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COMPUTER METHOD SEM-2

Unit-1 **Development of lesson planning in computer education**

1.1 Time Planning (concept, steps)
1.2 Difference between hour planning and unit planning
1.3 Designing unit tests based on blueprints

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4.4 Conducting Individual Studies as a Social Scientist (Saurashtra Univ.)

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Unit - 1 : Development of Lesson Planning in Computer Education

1.1 Hour Planning : Concept

1.2 Steps in Tas Planning

1.3 Unit planning

1.4 Difference between hour planning and unit planning

Introduction:

Planning suggests the outline of each task. The more accurate the planning, the more accurate the work. Due to planning, it is easy to predict how much work will be done in how much time. Hence planning for any subject before taking lessons becomes mandatory. Planned learning suggests that new direction and pace and it also provides a valuable opportunity for the teacher to consider all the possibilities of teaching. Planning plays an invaluable part in making teaching work successful and effective. Hence it becomes imperative to make a plan before starting the lessons.

1.1 Hour Planning: Concept

Taas Path is also known as Loose Path. 35 to 40 minutes are given to the trainees to train them to teach in a real classroom situation. The trainee gives lessons in real classroom situations by planning to teach one hour. Observer observes and multiplies it and also writes observation notes for feedback. In schools, teachers have to do 5 to 7 hours of teaching every day. All the lessons are carefully planned and experienced teachers are well versed in the lesson content and teaching-learning process. It is not necessary for them to plan each lesson in detail so teachers in schools in their daily planning notes Prepares a brief plan of teaching in 4-5 lines per hour. Training in 3 training colleges. It is imperative that the trainees undertake extensive lesson planning prior to taking the course. Their subject teacher guides them in that task.

A lesson plan is a structured statement by the teacher of what general and specific objectives are to be achieved, including what specific tools will be used to achieve those objectives.

"Lesson planning is the teacher's mental and emotional perception of the experience he or she plans to deliver in the classroom." - Lester B. Sands' lesson plan includes general and specific objectives, reference literature, teaching aids, teaching-learning process and blackboard notes, assessment and self-study plan.

1.2 Steps in Tas Planning

There are mainly five steps involved in TAS planning. This step is popularized as Herbert's Panchapadi.

Preparatory

Swadhyaya

Statement of purpose

evaluation

Subject Description

Preparatory:

Inclusion of all the procedures to be done before starting the lesson is done in advance. Lesson planning in preparation, includes all the devices designed to explain the content as well as quizzes before starting the lesson. As soon as they enter the classroom, the teacher checks the class arrangement and asks the students questions related to their subject matter, which is also known as checking prior knowledge. By checking prior knowledge, students can easily connect with the teaching content. So that students become oriented towards the subject and effective teaching becomes possible. Thus pre-preparation also includes the tools used for subject orientation.

Statement of purpose:

After subject orientation, students are briefed on what they will learn during the lesson. Before teaching a new subject or when starting a task, learners are more oriented and motivated to do the task if they are informed about why the task is being done. Before starting the lesson the students are told the purpose of the lesson this process is known as purpose telling.

Subject Description:

Content description is the heart of the entire lesson. In this phase, the entire information of the subject is presented to the students. All of the objectives stated in the purpose statement phase are completed in this phase. The teacher uses different methods and techniques as well as devices to explain each subject matter. Both the teacher and the students are working during this stage.

evaluation:Assessment means measuring what has been learned. In this phase, the teacher measures the extent to which the students have understood the content. Ask students purposeful and short questions to test the knowledge they have acquired. Special care should be taken to

ensure that such questions are not outside the content taught during the lesson. The answers to the questions asked in this phase are also recorded in the notes of the students.

Swadhyaya:

Homework or homework is given to reinforce the material taught throughout the class and make it memorable to the students for a long time. The teacher notes this in his lesson plan and the students note it in their notebooks.

1.3 Unit planning

Meaning of Unit:

Before understanding unit planning what is unit? It becomes necessary to understand. A unit is an amalgamation of more than one subject matter. From the meaning of unit itself, it is understood that unit planning is not just planning a single lesson on a single subject matter but rather a coordination of multiple hours for several subjects of the same subject matter. Carter defines unit as follows:
'The object of a unit is to be structured, educational, self-contained, and a collection of educational activities, experiences, and types of learning around a central topic, problem, or purpose. The term unit also includes planning, implementation of planning and evaluation etc."
'A unit is an aggregation of experiences of the same level.'

Concept of Unit Planning:

When in the classroom a teacher explains the subject during the lesson Then he records the brief details of each hour in his daily planning notebook as he has to take up to six hours during the day. In this case, when the trainees have to be taught, they are organized as a training unit to teach the topics of a single unit by classifying it in more than one lesson according to its objectives. When planning a unit, trainees have to plan 35 to 40 minute lessons over multiple days. The subject matter is completed in 4 days and on the fifth and final day an assessment test is conducted for the entire subject matter. The question paper of this assessment test is to be prepared by the trainees using BluePrint. After taking the test, the final result should also be recorded in one's own note book and after that the remaining issues should be reorganized and remedial sessions should be given. Thus the trainee completes the unit planning after the entire process is completed. During the entire training period, the trainees have to prepare two to four unit plans so that they can easily perform the work as Shilks in the future.

1.4 Difference Between Hourly Planning and Unit Planning

order	Planning hours	Unit planning
1	Tas plan is prepared keeping in mind a particular subject matter.	Unit planning is prepared keeping in mind more than one topic of the unit.
2	The duration of Tas planning is 35 to 40 minutes.	Unit planning is done for 4 to 6 hours.
3	Sequentiality and uniformity are not maintained in Tas planning.	Sequentiality and uniformity are maintained in unit planning.
4	Tas planning has limited resources and very short duration.	More time during unit planning enables effective use of equipment.
5	The subject matter cannot be discussed in depth.	Great opportunity to discuss in detail.
6	Partial evaluation is possible after hours.	A complete assessment is possible even within an hour.
7	Independent plans have to be prepared for Tas.	4 to 6 hours can be planned continuously.
8	As the students keep changing every hour, they do not develop relationships with them.	Effective classroom behavior can easily build rapport with students.
9	Tas planning includes micro and setu planning.	Micro in unit planning, Setu, Tas all included.
10	Tas is a pre-preparation for unit planning.	Unity is the ultimate goal of complete planning.

Unit - 2 : Creation of Blue Print

2.1 Structure of blueprint and its table template

2.2 Blueprint based paper structure

2.3 Blueprint-based paper structure model

Preface:

A Blueprint is the foundation for designing an ideal question paper. A Blueprint acts as a map for designing a question paper. Just as a map provides a guide to reach a specific location, a blueprint serves as a guide for designing a question paper to be assessed. The better the blueprint, the better the question paper can be made. Hence it is very important to keep the blueprint in mind while creating an ideal question paper.

2.1 Structure of the Blueprint and its table sample

After the blueprint is prepared, the teacher should take great care in designing the question paper, following it only. A blueprint has to be created once and then multiple question papers can be created based on it over the years. A total of seven stages are followed to create a blueprint. Each stage has detailed the smallest detail related to the subject matter. The information according to each stage is given in the figure below.

Steps in Blueprint Creation

- Emphasis on content issues
- Multiplication scheme
- Appreciation of motives
- Question Paper Analysis
- Emphasis on question form
- Structure of Question Paper

Emphasis on content matters

The main content topics are categorized based on their sub-units. It should be graded based on the items categorized in the scaleis

order	Subject Matters	Appreciation	percent
1			
2			
3			
		Total	100 percent

Allocation of merit according to objectives

4 objectives are measured while grading based on objectives. Information about each purpose is given below.

* Knowledge

Periods related to the history of computer science, types are included in knowledge related questions. When, where, how many, who type of questions are called knowledge related questions. Answers to such questions can be found in one or two words only. Eg, Who invented the first computer?

* Sense

no action, questions that show cause, difference or causal relationship are called comprehension questions. Such questions are usually asked to test how well students have understood the content. Such questions are also seen to include questions like interpretation from diagram, explanation of chart. These types of questions are relatively longer than knowledge type questions.
E.g., Distinguish between: first generation computers and second generation computers

* Usage

Knowledge of a subject when it is explained, includes understanding as well as the purpose of its use. The general meaning of use can be used. Students are also taught how to apply knowledge in a new situation. For example, why can Notepad be used?

* Skills

Skill questions provide the student with the experience of applying theoretical knowledge in practice. Students are developed skills in using various computer related tools. Such types of questions can also be called practical, the answers of which become more possible in practical form. E.g., make a timetable using the computer.

order	purposes	Appreciation	percent
1	knowledge		
2	Sense		
3	usage		
4	skill		
		Total	100percent

Merit of question form

Based on the type of questions and the format of the questions are as follows:

Essay questions   Short answer questions   Introspective questions

* Essay questions

Essay questions are asked to test students' understanding. The questions are relatively long and are written on the basis of students' own understanding, so they are subjective. In the questions explain, discuss, compare, review, explain causation etc. Eg, Write a short note on types of printers.

* Short answer questions

Short answer questions are relatively easier and shorter than essay questions. Questions should be short, are precise and predictable information. Since there is less subjectivity in question answers, their reliability and truth values are higher. Generally, the questions contain expressions such as give an example, classify, demonstrate, state, give a reason, clarify, etc. Eg, diagram the structure of a motherboard.

* Introspective questions

Self-oriented questions evaluate the knowledge acquired by the students. The questions are very short and the answers are found in one or two words. They are also known as objective questions as they ask questions to find out how much understanding has been achieved following the objectives of the student unit and whether the objective has been achieved or not. Most accurate, clear, high reliability and questions that measure deep understanding of the subject matter are non-personal questions.

Multiple choice

(Fill-in-the-blank type questions

(Statements are true-false type questions

Connect the Jodka

(Arrangement type questions in correct order

Relation type questions

The table showing the distribution of marks based on the above question forms is as follows:

order	The form of the question	Appreciation	percent
1	Essay questions		
2	Short answer		

	questions		
3	Introspective questions		
		Total	100percent

* Three dimensional rooms

This three-dimensional table is prepared by incorporating the details of all the above tables. This

room is called three-dimensional because, it is prepared keeping in mind these three parameters namely content, purpose, question type. As this kotha consists of the above three tables, it becomes a bit difficult to understand so separate alloy above tables are made and finally three dimensional kothas are made. The blueprint is prepared on the basis of this data.

purposes	knowledge			Sense			usage			skill			questions Number (Mark)
questions	E	S	O	E	S	O	E	S	O	E	S	O	
forms	No.	T.	A.	No.	T.	A.	No.	T.	A.	No.	T.	A.	
1													
2													
3													
4													
Total													
Date					Signature of Professor:								

Following are the points to be kept in mind while making this table: That is essay questions, t. So short answer questions, a. So the short forms of all these non-animate questions are shown in English as well.

Only numbers are written in the table for each question type and sub-unit.

A number is written in the box provided against each sub-unit depending on the form and type of

question prepared from it. E.g., if two short answer questions related to usage from sub-unit 1 have

been asked, then in the column of usage. 2 is written in the cell of

Each box shows the number of questions along with their marks.

A comma is used to make the number of questions and marks not equal.

The number of questions in Kaus and their marks outside Kaus are shown. E.g., if two short answer questions related to usage from sub-unit 1 of 6 marks have been asked, then in the column of usage. 6(2) is written in the cell of 6(2) means that 2 questions of 6 marks are asked.

Structure of Question Paper

After creating the three-dimensional table, the question paper is designed based on that table.

While preparing the question paper special care should be taken to prepare questions of each type and for each purpose equally from each sub-unit. After preparing the questions from a sub-unit, it will be realized that there are not too many questions of any one type.? If that happens then some questions have to be cancelled. Hence, while preparing the question paper, it is more imperative to prepare more number of questions than the scheduled questions so that there is no problem if the questions are canceled or the questions are reduced. Help of another teacher can be taken if required while preparing the question paper.

* Question-wise analysis of the question paper

Question-wise analysis of the question paper reveals the clear information about the sub-unit from which the question has been asked and for what purpose. So if there is any error while writing in the table then it can be removed based on this table.

Question order	purpose	Anticipated behavior change	sub unit	of questionForm	marks	time (minutes)
1						
2						
3						
4						

Based on the above table, the teacher can get information about how many types of questions the students will have to write and how much time. If the questions are more and the time is less then the teacher can revise his question paper at this stage.

* Multiplication scheme

A teacher's work does not end with the creation of a question paper. After the question paper results, the teacher should also prepare a question mark scheme to check the resultsis

Question order	Expected descent	Allocation of merit according to subjects	Total marks
1			
2			
3			

Three dimensional rooms:A three-dimensional kotha can be formed based on the above three kothas. Thus it is a Kotha connecting all three Kothas. These kothas are designed keeping in mind all three parameters, so it is called a three-dimensional blueprint or blueprint.

order	purposes		knowledge			Sense			remediesPeople			skill			Total			Total
	Sub unit	of question type	E	S	O	E	S	O	E	S	O	E	S	O	E	S	O	
1.	of the computer Meaning		-		2 (2)	-	-				4 (4)				-	-	6 (6)	6 (6)
2	of the computer History		5 (1)		2 (2)	-	-	3 (3)	4 (2)						5 (1)	4 (2)	5 (5)	14 (8)
3	of the computer Use		-	-	-	-	-				3 (3)	2 (1)			2 (1)	3 (3)		5 (4)
	Total		5 (1)		4	-	-	3 (3)	4 (2)		7 (7)		2 (1)		5 (1)	6	14	25

				(4)										(3)	(14)	(18)
	Total Question Total Marks		9(5)			3(3)			11(9)			2(1)		25(18)		25 (18)

☆ () Number given inside indicates number of question () Number given outside indicates marks

Unit - 3 : Methods of Computer Education

3.1 Lecture Method

3.2 Autonomic method

3.3 Method of Demonstration

3.4 Project Methodology

Preface:

A teacher has to use some method while doing teaching work. Teaching method plays a very important part for effective teaching. What age group of students should the teacher teach?,The maturity of those students,The teaching method has to be chosen keeping in mind the subject matter and the level. A proper method helps the understanding of the students and if the method is not proper then even simple content becomes difficult for the students. We will understand what methods can be used for teaching practical and practical subjects like computers.

3.1 Lecture Method

Meaning

The general meaning of the word lecture is systematic understanding or literal understanding. Lecture method is also known as lecture method.

Discourse is the description of an event or thing.

This method is commonly used by teachers in the classroom to explain various theoretical concepts or terms. In this method only one person speaks and everyone listens so it becomes boring for the listener as there is no bipolar process.

While using this method, the teacher simply talks and explains the content. So that only the cognitive purpose is achieved so that other objectives of education are not achieved.

advantages

- An explanation of the theoretical content can be easily given.
- It becomes easier for the teacher to prepare a statement.
- The use of this method remains beneficial for gifted students.
- By using this method, students' auditory skills are improved.
- The subject matter can be easily completed within the stipulated time.
- Note-taking skills can be taught to advanced students along with lectures.
- Short form and short information related to computer can be easily remembered.
- A teacher is very active mentally.

- A teacher can easily provide effective teaching by presenting complete information in a concise manner.
- During the lecture, questions can be asked to explain things that are not understood.
- An illustrative explanation can easily be given.

limitations

- Students get bored listening constantly.
- Teaching is a unipolar process in which only the teacher is active.
- Students cannot concentrate for long periods of time.
- Boredom disrupts the class system.
- Professors cannot present their ideas.
- Teachers get demotivated and frustrated when they don't get any activity.
- Constant lecturing often leads to dislike of the teacher and the subject.
- Since the syllabus is long, this method takes more time and the syllabus cannot be completed within the stipulated time.
- Practical subjects cannot be taught through this method.
- Strategies for Effective Lectures
- In order to use the lecture method for teaching, it is necessary for the teacher to prepare adequately so that the students can be effectively taught.
- Before giving a lecture, the teacher has to work on his speech and eloquence.
- Interesting examples,The content should be linked to real life events as well as knowledge that students have experienced.
- The teacher should also guide how the students will get useful information and answers to questions after using the lecture method...
- A teacher can ask students various questions to keep students engaged for a good lecture.
- Since only the teacher is speaking during the lecture, so that the students do not feel bored, giving them an opportunity to speak during the lecture to know their views and ideas.

- To use this method in a subject like computer, the teacher should use different charts and models.

3.2 Autonomic method

Meaning

The meaning of the word 'swadhyaya' becomes clear when the word 'Swadhyaya' is removed. Swadhyaya means self chapter. Self means the student himself and Adhyaya means learning. Swadhyaya means learning by oneself. When the student learns the subject on his own, that method is known as Swadhyaya. Computer is a subject in which students can learn by themselves. First the teacher imparts the theoretical knowledge, after which the student can learn the subject by himself using Swadhya method. Hence, self-learning method is a useful choice for computers. This method is also known as self study method as well as adhinyas.

Alcon, Kinder and Shernut in their book Better Teaching in Schools define good teaching as,

"Effective self-study should be done in such a way that it accomplishes at least two purposes: (1) contributes to the achievement of the specific objectives of the lesson plan and (2) motivates students with a minimum of errors."

The concept of Swadhyaya can be clarified as follows:

The term of Swadhyaya is not permanent i.e. it can be of long or short term.

Swadhyaya does not mean housework. Homework can be called a small part of Swadhyaya.

Self-discovery doesn't just happen at home, it's at school, in the classroom, outside the classroom the teacher can do whenever he wants.

During self-study, the guidance of teachers is essential.

Self-taught content is remembered longer because the student has learned it on his own.

Swadhyaya can be individually and can be used by students in groups.

Swadhyaya's motives are clear.

During Swadhyaya, as the Adhyeta studies the reference literature extensively, his reading style also develops.

advantages

- Research in Swadhyaya to Adhyeta, habits like self-confidence, self-reliance develop.
- Read the professors, motivated to think, to be active.
- Innovative creation in professors, reading, note taking skills are developed.
- Develops study habits of different contexts.
- As teachers practice in groups, they also learn from other teachers.
- cooperation, friendship, team spirit develops.
- This method is based on the principle of learning through action.
- Adhyeta learns to make good use of leisure time so that he can progress.
- Since the content is self-learned, it is remembered for a long time.

- Revision and further reading is not required at the time of examination.

- Being experiential knowledge, the student can use it in other fields as well.

limit

- Not all members are active when using svadhya in a group.
- Self-sufficiency is not possible if the school or students do not have the equipment for computers.
- Lack of sufficient references, cannot be understood in the absence of understanding of context.
- Implementation of Swadhya makes it possible to complete the entire course on time not.
- It requires a lot of preparation on the part of both the teacher and the student.
- This method is not useful for small children.
- This self-efficacy is not effective when a teacher copies others.
- Swadhyaya is not useful for weak teachers.

- Ways to make self-care effective

- The faculty should guide the lecturers from where they can get the reference.

- Self-questions should be more in proportion and short and non-self-oriented questions should be more.

- Pictures, different tools and references, mindmaps should be used more. Self-contained units and sub-units should be consistent.

- Swadhyaya follows development based on the individual differences of the teachers.

3.3 demonstration method

Meaning

Demonstration is a method of teaching using philosophical tools or means. Demonstration Method Experimentation Demonstration Method, philosophical method, also known as empirical method. Demonstration method is very effective choice for teaching practical subject like computer. The teacher is at the center of the demonstration method. For young children who are unable to perform experiments themselves, for school teachers who lack equipment, and in situations where teachers do not have an understanding of practical knowledge, the teacher demonstration method

Effective teaching can be done using Jatra Pramat. Demonstrations are less effective for older teachers who can experiment. Demonstrations are very useful for teaching different parts of computers. In it, the teachers can get the explanation and get the complete guidance on how to use the computer in a resourceful manner. Demonstration also develops the reasoning and observational powers of the teachers. Teachers are encouraged to use computers.

Experiments are also of two types, experiments within the laboratory or workshop and experiments outside the laboratory or workshop. E.g., computers, science chemicals experiments are experiments inside the laboratory or workshop and experiments related to agriculture, weaving, horticulture are experiments outside the laboratory or workshop. Since experiments related to computer subjects are compulsory at secondary level, related equipments are available.

advantages

- Before using valuable equipment like computers, it is better for the teacher to demonstrate it himself and damage to the equipment can be prevented.

- Direct experiential knowledge is possible through demonstration.

- Students remember the explanation given by experience rather than just listening for a long time.
- Students can easily apply the knowledge gained during the demonstration while using the computer.
- During the demonstration, the lecturers remain interested in the subject matter. Me
- The curiosity of the students is satisfied and the powers of observation are developed.
- This is a psychological method.

limit

- As the demonstration takes place, the lecturers do not get a chance to act.
- Adhyats are not able to concentrate continuously as they are not active.
- Individual differences of teachers are not considered.
- No experience is gained.
- A boon for bright students but not effective for weak students.
- Professors become active and lecturers become passive.
- It demands a lot of preparation from the teachers. Demonstration is not possible if the teacher does not know how to use it.
- Measures to make the demonstration method effective
- Act in such a way that all teachers can easily see while demonstrating.
- Arranging projectors for micro teaching of different parts so that the learners can watch the action on the big screen.
- Use age-appropriate language and vocabulary when demonstrating.
- Explaining frequently used new terms before starting the demonstration so that the student can easily understand them during the experiment.
- Teaching how to start the computer before giving information about the different parts of the computer or the keyboard.
- Discussing the questions raised by the lecturers one by one after the demonstration.
- Observing the student during the demonstration, if a student finds any misunderstandings, ask questions and resolve them. So that other students also stay active.

3.4 Project Methodology

Meaning:John Dewey is the pioneer of project method. He formulated the project methodology based on the principle of utilitarianism. Kilpatrick in the development of project methodology, Psychologists like Marion, Parker played an important role.

Project method is also known as project or plan method. The idea of killing by project method came from education about agriculture. The following are the definitions given by the academicians regarding the project method:

developed in social situations, a purposeful and conscientious activity is called a project. -Kilpatrick

When the teacher feels that a problem is important or necessary to achieve it, a problem becomes a project when it solves a problem by working spontaneously in a free and natural environment.
- Burton

The project methodology consists of several sub-problems that arise during project implementation, which then results in many individual problems that are well-coordinated and interrelated.
- Hunter

A project is a purposeful work, which the Adhyeta voluntarily undertakes to complete with cooperation and goodwill.
- Raeburn

Learning through action and learning through life are important principles of this method.

A project has a defined objective, which requires planning of activities to achieve it. Dramatization in such actions, scrap book, excursion, map-chart completion, ramleela, model making etc. are included as projects. Teachers are at the center of education through this method. The teachers themselves select the unit and prepare various projects on it. In this method, a sense of cooperation develops as the teachers work in groups and can also use the knowledge of others.

advantages

- Individual differences of teachers are satisfied.

- Adhyeta can work according to his own strength and speed.

- Teachers can easily and quickly use computers for various tasks.

- There is an opportunity to apply theoretical knowledge in practical form.

- The principle of learning through action is meaningful.

- During the project, the enthusiasm of the students and the passion to acquire new knowledge is maintained.

- Created in Adhyeta, rational, predictive power develops.

- Confidence of teachers, develops a sense of self-reliance.

- The teacher does not depend on the teacher but does it by himself.

- The knowledge gained through projects is intuitive and long-lasting.

- Since the project is a subject of interest for the professors, there is no question of indiscipline.

- Teaches through real experiences.

- Project glorifies labour.

- Provides depth and accuracy in inspection.

- Habits of self-evaluation are developed in teachers.

limit

- This method is not useful when the school lacks equipment.

- The problem that the project presents is that it is not useful for younger teachers as they are out of age range.

- There is a lack of coherence in the knowledge gained from the project.

- Due to lack of time there is no chance of confirmation.

- As the project requires various tools, it becomes expensive.

- If the project is long, the professors get bored and leave the project incomplete in the middle**Ch.**

- As the students get more busy with the project, they cannot focus on other subjects.

- Projects are not possible as the syllabus has to be completed within a fixed period.

- Only those who are interested in the students do the work and other professors just show up.

Methods of making the experiment method effective

The project should be time oriented so that the work can be done within the specified time without wasting time.

The spirit of helping other teachers should be developed only in competition.

During the project the student should be active both physically and mentally.

Projects should be practical so that students can use the experiences in their own lives.

A self-assessment of the project must be carried out only if its purpose is achieved.

Age range of project faculty, should be suited to interest, aptitude.

Special care should be taken that the project does not increase the financial burden on the student.

Unit - 4 : Virtual Classroom and Online Learning

4.1 Virtual Classroom: Meaning, concept

4.2 Characteristics of virtual classroom

4.3 Online Education: Meaning, concept

4.4 Online Education: Benefits

Preface

Computers have contributed to every field in the present time, while it is also being used in the field of education. It has become possible for teachers to sit and receive education at their own time and place. Time for education, place, the bonds of regularity are removed. Students can get online education from the comfort of their homes thanks to technology. Virtual classroom and online education is becoming a necessity of every teacher nowadays.

4.1 Virtual Classroom: Meaning, concept

A virtual classroom means learning free from the walls and time of the school classroom. Virtual classroom is used as a method for distance learning. A virtual classroom is a digital learning environment that allows teachers and students to connect online in real time. Virtual classrooms, the use of video conferencing, whiteboards, and screen sharing allows instructors to engage with students in live lectures, timed, and interactive settings. Virtual classrooms are ideal for replicating physical classroom experiences, file sharing, instant feedback, and distance learning.

A virtual classroom is a situation that allows students and teachers to communicate and collaborate. Virtual classrooms are typically cloud-based learning solutions that are part of a larger learning management system. Smartphones for the virtual classroom, devices like tablets, laptops are used. A virtual classroom is also known as a Virtual Learning Environment (VLE).

4.2 Characteristics of virtual classroom

A virtual classroom is a platform made possible by the use of online media that is made available to every teacher.

Various equipment for virtual classrooms like laptops, smartphones, tablets are becoming essential.

Internet connection becomes necessary for virtual classroom. Any teacher can join the virtual classroom and benefit from it.

Students can ask their questions to the professor without any hesitation.

Students can use the recorded lectures to revise the units that they find difficult.

Education is possible without the constraints of time and place.

Being a SmartClass, media such as videos and presentations can be used for various practical topics.

4.3 Online Education: Meaning, concept

Online education began in the mid-1990s with the development of the Internet and the World Wide Web. A large number of organizations use learning management systems to administer online courses. As distance learning has evolved, so have the digital techniques that support teaching and pedagogy.

Online learning supports electronic learning that teacher– Relies on the Internet for student interaction and delivery of class materials.

Online education is a form of education where students receive education using their computers with the Internet. Lecturers usually employed alongside studies, housewives, teachers living in remote areas, online education system is a blessing. Universities themselves set up online platforms to provide online education to teachers. In online education, students can access their education from anywhere they have a computer and Internet access. Lecturers can record lectures for revision at their own time. A major limitation of face-to-face education is overcome in online education. A student who cannot be present during the unit explanation can re-examine the unit in online education.

4.4 Online Education: Benefits

advantages

- Teachers are an effective means of imparting education.

- Video in Online Learning, the use of advanced features like PDF, Procast becomes possible.

- Teachers are able to teach through contexts in addition to the curriculum.

- Reading of other references not based on the Fatah text bookAnd learn to use it.

- Teaching becomes more effective as it is imparted through contexts and visual aids.

- Students do not feel bored and interest in the subject matter is maintainedis.

- Lecturers can retain knowledge for a long time.

- Lecturers are allowed to join the class from the location of their choice.

- By removing the barriers of geographical boundaries, education becomes possible even in remote villages.

- Online lectures can be recorded, can be archived, even shared for future reference.

- A teacher can sit and receive education at his leisure whenever and wherever he wants.

- Online education is cheaper than traditional education.

- Transportation in Online Education, cost of food and accommodation is reduced.

- Having materials available online saves paper which helps in keeping the environment safe.

- There is no question of the presence of adhyetas because the adhyetas themselves get their education at a fixed time.

- A student can get education according to his own strength and speed.

- Individual differences of teachers can be accommodated.

- A teacher can teach effectively using different teaching styles and media.

- Students can ask their questions without hesitation.

limitations

- Lecturers cannot focus on the screen for long periods of time.
- In online education, teachers are easily distracted to look at other social media sites in addition to teaching.
- Teachers have to constantly be agile and keep the students engaged so that they can focus.
- Online education is not possible without internet connection.
- Online education is not possible in small towns and villages where there are network issues.
- Computers for Online Education, laptops, smartphones become essential with internet facilities.
- Teachers learn a lot by connecting with their peers which is not possible in online learning.
- Both teachers and lecturers must have the skills and knowledge to use tools for online learning.
- It is becoming expensive for schools to build equipment to deliver online education.
- Constantly looking at the screen weakens the eyes.
- As teachers are in front of the screen and at home, sitting in a fixed position discipline does not receive education so physical problems also arise.

Unit-5: Computer Education and Assessment

5.1 Concept and principles of evaluation

5.2 Characteristics of an ideal question paper

5.3 Different types of assessment questions (objective questions regarding concept and structure, short questions, essay questions)

Introduction:

Education is evaluated to see if the objectives are achieved or not. There are four main stages in the evaluation process: Testing, test, measurement and placement. The hallucinations at the end of these lickt stages represent the achievement of the unconscious. Hence, after learning, evaluation becomes very necessary for the extent to which the objectives have been achieved.

5.1 Concept and principles of evaluation

Concept:

Effective teaching is followed by evaluation of the extent to which students understand the story and the extent to which learning objectives are achieved. Two terms come to the fore that open the door to evaluation. Value and notation. Evaluating means to mark or mawn the glory and malayo recited by the Ayantas.

AAimEvaluation is the process of gathering evidence about the study of the Tao. –Stanley

Evaluations are qualitative descriptions of teachers' behavior. –Nunley

Assessment is a system of collecting evidence of behavior changes, by which the directions and limits of those changes are decided. - VK Kohli

The extent to which students have achieved academic goals, the systematic process of knowing that is evaluation.
– Grown Lund

principles

First, Watson introduced an agnostic process of evaluation. Later, different theories of evaluation started to develop in the field of education. According to psychologists there are two main types of evaluation: (1) subjective and (2) non-personal evaluation. According to Indian philosophers, two other types are given: (1) numerical and (2) qualitative evaluation. Thus the principles of valuation are classified in two ways, the details of which are given below.

subjectiveevaluation

The definition of subjective assessment may seem a bit confusing. It becomes easier to understand with real world examples. Consider that some people enjoy computer science fiction while you read a computer science book, while some people enjoy romance. Everyone thinks that one style is better than another through their subjective interpretation. But, in reality they just depend on their personal taste and preferences. While teachers similarly evaluate a student's performance, they also rely on subjective measures of evaluation. This assessment relies on perceptions of abstract characteristics. Subjective evaluation criteria may vary depending on the observer. Hence, this evaluation is not done in a scientific manner, it is subjective.

Subjective assessment is based on the writing section. According to your understanding of the subjects, the paper evaluates based on what you have written, the answers in each paper are different, we see this evaluation from the standard.

A subjective evaluation

Objective performance evaluation in subjective evaluation, is an attempt to measure the measurable. Non-subjective assessment is mostly done in subjects like math, science, computer, etc. The criteria that measure each question on the test is one correct, paper count, speaking time, number of grammar mistakes in the book are included. In the fields of art and writing it is difficult to make a completely apathetic assessment. Non-subjective assessment is scientifically sound, characteristics are modern way of teacher not observer.

For a given question you have a choice of question answer. Any choice will get you full marks though minus system is also possible based on difficulty value in case of wrong answer These questions are usually for e.g.,

Indian philosophers

Qualitative assessment

Qualitative evaluation gives you the ability to gain a deeper understanding of a program or process. Include why and how questions. If the focus is on quantitative data to collect data, it becomes necessary to use different tools., involving focus groups, document, content review and ethnographic participant observationis E.g., school dropout rate, substance abuse rate etc. can be included. These data were used to analyze the results.

Numerical evaluation

Numerical evaluation is result-oriented. You have to provide predefined results for your project. It will then be tested using statistical data to see how your program is doing in relation to these results. E.g., considering a social problem you prepare a questionnaire and get the responses of the people and analyze it.

Quantitative methods can be applied to the data obtained from numerical evaluation to estimate its value. For this it is not necessary to prepare the device to receive information every time, this assessment can also be done on secondary data. This evaluation remains useful for projects that aim to affect specific, predefined outcomes. Eg, improving grades of school students. This assessment requires a large amount of evidence. So that the results can be implemented in the long term.

5.2 Characteristics of an ideal questionnaire

* Age group of question paper teachers, should correspond to maturity.

* Questions should be asked that test all learning objectives.

* The question paper should be reliable i.e. its questions should be accurate.

*Questions asked in the question paper should cover all the syllabus units.

*Questions in the question paper should be of correct value.

* Difficulty value of the questions in the question papers should be appropriate.

* The format of the question paper should be correct, section wise, unit wise question type wise questions should be asked.

* Presentation of question paper, print, language should be properly understood by the student.

* The question paper should be reliable and standardized.

* The question paper should conform to the blueprint.

* The question paper should be such that it can be written within the time limit.

* Special care should be taken that the questions in the question paper should not confuse the students.

5.3 Different types of assessment questions (objective questions regarding concept and structure, short questions, essay questions)

Object oriented questions

Objective questions are also known as objective questions or non-objective questions. The main purpose of objective type is to test the student's knowledge. Objective questions are very short, occurring in a single word or phrase. The first presentation of soul-oriented questions by Dr. America. was done by Rice. These questions were fully presented in India by Benjamin Bloom. The different types of non-personal questions are as follows:

Wrong type of questions:

Whether the statements given in the question are true or false, they have to mark true or false in the box provided in front of the question. Such type of questions should be framed classically.

Such statements are simple, should be simple, clear and short. Language should be used that leaves no doubt as to whether the statements are true or false.

Wrong Jodka   Multiple options   Sorting

A statement should convey a single idea and should not be speculative.

E.g., the computer was invented by Calvin.

Jodka Selection Questions:

These types of questions have two sections. Both sections contain information relevant to each other. One of these sections has to choose which option fits the corresponding section of the other section. While creating a Jodka, keep in mind that the same matching information corresponding to one section should be present in the other section. E.g.,

A	b
Inventor of the computer	Ray Johnson
Inventor of the IC chip	Charles Babbage
Inventor of the printer	Kilby
Inventor of hard disk	Gutenberg

Multiple Choice Questions:

There are two types of questions in multiple choice type questions. (1) Four options are given for the question and its answer. Out of four options, one option is correct and the remaining three are false. (2) A paragraph before the question are given from which the questions are asked. Questions and their four options are given below this paragraph. After reading the paragraph, students have to choose one option from the following options.

While preparing multiple-choice questions, constructs should be chosen appropriately so that the answer cannot be guessed. Questions containing negative statements should not be made. Among the options, only one correct outcome should be created. The options should also be presented in a logical order.

Sorting Type Questions:

In sequence type questions, questions are formed from facts or events. Such type of questions are framed in three forms. (1) Blank type questions. Down options are not provided to fill the empty space. Answers to these questions are either one word or a fixed number. (2) Very short answer questions. Question answers are very short in single word or sentence. (3) Simple test. Test

questions are asked in such a way that reference is made to examples for answers.eg., to scan a document: scanner, to get a hard copy of a document:

Short questions

Short questions are known as short answer or short answer questions. Answers to the questions should be between five and six sentences. Questions on their content, the length of the Utara, the time taken by the devotee to Utara, should correspond to the multiplication. Short questions use words like state, list, classify, reason etc. Formulating the question in such a way that the teacher can answer based on memory. The language of the question should be clear.

E.g., State the different types of printers.

Demonstrate the usability of the scanner.

Essay questions

Essay questions are also known as mood questions and extended questions. While giving answers to these questions, the teacher has his/her own knowledge of the subject matter They are also known as open response questions as ideas can be expressed freely. Essay questions measure the student's written expression.

Discuss the topic in essay questions, describe, critique, illustrate, elaborate, elaborate, etc. There are two types of questions in essay questions:

(1) Extended questions

The teacher can give the answers to the questions from his own understanding. The length of the legs is not fixed. Elaborate response questions are asked to test the understanding and skills of the lecturer. The learner has the opportunity to express the content in his own words.

(2) Questions with limited meaning

The length of the stanzas is seen to be fixed in the question itself i.e. the question is structured in such a way that the examiner indicates what to write in the stanzas in the question itself. These questions are asked to test the in-depth knowledge of the subject matter. E.g., describe the advantages and limitations of computers.

Unit - 6 : Action Research

6.1 Action Research: Concept

6.2 Methods of action research

6.3 Importance of action research

Preface

Kurt Lewin is considered the father of action research. They were the first to use action research to find solutions to real-life problems. Wright Stone coined the term action research in 1949. Stephen Corey is credited with popularizing action research in academia. A scientific approach to problem solving using action research.

6.1 Action Research: Concept

The meaning of the word action research is self-evident. Finding solutions to problems through action is action research. In the field of education, action research is used to find solutions to the problems faced by the teacher during the teaching process.

Action research is the small irrigation scheme of education education. – Gunwant Shah

The process by which professionals guide their decisions and actions, who study their problem scientifically for the purpose of improvement and evaluation is called action research. - Dr. K. P. Pandey

Action research is an exploratory process usually undertaken in schools to solve school problems in the context of the whole situation and is carried out by teachers as part of their educational activities through the consultation and cooperation of research experts. –Good

A common teacher or administrator should try to solve the problems that arise in a scientific manner, conducts research from a scientific and objective perspective without prejudice or bias and applies its findings to improve one's management or classroom behavior is called action research. - Moti Bhai Patel

The purpose of action research is to improve school and educational processes and also to improve those who seek to make these improvements.-John Best

From the above definition it can be said that, action research is research by teachers, for teachers, by teachers. Action research is research undertaken by teachers to solve problems that arise for teachers. The results of the research can be used as a reference by other teachers in similar situations. Teachers directly conduct research themselves to solve the problems that arise during teaching, so it can also be called personal research. Since the research was conducted on a small group, its results cannot be applied to the whole school. Thus, action research is also known as mini research.

6.2 Methods of action research

Action research is a way to find solution to a problem in a short period of time according to the need and situation. Understanding the steps of action research also clarifies its nature. There are total eight steps of action research.

(1) problem

(2) Conclusions, result, imitative

(3) problem field

(4) evaluation

(5) of the problem potential reasons

(6) of experiment outline

(7) basic required Information

(8) imagination

problem:

This is the first stage of action research. Action research starts with a problem. Research is conducted to find solutions to problems arising in day-to-day teaching work. Before conducting the research, the problem is formulated in the form of a clearly worded statement. From it the field of research and its limitations are determined. From the problem it is understood which level of teachers it affects and which subject it affects. E.g., eighth grade students are irregular in computer homework.

problem area:

After stating the problem in written form, it defines the problem area for clarity of objectives and flexibility of research. Research on what category carried out, its scope can be determined by knowing how many students it is limited to. For example, the problem area of irregularity in students' self-functioning of computers will be limited to eighth grade students.

Possible causes of the problem:

After identifying the problem and the problem area, the possible causes of the problem are identified. The possible causes are identified by the teacher based on his daily observations and experiences. These reasons are prepared in written form and discussed with the co-workers. The teacher carefully considers all these reasons and singles out the preventable ones. A questionnaire is devised to suggest remedies from the teachers depending on such root causes.

Basic information required:

After the teacher has identified the possible causes of the problem, it is the fact that the assumption has to be made to gather the necessary information. Information professors, can be obtained from parents, other teachers. Various devices are used to obtain information. Like, questionnaire, attitude measure, interview etc.

imagination:

After considering the possible causes of the problem, solutions are considered. A teacher's consideration of various ways to solve a problem is known as imagination. Brainstorming is one possible way to solve a problem. Going this way, the solution to the problem may be found, but it may not be real. Adhyeta thinks of all the ways possible which finally points the direction towards the solution. After preparing such proposals, they are prioritized.

Outline of the experiment:

At this stage the teacher has to work to solve the problem. All preventable causes of problem occurrence for which the hypothesis is designed Conceptual solutions are implemented here. A plan for testing the hypotheses is prepared and implemented in this phase. Hence this phase is also known as action plan. At this stage the teacher Sal, useful tools for doing work, determines the sequence of tasks and executes them.

evaluation:

After a plan is implemented to solve the problem, it becomes necessary to evaluate the results. Based on the evaluation, a decision can be made whether the hypothesis is correct. Evaluation is also necessary to measure the effectiveness of the plan. Information on how the evaluation will be done is also shown at this stage. How to evaluate depends on the nature of the problem. The following Rino can be used for evaluation.

Conclusions, results and simulations:

After evaluation at this stage information is given on how successful the action plan has been. At this stage the findings obtained at the end of the experiment are shown. If the experiment is successful, what factors or solutions should be implemented in the future

observation

Comparison and prediction

chart

appearChange

the test

Teacher opinions

experiences

visit

questioning Can be shown here. If the experiment is successful, the extent to which it was successful is recorded here. If the experiment is not successful, a new action plan is developed after simulation. The results of re-implementing and re-evaluating this new plan are presented here so that other teachers can have reference and guidance in the future.

6.3 Importance of action research
- It becomes necessary to solve various problems that arise in the daily work of education.
- It is a scientific way to solve practical problems.
- There is a scientific framework for solving classroom and school problems in the short term.

- Immediate resolution of problems becomes possible.

- Brings a change in the traditional environment. It is a time and cost efficient method.

- As it is a logical and scientific method, the solution is easily found and there is no debate or discussion.

- The results obtained for solving the problem are all accepted.

- As the teacher gets the solution of the problem himself, he can implement it easily.

- The teacher develops the skill of using the scientific method of action research to solve every problem.

Unit - 7 : Computers in School Education

7.1 Organization of computer lab at school level

7.2 Importance of computer lab at school level

7.3 Maintenance of computer lab at school level

Preface:

Computer is a practical subject. Computers are not a subject that can be learned only by reading a book and gaining complete knowledge by learning the theoretical aspects. Learning the practical side and usage skills of computer becomes essential to acquire computer knowledge. When computers were made a compulsory subject at school level, there were no more computers in every school. Since teachers were not able to teach practical knowledge themselves, then teachers were trained in practical knowledge to develop practical skills. The teachers used to teach the professors by doing practical work themselves, but with this, the professors did not get the opportunity to do the practical work themselves. Computers have been arranged in every department to provide practical work opportunity to every student and to develop their usage skills. Such a computer room is known as a computer lab.

7.1 Organization of computer lab at school level

A separate classroom is set up as a school level computer lab. A personal computer is arranged for each student in this lab. The computer lab can accommodate 35 to 40 students simultaneously. Computers are arranged on either side of the computer lab and enough space is kept in between for the teacher to walk. A main computer is kept for the faculty to manage all the computers in the lab. The lab has a separate seating arrangement for each classroom with partitions between each computer. Due to this partition, one adhyata cannot see what the other adhyata is doing and can focus his attention easily. A chair arrangement is kept for the worshiper to sit. A teacher can see what each student is doing on their computer and can also direct problematic experiments. The environment of the lab is well ventilated and adequate fans are also kept so that heat does not arise due to the power connections of the computer. A computer for lecturers in the lab, mouse, keyboard are arranged. When required, arrangements are made to facilitate internet connection to the professors.

7.2 Importance of computer lab at school level

- Enthusiasm among teachers, qualities like agility, accuracy are developed.
- Teachers get an opportunity to put theoretical knowledge into practice.
- Develops computer skills.
- The computer usability of the teachers increases and they can use this skill in their daily life as well.
- During the practical work, with the help of the teacher, the relationship between the teacher students develops.
- A successful practical work gives the student self-enjoyment.
- Since every teacher does not have equipment like computer, every teacher can acquire that knowledge by using the lab at the school level.
- Teachers can do practical work which also increases their confidence.
- Adhyeta can keep pace with the modern age.
- Computers can be taught to teachers of all age groups in a lab at the school level.

7.3 Maintenance of computer lab at school level

- Not only teachers are appointed to take charge of the computer lab but also computer lab assistants are appointed at the school level who can identify and troubleshoot technical problems.

- A notebook is prepared to record the number of computer related equipment received in the school so that information about all the equipment is available.

- There is a system to update the computer from time to time to remove any technical problems so that the maintenance of the computer is possible for a long time.

- The lab assistant is assigned to turn on the computer when the students enter the lab and to turn off the computer after the class is over so that the power can be used properly.

- Cameras are arranged in the computer lab so that the activities taking place during the hours can be monitored.

- In the computer lab, main computers are arranged so that the lecturers can see the progress of the work done on each computer.

Unit - 8 : Lesson planning using computer tools

8.1 Format for lesson planning using computer tools

8.2 Sample lesson planning using computer tools

8.1 Format for lesson planning using computer tools The format of lesson planning can be easily prepared by teachers using the computer's Word software. For this, the student has to insert the specified column and row table in the Word document from the Insert menu. After preparing the table, the entire format can be prepared by adding titles to it. A sample of this format is as follows

Lesson planning
Trainee Name : Taspath Rank:
School Name: Consecutive Number:

SHREE H.N.SHUKLA GROUP OF B.ED. COLLEGES
(Affiliated To Saurashtra University & NCTE)
(Vaishali Nagar 2 & 3, Near Amrapali Under Bridge, Rajkot)

Subject: Roll Number: Series:

Subject: Tas: Date :

Educational Objectives:

(1)

(2)

(3)

(4)

(5)

(6)

Expected Foreknowledge	
methodology	Educational equipment

Reference literature

order	Name of the author	Name of Book/Magazine/Newspaper	publisher	Page no.
1				
2				
3				
4				
5				

step	educational purposes	Educational issues	Teacher activity	Student performance	context

Shyamphalak

Subject: Standard:

Subject: Date :

Signature of Subject Professor

Observer's Note

Features suggestions

Signature of Supervising Professor

8.2 Sample lesson planning using computer tools

After creating the above format in Word, the entire lesson can be prepared and presented using Power Point presentation. A sample lesson plan can be prepared using power point presentation as follows.

COMPUTER EDUCATION

First a slide show is prepared according to the content to present the content. These slides are presented to the lecturers with the help of a projector.

Firstly slides are prepared with the help of various pictures to make the subject matter oriented. The following slide shows the techniques for presenting information. Pens and letters were first used, followed by changes in the form of books and pens. With the development of technology, people started using computers instead of paper. Various software are used to represent the information in the computer.

POWERPOINT PRESENTATION

of informationTransparency was first used for reporting, then replaced by the CIA as technology developed. The most popular medium for presenting information in the 21st century is the projector. Power point presentation is used to prepare slides in advance to present in the projector.

INTRODUCTION OF MENU

HOME
ACROBAT
VIEW
TYPES OF MENUS
DESIGN
REVIEW
SLIDE SHOW
ANIMATION

QUESTION ANSWER
- Which menu is used to edit the page??

- Which menu is used to insert a photo in the page?
- in the page writing at the time of letters in size Change to do for which of the menu Use done come is?
- After the file is saved, what extension is found in it??

HOMEWORK

Prepare a presentation on the topic Characteristics of Computer Teacher using Power Point Presentation.

Prepare a presentation explaining the animation menu of the computer.

Prepare a presentation explaining the slide show menu.

Thank you!!!

Completion of all the above stages completes one Taspat. All the tutorial sessions can be prepared using PowerPoint presentations.

Unit - 9 : Importance of Computer in Social Development

9.1 Importance of computer in social integration

9.2 School/College Introduction PPT

9.3 School/College Website

9.4 School/College Blog

Preface:

The 21st century is known as the century of technology and the computer age. In this century everyone has learned to use computers. Computer has changed the shape of human life. People use computers to perform even the smallest activities of daily life. Order food, ordering medicines, paying utility bills, getting education, doing tasks, getting news, talking to relatives and maintaining relationships are also seen using computers. When humans are using computers to maintain their social relationships, it is becoming very important to know the importance of computers in social interaction.

9.1 Importance of computer in social integration

Source of information:

Technology plays a major role in information retrieval. Provides a large amount of reference material. Ebook collections offer thousands of texts. Such reference materials have a definite number of articles and journals devoted to each topic making research efficient and highly rewarding. Thus information technology plays the key role of autonomous learner. Thus the computer becomes very useful for getting information and working.

Creativity and Self-Reliance:

Information and communication technology also plays a role in expressing itself. smartphone, aided by digital recording functions integrated into tablets, other electronic devices, and are able to index the world as they see it and add their own experience to pre-existing bodies of knowledge to do original work. With audio, video editing software, and various ways to post self-produced media on the web, we can not only access information but also contribute to its creation.

Communication and Collaboration:

Information and communication technology, providing more opportunities to communicate and collaborate. With learning management systems like Blackboard, many courses have discussion threads and forums, chats, and even a separate space for participating in video conferences. Collaborative functions in Office applications also allow you to view revisions and add comments in real time, making the process of relaying responses more efficient.

Along with the above uses, computers continue to be useful for government correspondence which is now done by email. School CRC circulars, guidelines etc. has become widespread in the use of computers and internet to reach schools immediately. Computers are becoming useful for all teachers starting from the principal. All meetings and suggestions are taken through computers in times like Corona, hence computers have become accepted as universal means of communication.

9.2 School/College Introduction PPT

Power point ppt is a very beautiful medium in this age of technology as a simple medium of presentation about college introduction. People general information about college like college campus through ppt, vision, mission, activities in the college throughout the year, infrastructural facilities of the college etc.

7.3 School/College Website

The college website provides complete information about the college. All the information about Adhyatao College from this website, we can get information about affiliation, activities in the college, faculty of the college etc. To create a college website, first of all it becomes necessary to have internet connection, mail, photograph. You can get more information about the information on the website from their page wise photo. All matters subject to photography are prepared on paper while preparing the website.

school/College blogs

General details about the college are recorded in the college blog. The blog is written in such a way that the reader is motivated to visit the college or college website to get information about that college. The language of the blog is a bit fancy so that people visit the college in person to get information about it. The blog presents all the information about the college in a nutshell. Blogs are becoming a very popular medium to present all the information well in a concise manner. Blogs are usually written in English so that people from any country in the world can easily read them and get information. A blog is not necessarily written in English but can be written in any regional language. thus, blogs are becoming a very popular medium for college promotion. A typical blog template is given below.

Are You Looking For Top B.Ed. College In Gujarat?

Stop your search atShree HNShukla Collegeand believe us that you will be spending the best of your years in education filed over here. In this institute the students are not only rewarded with the degree of B.Ed. that is UGC and NCTE recognized but studying inside the campus gives professional knowledge about learning extra stills and educational training that helps to gain social and educational advantages. Studying B.Ed. at Dr. Subhash college of education has multi-fold payback. Students who got a chance to study at Dr. Subhash college of education consider themselves lucky. Studying and spending two years in this institute is a lifetime experience and an opportunity where students can spend the best time of their life by learning so many things at a time.

You do not require to spend extra years learning other things related to education, once you enroll withShree HNShukla College you will be in the side of profit after completing B.Ed. from reputed institute. The subjects taught atShree HNShukla College for B.Ed. provides better understanding for M.Ed. Education and skills learned can be more solidified in PG level education course. Go and get your degree from the best college of education and build a solid foundation for your future.

Unit - 10 : Person Study of Social Scientists

10.1 Satyan Pitroda

10.2 Larry Page

10.3 Mark Elliott Zuckerberg

10.1 Satyan Pitroda

Satyan Pitroda known as Sam Pitroda. An Indian Telecom Engineer, is an inventor and entrepreneur. He is known as the father of India's computer and IT revolution as he helped Prime Minister Rajiv Gandhi bring in computerization as Prime Minister's Advisor. Dr. He was also the Chief Adviser during Manmohan Singh's tenure. He was born in Titlag in the eastern state of Odisha, India. He had seven siblings and he is the third of them. This was greatly influenced by Mahatma Gandhi and his philosophy. As a result, Pitroda and his brother were sent to Gujarat to study Gandhianism.

Studies:

He completed his schooling from Vallabh Vidyanagar, Gujarat and completed his bachelor's degree in Physics and Electronics from Maharaja Sayajirao University, Vadodara. After completing a bachelor's degree in physics, he moved to the United States in 1964 and earned a master's degree in electrical engineering from the Illinois Institute of Technology in Chicago.

Works and Achievements:

In 1966 he went to work for GTE in Chicago. He is considered one of the early pioneers of handheld computing due to his invention of the electronic diary in 1975. In 1974, Pitroda joined Wescom Switching which was one of the first digital switching companies. He did 580 DSS in about 4 years. developed a switch. Which was introduced in 1978. Wescom was acquired by Rockwell International in 1980, where Pitroda became vice president. During his four decades as an engineer, Pitroda filed a number of patents in telecommunications. The latest set of patents relates to mobile phone based transaction technology.

He spent nearly a decade with Prime Minister Rajiv Gandhi as a leader in building the Indian information industry. This work in every corner of the country, like his birth, was to expand digital to include remote villages. Pitroda started the Center for Telematics Development and acted as advisor to the Prime Minister on technology missions related to water, literacy, immunity, oilseeds, telecom and dairy. He is also the founder chairman of the Telecom Commission of India.

Pitroda returned to India for a second time in 2004 to focus on building knowledge institutions and infrastructure. Pitroda to provide policy recommendations for improving knowledge related institutions and infrastructure in the country, served as Chairman of the National Knowledge

Commission (2005, 2009), a high-level advisory body to the Prime Minister of India. During its tenure, the National Knowledge Panel made over 300 recommendations on 27 focus areas.

Pitroda also established the National Innovation Council (2010)., and served as Advisor to the Prime Minister as Cabinet Minister on Public Information Infrastructure and Innovation to help democratize information.

Pitroda founded the C-Sam and served as the Chairman of the C-Sam. Singapore in Co. Chicago, maintains its headquarters with offices in Tokyo, Pune, Mumbai and Vadodara. Pitroda holds around 100 technology patents, is extensively involved in many start-ups and lectures.

Pitroda is a serial entrepreneur in America and Europe (Wescom Switching, Ionics, MTI, Market, Worldtel, C-Sam, etc.) have also started many businesses.

He has also worked as a consultant to the United Nations and in 1992, his biography Sam Pitroda: A Biography was published and became a bestseller on the Economic Times list for five weeks.

He with his wife and two children and also in Delhi since 1964 in Chicago, lives in Illinois.

On a trip to India in 1981, he was frustrated by how difficult it was to call his family back in Chicago, and decided that he could help modernize India's telecommunications system. In 1984, Pitroda was invited by Prime Minister Indira Gandhi to return to India. On his return, he started an autonomous telecom R&D organization, the Center for Development of Telematics. He had previously become a US citizen, but returned to the US to regain Indian citizenship to work for the Indian government. Relinquished citizenship. In 1987, he became an advisor to Indira Gandhi's successor, Rajiv Gandhi, and was responsible for formulating India's foreign and domestic telecommunications policies.

During his tenure as advisor to Prime Minister Rajiv Gandhi in 1987, Pitroda led six technology missions related to telecommunications, water, literacy, immunization, dairy and oilseeds. He was the founder and first chairman of the Telecom Commission of India.

Pitroda contributed to India's foreign and domestic telecommunications policies. He is particularly responsible for the telecommunication revolution in India, the ubiquitous, yellow-sign public call office (PCO) that is credited with quickly bringing cheap and convenient domestic and international public telephones across the country.

In the 1990s Pitroda moved back to Chicago to resume his business interests. In May 1995, he became the first chairman of the International Telecommunication Union's WorldTel initiative.

When the United Progressive Alliance government came to power after the 2004 general elections, Prime Minister Manmohan Singh invited him to chair India's National Knowledge Commission. In July 2009, the Government of India invited Pitroda to head an expert committee on ICT in Railways. In October 2009, Pitroda was appointed Advisor to Prime Minister of India Manmohan Sindh on Public Information Infrastructure and Innovation with the rank of Cabinet Minister.

In August 2010, Pitroda was appointed as the Chairman of the National Innovation Council. In 2013, he was appointed as the Chancellor of the Central University of Rajasthan by the President of India.

In 2017, he was appointed chairman of the lithium metal clean technology company Alpha-N Corporation.

Awards Edit:

Lal Bahadur Shastri National Award for recognition of contribution to telecommunications and their use for social and economic transformation of developed countriesAward, 2002.

Dataquest presented Pitroda with a lifetime achievement award in 2002.

In 2008, Pitroda was elected as the world's leading leader by the World Network of Young Leaders and Entrepreneurs.

The International Telecommunication Union (ITU) awarded Pitroda with the World

Telecommunication and Information Society Award on 17 May 2011 in Geneva. Information as a

means of providing humanity and a better life, he received the award in recognition of his dedication to promoting communication and technology. He was the first Indian to receive this award for social and economic empowerment.

In May 2010, the University of Illinois, Chicago College of Medicine presented him with an honorary degree.

Pitroda received his D.Sc from Sambalpur University. He was honored at his 23rd convocation on 14 July 2010.

The Government of India honored him with the Padma Bhushan in 2009 for his contributions to science and engineering.

Scotch Challenger Lifetime Achievement Award in 2009 for ushering in the telecom and IT revolution in India.

Andhra University awarded Pitroda a D.Sc in 2008. IEEE Communications Society, 200 awards for public service in the field, honored for exceptional contribution to the development of indigenous systems and telecommunications infrastructure in India.

March 1, was honored by the All India Vishwakarma Mahasabha (ABVM) on 2009 for his service to the Vishwakarma community, in the presence of the Chief Minister of Delhi, Smt.

World Telecommunication and Information Society for their contribution to improving life in rural communities through information and communication technologies Award, International Telecommunication Union (ITU), 2011. Sam Pitroda is the first Indian to receive this prestigious award.

He addressed the Second Indian Student Parliament in 2012.

Cal State University, was honored with the Lifetime Achievement Award by the American Society of Engineers of Indian Origin (ASII) at its 31st National Convention held on December 3, 2016 in Pomona, CA for his outstanding contribution to the field of telecom technology and innovation.

He on 14 October 2017Addressed a convention of students and faculties of Seshadipuram First Grade College, Yelhakra, Bangalore on October 14, 2017 on the topic 'Innovation and Advancement in Modern Education'.

Books composed by Pitroda:

IEEE transaction, Special Publication on Telecommunications in Developing Countries, Volume COM-24, Number 7, July 1976

Exploding Freedom: Roots in Technology, Allied Publishers Limited, 1993

Foundation for the Future: Human Resource Development, Commonwealth Secretariat, 1993

Development of Gujarat: Intelligence of the people, Sardar Patel Institute of Economic and Social Research, Ahmedabad, 1997

vision, Values and Velocity, Silicon India, 2001

March of Mobile Money: Future of Lifestyle Management, Harper Collins, 2010

Dreaming Big: My Journey to Connect India, Penguin India, 2015 Pitroda has a collection of his personal daily diaries and workbooks spanning over 40 years.

In 1993, Pitroda helped establish (with Darshan Shankar) the Foundation for Revitalization of Local Health Traditions and the University of Trans-disciplinary Health Sciences and Technology near Bangalore, India. The foundation promotes Ayurveda, the traditional medicine of India. Both founders were honored by Columbia University in 2003. Pitroda also serves on the IIT International Board of Overseers.

10.2 Lawrence Edward Page (born 26 Mar, 1973)

is an American computer scientist and Internet entrepreneur. He is best known as one of the co-founders of Google along with Sergey Brin. Page was Google's chief executive officer from 1997 to August 2001 (stepping in favor of Eric Schmidt), then from April 2011 to July 2015 he moved on to become CEO of Alphabet Inc. (a company created to deliver "big breakthroughs" as Google's parent)., he held the post till December 4, 2019. He remained an Alphabet board member, employee and controlling shareholder.

Creating Google has created a significant amount of wealth. According to Forbes, as of March 13, 2021, Page's net worth is approximately $89.7 billion, making him the 8th richest person in the world.

page, is the co-creator and namesake of PageRacker, the search ranking algorithm for Google. He received the Marconi Prize in 2004 with co-author Bin.

Page was born on March 26, was born on 1973, in Lansing, Michigan. His mother is Jewish; His mother then immigrated to Israel. However, Paige was raised without any religious practice or influence and has not declared herself to have any formal religion. His father, Carl Victor Page Sr., earned a PhD in computer science from the University of Michigan. BBC journalist Will Semmel described him as a "pioneer of computer science and artificial intelligence". Page's father was a computer science professor at Michigan State University and his mother Gloria was an instructor of computer programming at Lyman Briggs College at the same institution.

In an interview, Page recalled his childhood home, saying "computers, science and technology magazines, and popular science magazines in general" was an environment in which he immersed himself. Page, an avid reader during his youth, wrote in a letter to the founders of Google: "I remember spending a lot of time pouring over books and magazines." According to author Nicholas Carlson, the combined influence of Page's home environment and his attentive parents "creativity and stimulated discovery". Page also played the instrument while growing up and studied music composition. His parents sent him to a music summer camp - the Interlochen Arts Camp in Interlochen, Michigan, and Page has said that his music education inspired his impatience and passion for the speed of computing. "In some ways, I think that musical training has led to the legacy of Google's speed for me". Time is like the primary thing" and that "if you think about it from a musical perspective, if you're a percussionist, you hit something, it happens in milliseconds, fractions of a second".

Page was first attracted to computers when he was six years old, because he was able to "play with stuff lying around" with a "first-generation personal computer that had been left by his mother and father". He became "the first kid in his elementary school to turn in a word processor assignment". His older brother taught him things. Taught to isolate and before long he was taking everything in his house" to see how it worked. He said, "From a very young age, I also realized that I wanted to invent things. So I got interested in technology and business. Probably knew since he was 12 years old that he would eventually start a company.

Page 2 to age 7 (1975 to 1979) Oshimos, attended Okemos Montessori School (now Montessori Redmore) in Michigan. He graduated from East Lansing High School in 1991. In summer school, he played flute, but mainly studied saxophone at the Interlochen Center for two summers. Page holds a Bachelor of Science in Computer Engineering from the University of Michigan, and a Master of Science in Computer Science from Stanford University. While at the University of Michigan, Page believed it was possible to print large posters cheaply using ink cartridges, he built an inkjet printer made of Lego bricks (literally a line plot), and Page reverse-engineered the ink cartridge, and built the electronics and

mechanics to operate it. Page served as president of the Beta Epsilon chapter of Eta Kappa fraternity, and was a member of the "Maize and Blue" University of Michigan solar car team in 1993. As an undergraduate at the University of Michigan, he proposed that the school replace its bus system with a personal rapid transit system, a driverless monorail for each passenger. He also developed a business plan for a company that would use the software to make music synthesizers during this time.

- 1998-2010

- Establishment

Mark Malcid wrote in a 2003 feature story.

Faculty members, soliciting funds from family and friends, Brin and Page broke even enough to buy some servers and rent that famous garage in Menlo Park that Microsystems co-founder Bechtolsheim called "Google, Inc." 100,000 was the only one to write a check, "Google, not yet in existence—for two weeks still included, they handled the paperwork, while the young men had nowhere to deposit.

In 1998, Brin and Google, Ekr. included. With the initial domain "Google", derived from the number, which is one after the other, is a large amount of data intended to be searched by a search engine. After the founding, appointed himself as CEO, Brin, taken as a co-founder, as president of Google

The pair's mission was to "organize the world's information and make it accessible and useful at the level." And with family dollars, the inaugural team moved to Mt. In 1999, Page experimented with smaller servers that could fit into the square meters of third-party warehouses Google had taken over for their servers. It eventually led to a search engine that ran faster than Google at times

By June 2000, Google indexed billions of URLs (Internet Resource Locator), the largest search engine at the time. "More than a billion are online today," the company said in a press release citing NEC Research Institute data, with 560 million full-text indexed pages and 500 million partially indexed pages accessed by Google.

Initial management

During his first tenure as CEO, Page 2001 began an effort to fire all project managers. Page's plan involved all Google engineers to the VP of Engineering, who then reported directly to him - Page explained that he didn't, like non-engineers supervising engineers due to limited technical knowledge. Page also documented his management formulas for his team to use as a reference.

Don't delegate: Do everything yourself to make things happen faster. Don't get in the way if you're not adding value. Let the workers talk to each other while you do something else.

Don't be a bureaucrat.

Ideas are more important than age. Just because someone is junior doesn't mean they don't deserve respect and cooperation.

Worst thing you can do, "Number Period." Tell someone to stop doing something. If you say no, you have to help find a better way to do it.

However, Page's new model was unpopular and affected employees had led to resentment, however, his point of engineers being managed by non-engineering staff gained traction. Page also believed that the faster Google's search engine returned answers, the more it was used

will be done. He hesitated over milliseconds and his engineers Pushed - From those who developed the algorithm to those building data centers For - to think about lag time. He designed Google's home page Famously forced to keep sparse because it higher the search results Will help to load faster.

- 2001-2011

Change management and expansion

Two of Silicon Valley's most famous investors, Kleiner Perkins and Sequoia Capital, before agreeing to invest a combined total of $50 million in Google, they pressured Page to resign as CEO so that more experienced "world-class management" could be formed. team. * After meetings with Jobs and other technology CEOs, including Intel's Andrew Grove, Page finally settled on the idea. Eric Schmidt, who was named Google's chairman in March 2001, left his full-time position as Novell to assume the same position at Google that August to assume the responsibility of president of products.

Under Schmidt's leadership, Google underwent a period of major growth expansion, including an initial public offering (IPO) on 20 2004. He consulted when Page and Brin launched an executive recruiting initiative. Building a team and sales management system. Page became the boss in the eyes of Google employees, because he gave final approval to all hires, and it was Page who became a billionaire after providing IPO signatures.

Page 2005The Android acquisition was driven by the $millions to fulfill his ambition to put handheld computers in the hands of consumers so they could access Google anywhere they bought. Relatively time spent. By September 2008, T-Mobile was the first phone to use Android software, and by 2010, Android accounted for 17.2% of the handset market, overtaking Apple for the first time. Android became the world's most popular mobile operating system in no time.

Assuming the CEO position at Google

January, following the 2011 announcement, Page officially became Google's chief executive in April 2011, when Smith stepped down to become executive chairman. By this time, Google had a market capitalization of over $180 billion and over 24,000 employees. Reporter Max Nissen described the decade before Page's second appointment as CEO of Google as Page's "lost decade", saying that while he exerted significant influence over Google through product development and other operations, he became increasingly disconnected and over time became less responsible.

20 January, after Schmidt announced the end of his tenure as CEO in 2011, Page jokingly tweeted: "Adult-looking is no longer needed."

- 2011-2013

As the new CEO of Google, Page's two main goals were greater autonomy for executives overseeing the most important departments and the development of a higher level of collaboration, communication, and unity among teams. Page then also formed what the media called the "L-Team", a group of senior vice presidents who reported directly to him and worked near his office for part of the working week. Additionally, he restructured the company's senior management, placing CEO-like managers at the top of Google's most important product divisions, including YouTube, AdWords, and Google Search.

After a more cohesive team environment, Page announced a new "zero tolerance for fighting" policy, which contrasted with his approach in the early days of Google, when he would use tough and intense arguments with Brin as a precedent for senior management. Page changed his thinking while away from the CEO role, as he ultimately concluded that ambitious goals required a cohesive team dynamic. As part of Page's collaborative rejuvenation process, Google's products and applications were integrated and the aesthetic rotated.

Changes and consolidation process:

At least 70 products from Google, the facilities and services were finally closed by March 2013, while the rest of the look and feel was consolidated. John Wiley, the lead designer at Google Search at the time, codenamed Page's redesign overhaul, officially "Project Kennedy" on April 4, 2011, based on Page's use of the term "moonshot" to describe the ambitious project, which widened in January 2013. was started. An initiative called "Kanna" previously attempted to create a similar design aesthetic for a range of Google products, but that was difficult to transport at that point in the company's history. When "Kennedy" launched, Matias Duarte, senior director of Android user experience, explained in

2013 that "Google cares passionately about design." To find the answer to his question of what Google's "coherent vision" looks like, Page reached out to the Google Creative Labs design team based in New York City for advice.

The final results of "Kennedy" which ran from June 2011 to January 2013 respectively. were rolled out, by The Verge technology publication, focused on "purification, white space, cleanliness, resilience, usability and most of all simplicity". The final products were organized with Page's goal of a rapid suite of products that could "move quickly", and "Kennedy" called a "design revolution" by Duarte. Page's "UXA" (User / Graphics Interface) design team then emerged from the "Kennedy" project, tasked with "designing and developing a true UI framework that transforms Google's application software into an elegant, mature, accessible and consistent platform for its users." ." Not publicly, the small UXA unit was convinced to become a "Kennedy" "institution".

- Acquisition strategy and new products

When sourcing products and companies for Google, Paige asked if commercial procurement passes the toothbrush test as an initial qualifier, "Is this something that you would use once or twice a day, and that makes your life better?". This approach sought utility above profitability and the long-term potential for near-term financial gain, which is rarely noticed in the business acquisition process.

During the beginning of Page's second tenure, Facebook's influence expanded rapidly, it finally responded in mid-2011 to intense competition with Google's own social network, Google+. After several delays, the social network was released through very limited testing and was managed by Vic Gundotra, Google's then-Senior Vice President of Social.

In August 2011, Page announced that Google would spend $12.5 billion to acquire Motorola Mobility. The purchase was primarily motivated by Google's need to secure patents to protect Android from lawsuits by companies including Apple Inc. Page wrote on Google's official blog on August 15, 2011 that "companies including Microsoft and Apple are banding together in a rival patent attack on Android. The United States Department of Justice has 'interfered in a recent patent outcome to protect Competition and innovation in the open source software community Our acquisition of Motorola will increase competition by strengthening Google's patent portfolio, enabling us to better protect Android from competitive threats from Microsoft, Foot, Apple and other companies." In 2014, Page earned $2.2 billion. Dollar sold Motorola Mobility to personal computer manufacturer, Lenovo, which posted a loss of $9.5 billion in two years.

Page also branched out into hardware, and Google unveiled the Chromebook in May 2012. The hardware product was a laptop that Google operating system, ran on Chrome OS.

December 3, 2019, Larry Page announced that he would step down as CEO of Alphabet and be replaced by Google CEO Sundar Pichai. Pichai will also continue as CEO of Google. Sergey Brin, co-founder of Page and Google and president of Alphabet, announced the change in a joint blog post, saying, "Now that Alphabet is well established, and Google and the other Bates are effectively operating as independent companies, it's a natural time to simplify our management structure. We've never followed management roles when we thought there was a better way to operate, and Alphabet and Google no longer need two CEOs and a president.

- 1998-2009

PC Magazine has praised Google as one of the Top 100 Web Sites and Search Engines (1998), and Google received the Technical Excellence Award for Innovation in Web Application Development in 1999. In 2000, Google received a Webby Award for technical achievement, the People's Voice Award. In 2001, it was awarded Outstanding Search Service, Best Image Search Engine, Best Design, Most Webmaster Friendly Search Engine and Best Search Feature at the Search Engine Watch Awards.

In 2002, Page was named a World Economic Forum Global Leader for Tomorrow and named alongside Brin as one of the world's top 100 innovators by the Massachusetts Institute of Technology (MIT) Technology Review publication. 35 years old, as part of its annual TR 100 list (changed to "TR 35" after 2005.

In 2003, Page and Brin both received MBAs from IE Business School in an honorary capacity, "to embody the entrepreneurial spirit and accelerate the creation of new businesses."

In 2004, he received a Marconi Foundation prize and was elected a Marconi Foundation Fellow at Columbia University. In announcing their selection, the foundation's president, John Jay Islin, congratulated both men "for their research that has fundamentally changed the way information is retrieved today."

In 2004, Page and Brin received the Golden Plate Award from the American Academy of Achievement.

Page and Brin were also award recipients and national finalists for the Entrepreneur of the Year Award in 2003.

In 2004, X PREZ selected Page as a trustee of their board and he was elected to the National Academy of Engineering.

In 2005, Brin and Page were elected Fellows of the American Academy of Arts and Sciences.

In 2008, Page received the Communication Award from Prince Felipe at the Prince Furious Awards on behalf of Google.

- 2009– **Until now**

In 2009, Page received an honorary doctorate from the University of Michigan during a graduate commencement ceremony. In 2011, he was ranked 24th on the Forbes list of billionaires, and the 11th richest person in the US.

In 2015, Page's "Powerful People" profile on the Forbes site states that Google is "the most influential company of the digital age".

As of July 2014, the Bloomberg Billionaires Index page lists him as the 17th richest person in the world, with an estimated net worth of $32.7 billion.

At the conclusion of the competition, Fortune magazine named Page its "Business of the Year", declaring it "the world's most daring CEO".

In October 2015, Page was named number one on the Forbes "America's Most Popular Chief Executives" list, as voted by Google employees.

In August 2017, Page was granted honorary citizenship of Agrigento, Italy.

10.3 Mark Elliot Zuckerberg

An American media magnate, is an Internet entrepreneur and philanthropist. He is known for co-founding Facebook and serves as its chairman, chief executive officer and controlling shareholder. He is also the co-founder and serves as one of the board members of the solar sail spacecraft development project Breakthrough Starshot.

Born in White Plains, New York, Zuckerberg attended Harvard University, where he launched the Facebook social networking service on February 4, 2004, from his dorm room with Eduardo Severin, Andrew McCollum, Dustin Moskowitz, and Chris Hughes. Originally launched to select college campuses, the site quickly expanded and eventually expanded beyond colleges to reach one billion users by 2012. Zuckerberg took the company public with a majority stake in May 2012. In 2007, 23 at the age of, he

became the world's youngest self-made billionaire. As of March 2021, Zuckerberg's net worth is $3,103.6 billion, making him the 5th richest person in the world.

Since the year 2008, Time magazine named Zuckerberg one of the 100 most influential people in the world as part of its Person of the Year awards. In December 2016, Zuckerberg ranked 10th on Forbes' list of the world's most powerful people

Early life

Zuckerberg was born on May 14, was born on 1984 in White Plains, New York. His parents are Karen, a psychiatrist, and Edward Zuckerberg, a dentist. He and his three sisters, Randy, Donna, and Ariel, were raised in Obs Ferry, New York, a small Westchester County village about 21 miles (34 km) north of midtown Manhattan. Zuckerberg was raised in a Reform Jewish household with ancestors from Germany, Austria, and Poland. He had a Star Wars-themed bar mitzvah when he turned 13.

at Ardsley High School, Zuckerberg excelled in class. After two years, he transferred to the private school Phillips Exeter Academy, where he won prizes in mathematics, astronomy, physics and classical studies. As a youth, he also participated in the Johns Hopkins Center for Talented Youth summer camp. On his college application, Zuckerberg said he could read and write French, Hebrew, Latin, and Ancient Greek. He was the captain of the fencing team.

Software developer

The early years

Zuckerberg started using computers and writing software in middle school. In the 1990s his father taught him Atari Basic programming, and later hired software developer David Newman to tutor him privately. Zuckerberg took a graduate course in the subject at Mercy College, near his home, while still in high school. In one program, since his father's dental practice was run from his home, he created a software program called "zucknet," which allowed all the computers between the home and the dental office to communicate with each other. It is considered a "primitive" version of AOL's instant messenger, which came out the following year.

A New Yorker profile says of Zuckerberg: "Some kids were playing computer games. Mark made them." Zuckerberg himself recalls this period: "I had a bunch of friends who were artists. They would come over, would draw stuff, and I'd make a game out of it." The New Yorker piece noted that Zuckerberg, however, was no ordinary "geek-klutz," as he later became captain of his prep school fencing team and earned a classics diploma. Nestor's co. - Founder Sean Parker, a close friend, notes how Zuckerberg remembers quoting lines from the Roman epic, ?The Neid, by Virgil during a Facebook product conference, which was actually the Greek Odyssey and all that.

During Zuckerberg's high-school years, he worked under the Intelligent Media Group company name to create a music player called the Synapse Media Player. The device used machine learning to learn the user's listening habits, which was posted on Slashdot.

During the college years

The New Yorker noted that by the time Zuckerberg began taking classes at Harvard in 2002,, he "earned a reputation as a programming prowess." He studied psychology and computer science and was an Alpha Epsilon Pi and Kirkland. In his senior year, he wrote a program he called CourseMatch, which allowed users to make class selection decisions based on the preferences of other students and helped them form study groups. After a while, he created a separate program that he initially called FaceMash that allowed students to choose the best-looking person from a selection of photos. According to Zuckerberg's roommate at the time, Ari Husitt, "he created a place for entertainment."

The site went up in a weekend, but by Monday morning, the college had shut it down, as its popularity overwhelmed one of Harvard's network switches and prevented students from accessing the Internet. Also, many students complained that their photos were being used without permission. Zuckerberg publicly apologized, and the student paper ran articles saying his site was "totally inappropriate."

the following semester, in January 2004, Zuckerberg began writing code for a new website. On February, 2004, Zuckerberg launched "The Facebook", originally located at 'SpaceBook.com'.

Six days after site launch, three Harvard seniors, Cameron Winklevoss, Tyler Winklevoss and Divya Narendra, accused Zuckerberg of misleading them by trusting him to help build a social network called Harvard Connection.com, when they were using his ideas instead. Create a competitive product. All three complained to the Harvard Crimson, and the newspaper launched an investigation in response.

After the official launch of the Facebook social media platform, the trio filed a lawsuit against Zuckerberg, which resulted in a settlement. The settlement agreed upon was for 1.2 million Facebook shares.
Zuckerberg at Harvard in his sophomore year to complete his projectDetar is gone..

May 25, 2017, on Harvard's 366th Commencement Day 52, Zuckerberg received an honorary degree from Harvard, after delivering the commencement speech.

A movie based on Zuckerberg and the founding years of Facebook, The Social Network was released on October 1, 2010, starring Jesse Eisenberg as Zuckerberg. After telling Zuckerberg about the film, he responded, "I wish nobody had made a movie of me while I was alive."
Besides, after the film's script was leaked on the Internet and it became clear that the film would not portray Zuckerberg in an entirely positive light, he stated that he wanted to establish himself as a "good guy". The film is based on the book The Accidental Billionaire by Ben Mezrich, which the book's publicist once described as "big juicy entertainment" rather than "reportage". The film's screenwriter Aaron Sorkin told New York magazine, "I don't want my loyalty to be the truth; I want this story to be told" and

added, "What's the big deal about accuracy for accuracy's sake, and can we not be the enemy of the true good?"

16 January, after winning the Golden Globe Award for Best Picture in 2011, producer Scott Rudin thanked Facebook and Zuckerberg for "their willingness to use their lives and allow them to act as a metaphor through which to tell a story about communication and the way we can tell a story. One is related to the other." Sorkin, winner of Best Screenplay, retracted some of the impressions given in his script:

I wanted to tell Mark Zuckerberg tonight, if you're watching, Rooney Mara's character predicts early in the film. It was wrong. You became a great entrepreneur, self-promoter and incredible philanthropist

29 January, in 2011, Zuckerberg made a surprise guest appearance on Saturday Night Live, hosted by Jesse Eisenberg. 192 Both said they had met for the first time. Eisenberg asked Zuckerberg, who criticized the film's portrayal of him, what he thought of the movie. "That was interesting," Zuckerberg replied. In a subsequent interview about their meeting, Eisenberg explained that he was "nervous to meet him, because I've thought about him for a couple of years now..." adding, "Mark has been so kind about something that he's really It's uncomfortable... The fact that he would do SNL and make fun of the situation is so sweet and generous. It's the best possible way to handle something that, I think, could be very uncomfortable otherwise.