

A decorative border resembling a scroll or ribbon, with a shaded, circular element at the top right corner and a shaded, semi-circular element at the top left corner. The border is a thin black line.

CHAPTER - 1

INTRODUCTION

CHAPTER- 1

Introduction

1.1. Teachers, Teaching & Educational Psychology

Educational psychology, the science of education aims at improving the products of education. It supplies the means and ways as well as the science and technology for helping the teachers, the trainees, the educational planners in their respective areas of activity so that they will be able to assist the younger generation in their pursuit of education. That is way its study is made compulsory at all levels of the teacher training programme.

"Education psychology is that branch of Psychology which deals with teaching and learning."

- Skinner (1958)

It is applied in the field of education for improving the methods and products of the teaching learning process.

By whom is the learner to be taught.

In order to achieve the desired success in any teaching learning process, the role of the teacher can never be minimized. In fact much depends on the competency and capability of the teacher for carrying out the desired task, not everybody can be entrusted with the crucial task of behavior modification and personality development of number of children. One has to make oneself capable by equipping oneself for it.

NPE, National policy on education (1986, 1992) clearly acknowledges the importance of teacher and stipulates," the status of teacher reflects the socio-cultural ethos of a society", it is said that no people can rise above

the level of its teachers. The government and the community should Endeavour to create good, efficient and effective teachers who can function efficiently and effectively in classroom situations. Guided by the considerations, set by NCTE, (National Council for Teacher Education), through the training programme, the students are taught the importance of education problems of education, Newer methods of teaching etc.

Education psychology plays its role in deciding and making the teacher trainees aware of the type of learning experiences suitable for the children at each developmental stage by keeping in view the differences in their potentialities. The subject tries to encompass the essential knowledge and skills for equipping the teachers to plan select and arrange learning experience to the children suitable for their age grade and also meeting their specific individual potentialities.

How are the learning experiences to be provided?

Another important question which arises is how should the child be given the learning experiences planned for different stages of his growth in other words, what is to be done for the proper and effective communication between the teacher and the taught. What should be the appropriate method and technique of imparting education for the children. Which has minimum input in terms of labor ,energy and time and helps us to drive maximum output in terms of the quality and quantity of the finished products or outcomes.

Methods of Instruction

The Teaching learning activities in the classroom constitute the instructional method. The conventional instructional method features the teacher talking, children listening, the textbook structuring all classroom activities, with a lot of copying from the blackboard and memorization.

and recitation of Factual information. The Teacher is the centre of the process. He is a designer of instruction and planner of lessons.

Knowledge – teacher - student

The Traditional concept of a teacher as the transmitter of knowledge. This approach is likely to be motivationally and instructionally ineffective. It is also unsuitable for helping students achieve higher-level learning objectives. As teacher changes from one level to another. This discontinuity is often marked by a different style of teaching, which can result in a decreased rate of learning.

A teaching technique, method or approach connotes the manner of curriculum transaction. There are many of these and one should be selected from particular teaching situation which

Is based on their previous knowledge and experience of the students

- Is found to be of interest by the students
- Is within the ability of the children to pursue
- Can motivate children for further learning on their own.
- Enhances pupil competencies by imparting enablement empowerment and enrichment to the student
- Encourage learning initiatives of self directed learning among children
- Help in the realization of objectives.

Not all methods are suitable for all situations the choice of a method will have to depend among other things like the children being taught, the teachers own abilities, the facilities available.

Some of the main of the commonly used methods are described below

1- The Lecture method – this, "tongue and the ear" method is by and large the most widely used method of teaching and learning and consisted of dispensing of information by the teacher to the students teaching thus becomes both the means and the end and learning not the core concern.

2- The discussion method – These are issues where there is a likelihood of differences of opinion or problems admitting different solution or some conceptual confusions needing classifications where some consensus is required to be obtained these are to be put up for discussions.

3- Demonstration method – Demonstration as a method of teaching is used in practical subjects like physics, chemistry, biology, mathematics, Geography, Home science. It is used by it self or as part of a lecture.

Observation

It is basic to learning enquiry and discovery. It is the process through which pupils can be stimulated to learn.

4. Problem solving Method –Any method of solving a problem scientifically involving thinking, reasoning, planning and execution by following logical steps is a scientific method. The process of problem solving result in the development of cognitive abilities, affective qualities, attitudes and psycho-motor skills. It is in this context that the problem solving method is called a scientific method. Approaches to problem solving are

- The inductive method
- The deductive method
- Heuristic method
- Discovery method

5. The Project Method – It is based on John Dewey’s pragmatic philosophy of experience and experimentation, which brought a new dynamism in education.

W.K. Patrick defines the project as “a unit of whole hearted purposeful activity, proceeding in a social environment”.

6. The Laboratory Method – This method helps pupil to learn by doing it is the best method of providing pupils a clear understanding of any process

So, In contrast to these highly prevalent approaches, any systematic instructional method which focuses on learning outcomes and requires active student participation is likely to result in increased efficiency of learning. It appears that a few basic principles of instruction like active student participation, immediate feed back on the correctness of the irresponses, guided practice opportunities, division of the learning task into meaningful units, providing appropriate examples and non examples, using analogies, and spacing the lessons can be used in various combinations to make different instructional methods. The instruction method which may active the recipients and the learning becomes a mutual process like use of audio-visual aids but It is difficult is apply effectiveness criteria to a particular audio-visual aid. It should always be a part of integrated communication. The aids which impresses upon the mind through both sight and hearing are known as audio-visual aids . all these support materials help students not just in learning but more so in assimilating what they learn easily and abidingly as well.

The ever expanding horizon of knowledge today is so much diversified that demands our consistent effort to evolve scientific teaching methods with objectivity as their foci. The curricula must invariably involve the

simultaneous use of scientific equipments called as Multimedia programmes.

Multimedia-Meaning and Definition

Multimedia is media that uses multiple forms of information content and information processing(e.g. text, audio ,graphics, animation ,video ,interactivity) to inform or entertain the (user) audience. Or it is the combined use of several media, such as full-motion video, audio, animation, CD-ROMs, and the Internet, into and integrated package, as for use in education or Entertainment. These elements when used in Conjunction with traditional teaching methods, can help spark interest in individuals that may seem bored or uninterested in the course content. Multimedia when used properly can be a powerful tool which takes learning to the next level.

A multi-media learning environment involves a number of components or elements in order to enable, learning to take place. The development of multimedia technologies could soon offer access to knowledge far superior than that of most subject teachers, moreover the students are in active role rather than the passive role recipient of information transmitted by a teacher, textbook. Technology use allows many more students to be actively thinking about information, making choices and executing skills that is typical in teacher led lessons. The teacher's is no longer the center of attention as the dispenser of information but rather plays the role of facilitator setting project goals and providing guidelines and resources.

Types of multimedia

Multimedia has been broadly classified in two types

I. Linear

II. Nonlinear.

Linear content progresses without any navigation control for the viewer such as cinema presentation.

Non linear content often uses interactivity to control progress as used with a computer game or used in self-paced computer based training . Non linear content is also known as hypermedia content.

Multimedia presentations can be live or recorded. A recorded presentation may allow interactivity via navigation system. A live multimedia presentation may allow interactivity via interaction with the presenter or performer.

Use of multimedia programmes

Its use during teaching learning process largely depends upon the teacher, upon how he internalizes the subject matter to be taught upon, how he wants to help his pupils for mental imaging or thinking of facts and upon how he wishes to convince his students. Therefore scientific selection of multimedia programmes is also as vital as using them scientifically. Multimedia programmes are the most effective variety of aids. The evolution of television and computer has further diversified the utilities of multimedia programmes far and wide without being deviated from the primary focus of objectivity. Today the utilization of multimedia programmes in disseminating knowledge either inside the classroom or beyond that is so much widespread and versatile that the other form of indoor teaching aids are slowly moving towards their virtual extinction.

Teacher observations at the case-study sites were nearly unanimous also in reporting that students were able to handle more complex assignments and engage in higher-order thinking skills because of the supports and capabilities provided by technology. Practical knowledge and skills of using information and communication technology alongwith various hardwares allowing them to mix and make their own productions and to present their own experience, which could provide them with new opportunities to explore their creative imagination. Such an experience of two way interactivity rather than one way reception minimizes the broad and potential uses of ICT for its effective utilization.

Some teachers also report improved behavior in areas much as attendance and time on task and fewer behavioral problems. But there are circumstances under which traditional, teacher led discussion are well suited to the particular student and content at issue. By promoting the multimedia approach of teaching, we do not mean to suggest that all instruction for every student should employ this approach all the time. Introducing technology as part of the innovation does not make the model earlier to implement, but it can provide a powerful catalyst for taking on the challenge.

Advantages of educational multimedia programmes

Multimedia does not occupy the place of the teachers .they are effective means for achieving desirable goals in teaching and learning. as an affective means their function is great and a teacher should be aware of their functions in order that he may use them as per need , purpose and situation.

They serve a variety of purposes-

- They reinforce and consolidate teaching and learning .
- Accelerate the teaching learning process.
- Help pupils assimilate learning easily and effectively.
- Evoke and maintain pupil interest.
- Reduce the teachers workload.
- Help transforming abstract concepts into concrete realities.
- Promote the interplay of different senses in the acquisition of learning .
- Impart joy to learning .

An old Chinese proverb says :

If I see , I remember

If I do, I know.

The most effective communication is a combination of seeing,hearing and doing. When visual aids are used along with demonstration they make a deep impact.

1.2 Need and importance/Justification of the Study

The main function of educational research is to improve the educational procedure through the refinement and extension of knowledge. Each research is taken to improve the existing educational process and system.

It is commonly observed that teaching educational psychology through traditional lecture method is not so effective. Therefore, it is a duty of a teacher to teach and adopt an instructional method, which support him/her in realizing the envisaged instructional objectives. Teaching methods have an important role to play. The new syllabus demands new techniques of teaching the subject. Research on various approaches to

learning has been conducted in the west but such experiments in India are very few. As the approach namely, multimedia approach, believed to be effective over traditional approach, there is an urgent need for experimenting with different learning approaches in order to see their effectiveness in comparison with the traditional approach of learning. As there are very few researches in the field of Educational Psychology, and almost none in Piaget's Theory. That is what exactly the present study intends to do, hence the importance of the study. Education has extended its scope and spread beyond the conventional textbooks and the additional methods of learning. The learners must be exposed to multiplicity of media. The multimedia approach has been used in many subjects and at many levels but for educational Psychology and pre service Teacher Trainees, it has never been used, especially in the study of Piaget's Theory. A prospective teacher, under pre-service training, is often told that education's pedocentric in nature, and therefore, a good teacher is one who, rather than imposing teaching, facilitates children's learning. A teacher is expected to be resourceful and competent to select and use the existing material as also to develop and prepare teaching learning material to make the teacher learning task really meaningful and relevant. Therefore, the teachers would be trained to identify various types of educational media, prepare teaching learning material and identify factors such as age group, size of the class, number of students in a class etc. While developing the material and also evaluate effectiveness of teaching learning material, already available or prepared.

1.3 Statement of the problem

Comparative Study of the Effectiveness of Traditional and Multimedia Approach to Teaching of Educational Psychology on Pre-service Teacher trainees Achievement, and Attitude.

1.4 Operational definition of the Variables

Before preceding further in any research the researcher should have clear understanding of the problem. The terms like Achievement, Attitude, Locus of control, Multimedia approach and traditional approach needs special description as they convey different meaning to different people. This may result in ambiguous understanding of the terms , therefore to overcome this problem, the researcher made an attempt to define the terms operationally so as to avoid confusion. In this process researcher here under has given the understanding of the terms by great personalities in the field.

1.4.1 Variables of the study

A Variable is something that varies. It is the property that takes in different values. Variables are the conditions or characteristics that experimenter controls , manipulates or observes.

Variables of the study are-

Independent Variables -The independent variables are the conditions or characteristics that experimenter manipulates or controls in his/her attempt to ascertain their relationship to observed phenomena.

The independent variables of the study are -

- Teaching approaches:
 - (a). Conventional teaching approach
 - (b). Multimedia based approach
- Intelligence
- Locus of control

Dependent Variables

The dependent variables are conditions or characteristics that appear, disappear , or change as the experimenter introduces, removes, or changes independent variables

The dependent variables of the study are

- Attitude
- Achievement

Achievement : Achievement is a general term for successful attainment of some goal requiring:

- a) A certain effect
- b) The degree of success attained in a text
- c) The result of certain intellectual or physical activity defined according to objective prerequisites.

For the present study the achievement is operationally defined as the score obtained by the students on the achievement test , developed by the researcher.

Attitude:

Attitudes are associations between attitude objects(virtually any aspect of the world)and evaluations of those objects.

Fazio and Roskos-- Ewoldsen,1994.

More simply, attitudes are lasting evaluations of various aspects of the world- evaluations that are stored in memory. Judd et al.1991

Why Attitude is important ? for two basic reasons, firstly they strongly influence thought, the way in which we think about and process information and the conclusions and inferences we reach. Attitudes have also been a focus of research because, it has been assumed, they often influence behavior. All attitudes are important determinants of behaviour of an individual

Thurstone (1946) defined Attitude as “ the degree of positive or negative effect associated with some psychological object ”

An individual who has associated positive effect or feeling with some object is said to like that object or to have favourable attitude towards the object. An individual who has associated Negative effect or feeling with some object is said to dislike that object or to have unfavourable Attitude towards the object.

Thurstone thus defined Attitude as “a generalized reaction for or against a, specific psychological object” this definition renders attitude as a predisposition to behaviour. This position is taken in this study.

for the present study, the Attitude towards Educational Psychology is operationally defined as the score obtained by the students on Attitude scale.

Method of Teaching

An approach is a broader term than method. An approach is axiomatic in the words of Antony, it states a point of view or philosophy or an assumption, which one believes but cannot necessarily prove.

Method is over all plan based on some approach. In the words of Anthony "Method is an overall plan for the orderly present action of language material no part of which contradicts and all of which is based upon the selected approach. Thus approach deals with assumptions and method is a procedure based on some assumptions. In this way within one approach there can be many methods.

Since present study is conducted on traditional and multimedia approaches, a brief description of the same is offered here.

Traditional Approach

In traditional/conventional method teacher is the center of attention as the dispenser of information. He is the only source of knowledge and information. Here in this study researcher uses simple lecture method of teaching as the traditional method. Where the students are the passive recipient of information transmitted by the teacher.

Multimedia Approach

Multimedia is the combined use of several media, such as full motion video, audio, animation, CD-ROMs and the Internet, into an integrated package as for use in education. Here in this study researcher uses Multimedia presentations on Piaget theory for multimedia approach of teaching. The teacher plays no active role in this approach of treatment. The students are allowed to learn by themselves through the use of several media.

Locus of control

It refers to the extent to which individual believes that they can control events that effect them. Individuals with a high Internal locus of control believe that events result primarily from their own behavior and actions. Those with a high External locus of control believe that powerful others, fate or chance primarily determine events. Those with a high internal locus of control have better control of their behavior and tend to exhibit more political behavior than externals and are more likely to attempt to influence other people; they are more likely to assume that their efforts will be successful. They are more active in seeking information and knowledge concerning their situation than do externals. The propensity to engage in political behavior stronger for individuals who have high

internal locus of control than for those who have a high external locus of control.

For the present study the locus of control is operationally defined as the score obtained by the students on Rotter's locus of control scale.

Intelligence

These are some of the definitions –

‘Intelligence is the ability to adjust oneself to new problems and new situations of life’ . -Stern

‘Intelligence is the ability to learn’ . -Buckingham

‘Intelligence is the ability to solve such problems in which needed the understanding and application of knowledge and symbols such as word, digit, graph, equation and formula’ -H.E.Garett

For the present study the intelligence is operationally defined as the score obtained by the students on Standard progressive Matrices by J.Raven and JC.Raven and JH.Court.

1.5 Objectives of the Study.

1. To develop Multimedia package in teaching Education Psychology.
2. To compare relative Effectiveness of Conventional and Multimedia approach on Achievement pre-service teacher trainees in Educational Psychology.
3. To compare relative effectiveness of Conventional and Multimedia approach on Attitude of pre-service teacher trainees in Educational Psychology.
4. To study the relative retention in learning through Conventional and Multimedia faced approach.

5. To study the effect of Locus of control on the Achievement of pre service teacher trainees.
6. To study the effect of Locus of control on the Attitude of pre-service teacher trainees towards educational Psychology.

1.6 Hypothesis

1. There will be no significant difference in the mean achievement score between the students studying through conventional approach and multimedia based teaching approach.
2. There will be no significant difference in the mean attitude score between the students studying through conventional approach and multimedia based teaching approach.
3. There will be no significant difference in the relative retention of learning through the conventional and multimedia based approach.
4. There is no significant difference in mean achievement score between the students of External and internal Locus of control, studying through conventional approach and multimedia based approach.
5. There is no significant difference in mean attitude score between the students of internal and external locus of control, studying through conventional approach and multimedia based approach.

1.7 The Limitations

Depending upon the focus of the study the present study has following delimitations-

1. The study is limited to pre-service teacher trainees of only one college.
2. The study is confined to comparison of learning only in Piaget's theory.
3. The treatment is given only for four days.