

EDUCATIONAL PSYCHOLOGY

Dr. Sunil Patil

Introduction

Education Psychology is one of the most rapidly advancing disciplines which is concerned with the description, explanation and control of the educational processes arising from the interaction between the teacher and learner in the context of a specified or unspecified subject. The concept of educational psychology is changing as a result of the general impact of the disciplines such as sociology, anthropology, economics, political science and so on. The subject matter of educational psychology is also reflecting a diversity of structures and emphases in its connection.

What does educational psychology study?

There are usually three “elements” or “focal areas” in education that concern educational psychologist and the teacher. These as identified by Henry clay Lindgren (1967) are the learner, the learning process and the learning situation. The term learner here means ‘the pupils or students who individually and collectively comprise the class room group – the persons on whose behalf the educational program exists and operates. In educational psychology, therefore, an attempt is made to describe and explain the developmental stages, the dynamics of the personality and the psychological problems of the pupils.

The learning process is another significant area for the study by an educational psychologist. Such a process implies ‘whatever goes on when people learn.’ The process by which we as human beings achieve changes in our behaviors, modify or improve our performance, recognize our thinking, or discover new ways of behaving and gathering new concepts and information is known by the name of learning process. In educational psychology major attention is paid towards

understanding and explaining this process by introducing new constructs and theories.

The learning situation which is the third important area in the educational process embodies the environment in which the learner finds himself / herself and in which the learning process occurs. It refers to any factor or condition which may influence either the learner or the learning process or both. Such a situation may be of two types. The first, an immediate situation such as that of the classroom, the library or the laboratory where the learner is directly confronted with the task of learning, the second, a remote but relevant situation which is understood in terms of the relationship between the various functionaries of the community, the supervisory personnel situation.

Methods of enquiry in educational psychology

Educational psychology has now acquired the status of a science and as such it follows the scientific method in obtaining answers to meaningful questions the formal, and informal educational settings. Quite recently various methods of enquiry being followed by this discipline have been broadly put under the following two heads.

1. Distal Methods

The term distal methods has been used to indicate the strategies which are designed to approach an understanding of universally consistent or generalized laws applicable to contexts that are temporally, spatially and environmentally remote or distal to the original context under study. These include those popularly accepted in methodological literature, such as observation, experimental, quasi experimental, differential and ex-post facto methods of co-relational and criterion-group designs.

2. Proximal Research Methods

The term proximal methods are being increasingly used for the enquiry which does not assume or pretend to assume universal application. Its main value lies in the

Address for correspondence:

Dr. Sunil Patil, Managing Director
Panchgani Institute of Distance Education and Research,
Post Box- 69, Jaysingpur, Panchgani, Dist- Kohlapur, Pin-
416101
Email: sunil77p@rediffmail.com

validity of its temporal generalizations, whereas environmental generalization is restricted to contexts identical or proximal in character to the context originally studied. Whereas distal research methods discover universal consistent laws or generalizations, the proximal research methods are in search of contextually consistent laws or generalizations.

The various strategies of the proximal research are the introspection, the clinical methods, the evaluative enquiry, operations research (OR), simulation of problem solves performance and cybernetic monitoring.

The distal methods

The following strategies are frequently used in the distal methods:

i. Observation strategies

In using observation, the educational psychologist uses the four psychological processes: attention, sensation, perception and conception for collection of facts. It is an activity directed on seeing others – the other person, the events outside the individual. Attention is a necessary precondition for successful and effective observation. It implies a ‘mental set’ or a ‘state of alertness’ which an individual assumes in order to sense or perceive selected events, conditions or things. Sensation is another psychological process necessary for observation. It means awareness of the internal or external environment through one’s senses. Perception is the third psychological process important for observation. It is the art of linking what is sensed with some past experience to give the sensation meaning. Conception is that quality of the mental activity associated with observing by which one removes blocks to perception through the creation of imaginative concepts. It is an intellectual representation of some aspect of reality which is derived from the perception of phenomena.

ii. Experimental Strategies

An experiment is a controlled observation. It is rigorous and is based on identification and control of variables. In terms of operation the experimental strategies uses four action sets. Controlling, manipulating, observing and measuring. These action sets or strategies rest upon

two assumption.

The educational psychologist now frequently uses the experimental strategies for finding out the generalized relationships between two or more variables.

iii. Quasi-Experimental Strategies

Quasi-experimental strategies are partly true experimental strategies. They are used in situations where full experimental control is difficult or impossible. The educational world is replete with constraints upon the investigator’s ability to choose or assign subjects and manipulate conditions. Hence he or she has to remain satisfied with the available reality contexts. As a workable solution, the investigator employs the quasi-experimental strategies or methods because they carry experimental control to its reasonable limit. The quasi-experimental strategies deal with the real situations like of the classroom setting. There is little or no manipulation in the experimental groups.

iv. Differential Methods

Human beings are different from one another in whatever respect we may wish to study them. The recognition of this fact is the primary reason for the use of differential method. In it, the focus of attention is on the study of individual differences. The educational psychologist while using such a method, selects his subject according to certain criterion and then compares their growth or performance in the light of such a criterion. In the experimental method, the investigator can manipulate the independent variables but in this method it is not possible to do so.

v. Ex post Facto Methods

The term ex post facto literally means from (ex) after (post) the fact (facto). Here the investigator examines the effects of a naturalistically occurring treatment after the treatment has occurred. There is no scope for creating or manipulating the treatment as it has already taken place. The treatment is included for study by the method of selection rather than manipulation.

The proximal methods

The proximal methods of enquiry are concerned with

the description of phenomena under specific contexts. They aim at revealing the contextually consistent laws, the proximal methods used in educational psychology are given below.

i. Introspection

Introspection means a kind of self observation or process of looking within. The outcome of introspection is self disclosure emanating from the examination of one's own ideas, feeling, motives etc. In other words it is an objective, analytic observation of one's own conscious processes. Wundt, the founder of psychology as a formal academic discipline in 1879 used introspection as the method of psychology. Later, Titchener, showed the way for using it further. According to Titchener, psychology was the study of consciousness by the method of introspection for the purpose of answering two questions about mental phenomena : what and why ? The question of what is concerned with the systematic introspective analyses of the mental process, the question of how examines as to how are the mental processes related or combined and the question of why finds out the reason for the various permeations and combinations of the mental elements.

ii. Clinical methods

In following the clinical method, the approach is that of a clinician who conducts a thorough examination of a particular case or set of cases with a view for ameliorative and remedial action for them.

The clinical method is employed for studying the problems of adjustment, motivation, personality development and learning. The educational psychologist can undertake to apply the clinical method for obtaining facts and principles pertaining to the dynamics of adjustment of various groups of children or adults, for finding out the factors responsible for lack of motivation available in class room teaching, and for investigating the determinants to personality development and learning.

iii. Evaluative enquiry

For obtaining answers to real-world problems, the

educational psychologists have used evaluative methods. These methods use the measurements and value description for finding out the worth while of an educational programme or activity. Cronbach (1974) and Glass (1972) state that evaluative enquiry provides information that is important within the decision making context but not for universal law generation.

In such an enquiry, an interdisciplinary approach is used with a view to collect data from a variety of perspectives under diverse and frequently adverse conditions in "the septic world of the class room and school" The evaluation does not reduce the variables so as to study them in "the antiseptic world of the laboratory"

Evaluation is similar to applied scientific research, but rather than providing unrealizable solutions to general problems. Evaluation collects specific information relevant to specific problems. It is concerned with immediately significant answers for the decision making. It has an "obligation" to deal directly with personal standards and subjective judgments.

iv. Operations research

The concept of operations research (OR) has emerged quite recently. During the past four decades of its appearance it has been used by various disciplines. An accurate description emphasizes its ad hoc approach to real-life problems. Three characteristics of OR are.

- Scientific approach to practical problems
- A multidisciplinary approach
- A total system orientation to decision making in order to obtain optimal solutions.

The OR attacks problems with a "team" consisting of specialists in various disciplines e.g. organizational behavior, marketing, evaluation, management, computers, and statistics etc. Since educational psychology deals with practical problems and is by its very nature multi-disciplinary, the potential use of OR technique is highly significant.

V. Simulation of problem-solving and cybernetic monitoring

Problem solving is the highest type of behaviors available in humans. Even the computers are now being used to

stimulate human problem solving behavior.

The simulation techniques are based on the premise that 'contrived reality, provides an ideal setting for learning' (Kenneth H. Hoover 1980). The advantages of such techniques lie in the fact that they do not contain the threats of physical and psychological damage that may be inherent in the 'real' situation. These techniques include role playing, socio-drama and value classification and aim at relating activities within the school to reality outside.

Cybernetic monitoring (Black, 1974, Merrill, 1974) was developed in the context of learner controlled computer assisted instruction. The term learner controlled implies that the learner is allowed to choose instructional component which will be presented at each stage of instruction. In cybernetic monitoring the following variables are measured:

- The path selected by the learner
- Learner performance at each step
- Response time per step.

Relevance of educational psychology for teacher

We have noted that educational psychology is primarily concerned with the description, explanation and prediction of the various factors and processes aimed at realizing the defined educational goals. The teacher is the principal agent who can directly benefit from such descriptions, explanations or predictions. One of the most crucial tasks facing a teacher is that he/she is required to design the instructional systems and the learning environments in the formal and informal situations. In accomplishing this task he plays the role of a manager. He plans, organizes and implements a

number of immediate and long term decisions. The knowledge of educational psychology helps him/her in planing, organizing and translating these decisions in an effective and efficient manner. He/she becomes better equipped to play the role of a successful manager.

The professional training and exposure to the various techniques of educational psychology, the assimilation of the knowledge derived from the study of educational psychology, practical skill and insights acquired in the process of undergoing a course in educational psychology enables both the new entrant as well as the in service teacher to take prudent, wise and pragmatic learning. It improves his knowledge of the educational contexts, expands his behavioral repertoire of social and managerial skills of teaching, enriches his insights into the educational processes, influences his attitude towards the learner, the subject matter and the learning situation to make it more positive, and equips him with the suitable tools for the measurement and evaluation of learning outcomes. These are, thus, the three areas – knowledge, skill and attitude – in terms of which the study of educational psychology is helpful to a teacher.

References

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