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USAGE OF MODERN TOOLS AND SOFTWARE IN TEACHING METHODOLOGY -A CASE STUDY

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Abstract

The article focuses on the utilization of modern tools in Technical education. A detailed survey is taken among students (UG, PG and Research Scholars) who pursue technical education in various Engineering colleges of Tamilnadu. Many parameters are widely used by the students for learning, are taken into consideration for the process of making survey. The paper also discusses on the output of the survey that to find which tool is mostly liked by the students and what is the reason behind it. This paper also analyzes the software mostly used by the students. The above mentioned points are taken into consideration for the discussion on the usage of the modern tools and software in a technical classroom to enhance their learning process.

Keywords: *Modern Teaching Techniques, Objectives, Teaching Techniques, Benefits, Preparation for Modern Teaching*

I. Introduction

This paper helps to understand what is e-learning and examines the most recent methods, devices and current patterns of the same. Very few individuals are known about the definition of the term ‘e-learning’. E-learning, eases the opportunities of getting information and data out to the student at her/his own pace. This leads to a healthy sharing of knowledge and skills of the educators. Lately phrasing changed and it transformed from terms like "Technology supported learning, distance learning and distance education" to "web based learning”, later modified from, “online learning" to "e learning". E-learning helps us to share information and to get opinions from the experts who work in schools and colleges all over the world. It also equip us with relevant data to the opportune individuals, at whatever point they need it [1].

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The innovation in technology has advanced exponentially in recent decades and has been added devices to assist instructors. More noteworthy, the availability has made innovation a feasible alternative for instructors to schedule their training plans.

Instructors have said that the advantages that accompany, for having and utilizing technology in schools helps them to unite technological innovation with student's motivation to learn something new. It additionally gives instructors the alternative to arrive at students with various learning styles [2].

Instructors think about covering a variety of subjects in various techniques with the goal that students can get a handle on and comprehend the content of the subject. Presently there are some current technological methodologies that make learning simpler.

This is the place where innovation in learning can have a major effect. In fig:1 shows an assortment of inventive approaches to educate and learn, present day innovation surely offer strategies for various students, including games for visual learners [3].

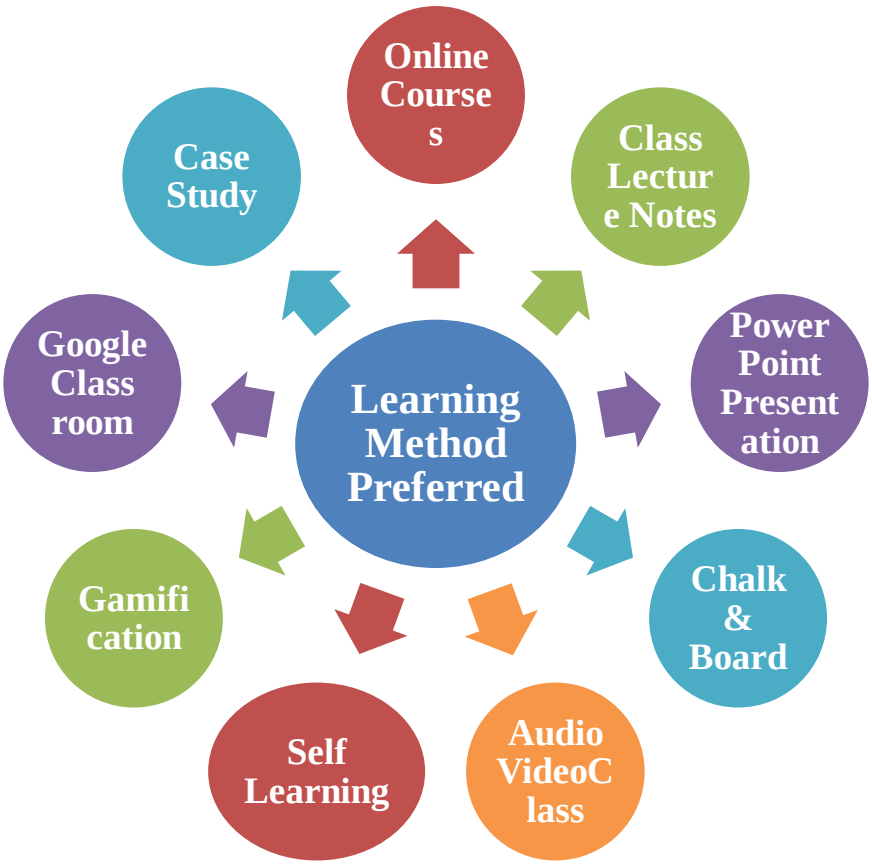

Fig : 1-Modern tool usage in teaching

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II. Methods

2.1 Disclose to Them First - Overview and Concept Pages

"Mention to me what you're going to let me know, let me know, at that point mention to me what you just let me know." An analysis, arrangement, sequence of preview strengthens one's learning and helps to hold on to the content. WBL (web based learning) regularly need pages that basically tell realities or present data. This kind of learning indicates the overview of the subject and register the content of the subject. They may likewise incorporate pages that clarify or delineate ideas, in a route like online documentation.

- Keep content short and concise.
- Illustrate thoughts with pictures and graphs - Students are regularly adapted to the Web to anticipate designs. Assuming will create a chance of this happening and procure a visual architect for any task. On the off chance that there is no time limit for this, utilize accessible fine art and clasp craftsmanship.

• An overall connect is given to the students to understand the content of subject better. By clicking on the Next and Previous buttons they are able to relate the content with the subject.

2.2 Show Them

- Demonstrations-Demonstration pages permit learning by perception. For instance, students are made to watch live sessions which can be acted in a product interface, or peruse and tune them or a model discussion between a client support delegate and a client. Here are a few rules for exhibit pages:

• Keep them basic. If the event or show is long or complex, partition can be done for a few pages.

• Test the timing of AV demonstrations on different PCs, programs. The number of students' participation is not restricted.

• Captions can be added for the demonstrations for whom the sound of the video is not accessible.

2.3 Let Them Try

- Interactivity- A sign of fruitful WBL is a high level of intuitiveness. Grown-up students as a rule learn best by doing, and interactive exercises feed them for this kind of developing intelligence. Question and answer tests put toward the finish of an exercise improve the basic understanding of the student..

These may include multiple –choice questions, fill in the blank questions drag and-drop questions or other type of questions. Quizzes can strengthen the learning of ideas. In any case, they are not valuable for showing aptitudes, are not especially captivating, and are disregarded by numerous students. Compelling WBL utilizes different techniques to encourage cooperation. This works best when the recreation requires the student to take care of a genuine issue and shows practical outcomes.

• Problem-comprehending situations- Students are exposed to some issue and their choices for tackling those situations will be helpful for their soft skill training. Every choice may prompt an alternate way for the student to investigate and solve the problem.

2.4 Engage the Learner

- Stories - Ensure that students are profoundly energetic to learn.
- Provide significant and vital learning encounters. Stories connect with the student's feelings and make the learning experience noteworthy. Likewise, in light of the fact that the characters and circumstances identify with the student's difficulties and issues they face in their life. Stories may inspire other students and will be lesson learned in their life.
- To show the application of this kind of communication, a story was made including a space station. Specialists on earth expected to treat a sick patient on the station through telemedicine. For this the learner has to equip with this kind of communication.

2.5 Provide Maximum Learner Control

- WBL content is made simple “to guide the learner to an appropriate content”. It doesn't mean giving just a single way through the content. Horton prescribes giving WBL courses create numerous strategies, which may incorporate a list of chapters or menu, a record, a course map, and even a hunt work. Each page ought to give Next and Previous connections, just as to relate the beginning of the content and the course landing page or primary menu. Every exercise outline page ought to permit the student to bounce to any point in the exercise[4-6].

III. Influence of Educational Software

Instructive software has been utilized for quite a while as an instructional guide everywhere throughout the world, and numbers of beneficial outcomes have been accomplished in the learning procedure through its utilization. It was generally utilized as an understudy help for self work and study, or as an instructor help for introducing material, be that as it may, the inquiry is to what degree a specific instructive software can help improve the adequacy of correspondence model in educating. Innovation advancement leads us into circumstance when students can utilize constantly accessible instructive software in homerooms, rather than reading material. Instructive software hold their motivation from the past time, anyway their improvement today, empowers conditions for fitting instructive software to become fundamental of learning in the classroom [7].

For good correspondence in learning it is important to guarantee that the information of psychological and passionate social segments is suitably spoken to in content and methods. For accepting and deciphering messages verbal and nonverbal segment is significant , in light of the fact that it is simpler and all the more fascinating to members to get the whole message (e.g., a video is generally a more interesting than the composed content or transcript of a similar discourse). At the point when correspondence is increasingly visit and more extravagant,

members will encounter it as consideration and enthusiasm for them, and when it is uncommon/sporadic or missing they will watch the educator/teacher as impassive and feel ignored. During the instruction it is attractive that the correspondence be however much two-path as could reasonably be expected, and to give, request and get criticism. At last, we should consider the data channels for arranging messages and evade and conquer the negative impacts of commotion in the correspondence procedure [9]. Popularity based correspondence is attractive, and correspondence atmosphere that appears to be invigorating and rousing [8].

What's more, a teacher can utilize instructional guides (instructive software for example) to encourage educating for himself and the learning procedure for students. Instructive software used to be CD-ROM version with a lot of multimedia substance, however today this kind of software generally depends on utilization of the Internet and gives its clients a simple and quick access to the information. Utilizing instructive software would lessen the requirement for visit educator clarifications (which diminishes noises in the correspondence procedure), in light of the fact that the students can find a few solutions freely, with the assistance of instructive software. It would likewise lessen the distinction in the capacity, among students with various degrees of earlier information, to adhere to the class guidance. All together for beneficial outcome of instructive software use in fig: 2 to be accomplished, it is essential that every understudy (or gathering of 2-3 students) can utilize a PC in the classroom [10].

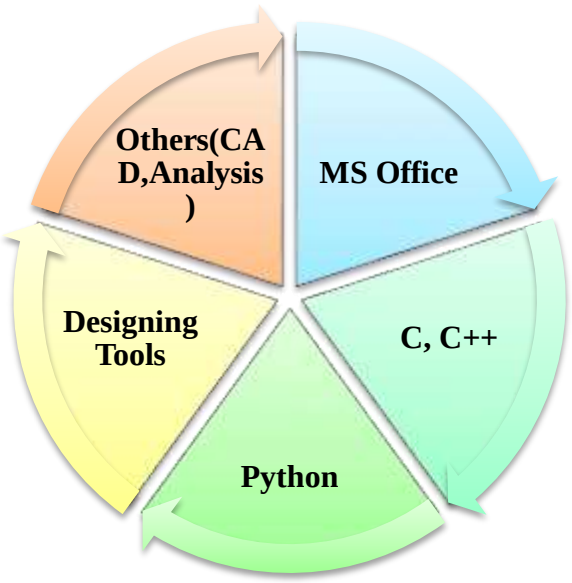

Fig:2-Various Educational Soft wares influencing the learners

IV. Discussions

A detailed survey is taken among the under graduate, post graduate students and research scholars of various technical institutions of Tamilnadu. The modern tools preferred by them were analyzed [11]. The parameters taken for the survey is

- Online Courses
- Class Lecture Notes
- Power Point Presentation
- Chalk & Board
- Audio Video Class
- Self Learning
- Gamification
- Google Class room
- Case Study

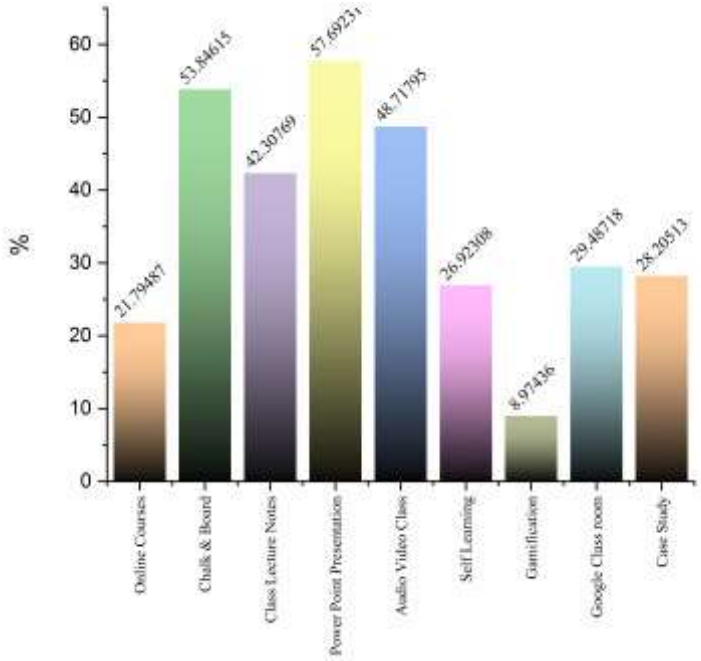

Fig : 3- Learning tools preferred by the learners

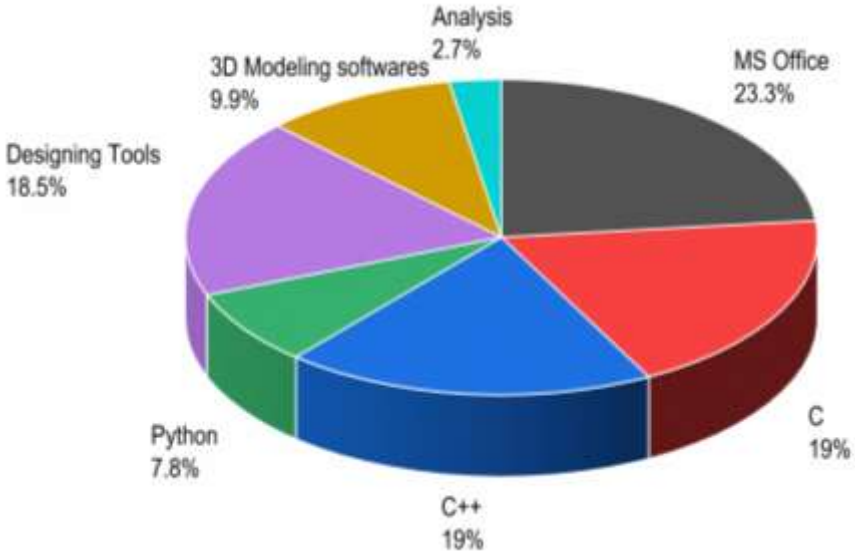

Fig : 4- Educational software influencing learners

In fig:3 and fig:4 shows around 56 % of learners preferred Power Point presentation. The reason for this choice may be for the quick content slides with pictures and also with video illustration. The next major Choice of learning is Chalk and Board. 54 % of learner chooses chalk and board because they are interested in interactive sessions and active participation with the neighbour learners. Most important thing is the live sessions and video lectures. The Audio video class is also a major choice of the students and next is the typical the class room learning. The Audio Video Classes selected based on their recent content which could not be seen directly and the class room notes will helpful for self study learners and also exam point of view preparations.

V. Conclusion

Giving importance to all the parameters it is understood that utilizing the Web for classroom preparations has some notable points of interest regarding openness, productivity, and cost. The way to understanding these favorable circumstances is a powerful structure that spurs students and gives them open and noteworthy learning encounters. This also widens the learning platform of a student and bridges the gap between teacher, technology and student. In this modern era, the student will be used more to technology and this helps them to bring out their innovative ideas. Technology will be no more a child's play if it is utilized by a student in a novel way. These modern methodologies will make learning fun and technical subjects will no more a burdensome for the students. The teachers are required to be updated with the modern technologies in teaching to give satisfactory learning to the students. With their current ranges of abilities and the modern teaching tools and procedures examined right now, results that instructors surely have the chance to make successful e-learning.

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