

ICT- National Policy, System Approaches, Internet, E-learning & online Exams

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Micro teaching

Quality education through ICT – National Policy on ICT (2012).

Create

- An environment to develop a community knowledgeable about ICT
- An ICT literate community which can deploy, utilise, benefit from ICT and contribute to nation building
- An environment of collaboration, cooperation and sharing, conducive to the creation of a demand for optimal utilisation of and optimum returns on the potentials of ICT in education ‘

Promote

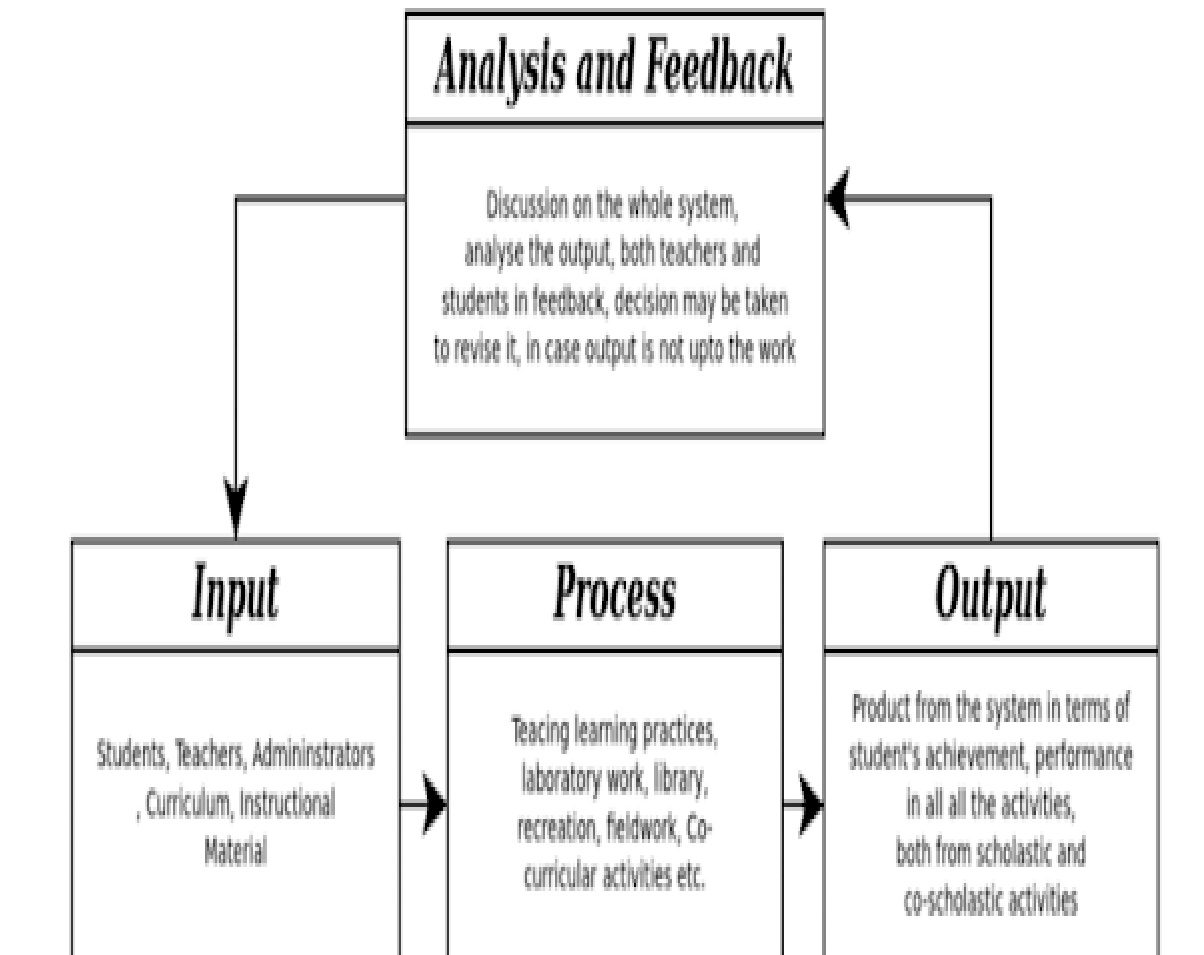
- Universal, equitable, open and free access to a state-of-the-art ICT and ICT enabled tools and resources to all students and teachers
- Development of local and localised quality content and to enable students and teachers to partner in the development and critical use of shared digital resources
- Development of professional networks of teachers, resource persons and schools to catalyse and support resource sharing, upgradation, and continuing education of teachers; guidance, counselling and academic support to students; and resource sharing, management and networking of school managers and administrators, resulting in improved efficiencies in the schooling process
- Research, evaluation and experimentation in ICT tools and ICT enabled practices in order to inform, guide and utilise the potentials of ICT in school education
- Acritical understanding of ICT, its benefits, dangers and limitations

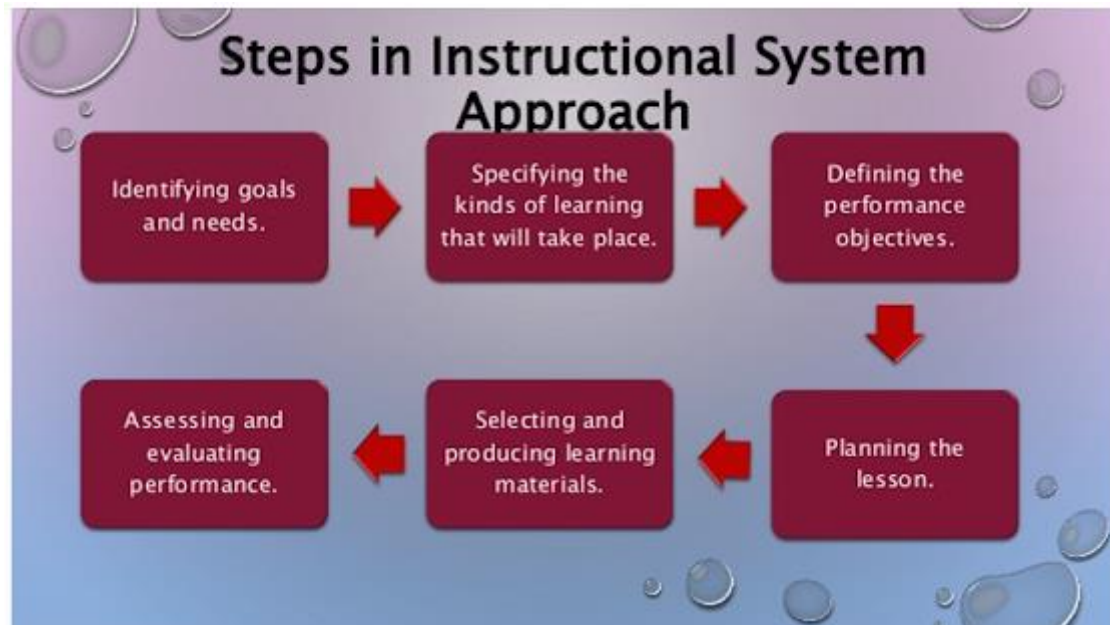
Motivate and enable

- Wider participation of all sections of society in strengthening the school education process through appropriate utilisation of ICT

System Approach to Instruction.

System approach was introduced during Second World War. Since then, it has particularly influenced the management decisions of industry, government, military and business sectors. System refers to a fixed method. In fact, system approach is a thorough analysis of a system.





It is applied to develop, implement, and evaluate various aspects of the education system, and sub-system. It is a problem-solving method, analysing the educational process, and making it more effective. The purpose of the systems analysis is to create an enabling learning environment for both teachers and students.

Advantages of System approach

- System approach helps to identify the suitability of the resource material to achieve the specific goal.
- Technological advance could be used to provide integration of machines, media and people for attaining the defined goal.
- It helps to assess the resource needs, their sources and facilities in relation to quantities, time and others factors.
- It permits an orderly introduction of components demonstrated to be required for systems success in term of student learning.
- It avoids rigidity in plan of action as continuous evaluation affords desired beneficial changes to be made.

Disadvantages /Limitations of system approach

- System approach requires hard continuous work on the part of school / college
- Some are not prepared for extra load.
- Lack of understanding. Teacher and administrators are still not familiar with system approach.
- It has still to make headway in education.
- Difficult to implement

Internet & USES.

The Internet is a sea of data and information in which a little dip can speed up and change the way we live and do business. The use of Internet in education is providing new opportunities for both students and educators alike. Uses of the Internet in our daily life is depending on desires and goals. Activities in our daily life are decided after the use of Internet. It innovated our daily life. We spend lots of time on the Web. Positive use of the Internet makes our lives easy and simple. The Internet provides us useful data, information, and knowledge for the personal, social and economic development and it is up to us to utilize our time on the worldwide web in a productive manner. The Internet is a revolution in information technology. While there are various uses of the Internet but you can use the internet for getting an online education. We can use the Internet to promote our business online. We can do online courses and improve your writing, communication, business and online marketing skills. Online shopping, social media, emails, chatting are common things that we do daily. We are free to use the Internet. The Internet is a magical tool that will help you to become successful in your career and business. But only the positive and productive use of the Internet. The global network of computers has changed our lives tremendously. We are hungry to use the Internet. That's why more than 40% of the world's population is connected to the Internet according to internetlivestatus.com. This is because we are connected to various information and lifestyle facilities. It is because a large number of new people are getting connected to the Internet via their portable devices every day. We start our day after notifications and emails. This means that as soon as we wake up we are flooded with information from different sources.

Sometimes it is struggling to prioritize and decide which information is useful and which is not. Using the Internet positively means we can decide what is important for the day. The Internet is a sea of data and information in which a little dip can speed up and change the way we live and do business.

USES of INTERNET

1. Students' daily life
2. To increase the speed of daily task.
3. For business promotion and Innovation.
4. Shopping in daily life.
5. Research and Development.
6. Quick and free communication.
7. International uses of internet by working Remotely and providing business services.
8. In Money Management.
9. For Teaching and sharing the knowledge with others.
10. In Cashless Economy.
11. In environment Development.
12. Tour and Travel.
13. Government policies and Scheme
14. For Parents & kids.

e-learning & MOOCs

e-learning has been widely accepted by the people as it is a helpful resource which helps to do the work easily. E-learning has flexibility and provides a standard learning platform where both teacher and student be participant in teaching and learning, e-learning has become mandatory in today's world from one corner to another corner people get information instantly it works productively and has rules and regulations works systematically nowadays people are using frequently due to the presently situation all the classes are going through on-line ,each every things it is going through online . e-learning has become a very useful resource's younger generation are so much into it, as online is growing same time people are also growing changing, learning, sharing idea's is happening. e-learning words has power it shows a way to people life has become much easier. It is very much beneficial to the students, higher studies and in all sectors in each subject it is helpful like science, history showing projector, useful videos, using smart class. it makes learning more interesting but teacher has to work harder as well as students have to co-operate then learning will blend with beautiful creative ideas and reach the goal , e-learning has been imprint in people's hearts without e-learning nothing is possible in humans life , e-learning is smarter , intelligent same time it also helps to we humans life has become more easier than before if we happen to see during our ancient time's , e - learning creates an positive attitude environment its main aim is to help out learner's and win people's life attention , e-learning is transparent it gives a good result without cheating .our world has also transformed and has become modern it is only with the help of e-learning it main motive with a blink of eye a positive attitude, response has arrived in e-learning.

Goals and purpose of e -learning.

E-learning is an electronic learning from Google meet , Google classroom etc through online classes we can do face to face learning uses of web technologies tool it enhances collaborative learning and a new learning platform becomes for Student's .

- Enhances the quality of learning and teaching .
- It meets the learning styles or needs of Student's.
- Improve the effectiveness.
- Improve user accessibility and time flexibility to engage learners on learning process.
- E-learning is a vast and expanding platform with huge prospective to higher education.
- It helps us like a road map to teacher's and Student's.
- E-learning is a good solution to create an active platform for learning.
- Online learning has become new norm it lets us adapt own timing and convenience .It helps learners to learn any where.
- E-learning is also a tool of whole for corporative training.

- Positive thinking can make it easier for you to focus on task that needs to be done and learn new information .
- Work on task on time , get quality rest , explore new ideas /take risk ,build a trust connection.
- Spread material throughout several study sessions ,clam your mind so that you can think more clearly about your students.
- Online -learning offers teachers and students effective way to deliver lessons to Student's.
- Online learning offers Student's the accessibility to time and place in education.
- Online education is affordable as compare to physical learning it eliminates Student's transportation etc.
- Improve Student's attendance can't miss out if he /she is sick can get excuse

Scope of e-learning.

Online learning is a dynamic and life long process it is a wider platform to help students get more educated like smart phone, high speed internet, website etc which helps learner easy to share material.

- Online education is cheaper than off line education, it saves money ,time and energy.
- Through online we can get effective information while sitting at home .
- Physical disability people can also go for degrees and built their careers through online learning.
- Online education offers chat rooms, email, Google meet ,Google classroom etc.
- Online education provides comfortable environment it is flexible.
- Opportunity to explore diverse cultures through video -learning, we can interact face to face with Student's various cultural and ethnic background.
- Through online any Students can choose the course of his /her preference like IGNOU ,BA courses hons etc.
- E-learning is ever green it balances the supply and demand ecosystem.
- Online education provides quality of education , development of curriculum it held out to bring new ideas .
- Development of teaching learning materials , e-learning videos are a dynamic way to study online especially in the quarantine days .
- Online learning is a high quality education main purpose of education is to achieve upward mobility.

- Electronic -learning certified online course provides a wide range of course
- From good to old times to new reform in education system have revolved around Technology.
- We can learn from anywhere, everywhere when we are on the move we can learn at our own pace through recorded sessions.
- Learn on demand through web - based training and assignments, learn without communicating and save on time.
- Eliminate cost on infrastructure investment, online learning improves time management skills.
- Online provides best opportunity to Student's and give the opportunity to choose from various schools and courses.
- Accessibility online course material can be accessed 24 hours a day every day .
- Students are explained to knowledge share by the instructions around the globe which cannot be learner in books.
- Use of e - learning technologies tools and improved the innovative learning.

Types of e-Learning.

e-learning is a learning environment when uses information and communications technology (ICT'S) as a platform for reaching and learning activities, it is an electronic design technology through learning is created. Lesson based learning, group learning, course based learning, video -based learning , article based learning ,self-paced learning . App based learning, distance learning video conferencing, hybrid distance learning , open schedule online course. Fixed time online course , computer based e -learning and internet based e-learning . Computer based e-learning and internet based e-learning , Direct through visual ,verbal , physical ,logical , social. High quality content easy navigability effective e-learning provide learning with motivation the using delivery techniques.

Advantage of e-learning

- Flexibility and self-paced learning better time management.
- Demonstrated self-motivated improved virtual communication and collaborative.
- Refined critical thinking skills and come to know about new skills.
- It cost less, less intensity easier , attendance improve ,self-discipline .
- Easier access to teacher location, comfort of home have opinion.
- Easy to focus, easier to fit learning into your daily learning skills.

Disadvantages of e-learning

- Online Student's feedback is limited.
- e -learning can cause social isolation.
- e-learning requires strong, self-motivated and time management skills .
- Lack of communication skills development in online Student's.
- Online instructors tend to focus on theory rather than practice.
- e-learning lacks face to face communication.
- e-learning is limited to certain discipline.
- Lack of accreditation and quality in online education.

Study Webs of Active Learning for Young Aspiring Minds (SWAYAM):

SWAYAM is an indigenous (Made in India) IT Massive Open Online Courses (MOOCs) Platform for providing best quality education that can be accessed by anyone, anytime and anywhere using the IT system. All the courses delivered through SWAYAM are available free of cost to the learners, however students wanting certifications shall be registered, shall be offered a certificate on successful completion of the course, with a little fee.

Important Points:

- The Concept of Massive Open Online Courses (MOOCs) involves online delivery of interactive learning content to large number of people simultaneously. It allows sharing of best quality education with everyone, thereby bringing in equity as far as the quality of education is concerned.
- It is developed by Ministry of Human Resource Development (MHRD) and All India Council for Technical Education (AICTE) with the help of Microsoft.
- Its ultimately capable of hosting 2000 courses and 80000 hours of learning: covering school, under-graduate, post-graduate, engineering, law and other professional courses.
- More than 1,000 specially chosen faculty and teachers from across the Country have participated in preparing these courses.
- At present, the Credits up to 20% of the total courses can only be earned in a Semester by such students through online learning delivered on SWAYAM platform.

Courses under SWAYAM would be available in the following levels: For each level, there is a National Coordinator, who would be responsible for the quality of content:

- Out of school Children: for classes 9th to 12th (National Coordinator: National Open School Society: NIOS)
- School children in classes 9th to 12th (National Coordinator: NCERT)
- Undergraduate (non-engineering) courses (National Coordinator: CEC)
- Post graduate (non-engineering) courses (National Coordinator: UGC)
- Engineering Courses (National Coordinator: IIT Madras)
- Management Courses (National Coordinator: IIM Bangalore)
- Out of college students (National Coordinator: IGNOU)
- Teaching the teachers (National Coordinator: NITTER Chennai)

There are 4 quadrants in the MOOC pedagogy:

- I. Video tutorials covering a whole course – normally having about 20 hours of instruction in series of lectures, each lecture not exceeding 30 minutes.
- II. E-Content: reading material that could add to the learning imparted through the video tutorials.
- III. Self-Assessment: Quizzes/assignments that intersperse the course
- IV. Discussion forum for posting queries

Online examination

Online examination systems seek to efficiently evaluate the exam partakers thoroughly through a fully automated system that not only saves time but also give fast results. The Online examination system helps to completely automate the old manual procedure of conducting exams. Usually, it is done through a Web Based Online Examination Software or an Intranet variant. It also significantly eliminates the need for monitoring while the exam is being taken. All instructions are displayed to the exam taker before the tests begin.

To effectively deliver an examination, 3 major components have to be catered for efficiently.

They are:

1. Creation of exams – Obviously, an exam will have to be created. Examiners can create exams online. The contents also have to be kept securely until the examination starts.

2. Supervision of examination – Students have to be efficiently identified, and screened to ensure that they do not compromise the standards of the exams.
3. Marking of the exams. Marking is the ultimate stage in any examination as it determines the success or failure of the candidate. It is the stage that dictates the next level of success and achievement in life.

A major highlight of using a web based exam software or an online examination system is that it gives a high level of transparency as opposed to the traditional method or remote method. It is almost impossible to compromise exam questions and evaluations because they cannot also be influenced. Most online exams generate their results instantly and it is often possible for the exam taker to get information on his results immediately. Some of the major advantages of online examination include the following:

- 1. Security and confidentiality:**

As has been stated before, the security and confidentiality of an exam are critical if the exam is to retain its value. Prepared exams need to be securely kept. Any leakage will definitely compromise the standard of the exam and may result to a cancellation or a retake. All these features are well addressed using an online system because not only is the content of the exam safely locked away in a database, access to the database is only possible with an authorized personnel. A lot of possibilities are also opened up on exam day as it allows you to conveniently make your own test in a secure environment. Questions can easily be randomized so that no participants see the same questions in the same order. Questions can easily be mixed as each new question is added to the system's database. The questions can then be randomly drawn from the database. This is why most examination bodies have gradually adopted the online platform.

- 2. Accessibility and Flexibility:**

Exams can be conducted anywhere. All a student needs is a personal computer with internet connection. A student does not need a long commute to exam venue as long as these requirements are met. This also means that thousands of students can take the same exams over a wide spread of locations. Gone are days, students move from one region or locality to another in the name of sitting the examination. A lot of lives have been lost in the process due to accident and other similar mishaps. In the same vein, examiners also benefit from this.

Examiners do not have to bother with the laborious task of marking exams as this is well taken care of by the system. The system actually marks each exam and presents the result to the student at the end of the exam. Examiners are also afforded the opportunity to create exam online through an online examination system that can present examinations in multiple languages. Multiple exams on multiple subjects for multiple courses can also be set. Exams can also be configured for 24/7 availability. This allows candidates to take exams at their own convenience.

3. Cost saving:

When an exam is placed online, it results in significant cost savings. The cost of paper, copying, and distribution expenses are all reduced or eliminated. The elimination of paper costs alone is extraordinary. The copying and distribution of assignments to a large class are often unwieldy and inefficient. Administrators anxious to reduce expenditures are likely to strongly favor the transition from paper assignments examinations to using online assessment software.

4. Time Saving:

Online examination systems make use of computers that helps in saving time. With the widespread availability of computers and the internet, there is a general acceptability and endorsement of this system. The lengthy formalities and processes involved in creating question papers, registering candidates for exams, answer sheet evaluation and declaration of results are completely eradicated with the online exam system. Each student is timed precisely and all results are generated instantaneously. In some cases, a candidate may even be able to get an assessment on failed questions.

5. Statistical analysis:

On a statistical point of view, compared data can be stored over time. This means that different comparative analysis can be done to analyze the outcomes of exams overtime. Depending on the online exam system used, statistical data can be pulled to analyze different data and create reports.

Other Advantages:

To easily accessed 24/7 over the open test period.

To allow the time Y minutes to answer X number of questions.

To take immediate test feedback when a test is submitted

To take advantage of special media; video, audio, or pictures

To take the contain a combination of True/False, multiple choice, and in some cases essay questions.

Disadvantages:

Highly dependent on honor system. A group of students can take turns taking test first to share answers with others in the group raising their overall grade. Hard or difficult to ask questions or contest answers. Can be slow responding due to connection speed (i.e., dial-up would limit the use of graphics or media files)