"Methods Of Teaching And Learning"

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Abstract

The 21st century is the age of cataclysmic change and creativity. India needs educated manpower in huge members. The traditional teaching-learning methodology is outdated and the best methods are to be identified to improve the required skills of the teachers and students. The teaching method is the mechanism that is used by the teacher to organize and implement several educational means and activities for certain goals. Teaching techniques are the means that reflect the success of the learning process and the competencies of the teacher. Being a teacher, I always need to look for new ways to deliver knowledge to my learners, and on many occasions, I found that traditional teaching methods were not as effective as they used to be due to the current advancement in technology. Teaching becomes more effective when it is performed in a quicker response to the needs of the learner so that blending various techniques to deliver knowledge and ideas becomes necessary. Pedagogy is a way to enhance teaching methods that are now in use across the globe. Hybrid teaching includes e-learning in addition to face-to-face teaching. The use of technology and multimedia is described in detail. The application of innovative teaching and learning methods is critical if we are to motivate and engender a spirit of learning as well as enthusiasm on the part of students. To address this problem, teaching and learning have become essential. Adoption of various methods and strategies as mentioned in the paper will help in getting the desired outcome. To choose the method that satisfies the aims and provides the teacher with high competency.

Keywords: Teaching Methods, Learning styles, Roleplay, Problem-based Learning, Traditional Teaching Method

Introduction

Education plays a key critical role universally in the development of any society. It imparts knowledge, skills and inculcates values, and is responsible for building human capital which, drives and sets technological innovation and economic development. Education is not only the means of achieving social development but also an engine of advancement in an information era propelled by its wheel of knowledge and research. Quality teaching transforms students' perceptions and the way they go about applying their knowledge to real-world problems. Naz and Murad 2017, Educationists around the globe advocating for innovating and improving the existing learning methods by teachers help to enhance the performance of students of diversity.

Teaching as a profession is formally the job of talented and trained people in the field of education who are saddled with all pedagogical principles practices and mandates to ensure the all-round development of learners at all levels of education. Teaching is a complex process; its' basic elements include objectives, content, methodology, assessment, the personality of the teacher, and the quality of the learner. The teacher is seen as an agent of innovation and the fulcrum on which the success or failure of any education rotates. The teacher's real effectiveness involves knowledge of what to teach, how to teach it when it should be taught, who is to be taught, why it is taught, and even where to teach.

Teaching and Learning are the two sides of a coin. The most accepted criterion for measuring good teaching is the number of students learning that occurs. There are consistently high correlations between students' rating of the amount learned" in the course and their overall rating of the teacher and the courses. Those who learned more gave their teacher a higher rating. (Cohen; 1981; Theall & Franklin, 2001).

Tom (1997), "Teaching and Learning are two activities that one reflects the other so that it's preferable to use the term, "Teaching and Learning method" rather than "Teaching methods". As we all know the outcome of teaching is learning therefore the separation of the two activities is not appropriate.

Ganyaupfu (2013) investigated that the teacher-student interaction method was the most effective teaching method over the teacher-centered approach. These researchers show that direct teaching is efficient in the transfer of knowledge but is not sufficient for deeper understanding, problem-solving, and creativity.

What are Teaching and Learning

Teaching refers to all the processes and activities designed to impart knowledge, skills and understanding at all levels of education. Broadly and simply put, it is causing people to learn. So, in the school condition if the student has not learned then the teacher has not taught. So, teaching is the standard of formal teacher-student interaction in which learning is the main product. Essentially a teacher guides the activities of the students to produce learning. The guidance may be direct or indirect, structured or unstructured. Learning, on the other hand, is the process by which behavior changes as a result of experience. So, the test of learning is behavioral changes or modifications that occur. But it must be noted that not all experiences are educative, as behavioral changes may be positive or negative. In any case, the goal of teaching is to ensure learning, and if learning has not occurred, then the goal is not reached. The Dictionary of Education defines teaching as "Transferring or conveying knowledge, attitudes and skills" (Shukla, 2007). Soga (2000) sees it as "a planned appointment between the teacher and the learner over a given subject matter to bring about learning using appropriate methods and materials in a moderately conducive venue".

The learning methods are the methods, which are identified and put into practice by the students. After the students have attended class lectures and acquired an understanding of the academic concepts and lesson plans, they need to implement the learning methods, which would enable them to argue their understanding. The learners also need to take into account various aspects in augmenting their learning, i.e. academic subjects and concepts, grade levels, learning abilities, and academic goals. The common learning methods that are put into practice by the students are reading and understanding memorizing, making use of technologies and other

innovative methods, group work, communicating with others such as instructors and fellow students in understanding the concept, acquiring feedback from instructors, learning with logic and reasoning and so forth. Within the course of learning, setbacks do take place. But making use of technologies and other materials effectually and forming agreeable terms and relationships with others will enable the students to put into practice the learning methods in an appropriate manner. Therefore, it is comprehensively understood, that with the utilization of various types of learning materials and possession of adequate knowledge, the learning will take place among students in a well-organized manner.

Meaning and Significance of Teaching and Learning Methods

Education is regarded as the instrument, which needs to be acquired as the instrument, which needs to be acquired by individuals, irrespective of their age groups, gender, categories, and backgrounds. In the present existence, individuals, belonging to all categories and backgrounds have recognized the meaning and significance of education. Even when the parents are not educated, they are getting their children enrolled in educational institutions. To make education a success, achieve goals leading to effective growth and development of students, and enhance the overall structure of education, there is a need to bring about improvements in teaching and learning methods. The instructors and the students need to work in collaboration and integration with each other leading to the up-gradation of teaching and learning methods. Therefore, it is comprehensively understood that the meaning and significance of teaching and learning methods are recognized in enriching the system of education.

When the instructions make use of teaching methods in an effectual and meaningful manner in promoting students' learning, they can recognize their meaning and significance. The various types of teaching methods such as lecture methods, discussion-based learning, case-based learning, collaborative learning, inquiry-based learning, problem-based learning, and project-based learning are put into practice taking into account the academic subjects and concepts, grade levels, learning abilities, and academic goals. Furthermore, the instructors need to be well-prepared in terms of utilization of various types of technologies and materials, and possessions of adequate knowledge, the teaching processes are put into practice in a regimented manner. Therefore, it can be stated the meaning and significance of teaching methods are recognized when they are put into practice in a worthwhile and effective manner to promote students learning and augment the overall system of education.

Learning methods are the methods, which are identified and put into practice by the students in facilitating a better understanding of the academic concepts and lesson plans. In higher educational institutions, the students are well-aware in terms of various types of learning methods, suitable to their needs and academic requirements. Whereas, in schools, the instructors impart knowledge to the students in terms of various types of learning methods. The meaning and significance of learning methods are recognized when they prove to be beneficial to the students in doing well in their academic assignments and activities. Over time there is a need to bring about changes in the teaching and learning methods.
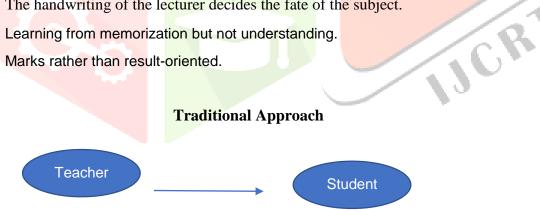
Traditional Teaching Method

In an evaluation in the pre-technology education context, the teacher is the sender or the source, the educational material is the information or message, and the student is the receiver of the information. In terms of the delivery medium, the educator can deliver the message via the "chalk-and-talk" method and overhead projector (OHP) transparencies.

This directed instruction model has its foundations embedded in the behavioral learning perspective (Skinner, 1938) and it is a popular technique, which has been used for decades as an educational strategy in all institutions of learning. The teacher controls the instructional process, the content is delivered to the entire class and the teacher tends to emphasize factual knowledge.

In other words, the teacher delivers the lecture content and the students listen to the lecture. Thus, the learning mode tends to be passive and the learners play little part in their learning process (Orlich et al.,1998). It has been found in most universities by many teachers and students that the conventional lecture approach in the classroom is of limited effectiveness in both teaching and learning. In such a lecture students assume a purely passive role and their concentration fades off after 15-20 minutes. Some limitations which may prevail in traditional teaching methods are

- Teaching in the classroom using chalk and talk is a "one-way flow" of information.
- Teachers often continuously talk for an hour without knowing students' responses and feedback.
- Teaching and learning are concentrated on the "plug and play" method rather than practical aspects.
- There is insufficient interaction with students in the classroom.
- The handwriting of the lecturer decides the fate of the subject.
- Learning from memorization but not understanding.
- Marks rather than result-oriented.

Traditional Approach

Teacher → Student

Teaching Method: A model research project may begin: In the field of pedagogy numerous teaching methods can be employed. A teaching method ultimately is nothing more than the method by which information is imparted to the students. In the 21st century, however, these teaching methods have proven to be inadequate for the demands of modern education.

In a classroom in which every lesson plan seeks to educate the whole child, there will invariably be tasks those children perform well and other than children find difficult.

The most successful teaching methods are those that have a proven track record of success employing the maximum number of the above criteria, while each of them engages students in different ways, each has its advantages depending on the information they teach. Knowing the differences between these methods will

help to select the technique that is best for a particular class of study, and to define a particular teaching style. The following characteristics of the most common teaching methods, as described in many related kinds of literature, (Pat,1992) besides the above model will certainly help in choosing the right teaching and learning method.

1. Lecture Method
2. Practical demonstration
3. Discussion and Dialogue
4. Investigation
5. Group Learning
6. Problem Solving
7. Online Teaching Method

1. Lecture Method: -

It is one of the teaching methods in which the teacher is the main roller, learners represent the passive elements, while the speaker represents the active ones. He delivered a prepared talk or verbal presentation to an audience on the outline of points to cover in one batch. Audience participation is minimal and usually confined to a brief question-and-answer session after the talk. In this method effort and time are saved.

- It creates new ideas.
- It is good for large classes.
- Teacher is experienced and has mastery of the subject, explains all points, and can answer all questions raised by students.
- Students can ask if they need any clarification.
- Learn through listening
- Teacher explains all points.
- Students give their input
- Teacher discusses the use whole topic in the class in easy language so students can easily understand the topic.
- It is good for large classes.
- Teacher provides all knowledge related to the topic.
- Time-saving as a teacher is supposed to finish lecture in time.
- Students give their views at the end of the lecture.
- Students can ask questions if they have any problems understanding the lecture.
- Students attentively listen to a lecture and take notes as the teacher ask questions at the end the of lecture.
- Students know and understand basic concepts.
- It creates new ideas.

- Teacher knows all the students so he/she can use suitable strategies for the class to make them understand.

- Teacher is experienced and has mastery on subject and can answer all questions by students.

- Teacher share information with students so it creates interest in students.

- Students are more involved and participate when the teacher asks a question.

- Teacher provides notes.

- Students easily understand every point.

- Students share knowledge with the teacher.

- Teacher is a role model for students.

2. Practical Demonstration

Practical demonstration is considered one of the general teaching methods that are effective in teaching skills of using tools, lab experiments in sciences, training on giving a speech, and so on. The teacher shows and performs the skills in front of the students in an optimal way, and he may rep them to eat many times, or let the students express the skills under his supervision.

Although the success of this method depends highly on the teacher's oral skills, this method is still important because some skills can't be learned without providing a real demonstration.

3. Discussion and Dialogue

It is the method of dialogue and discussion by using questions and answers to reach the h specified facts. This method goes to the Greek philosopher Socrates who used the method to make his followers reach the truth. This method depends on three elements: the sender, the receiver, and the message. The message represents the subject of dialogue, while the sender can be the receiver and vice versa at the same time.

Discussion is different according to its aim. Some discussions could be closed around teaching subjects or could be free to go around general subjects related to human life, or human problems.

Discussion and dialogue represent ideas trials between learners and between learners and teachers.

4. Investigation

Investigation in language means reaching the aim, while investigation as a method of teaching means overcoming problems by going through many systematic steps until achieving the aim and the result. As a definition investigation is a try to discover a new idea or a new meaning through studying several ideas, phenomena, and cases. The investigation is considered a very effective method for developing scientific thinking for the students by implementing many scientific operations such as; investigation, observation, experimentation, categorization, prediction, interpretation, etc. So by this method learners study several phenomena, facts, and information to reach new things by themselves.

5. Group Learning

Group forming by the teacher is one of the foundations of the success of group learning. Studies show that the learners get more academic and social benefits when the members of the group are heterogeneous. Groups that the teacher forms in the class from the different standards of a student allowed them to learn from each other and also to assess each other. Research results show that the strongest group is that group that consists of students with different levels of skills. This method depends on dividing learners into a semi-homogenous group and teaches separately wa with different learning situations. Each group consists of five to eight learners to obtain the goal. Members of the group can be categorized as:

Reader: Read the task to the group loudly.

Registrar: Register the answers. Write names.

Checker: Make sure that all members understand their work and ask for explanations and the method of solution.

Materials collector: Collect all related materials and file them.

Coordinator: Presents the project and also the performance of the individuals.

Observer: Observe the level of the noise in the group, and try to direct the team toward their work through time watching.

6. Problem Solving

What is the problem?

A problem is an unwanted situation that faces a person or several persons. This new situation is due to a change in the processes of work or because of external factors (Morgan, 2001). This situation needs to be solved or corrected, but before we start the process of solving, we should know what causes the problem, what has been changed, and what the consequences are, we propose suitable solutions that lead to correcting the situation or reaching an acceptable result. Teaching through problem-solving is not always easy, since many of us are taught by remembering facts, whether or not they were related to each other, or whether or not we were interested in the subject. Many teachers may say that problem-solving in their practical subject area is not possible, not helpful, or only possible in a limited part of the subject matter. However, everything that can be taught may be taught from a problem-solving point of reference. We learn through the model of solution that involves:

• Understanding the problem and what has been changed.

• Categorise it depending on our experience and experimentation with the help of critical information (historical problems, solutions, results ... etc).

• Compares expected results and the aims.

• External criticism.

• Comparing with a similar situation.

7. Online Teaching Method

Information technologies changing human humane and learning (Michael-2001). Teaching occurs outside a traditional classroom using the internet. As the way of learning changed, the way of teaching is also changed, tutors here should demonstrate another type of competency that reflect their knowledge, skills, attitudes, and context of performance, and this competency should be validated by one of the available ways that go through a certification process (Levy-Leboyer-1999) that consider all factors that tutors may need to the competency.

8. Case-based Learning

Case-based learning is used comprehensively across many disciplines. In the impartment of knowledge and understanding, the instructors provide cases to the students or they are stated in textbooks and other reading materials. When they work on the cases, they can acquire an understanding of the concepts efficiently Cases range in scenarios that can be addressed in a single setting. The individuals need to get engaged in multiple learning activities to satisfactorily understand the concepts in the implementation of case-based learning, the individuals are to collaborate and exchange ideas and viewpoints. Whereas, in some cases, they

may work on cases on their own. Therefore, it is well understood, through case-based learning, one of the major benefits is, that the students can understand the lesson plans and concepts in a well-ordered and regimented manner.

9. Collaborative Learning

Collaborative learning is learning, which involves learning in groups. It is common at all levels of education. The value of learning in groups is well-supported by research and is required in many disciplines. It has strong benefits for at-risk students, especially in the subjects of science, technology, engineering, and mathematics. In more structured group assignments, the students are given roles that allowed them to pay attention to specific tasks and activities. In augmenting collaborative learning, the various activities that need to be paid attention to are, think-pair-share, debates, case studies, problem-solving, and puzzles. When the students are participating in these tasks and activities, they are required to work in collaboration with others and exchange ideas and viewpoints. Therefore, collaborative learning is a common teaching method. The instructors and students as well as the students themselves are required to work in collaboration and integration with each other.

10. Inquiry-based Learning

Inquiry-based learning is the commonly used teaching

The method at all levels of education. In this case, the students are encouraged to put forward their questions. When they have any difficulties and problems, their questions would help them in providing solutions to them. Through inquiry-based learning, the students can develop their critical thinking and problem-solving skills. The implementation of teaching methods in an effective manner enables the instructors to put into practice the assessment strategies in an efficacious manner. Students are provided with the opportunity to review and bring about improvements in their performance based on feedback from instructors and peers. Therefore, it is well understood that through inquiry-based learning, students can contribute efficiently to bringing about improvements in their performance. Their instructors and peers make provisions to help and assist them in achieving their desired goals and objectives.

11. Problem-based Learning –

Through problem-based learning, the students need to

solve problems, with the main objective of acquiring an understanding of the subjects and concepts. After the completion of lesson plans, the instructors provide problems to the students, which would enable them to acquire an efficient understanding of the lesson plans and academic concepts. The students are required to solve the problems. The problems can be solved in groups or by working individually. When the students are providing solutions to the problems on an individual basis and they experience setbacks, they are required to obtain support and assistance from other individuals, including their instructors and fellow students. Furthermore, problem-based learning enables the students to upgrade their critical thinking, analytical and problem-solving skills. Therefore, it can be stated, that problem-based learning is an efficacious and worthwhile teaching method, which contributes to enabling the students to hone their skills and achieve academic goals.

12. Project-based Learning

The project-based learning is the teaching method, which enables the students to work on projects. The instructors from the view that when the students will work on projects, they will be able to understand the concepts better. They work on projects individually as well as in groups. When the individuals are working on projects in groups that include novice students, one needs to emphasize the equitable contributions to an assignment. The assessment strategies that are put into practice should take into consideration the differences in the efforts. Furthermore, they should allow the students to contribute to the evaluations of their peers. In the implementation of projects, there are various tasks and activities in which the students are encouraged to participate. When they participate in various tasks and activities, they can augment their learning and generate the desired outcomes. Therefore, it can be stated, that project-based learning is favorable and advantageous at all levels of education.

Types of Learning

Learning is regarded as a lifelong activity. It is an experience that the individuals remember. It is a deliberate action that is implemented to extract information (Learning Methods, 2020). In other words, it takes place throughout the lives of the individuals. Learning takes place in several ways. In other words, there are various methods, which need to be put into operation by individuals to acquire information.

The instructors too provide guidance and give suggestions to the students in terms of putting into practice the learning methods, which would prove to be favorable and beneficial to them in generating the desired outcomes. These are regarded as fundamental in acquiring an efficient understanding of the lesson plans and academic concepts and in achieving academic goals. The more the students are aware in terms of various types of learning methods, the more they will benefit in generating information in terms of new concepts, skills, ideas, and languages. The different types of learning methods are stated as follows: (Smith, 2019).

1. **Visual (Spatial) –** Visual learning method is the learning method when the students

have images and pictures before them to acquire an efficient understanding of the information. This learning method requires the learners to see first, what they are expected to know. They need to be aware of the strategy of mapping their thoughts before they could process them in a better way. The common characteristics of visual learners are, that they have good spatial awareness and sense of direction, can visualize objects, plans, and outcomes in a manageable manner, take pleasure in practicing artworks, painting, drawing, and doodling, and are well aware of terms of making use of colors appropriately and are well-equipped in terms of using maps. When individuals are making use of pictures and images in augmenting their learning, they need to be well-aware in terms of colors. The visual learners in the writing class may be able to process the information in a better way by seeing a video clip and how the video is beneficial in satisfactorily understanding the concepts. Therefore, it is understood, in the case of this learning method, the pictures, images and mind-maps are used to process information.

2. **Aural (Auditory-Musical)** – Aural learning is used to classify those, who respond to

sound and speech. Many musicians are aural learners. Auditory learners generally remember

what has been imparted to them by their instructors and readily participate in class. They are

well aware in terms of the fact that speech and participation will contribute to facilitating learning. The various characteristics of aural learners are, that they find certain music as invoking strong emotions; when they are learning or preparing an assignment, they take pleasure in listening to music in the background; they have a good sense of rhythm; they are skilled at preparing oral reports and class presentations and they can work through complicated

problems by getting engaged in oral communication processes. The students are making use of music to augment their learning. For example, a song that helps the learners in remembering the alphabetical order of all states is a way of understanding aural learning styles. Rhythms are regarded as beneficial and worthwhile

in augmenting learning. Therefore, it is understood, in the case of this learning method, music, sound, and speech are used to acquire an understanding of the lesson plans and academic concepts in an effectual manner.

3. **Verbal (Linguistic)** – Verbal learning takes place through hearing the words. Within the classroom settings, when the instructors are imparting knowledge and understanding to the students in the case of academic subjects and concepts, they can understand. These students actively participate in debates, speeches, public speaking, writing, and journalism. The verbal learners tend to render active participation in reading and writing activities, ask questions and present themselves well. When they develop interest, they participate in the learning of new languages, have a large vocabulary, take pleasure in learning new words, do not appreciate silence, and enjoy working in groups. They form the viewpoint that their learning will be enhanced and they will be able to achieve academic goals if they interact with others. Hence, it is of utmost significance for the individuals to focus on the up-gradation of interactive abilities in achieving personal and professional goals and in bringing about improvements in their overall quality of life. Getting engaged in effective communication processes is enriching in providing solutions to various problems and difficulties, arising within the course of achievement of academic goals. Therefore, it is well-understood, that the verbal learning method is a suitable learning method at all levels of education.

4. **Physical (Kinaesthetic)** – Physical learners are animated and they learn best by going through the motions in terms of what they are learning and understanding. The physical learners normally have high levels of energy; they generate awareness, notice and appreciate the physical world around them; they take pleasure in participating in sports, physical activities, and other outdoor activities; they have a good motor memory, i.e. can duplicate something, after doing it once and enhance their performance in role plays. When the learners are experiencing problems and challenges in acquiring an efficient understanding of the academic concepts and lesson plans, they may go for a walk or run. In this manner, they can activate their mindsets, so they can concentrate better. In this case, the learners are not able to learn something until they do it. One emphasizes drawing the diagrams and participating in role play in acquiring an efficient understanding of the subjects and concepts. Therefore, through this form of learning method, it can be understood appropriately that makes use of motor skills.

Conclusion

In this study, we have presented specifications that must be met by the teaching method to successfully achieve its goals and let teachers be more effective so that students can learn better. To achieve our goals from this study we also present the general Specifications for the most common teaching methods including the online education method focusing on the strength and weaknesses of each to help the teacher to choose the appropriate method to teach a specified subject successfully. We also provided the most important features of online teaching as being a program that offers a technology-based instructional environment that expands learning opportunities and can provide a top-quality education through a variety of formats and modalities.

On the other hand, learning methods are the methods, which are acknowledged and put into practice by the students in facilitating a better understanding of the academic concepts and lesson plans.

Education is a light that shows mankind the right direction to surge. The purpose of education is not just making make students literate but to add rational thinking, knowledge, and self-sufficiency. When there is a willingness to change, there is hope for progress in any field. Creativity can be developed and Innovative teaching and learning benefit both students and teachers. Finally, it can be stated, that possessing an adequate understanding in terms of teaching-learning methods will lead to the achievement of academic goals and enrichment of the overall system of education.

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