

Teaching Learning Process in Higher Education with the Impact of ICT: An Analytical Review

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Abstract—“As models of the teaching–learning process are addressed or when learning difficulties arise, the relationship between teaching, training, and children's learning comes up. Despite extensive study, we still have little understanding of how variations in learning activities affect students' learning. The importance of teachers and teaching as key study subjects has resulted in a restricted understanding of what happens in schools and classrooms. Few studies of teachers and teaching have looked at the degree to which disparities in teacher effectiveness are linked to differences in subject matter expertise, and there is still a tendency to talk about teaching and learning in broad terms without considering the material that has been learned. The author of this article argues that studies of teaching and learning must be linked to studies of the topic in order to create a dialogue between didactics and classroom studies. It is necessary to create an analytical design and structure capable of bridging the teaching–learning gap. Emerging developments in video/audio recording provide one line of inquiry into how various thematic trends are related to instructional activities and classroom interaction formats.

Keywords— Teaching Learning Process, Mentor, Role of Teacher, Higher Education.

I. INTRODUCTION

“No one is born fully-formed: it is through self-experience in the world that we become what we are” Paulo Freire

The origins of the great Indian educational system can be traced back to the ancient Vedic period, when education was only available to members of royal families.

During that time, the Gurukul method was in use, in which shishya (students) were expected to forego the comforts of home and remain with the Guru (teacher) until their education was completed. The students were taught a variety

of topics, including warfare, moral principles, history, and so on. GURUKUL SYSTEM is one of the old system training given to unique student and these education is not only stress teachers in teaching process but also helps to find student unique quality and skills [9]. As time changed and going to new generation, we travelled from epoch to the next, each epoch bringing with it new concepts that became the foundation for future developments. The Indian education system pre-Independence is Upanishad period, The Buddhist period, the medieval period and changed to Modern period [10].

The positive educational activities were carried forward with modifications, while the unnecessary ones were abandoned. Though there were many changes in the field of education, one thing that remained constant was the relationship between students and teachers, according to historians. Teachers have always occupied the highest position in society, and both students and parents held them in high regard. Slowly, schooling became accessible to those who wanted to learn, with no prejudice made against those who wanted to learn. Currently, the government provides mandatory education and it is cost free service to all children before they complete child's play (elementary) school. To improve the student interest we need to empower energy of students with extracurricular activities which helps people to associate with different types of people. The sports and club activities will help to change the student mindset towards gathering, social responsibility and healthy competition [11].

Higher education in India is especially institutionalized, with a higher concentration of value and leadership for teachers and a lower degree of autonomy for the information recipients. In the sense of evolving student expectations over time, this has been a stumbling block to learning among the younger generation, provided advances in communication technology, shifts in social and family structures, and a greater emphasis on self-directed learning [12]. This necessitates a re-orientation of pedagogy to place a greater emphasis on student-centered learning. While it is true that the speed and degree of learning will be influenced

by the diversity of learners' backgrounds, skills, and other personal characteristics, In order to include a range of learning opportunities, including individual and collective learning, learner-centered education necessitates suitable methodologies that teachers can use. The institute aspires to become a center of excellence to serve as a change agent in society by creating a pool of human capital skilled in science and technology by translating its vision of providing quality education and extending opportunities to all aspirants across all domains of knowledge into its goal[15].

II. BACKGROUND

In this 21st century, the term “technology” has gain higher Priority issue in various fields of diverse education.

Technology is the executive place in transferring knowledge to most of the countries. “Technology integration nowadays has gone through innovations and transformed our societies that has totally changed the way people think, work and live”[1]. This problem can be addressed by associating our school with university which is regionally located [7].

According to this, “schools and other educational institutions which are supposed to prepare students to live in a knowledge society need to consider ICT integration in their curriculum” [2]. ICT technologies are very important in different types of learning like self learning-Learning and class Room Learning[8].

“In most schools& colleges, technical difficulties sought to become a major problem and a source of frustration for students and teachers and cause interruptions in teaching and learning process. If there is lack of technical assistance and no repair on it, teachers are not able to use the computer for temporarily”[3][14]. Türel and Johnson’s study (2012)et.al revealed that “technical problems become a major barrier for teachers. These problems include low connectivity, virus attack and printer not functioning. However, there are a few exceptions. Schools in the countries like Netherland, United Kingdom and Malta have recognized the importance of technical support to assist teachers to use ICT in the classroom”[4].

McKay, Sae Kleriga, Guaracha Chow, Aldredge, McGinnis, Fowler, et.al (2019) as per esteemed authors “the goal of online tutoring is to create a virtual tutoring environment for students that emulates a face-to-face experience which can help a student achieve success in a given class”[16] [17].

III. SCIENCE OF TEACHING

A. Teaching Repertoire

Modeling concept is one of the strong techniques that has been adapted and used in areas of the subjects which help students continues learning new skills and gain trust in them. The concepts of this approach are outlined by many researchers, as well as instructions on know how it can incorporate modeling in the subject units & achieve it successful [18][19].

The unit on questioning describes the various forms and aims of questioner. It brings deep explanation how it organizes questioning for the class and team work, as well as planes for making it more successful, such as having "waits time." Bloom's taxonomy is helps to create a structure for creating challenging and developing questions for students.

There are also alternatives to direct questioning considered[20]. The Explaining Unit examines the function of explanations in the classroom as well as the skills, charecterstics and features skills required for effective explanations.

It looks at various types of explanations, how to prepare for them, and which techniques work best, particularly when dealing with abstract concepts. It also explains how to assist students in developing and framing their own successful interpretations[21]. The supervised Learning unit looks at how the concepts and methods used in monitoring reading and writing can be applied to guide learning in other subjects. It refers to an instructional sequence for small-group teachers that are inserted into lessons to serve as a link between whole class

instruction and unsupervised work[22].

It includes wide variety of examples and discusses realistic organizational issues such as time management, classroom layout, behavior management, and resource management. The Group Work unit examines how successful group work can aid in the development of students' problem-solving, speaking, reasoning, listening and social skills[23]. It emphasizes the importance of defining consistent rules and procedures, as well as a variety of strategies for ensuring pupil involvement and cooperation, such as assigning roles and setting group goals[24][25]. Methods for organizing community projects, such as 'snowballs', 'envoys' and 'rainbows', are suggested and the benefits and limitations of different grouping criteria explored.

The Engagement Techniques dept develops into engagement entails and why so necessary. The use of guided exercises related to text (DARTs) to encourage interactive active reading, techniques to promote live listening, reasoning strategies, and the use of drama through subjects are all investigated as ways to inspire and engage students.

B. Effective Learners creation

The learning unit assessment explains what assessment for learning is and why it is essential. It demonstrates how effective evaluation practices can lead to improved learning and achievement. This unit explores a variety of realistic methods for integrating these concepts into classroom routines, focusing on the core characteristics of evaluation for learning.[27]The unit on Developing Reading focus on enhancing students' ability to comprehend and respond to written texts. It looks at how to teach specific to subject terminology, how teachers can support students by expounding the approach they want, and how students must access prior information before reading, some methods for encouraging students to interact with text and some elements of note-taking[28].

It demonstrates how the teacher can use mutual and directed reading to help students gain greater independence and reading skills. The Developing Writing unit aims to improve the standard of students' writing by teaching them the techniques they would need. The best way to teach writing is for the teacher to model it and then share it with the students. From instances, modeled and shared work, to directed writing, the path leads to freedom. ICT in the classroom improves learning and instruction. In this unit we observe the relation among teachers and using ICT tools, growth of pupil capacity is examined in this unit. In the ICT-rich classroom, there are rules for the use of classroom management, classroom support technicians, and organization and assistants.

C. Creating constrain for Learning

Enhancing the Learning enviourment: The current existing environment has a big impact on learning, and this section of enviourment looks at minor improvements in the classroom has improved[28]. It views at how to arrange benches to fit the teaching method and how to create display area 0that actually help students understand[29][30].Another important factor in classroom environment is teacher–pupil relationships, and the unit discusses how the use of positive classroom language will increase pupil expectation and motivation. Learning

Methodologies:



Fig. 1: Teaching in Scientific Way

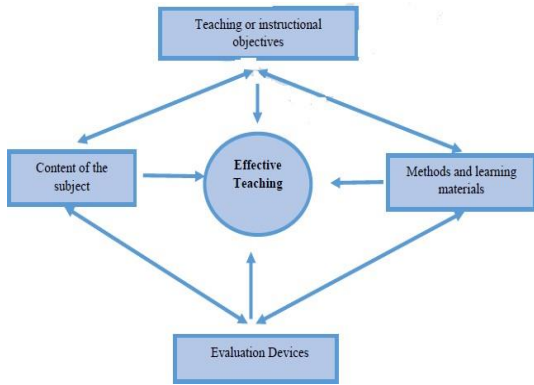


Fig.2: Foundations of Teaching Learning Process

Teachers' Views on Technology-Assisted Learning and Teaching : Teachers' Views on Technology-Assisted Learning and Teaching

Table 1 indicates that most teachers are aware of the goodness and usefulness of ICT in teaching, based on data obtained from a survey of 101 teachers. The majority of teachers realized that using ICT helps them enhance their teaching by providing more up-to-date content, as shown by the lowest mean of 1.70. It is undeniable that online teaching tools and materials are more up-to-date, and teachers may use them to create more interesting and engaging lessons for their students.

Furthermore, the majority of teachers agreed that using ICT would certainly provide many opportunities for successful teaching, and that ICT assisted will support teaching and makes learning as more effective, with a sharing mean of 1.72. Teachers see the use of ICT in the teaching and learning process as a positive development, as shown by this case, Teachers should use ICT as a tool to ensure that both learning and teaching are successful. With a mean score of 1.75, the data also shows that using ICT in the classroom helps students to be more interested and engaged in the lesson prepared by the teachers.

Sr. No.	Titles	Frequency and Percentage				mean	S.D
		Strongly Disagree	Disagree	Agree	Strongly Agree		
1	I am confident in my ability to learn new programming skills.	0	6 (5.9%)	70 (69.3%)	25 (24.8%)	1.81	0.52
2	I find it easier to teach when I use ICT	0	12 (11.9%)	70 (69.3%)	19 (18.8%)	1.93	0.55
3	I am well aware of the many advantages that ICT provides for successful teaching.	0	8 (7.9%)	57 (56.4%)	36 (35.6%)	1.72	0.60
4	I believe that ICT-assisted instruction improves learning performance.	1 (1%)	8 (7.9%)	54 (53.5%)	38 (37.6%)	1.72	0.65
5	Teachers will use ICT to enhance their teaching by using more up-to-date resources.	1 (1%)	6 (5.9%)	56 (55.4%)	38 (37.6%)	1.70	0.63
6	I think the use of ICT improves the quality of teaching.	1 (1%)	8 (7.9%)	61 (60.4%)	31 (30.7%)	1.79	0.62
7	I believe that using ICT to plan teaching tools and materials is beneficial.	1 (1%)	10 (9.9%)	59 (58.4%)	31 (30.7%)	1.81	0.64

8	Students will be more involved and engaged in the classroom when ICT is used.	0	9 (8.9%)	58 (57.4%)	34 (33.7%)	1.75	0.61
9	If ICT is used in the classroom, I have more time to listen to the needs of my students.	0	26 (25.7%)	55 (54.5%)	20 (19.8%)	2.06	0.68
10	Without the use of ICT, I can still teach effectively.	3 (3%)	19 (18.8%)	58 (57.4%)	21 (20.8%)	2.04	0.72
11	I believe that using ICT in the classroom is a waste of time.	24 (23.8%)	48 (47.5%)	27 (26.7%)	2 (2%)	2.93	0.76
12	I am sure that my students can learn more effectively without the use of technology.	12 (11.9%)	63 (62.4%)	23 (22.8%)	3 (3%)	2.83	0.66
13	If ICT is used in the classroom, the classroom administration is out of reach.	23 (22.8%)	54 (53.5%)	22 (21.8%)	2 (2%)	2.97	0.73
14	students pay less attention due to ICT tools usage	24 (23.8%)	54 (53.5%)	23 (22.8%)	0	3.01	0.69
15	classroom, students make no effort for their lesson in ICT is used in the	23 (22.8%)	56 (55.4%)	20 (19.8%)	2 (2%)	2.99	0.71

Table 1: Teachers' Views on Technology-Assisted Learning and Teaching

This is because students are more comfortable with ICT and find it easier to learn with it, enabling them to take a more active role in the classroom.

“The data also revealed the familiarity and competency of teachers in using ICT, with a mean of 1.81 indicating that most teachers are confident in learning new computer skills and are able to use ICT to locate teaching materials and tools. In this way, it demonstrates that teachers are receptive to the use of ICT in the classroom, rather than being resistant, and that they are comfortable learning new things. Aside from that, teachers feel it is better to teach using ICT, with a mean score of 1.93, but they still believe in the traditional way of teaching, in which teachers are the focus of learning, and claimed that they can still provide successful teaching without using ICT, with a mean score of 2.04.”

Most teachers, on the other hand, deny that using ICT helps them to cater to students' needs, with a mean score of 2.06, owing to clerical and other work that must be done in addition to teaching responsibilities. ICT simply makes it easier for them to teach, but everything else in the school remains the same.

With a total mean of 2.93, most teachers agree that using ICT supports learning and teaching in different options and that ICT integration will help us not to waste of time. However, there is an adverse side effect of ICT integration, as the results show that when ICT is used in teaching, classroom management is out of balance, with a mean of 2.97, Students make little effort for their lesson and learning process, with a mean score of 2.99, and most teachers agreed that using ICT in the classroom only causes students to pay less attention, with a mean score of 3.01, indicating that teachers are less accepting of ICT inclusion due to student attitudes whom being too dependent on ICT and not taking responsibility for their own independent learning which frustrating and disappointing the teachers.”

IV. Conclusion

Planning and coordinating schedules, putting in place support systems and processes, using technology and services, providing development opportunities, devising new teaching methods, providing personal and psycho-social support, and augmenting resources are all part of the teaching-learning process in higher education institutions. Transforming pedagogy and redesigning learning tasks are essential for the effective reinvention of educational programs around the world. Part of the answer is to encourage learner autonomy and imagination. Although technology may help promote efforts to improve pedagogy, it's important to remember that 21st-century learning environments must include more than just technology.

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