

# Teacher, Teaching Theory and Bruner's Cognitive Perspective: A Review of Trend

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**Abstract:** *Bruner's theory is viewed as a discovery theory of teaching where learners are directed through exploring and manipulating objects to perform activities in the classroom. The paper tried to look at the definition of teacher, teaching and theory by scholars and philosophers in the field of education. What is theory and various views from school of thought, the meaning of nature of teaching as cited by Smith, 1963 and Bruner, 1966, the Bruner's cognitive of instruction, which is said to be based on ideas and assumption. The theory described how learning is carried out through cognitive process, curiosity, conceptualization, development of cognitive and knowledge. The paper x-ray the implication of the theory on the teachers, teaching and students which help them to achieve the ultimate goals of knowledge, the paper also propose three process through which teaching can be successful that is pre- disposition to learn, sequencing of the presented materials and providing due re-enforcement.*

**Keywords:** *Teacher, Teaching, Theory, Bruner Cognitive and Perspective*

## INTRODUCTION

Any task, for its effective outcome, has to be dealt with properly in terms of its theoretical layout and practical implementation. Theory, in general provides a framework useful for planning and schedule effective steps to be taken for performing a task or executing any activity as successfully as possible. Teaching is a serious activity undertaken by a teacher to produce desirable changes in the behavior of the students. For performing this task effectively, a teacher surely needs some pre-planning and theoretical understanding of a number of activities that are desirable to set his behavior in tune with task performed by him. Therefore, the question of who is a teacher or an individual chose to be a teacher is those that will elicit different answers from many individual as possible. Utulu, 2011. A teacher can be regarded as one who instructs, direct and guide learners for effective change in behavior. Some people perhaps strayed into teaching as a last resort. Others are from backgrounds where teaching is a form of family profession and so found themselves in the shoes of their parents. Some others have taken to teaching for convenience while they engage in more lucrative ventures outside.

However, the role of the teacher in society is found inevitable especially in the rearing or nurturing and socialization of the young child. The education of the child from early childhood until adulthood is the responsibility of the teacher. This is why no matter who you are or what you attain you were made what you are by the teacher. Offorma,(1994) .Therefore, the teacher helps to shape, organize and mold the lives of people in the society. Although the Nigerian teacher is still enumerated and sometimes not paid at all as exemplified by the irregular payment of salaries by the local government to primary school teachers which has undermined the role of the teacher and relegated him to the background in the Nigerian society. The teacher's role remains vital in the society. Therefore, teachers need theories of teaching to equip them for proper transmission of knowledge, values, attitudes to the younger ones in school with such theoretical understanding and framework. However, for understanding the meaning and nature of the theories of teaching properly, let us first understand and define the terms theory and teaching separately

The term theory has been defined by eminent scholars in the following, Hendry, G. D., and King, R. C. (1994). A theory is a set of interrelated concepts, definitions and propositions that presents a systematic view of phenomena by specifying relationships among variables with the purpose of explaining and predicting the phenomena. Theory refers to the relationship between facts and ordering of them in some meaningful way, specifies the relation between events for the purpose of explaining the occurrence of the events and predicting future event” Understanding this way, a theory related to a subject refers to a well-organized theoretical framework for the understanding of a particular phenomenon or process. It helps in understanding the mechanism and interrelationships among the variables involved in that phenomena or process. Theories have predictive value. The result of the particular phenomena or process can be known in advance with the help of the theories. Thus, in case one makes advances according to some theoretical frameworks supplied by a theory, we can predict his future success or failure to a great extent.

The term ‘teaching’ is a quite serious task or activity undertaken by the teachers to produce desirable changes in the behavior of their students. It is a process that is aimed for helping the students in their learning activities and during this process, teachers are supposed to maintain a particular type of behavior called teacher behavior and engage in the activities called teaching activities. Teaching is no longer a process of impacting knowledge and skills to learner (Esu, 2012), or the transfer or transmission of knowledge or in fact ‘talking & chalking’. Consequent upon the fact that good teaching is learner Centre and is generally making the learner clientele of self-reliant of cognitively thereby getting most students to use the higher cognitive level processes, getting students of engage in learning related activities such as generate new ideas, reflecting (critically), applying and problem solving (Olulube 2009). Teaching becomes helping influencing, facilitating or inspiring learning or as (Mozieobi, 2013) put it that it is stimulating guidance, direction and encouragement of learning. However, other agencies like the home, church, mosque have been known to influence learning that has led to a positive change in the behavior of learners (Utulu, 2011)

### Meaning and nature of ‘Theory of Teaching

Teaching involves a set of activities called teaching acts, teacher number of variables form part of the teaching process. A theory of teaching must provide a theoretical framework for the proper planning, organization and control of teaching’ tasks or teacher behaviors and manipulation of all the involved variables in order to realize the stipulated educational and instructional objectives as effective as possible. It must

help the teachers to make their students learn, i.e. to bring desirable changes in their behavior in actualizing their potentialities to the maximum. In a nutshell, a theory of teaching must provide the answer to all queries and questions related to teaching for efficient and effective learning contrary to theories of learning which pertains to the behaviors of the learners and the factors, conditions and situations in which they can learn effectively and also the outcomes of learning, theory of teaching must invariably deal with the behaviors of the teacher and their teaching aimed for better learning. Views expressed by some educationists regarding the term “theory of teaching” to understand how they define and describe the term, Okafor.1988).

Lieberman, Myron (1986), An American psychologist, described theories of teaching as “an attempt to describe teaching variables involved in the teacher behavior in terms of their existence and possible interrelations for predicting the outcomes of teaching” Smith, through his description, thus tries to point out that a theory of teaching needs to incorporate the following three elements:

1. It must mention the different teaching variables involved in the teacher behavior.
2. It must describe the possible relations among these variables.
3. It must predict the impact of teaching.

According to Gagne (1964), a theory of teaching must invariably answer the following three

Questions related to the teaching process.

1. How do teachers behave?
2. Why do they behave as they do?
3. What are the effects?

Considering the fact in this way, theories of teaching are aimed to improve the teaching behaviors for achieving the desired teaching objectives. In other words, with the help of a teaching theory, a teacher can plan, perform and control his teaching activities and ways of behavior for exercising desirable impact on the learning behavior of his students. A theory of teaching, as Gagne visualizes, has also its predictive value. The learning performance of the student shows high correlation with the teacher effectiveness. i.e. the effective teacher behaviors and this effectiveness is gained through the knowledge and study of teaching theories.

Bruner (1966) termed theories of teaching as nothing but explanation of general methodology of teaching and, therefore, this ought to be derived from the general theories of learning. A method of teaching points out the way or the activities undertaken and behaviors performed by a teacher for accomplishing his teaching objectives well. In this way, according to Bruner, a theory of teaching is concerned with the most efficient ways and means for optimum learning. Speaking in this tone, it must specify and ensure the arrangement of the most effective learning experiences, learning environment and learning

methods for the optimum learning outcomes. Bruner believes that the curriculum should foster the development of problem-solving skills through the processes of inquiry and discovery and that the subject matter should be represented in terms of the child's way of viewing the world. He also believes that curriculum should be designed so that the mastery of skills leads to the mastery of still more powerful ones; advocates that teaching should be done by organizing concepts and learning by discovery and that culture should shape notions through which people organize their views of themselves and others and the world in which they live.

### Bruner's cognitive theory of instruction

J.S. Bruner proposed a theory of instruction which is very different from earlier psychologists. This theory was based on his own ideas and assumptions summarized as follows:

1. Learning is not simply a stimulus-response (SR.) conditioning or R.S. reinforcement but rather a cognitive process. As a cognitive process it involves the following three simultaneous acts:

- a. Acquisition of new knowledge or information
- b. Transformation of knowledge that one already possesses.
- c. Checking the pertinence and adequacy of knowledge one has.

2. Curiosity is the basic instinct possessed by every individual right from the period of infancy. Knowledge is gained on account of the curiosity about the things, objects events and events surroundings us and our attempts to involve ourselves in the knowledge getting process.

3. Conceptualization or categorization is the first major step in the process of learning. Were human beings having a tremendous capacity to discriminate objects or events in the environment, categorize or classify them in a particular or generalized way. However, the child should be helped in the formation of right concepts from the very beginning. J.S. Bruner advocated the use of concept attainment model devised by him for his purpose.

4. The development of cognitive abilities in human beings is a continuous process. It takes place quite systematically by involving the three developmental stages as follows:

- (a) The enactive mode of stage
- (b) The iconic mode or stage
- (c) The symbolic representation mode or stage.

At the enactive stage, the curious child gets access to some aspects of really resorting to motor responses. Thus, the first stage in our learning consists of manipulation of the objects or events surrounding us. Learning through manipulation of concrete objects or doing things should thus be an initial step in any

instructional strategy adopted by the teacher. (Huitt, W. Huitt, W. (1997). At the iconic stage the individual is able to think about the objects or events through his own mental image. Thus, he is now capable to represent the reality of the objects or events through a set of images or graphics, like representation of a room through rectangular diagram.

By the third stage of symbolic representation, the individual starts using in place of images. Here, language and symbolism play the key role in represented the reality of objects and events. It is the highest stage where concrete reality represented and manipulated through pure abstraction.

5. Knowledge is important. However, it in itself cannot claim as the sole power the acquaintance and mastery over the process of knowledge getting that much for the proper development of the individual. For this purpose of instruction, according to Bruner, should take into account the following.

- (a) Nature of individual children
- (b) Nature of the knowledge to be received by the children
- (c) Nature of the knowledge getting process.

6. Children should not be made to repeat, reproduce and present the ideas, concept and principles, but should be encouraged to learn on their own and discover things by themselves. For this purpose, they should be given proper opportunities for their own active involvement in the knowledge getting process. Emphasizing this, Bruner (72) writes, *"We teach a subject not to produce little living libraries on that 4 but rather to get a student to think ... for himself to consider matters as historian does, to take part into process of knowledge getting. Knowledge is a process not a product"*

Hendry, G. D., and King, R. C. (1994). For giving such ideas a practical shape, Bruner advocated the use of discovery learning in his cognitive theory of instruction. By this approach he wanted the Student to learn through their own active involvement in the process of learning, to developed their independent problem solving skills, to analyze and manipulate information rather than to simply absorb it and to engage in the task of discovering or rediscovering and understanding the things by themselves.

7. According to Bruner, teachers should keep in mind such a theory of instruction which helps them achieve both the goals of knowledge and knowledge getting simultaneously. For this purpose, he advised them to cover the following four major aspects in their process of instruction:

### Predisposition to learn.

Before starting the process of teaching, teachers should make all attempts to make the child willing and able to learn going to experience through the given instruction.

(a) **Structuring the knowledge.** Learning experiences to be given or contents to be taught should be effectively structured that this enables the students to grasp and relate the knowledge as effective as possible. It is difficult to teach everything about anything to the students; it is, therefore, necessary to make the students understand the basic generalized set of basic ideas or principle to be used in both present and future learning situations. Bruner used the term coding for such generalization. For improving their instruction, the teaching of the subject material should be in a way that ensures maximum opportunities to generalize. A code built upon generalization will thus help their students for a full grasp and comprehension of the subject.

(b) **Sequencing of the presented material.** A teacher should take care of proper effective sequencing of the subject matter and learning experiences to his students. Since learning follows the sequence of enactive, iconic and symbolic representation of reality, the subject matter should be tailored and sequenced to the sequence and order of these modes of representation. Moreover, presented material should match the needs of the growing mind at the enactive age levels. In this way, the theory of instruction put forward by Bruner emphasizes first to convert knowledge into a specific structure within the grasp of the students of various ages and then to sequence this structured material into operational form fitting well with their existing modes of representation.

(b) **Providing due reinforcement.** According to Bruner's theory of instruction others should pay due consideration to the mechanism of proper reinforcement the process of instruction. In doing so, more emphasis should be paid to the intrinsic reinforcement, i.e. the internal satisfaction and self-reward. The so-used purees of extrinsic reinforcement, especially in the form of rewards and adversely affects the students' attempt of self-learning and independent problem solving. When reward and extrinsic motivation tends to increase the rates of repetition of the same kind of behavior, the punishment, on the other hand leads to the disruption of the behavior rather than providing an instrument for its correction.

With all these views, Bruner termed his theory of instruction, descriptive or prescriptive; prescriptive or descriptive in the sense that it tries to prescribe or normative in the sense that it sets the norms before the teachers in the form of teaching-learning conditions for achieving the desired teaching objectives. He concentrated on to devise ways and means in his theory of the development of cognitive abilities of children by emphasizing on independent and discovery learning. The major points or guidelines suggested in his theory of instruction and discovery approach may be summarized as follows:

1. Try to make the best use of the students' natural interest and instinct of curiosity.

2. Encourage students to think and learn independently. Instead of giving them ready material, let them discover or rediscover it through their own efforts.

3. set the learning situations or conditions in such a way that (i) arouses children's curiosity and motivation, (ii) minimizes the risk of failure, and (iii) remains as relevant as possible for the attainment of teaching-learning objectives.

4. Never resort to spoon-feeding. Discourage the students from resorting to practice, repetition and reproduction of ideas. Their level of cognitive ability modes of representation of reality should be given due consideration during Instruction.

5. Help the students in the proper identification and categorization of objects in a particular and generalized way. Take help of a suitable model like attainment model (invented by Bruner himself) for the proper concept form children.

6. Try to help the students to learn the ways to acquire knowledge and thus be acquainted with the knowledge getting process besides acquiring useful knowledge.

7. Arrange the learning material into a proper structure and sequence it properly adequate grasping and understanding on the part of students.

8. Properly reinforce the learning behavior of the students by concentrating

#### **Measures of suitable intrinsic motivation or self-reward.**

The implication of Bruner theory is that teaching starts with learners' involvement in the manipulation of real objects and materials. This approach to teaching relates to the study because learners are required to carry out task and participate fully through manipulation of thread, rulers, set squares maps models and computers in the case of Geography. This gives the students the opportunity of learning from active involvement in the learning process, which eventually leads to discovery of something new in the lesson leading to high achievement in examinations.

Another implication of this theory to the teaching lies in the fact that teachers use methods to measure students' achievement in the teaching of students. The emphasis is on active involvement in the learning process, through experiment, practical which is focus of any teacher. Fall, A. (1970). The theory posits that if a child is the Childs' allowed to explore or construct knowledge by himself, he will get stimulated to learn more, can sustained his achievement during teaching Therefore, method is related to

discovery theory. If effectively implemented by the teacher, it would most likely lead to the

accomplishment of objectives. In discovery theory, learners learn by doing things themselves; learners develop creativity in problem-solving. It also allows learners to build mental model of whatever information they grasp in the learning process. In view of the fact that students are active participants in discovery theory, teachers believe that learning by doing may lead to high achievement.

## CONCLUSION

The theories put forward by Bruner describe how theory tries to explain the nature of measures helpful in better teaching and instruction in their ways. They have their own strengths and weaknesses as a theory of teaching. None of the theory can be called absolute and comprehensive either in explaining the nature of teaching describing the necessary teaching activities for the purpose of effective instruction. To this, the truth is that, there exists no theory of teaching as such. What is available in the form of teaching theory are only models or paradigms of teaching. At best, these are able to present different styles of teaching activities carried out in an instructional procedure or may out the effect of teaching-learning situations or teacher behavior on the learning of the students. There is still dearth of a comprehensive, objectively-based scientific theory to explain all what we need in understanding the nature of teaching, role of the teaching variables overall improvement in the process and products of teaching

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