

Optimizing Transfer of Learning as a Tool for Facilitating Academic Achievement among Under Graduate Students of Nigerian Universities

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Abstract

The thrust of this paper is to highlight the function of transfer of learning and the space it occupies in the learning process. The paper explained in detail how transfer of learning can be used as a veritable tool to facilitate academic achievement. The paper began with concept and definition of learning, followed by the characteristics and factors that may affect learning. The meaning of transfer of learning, types and forms were also outlined. Principles of transfer and factors that will promote positive transfer were identified. Finally, conclusion and recommendations were provided. It was recommended that students should be made to understand the role of transfer of learning and apply it to learning.

Keywords: Optimizing, Transfer of learning, Facilitating, Academic Achievement, Undergraduate, Nigerian Universities.

Introduction

Learning is a part of almost every aspect of psychology from developmental (how behaviors are acquired through the life cycle) social psychology (how we learn to interact with others) to abnormal psychology (how we develop such behavior as phobia and depression). Learning has evolved as a set of adaptive mechanism that allows us to acquire new behavior and modify old ones. To understand the complementing of human behavior, we need to have a clear understanding of what psychologist refer to as learning we also need to know more about the basic process which is fundamental to all learning.

Research Objectives

- a) Provide explanation on the definition of learning and its characteristics
- b) Highlight the concept of transfer of learning
- c) To examine how transfer of learning can help facilitates academic achievements

Research Questions

- a) What is the definition of learning and its characteristics?
- b) What is the meaning of transfer of learning?
- c) How does transfer of learning facilitates academic achievement?

Research problem

Individual have been known to react and respond to learning situation in a varieties of ways. This explains individual differences in their composite actions, feelings, perceptions of stimulus and problem solving strategies.

Many of the techniques and procedures that facilitate academic achievement is not known by majority of students. Students may lack systematic strategies that facilitate the development of academic performance. The learner may not be determining to make success out of the business of study. The problem of the study, therefore, is to examine the concept of transfer of learning and how it can be used to facilitate academic achievement.

Significance of the study

It is a fact that learning can be transferred from one situation to another. Since learning is a change in behavior as a result of experiences, learning can be seen as adaptive mechanisms which make it possible for us to acquire new experiences. Children are sent to school for cultural and behavioural transmission. In other words, teachers transmit values, attitudes and believe to children in school. The impact one learning situation has over another learning situation is known as learning transfer. Its major significance is that whatever is learned or acquired prepared an individual for future application.

Methodology and Research Procedure

This study adopted descriptive survey research design. By using this approach Osuala (1987) noted that the researcher could appropriately study representative samples, make inferences and generalization

Concepts and Definitions of Learning

Aristotle described learning as an association of idea following the laws of similarity, contrast and continuity. He believed that people learn and remember things that are alike, that are striking because of their differences and that occur together in space and time.

Learning is the acquisition of knowledge or skills through experience, practice or study. It is the knowledge acquired by systematic study in any field. It is a change in behavior which is more or less permanent in nature and comes as a results of activities, training and observation (Salawu and Isah,2005).

Learning is seen as a development in an organism's mental state as a result of new information, experience and training gained (Maitafsir, 2001).

Learning is the acquiring of new experiences, knowledge, behavior, skills, values, attitudes and preferences. It is the process that leads to change, which occurs as a result of experiences and increase the potential of the individual for improved performance. It is the modification of behavior as a result of experience.

Learning is the acquisition of new behavior or the strengthening of new behavior as a result of experiences. Learning is a natural enduring change in behavior that results from experience (Micheal and Todd, 2003).

Lindgren (1991) posited that learning is a central process in understanding human behavior. Most aspects of human behavior are learned contrary to the widely held view at the turn of the century that human behavior is instinctive in nature. According to Lindgren, instinctual behavior as an inherited pattern of complex response which becomes less important as life progresses up the evolutionary stages.

Alhassan (1985:17) noted that learning is the totally of the acquisition of factual information, the mastering of skills and means to aid further study (understanding); the entire socialization processes the acquisition of behavior patterns, the style of tackling problems of every life and more.

Gagne (1970:3) opines that learning takes place when the situation affects the learner in such a way that his/her performance changes from a time between being in the situation to a time after being in it. The change in performance is what leads to the conclusion that learning has occurred. Thus, learning is a change in human disposition or capability which can be retained and which is not ascribable to the process of growth.

Dinkmeyer (1985) defines learning as a change of human behavior resulting from the interaction of the organism with environment. Learning is dependent upon activity or special training and in this sense, differs from behavior change which is solely due to maturation. Learning then, involves relatively permanent behavioral changes which is as a result of experiences.

O'Conner (1993) noted that learning is a scientific study of human experience, human and animal behavior. Olaitan (1992) defines learning as a collection of experiences when a person progressively required to be regarded educated in his/ her society.

Travers (1996) posits that man is a philosopher before he is a psychologist or an educator and as he sees human nature, so he sees the nature of learning. Learning is viewed as a cognitive problem solution process whereby man activity seeks and uses environment clues that enable him to form concepts, solve problem and think creatively.

Human learning is the ultimate goal of our education system. Man turns to several disciplines to discover what aids or hinders learning and to move towards a more adequate knowledge of the process itself.

Bugelski (1986) states that learning may be grouped into five categories.

- The characteristics of the learner, such as development aspect
- Characteristics of the teacher instructional facilitator
- Classroom/study center interaction
- Characteristics of the learning as a group, and
- The physical settings.

Characteristics of Learning

The following are considered as the major characteristics of learning:

- It has to change behavior.
- The change should be relatively permanent
- The change should be as a result of experience.

- It is an internal process.
- Learning takes place under condition of directed attention and deliberate effort.

Factors Affecting Learning

Four important factors are associated with formal learning in the school. These are the learner, the teacher, the situation factors and others.

We shall consider how each of them influences the process of learning.

The learner: Great importance is attached to the learner because without him, there will be no learning. The school in its everyday function attached great significance to the all-round development of the learner. This includes the physical, intellectual social and emotional aspect of the individual's life.

Certain individual qualities affect learning. There are; age, self-concepts, family circumstance, peer group and level of ability.

• Age of the Learner

Learning proceeds in stages, this conforms to the level of maturity and development of the learner. It is therefore a waste of time teaching certain ideas to children when they are not psychological ready to profit from such ideas. Therefore, there is a link between age and response to learning by student. The teacher who understands this link puts himself in advantage position for his job. Age in this context does not necessary mean the number of years spend by a child in the world. In some situation you find a child with a well develop mind above his age. Here, the teacher has to find out the quality of mind of the learner in order to arouse and renew interest of the learner. Teacher must organize learning activities logically in such a way that those we teach can easily be able to cope with.

• Background of the learner:

Children who came from well provided homes and where parents understand their roles, as care giver tend to have an early advantage over those who came from poor homes, the child is likely to benefit from environment which promote learning. The presence of objects like radio and television stimulate curiosity and interest in learning. Parent can provide adequate support for their children in terms of helping them for their homework and assignment given at school. Generally, children who are exposed to such difference are more dispose towards school and adapt positive attitudes toward the teacher.

• Peer Group Influence

Students exercise a great deal of influence on themselves. This influence can be felt within and outside the classroom. One important feature of children is that they want to conform to behavior that is defined by each particular group. Students may work towards impressing their classmates, to win their approval within and outside the classroom. Students' cares for what others will think about him/her, particularly his peers, regarding his leaves of achievement.

• Level of Ability of the learner.

Each learner in the class possesses a given level of ability. This consist of interest, attitudes and achievement etc. Several other elements combine together to determine the nature of individual ability when a child therefore come to school; he carries with him the sum total of the qualitative experiences which he has had. These experiences are important in determining how well or how badly he does in school. Ability is not fixed in human being it can be improved by sustained remedial work.

The learning environment: This is one of the major factors influencing learning. We shall examine the following:

- **The classroom**

The physical settings for learning affect the learner in various ways. These consist of the classroom, Laboratories, Library and other places where formal teaching is done. The settings must be attractive enough to make children wish to spend longer time there. This contradicts what is available in our primary and secondary schools. The physical comfort of the students must be guaranteed.

Learning should not be made a painful activity. It should be interested and pleasurable. Unfortunately, this is the physical settings in which most Nigerian children receive their education. We hope there should be a reversal of this trend in the near future.

- **The psychological environment**

By psychological environment we mean the kind of atmosphere credited by the teacher between him and the student for learning to be warm and non-threatening. Student should see themselves as party to the learning process and in taking part of the decision that affects them. The psychological environment also has to do with the relationship between one learner and the other within the classrooms

- **The Family & Community Environment**

The first school of the child is the home. The experiences and knowledge obtained from families and mother and other family members help to advance the work of the school. Educated parents can do some work which supplement that of the school. Very few parents had the educational resource which is required for the education of their children - radio, television, newspaper books and magazines etc.

Transfer of Learning

Introduction: parents sent their children to school because they are certain that the school can transmit desirable attitude, skill behavior to children. This means learning gained in school would be useful in helping the learner to be able to solve real life time problems.

What is transfer of learning?

Transfer of learning is the influence that a person learning in one situation has on his learning and performance in other situation. It is the carryover of learning experience from one situation into other learning situation.

Types of Transfer of Learning

Positive transfer of learning is what is required in education. When we learn addition in school, we should be able to use it to learn multiplication. The children should be able to apply the concepts, skills, theories and rules that they learnt in other lessons within the subject to other subjects and to real life problems. Sometimes the learning of this concepts, skills, principle and theory may interfere with the learning of another. This is negative transfer of learning. Negative transfer occurs in two ways; when previous learning experience hinder the learning of a new material, we say proactive inhibition occurs on the other hand, when the learning of a new material interfere with previous learning retroactive inhibition results.

The teacher must make all efforts to promote positive transfer of learning at the same time solves the problem posed by negative transfer.

Forms of Transfer

- **Specific and general transfer**

When we can identify the specific relationship between two facts or skills that makes transfer easy or difficult, then we say that the transfer is specific. For example, the knowledge of LCM (Lowest common factors), can be used for addition and subtraction of fraction. However, general transfer can occur even if we cannot trace it to a specific relationship.

For example our problem solving techniques will help us solve a problem whether in the school subjects or in the real - life situation. A general transfer may also occur from our attitudes, mental set, and knowledge. A child may transfer his dislikes for mathematics teacher to a science teacher in a different classroom without specific similarities.

- **Lateral & Vertical Transfer**

Lateral transfer is said to occur when knowledge acquired in one context is applied to solving a similar problem in different context. Vertical transfer on the other hand involved moving from one level of operation to a higher level. This occurs when a previous learned ability or skill contribute directly to the acquisition of a more complete capability.

- **Sequential Transfer**

The school learning is organized in such a way that we move from one step to the other, with each subsequent steps building on previous steps. We ensured that what is learned today is a follow up of what was learnt yesterday and will facilitate what which will be learnt tomorrow. This is referred to as sequence transfer.

Principle of Transfer

Similarity between learning task and situation facilitate Teaching and learning.

- Transfer of learning is greater when there are similarities between two activities either in content or procedures. Because similar procedure is needed for shooting the ball in the net or basketball, the skill can be transferred to the learning of the skill in the other.

Transfer will easily occur between two subject or activities if they have something in common such as facts, skills, methods and principle etc.

- **Mastery of a learning task increase possibility of its transfer.** The greater the level of practice on the original task, the greater the likelihood of positive transfer. On the hand, negative transfer results if the original task is not well practice.
- **Variety of experiences during learning promotes transfer.** Generalization is likely to occur when we present a variety of experiences during learning. Such variety of experience make the learner better equipped with variety of possible application.
- **Understanding the principle of general rules promote transfers.** It is easier to transfer knowledge of general rules to specific situation then to merely learn detail fact. Transfer is greater if the learner understands the general rules or principles which are relevant to solving new problems.

Teaching to Promote Positive Transfer

- **School learning should be purposeful.** Learning is meaningless if it will not be applied in future lessons, in solving problems and in real life situation. The teacher, should therefore, teach with specific objectives. School learning should not be limited to passing of exam. It should be a means to future learning and living.
- **Call the pupils' attention to similarities between present, previous & future learning.** Transfer is said to occur when relationship is made between similar learning. Transfer should make conscious effort to relate to what the teacher is teaching to previous and future learning.
- **Encourage step by step mastery in learning:** Pupil should be encouraged by the teacher to master skills, concepts and principle before learning another. When skills, concepts, facts are completely learnt, they became easily transferred to new situations.
- **Emphasize understanding of concepts & principles.** Concepts, roles and principles make it possible for learner to use a single idea in variety of situations. The teacher should use concrete examples, models graph, pictures, diagram to demonstrate rules and principles. Emphasize genuine understanding of roles and concepts rather than mere memorization.
- **Give a variety of task and examples.** Variety of experiences during learning promotes transfer. Teacher should endeavour to present variety of relevant examples for whatever is being learned. Numerous examples should be used in the teaching of skills and concepts.

Conclusion

Transfer of Learning is a very important tool which can be used by under graduate students to make learning easier and help to accomplish greater academic achievements. Students at the Undergraduate level of studies should avail themselves the opportunity of using transfer of learning to simplify their learning tasks and record accelerated learning achievements.

Suggestions and Recommendations:

- i. Students' should be made to understand the role of transfer of learning and apply it to their learning situation.
- ii. Students should be made to comprehend concepts, ideas and principles and operate from simple to difficult exercises.
- iii. Students should be made to realize that the aim of learning is to apply their knowledge to solve life problems and overcome challenges and not only limited to passing of examinations.

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