IMPROVING TEACHING:
Some Theoretical Considerations

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1. INTRODUCTION

The teaching-learning process is considered to be one of the most delicate, complex, challenging and significant social processes. However, throughout the history of professional concern about the processes of education, there has never been sufficient appreciation of the complexity of teaching. In this short paper, an attempt has been made to highlight the basic relationships between teaching and learning and, thereby, note the instructional roles and responsibilities of teachers. The paper addresses itself to the importance of knowledge about the relationship between teaching and learning, at least at the theoretical level, due to one major assumption. The assumption is that "improvement of teaching essentially requires a clear understanding about the task of teaching which can be understood by the nature of teaching".

Burton Cited in Sharma, (1990:95) gives the following reasons as to why we, as professional teachers, investigate into the relationship between teaching and learning:

1. Teaching can be made effective by relating it to learning.
2. Appropriate teaching conditions or structures may be generated for effective learning.
3. Effective teaching aids may be selected for creating appropriate learning situations.

4. The nature of teaching can be understood and teaching theories may be developed.
5. Teachers may come to know what is expected of them in helping their pupils learn.

In short this paper is partly an admission to the fact that a teacher is equally a student of psychology in general and of the psychology of learning in particular.

With this in mind, let us probe into the nature of the relationship between the two concepts-teaching and learning.

2. TEACHING AND LEARNING:- THEIR RELATIONSHIP

Teaching is perhaps as old as the human race itself. As many scholars remarked, there is even some understanding that animals intentionally teach their young. The prolonged infancy and childhood of the human species is also said to be related to the need for teaching the child to occupy a place in society. Whether intentionally or otherwise this socially significant activity, known as teaching, has always something to do with what we call learning. Reviews of the literature in the area of teaching indicate that there is hardly any definition of teaching without an explicit or implicit concept of learning. But teaching can, and often does, occur without learning taking place. Sharma (1990), after many years of research on teaching, came to a conclusion that teaching activities are designed to produce changes in the behaviour of the learner and that the concept of teaching is incomplete without learning.

Hunter (1982:3) defines teaching as a "constant stream of

professional decisions made before, during and after interactions with the student, decisions which, when implemented, increase the probability of learning." In short, a teacher makes several professional decisions in order to facilitate the process of learning. Teaching or instruction is conducted for the purpose of deliberately inducing certain changes considered desirable for people in a society. Since such changes are called learning, then it seems obvious that teaching should be concerned with the psychology of learning.

Although there is much we do not yet know about teaching, particularly what Shulman (1986) refers to as principles of instruction that are "subject-matter-specific", there is much agreement about some of the generic principles of learning and teaching. Many scholars have assumed that the theories of learning would be the foundation of teaching or would lead to principles of instruction.

If this is so, then, the state of teaching depends directly on the state of our knowledge of learning and learning theories. With different theories of learning in existence, there is the problem of choosing one as the basis of teaching. Teaching has been influenced by different theories including Throndike's connectionism, Watson's and Skinner's behaviorism and Gestalt's psychology. We are not going to discuss, however, applicability of these approaches to teaching in this paper. Our concern here is to show the place of teaching in the complex teaching-learning processes. Thus, we shall consider only the general understanding about a theory of learning and

attempt to show the similarities and differences between a hypothesis of teaching and of learning, thereby clarifying the concept of teaching.

What one expects from a theory of learning are:

(1) a descriptive account of what learning is, as well as an identification of the various types of learning possible.

(2) an explanation of the types of learning in terms of descriptive accounts of the conditions which promote or produce them.

Pope (1980) says that a learning theory, if fully developed, would tell us, when, how, and why learning either occurs or fails to occur. Learning theory may be thought of as follows:

A clear understanding of a learning theory in such a design reveals that a hypothesis about learning consists of an assertion about learning whose antecedents, that is, independent variables describe the conditions of learning, and whose consequences or dependent variables describe the kinds of learning.

On the other hand a teaching theory aims at producing conditions of learning and not learning itself. The student learns which is something that he or she does. Teaching aims at setting the conditions for the student to do his learning. Thus, one should not see it as adequate that teaching causes learning in a direct cause-effect manner. From this follows that a teaching hypothesis

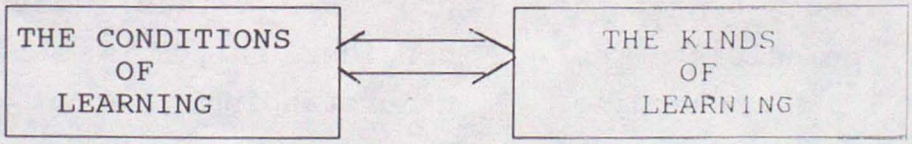

Figure 1 What Learning Theories Tell Us.

is different from a hypothesis of learning. The dependent variables of a teaching hypothesis are the conditions of learning. Teaching aims not at learning but at the conditions of learning. Thus, the dependent variables of a teaching hypothesis are the independent variables of a hypothesis of learning. The dependent variables of a teaching hypothesis are the conditions of learning. The dependent variables of teaching research are derived from a theory of learning. A learning theory specifies the conditions of learning, but without specifying how these conditions are created. A teaching hypothesis is a declaration of relationships between certain conditions of teaching and learning. Therefore, a teaching research presupposes research on learning, but it does not reduce itself to it. A learning theory does not reduce itself to a teaching theory. The reason for this has been clearly depicted in Pope's diagrammatical explantation presented below.

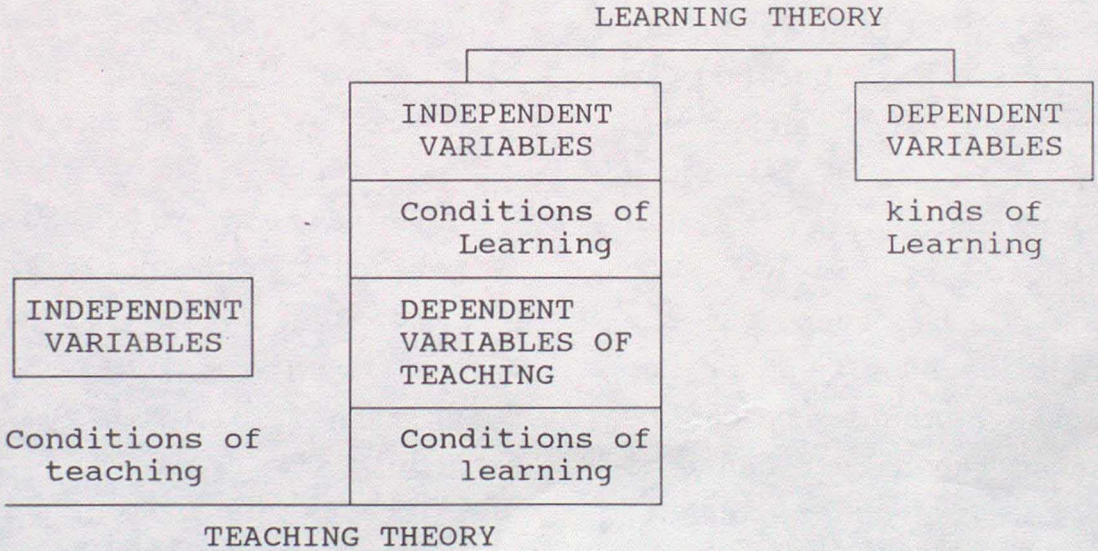

Fig. 2. Comparison of Teaching and Learning Theories.

The above points about the nature of teaching and learning theories not only clarify the relationship between the two concepts, but also establish the theoretical foundation of teaching, and help one to answer questions like "Is not teaching part of the conditions of learning?" a question which does not have any clear cut answer(s). Pope, for instance, answers this question in the negative. Teaching according to him aims at setting the conditions for learning and not the actual learning itself. Teachers, he argues, do things which can help create situations in which learning can occur. Only if we view the student as having no will or choice of his own, can teaching be seen as the direct cause of learning, just as a machinery can be seen as the direct cause of some metal product. Hence, Pope believes that in some cases teaching is at best only part of the direct cause (condition) of learning.

Similarly, Medley and Crook (1980) have the following to say:

> It is generally recognized that pupil's learning results from pupil's activity- that learning is something pupils do, not something teachers do. Learning is an active process, not a passive one. The verb teach is a transitive verb, but its direct object is content, not the pupil. The slogan "we teach children, not subject matter" creates a false impression. We teach... to children (p. 294).

3. **Implication to Teachers's Professional Responsibility**

One practical consequence of viewing the

relationship between teaching and learning in the light of the views of Pope, Medley and Crook is that it reconstructs the teacher's notions of responsibility. A teacher is not responsible for producing learning but only for producing the conditions of learning. This frees him from seeing himself as having the total responsibility for learning. Pope concludes that, "while one may choose to take full responsibility for whether his class learns, such a responsibility is not built into the concept of teaching" (p. 69).

Moreover, some classroom events are beyond the capacity of teachers to control. Heredity, home environment, and social conditions, after all, still account for more of the variance in student learning than any teacher is likely to attain. Many students come to school from broken homes or with conditions of poverty. Others may come with psychological states that deter learning. Still others can be affected by having poor working habits, missing schools so frequently, thereby, showing no continuity of learning. In other words, it is not hard to find potential excuses for unsuccessful learning.

The author following John Dewey (1933) might believe that what are stated in the above paragraph are accurate, but they should not be used as excuses for all unsuccessful teaching. We may not hold teachers strictly accountable for each student's learning, when they have done everything in their power to help. They can be held responsible for student's failure to learn if and when they violate the essentials of effective teaching that is, setting

the right conditions of learning.

4. **Summary**

An attempt has been made to examine the relationship between teaching and learning from theoretical points of view. It was found out that the conditions of learning are the targets of teaching. what are dependent variables for teaching hypothesis tend to become independent variables for learning hypothesis. Therefore, learning conditions are the bases on which the relationship between learning and teaching is actually built. This common area of the concepts of teaching and learning used to mislead people to believe that theory of learning is sufficient to understand the concept of teaching. However, it has now become clear that the conditions of teaching do not come under the realm of learning theory, and studying the factors affecting learning is not alone sufficient to solve classroom problems. The findings of research on learning do not adequately substitute the findings of research on teaching.

On the other hand, a teacher needs to know clearly the relationship between teaching and learning. While teaching is task oriented, learning is achievement oriented. A teacher can organize and arrange the contingencies of classroom situations to facilitate the process of learning only when he/she is aware of the required conditions of learning. Similarly, a teacher can play his role as a professional if he/she is sufficiently clear with the concepts of teaching and learning.

Perhaps, there are teachers who think they have done a good day's work irrespective of what their pupils have learned. And most of them want credits

for the success of their students, but not the blame for the failure. This brief review is an admission that our satisfaction as professional teachers or want of credits should only depend not only on the number of years we have taught or on the harmonious relationship we have had with our students, but also mainly on how properly we manage and arrange classroom situations to create conducive conditions for a particular type of learning in a particular environmental limitation.

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F A C T S A N D

F I G U R E S

Number of Graduates from the Ethiopian Higher Education Institutions (1986/87 - 1990/91)

Year	AAU	AU	AUA	Other Colleges	Total
1986/87	3432	764	333	2178	6707
1987/88	3417	513	434	1939	6303
1988/89	3078	383	307	2265	6033
1989/90	2865	614	531	2041	6051
1990/91	2911	-	488	2632	6031

Source: MOE, Response to Change: A Preliminary Review of Some Development issues for the Education Sector (IDA Credit Programme for Education) Nov. 1992, A.A. P. 119.

AU = Asmara University

AUA = Alemaya University

IER Observes: Generally, The number of graduates from higher educational institutions appears to be decreasing from year to year. The trend is correlated with decrease in admission. Also note that the number of graduates shows more decrease in AAU than in "Other Colleges". Is AAU shifting its attention from undergraduate studies to postgraduate programs? Is AAU facing severe financial limitations to increase its student enrolment?

FACTS AND FIGURES

Percent of Supply of Degree Level Graduates on Demand

Discipline	1982	1983	1984	1985	1986	1987	1988	1989
Accounting	16	25	21	29	29	26	41	18
Economics	57	51	43	60	60	52	89	41
Management	21	23	60	72	72	55	82	43
Public Admin.	100	20	41	16	16	35	59	59

Source: MOE, Response to Change: A Preliminary Review of Some Development Issues for the Education Sector (IDA - Credit Programme for Education) Nov. 1992, A.A. P. 124.

IER Observes: Only four years ago, the demand for degree graduates from some social science disciplines was substantially higher than the supply. Today, that situation has changed. Also note the highly irregular and unpredictable relationship between demand and supply of degree graduates across the years.