beyond the classroom.

It is therefore necessary to focus on the various educational resources in respect of Teaching, Learning and Evaluation like E- Learning, MOODLE, POGIL and understand the contemporary teaching methods and tools to improve the standard of Teaching, Learning and Evaluation in the present scenario.

The two day seminar had various technical sessions covering different aspects of T-L-E and papers presented under the different themes of the seminar.

In the last session of the seminar, a panel discussion was held to present and deliberate upon the various issues relating to Teaching, Learning and Evaluation. The students are the main stakeholders in the T-L-E Process, and their feedback was sought on the T-L-E. The feedback form contained following open ended questions:

- To know the problem the student face in online learning.
- To know the difficulties they face in Teaching, Learning and Evaluation and seek their suggestions on the same.
- The other questions had multiple choice options which the students were required to choose from.

The faculty wise distribution of the forms is as follows -

Class	No. of students
FY	40
SY	40
TY	40
TOTAL	120

Analysis of Feedback

Q1. The best way in which I can learn --

	1	2	3	4	5	6
	Traditional classroom Teaching	Online	Youtube	Self learning	Group learning	Others
FY	24	03	03	11	05	00
SY	28	01	04	03	08	00
TY	27	08	00	10	10	00

It is evident that a significant majority believe that the best way they can learn is the TRADITIONAL CLASSROOM TEACHING followed by self learning.

Q2. Problems I face in online learning –

Some responses regarding difficulties faced by the students in online learning:

a. Personal interaction is missing - prefer face to face interaction.
b. Unable to ask the queries.
c. Unable to understand the concept.
d. Server issues and connectivity problems.
e. High level grammar is used.
f. Not explored online learning.
g. Lack of Computer literacy.
h. Prefer traditional over online learning.
i. Students are not interested in online learning. They consider it a waste of time.
j. It is expensive.

Q3. The Syllabus is --

	1	2	3	4
	Relevant	Making me employable	Preparing for the career	Teaching imp. Lessons of life
FY	02	02	21	23
SY	08	07	21	09
TY	14	03	18	07

Most of the student respondents opined that the syllabus helps them in PREPARING THEM FOR THEIR CAREER followed by teaching important lessons of life.

Q4. The evaluation method --

	1	2	3	4
	Relevant	Making Employable	Preparing for the career	Teaching imp. Lessons of life
FY	02	02	21	23
SY	08	07	21	09
TY	14	03	18	07

From the table it is seen that students prefer exams at the end of the semester followed by Continuous evaluation. It is also clear that students want some evaluation to assess the learning outcomes as only one student wanted "NO EXAMS"

Q5. Please specify difficulties that you face in teaching, learning and evaluation method and give suggestions –

Some suggestions on Teaching, Learning And Evaluation method:

a. Syllabus to be made more practical than theoretical.
b. Syllabus is outdated and exam oriented.
c. Evaluation to be continuous.
d. There should be better Student- Teacher relationship.
e. Teachers to take more interest while teaching.
f. Question paper is lengthy, as a result the students are unable to complete the paper on time.
g. Faculties to be on time.
h. Method of teaching to be changed.
i. Professors need to explain the content in an appropriate manner with practical examples.
j. Teachers to teach using PPT.
k. Poor retention is a problem for the learners.

Majority of the students were hesitating to give their suggestions on Teaching, Learning and Evaluation.

Hindi Vidya Prachar Samiti's

RAMNIRANJAN JHUNJHUNWALA COLLEGE

IQAC organized National seminar on Teaching, learning and evaluation beyond class room on 17th&18th Feb 2017.

Feedback form from students

Name of Student:.....

Class.....**RollNo:**.....

Name of College:.....

1. The best way in which I can learn:

You may choose from the following indicators

1. Traditional class room teaching	☐	**2.** Online	☐	**3.** Youtube	☐
4. Self learning	☐	**5.** Group learning	☐	**6.** Any other method	☐

2. The problems I Face in Online learning:

.....

.....

.....

3. The syllabus is:

1. Relevant	☐	**3.** Preparing me for career	☐
2. Making me employable	☐	**4.** Teaching important lessons of life	☐

5. Any other point .....

4. The evaluation method:

1.	**Continuous evaluation**			2.	**Only exam at end of semester**			3.	**Open book exam**	
4.	Objective type question paper			**5.**	Descriptive type question paper			**6.**	Online exam	
7.	No Exam									

5. Please specify difficulties that you face in teaching, learning and evaluation method and give suggestions.

Sign: Date:

W=e value your feedback. Your feedback helps us to improve our Quality

□□□

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