

C H A P T E R - I

INTRODUCTION

The destiny of India is now being shaped in her classrooms (52). This is not mere rhetoric. In a world based on science and technology, it is education that determines the level of well-being, prosperity, and security of the people. On the quality and number of persons coming out of our schools and colleges will depend our success in the great enterprise of national reconstruction, the principal objective of which is to raise our people's standard of living. In this context it is imperative (a) to re-assess the role of education in the total programme of national development, (b) to identify the changes needed in the existing system of education, if it is to play its proper role, and to prepare a programme of educational development based on them, and (c) to implement this programme with determination and vigour.

No reform is more important or more urgent than to transform education, to endeavour to relate it to life, needs,

and aspirations of the people thereby make it powerful instrument of social, economic and cultural transformation necessary for the realization of our national goals.

Both the lay public and professional educators generally believe that the "goodness" of an educational programme is determined to a large extent by the teaching done in the classroom (79). The identification of qualified and able teaching personnel, therefore constitutes one of the important of all educational concerns. Producing capable teachers is an intrinsic interest and obligation of education. If competent teachers can be obtained, the likelihood of attaining desirable educational outcomes is substantial. On the other hand, schools may have excellent material resources in the form of equipment, buildings, and libraries, and curricula may be appropriately adapted to community requirements, but if the teachers are misfits or are indifferent to their responsibilities, the whole programme is likely to be ineffective and would be a waste.

WHAT IS TEACHING ?

A generic definition of teaching has been offered by Smith (87), "Teaching is a system of actions intended to induce learning". Smith's definition makes it possible to examine the teacher's actions without reference ^{to} of learner since the "intent to induce learning" is sufficient. A Committee of the American Educational Research Association

calls teaching a "form of interpersonal influence aimed at changing the behaviour potential of another person (11)". The term "interpersonal influence" refers to behaviour aimed at a change in another. Amidon and Hunter (2) define teaching as "an interactive process, primarily involving classroom talk which takes place between teacher and pupils and occurs during certain definable activities (e.g. motivating, planning, informing, etc.)". According to Flanders (33) "teaching behaviour exists in a context of social interaction. The acts of teaching lead reciprocal contacts between the teacher and the pupils, and the interchange itself is called teaching". Marie Hughes (46) defines teaching as "interaction used in its dictionary sense of mutual or reciprocal action or influence". Stolurow and Pahel (93) state that

"..... teaching is fundamentally a social process involving communication and interaction between atleast two people, a teacher and a student. It is a kind of dialectic in which both serve as teacher and student at different times and at different levels. A teacher is not only instructing a student, but is also learning about the student, and using what he learns in making decisions about what to do next in the course of his teaching. Similarly, the student is not only learning, but he is providing the information to the teacher, which in turn, guides the teacher in the ongoing interaction."

These definitions point out that teaching is an interactive process generated from teacher's and students' behaviour in terms of reciprocal contacts.

Since teaching consists of teacher behaviour we must observe teacher's behaviour in the classroom and identify the effective patterns which are related to student achievement. If we can identify, discriminate, and distinguish effective and ineffective patterns of teacher behaviour, we can change and modify teacher behaviour in desired direction, thereby improving teaching. If this can be done, an effective theory of instruction can be evolved.

THE CONCEPT OF TEACHER BEHAVIOUR

What is teacher behaviour ? Flanders (33) defines teacher behaviour as those acts by the teacher which occur in the context of classroom interaction. According to Ryans (79) teacher behaviour may be defined simply as the behaviour or activities, of persons as they go about doing, whatever is required of teachers, particularly those activities which are concerned with the guidance or direction of the learning of others.

There are two important postulates implied by these definitions, namely : (i) Teacher behaviour is social behaviour, and (ii) Teacher behaviour is relative.

(i) Teacher Behaviour is Social Behaviour

One implication of the above definitions is that teacher behaviour is social behaviour; that in addition to the teacher

there must be learners or pupils who are in communication with the teacher and with each others, and who presumably are influenced by the behaviour of the teacher. It also should be noted that the relation between teacher behaviour and pupil behaviour may be of reciprocal nature; not only do teachers affect pupil behaviour, but pupils may influence teacher behaviour as well. This raises a whole series of questions - questions that researchers have had relatively little success in answering - (relating) as to what aspects of teacher behaviour actually do influence the behaviours of learners, and how they operate to produce their effects.

(ii) Teacher Behaviour is Relative

Second implication of definitions of teacher behaviour is that what a teacher does is a product of social conditioning and is relative to the cultural setting in which the teacher teaches. It follows that there is nothing inherently good or bad in any given teacher behaviour or set of behaviours. Instead, teacher behaviour is good or bad, right or wrong, effective or ineffective, only to the extent that such behaviour conforms or fails to conform to a particular culture's value system or set of objectives relating to (1) the activities expected of a teacher, and (2) the kinds of pupil learning (attainment) desired and methods of teaching employed to bring about the learning.

SOME BASIC ASSUMPTIONS OF A THEORY OF TEACHER BEHAVIOUR

Ryans (79,80) has suggested two basic assumptions necessary for a theory of teacher behaviour. They are

- (1) Teacher behaviour is a function of situational factors and characteristics of the individual teacher and
- (2) Teacher behaviour is observable.

Assumption One

Teacher Behaviour is a Function of Situational Characteristics of the Individual Teacher - This assumption may be summarized in the proposition that teacher behaviour is a resultant of (a) certain situational factors and certain organismic conditions, and their interaction - or simply that teacher behaviour is a function of certain environmental influences and the learned and unlearned characteristics of the individual teacher. Thus :

$$(A) \quad r_a = (S_{1a} M_{1o} E_{1o} H_{1o}) + (S_{2a} M_{2o} E_{2o} H_{2o}) + \dots (S_{na} M_{no} E_{no} H_{no})$$

Where r_a = Teacher behaviour "r" in situation "a"

S = situational indices

M^o = motivational organismic indices

E^o = experience organismic indices

H^o = genetic organismic indices

$$(B) \quad R_t = ar_a + br_b + \dots + nr_n + e$$

Where R_t = overall teacher behaviour

a = weight

r_n = Z score of teacher behaviour "a"

e = Z score of error component

What these rather rigid-appearing equations say is simply that behaviour occurs when an organism is stimulated and if the variable and mathematical functions are known, the equation may be solved for the unknown (r or R).

Just how these various situational and organismic conditions interact certainly is not known and we are completely incapable of describing the process except in terms of inferences based upon observable inputs and observable responses of the teacher.

Growing out of the basic assumption that teacher behaviour is a function of the conditions under which it occurs are a number of sub-assumptions, described below.

Sub-assumption One

Teacher Behaviour is Characterized by Some Degree of Consistency - One implication of the basic assumption that teacher behaviour is characterized by some degree of the uniformity i.e. teacher is not haphazard or fortuitous, but instead is consistent or reliable and therefore is capable of being predicted.

Sub-assumption Two

Teacher Behaviour is Characterized by a Limited Number of Responses - The implication of this sub-assumption is that the number of responses the individual teacher is capable of

making, and the number of stimulus situations and organismic variables that affect a teacher's behaviour, are limited. This assumption is important from the point of predicting teacher behaviour.

Sub-assumption Three

Teacher Behaviour is Always Probable Rather Than Certain - All human behaviour, characterized as it is by variability rather than by complete uniformity or consistency must always be considered in the light of probability instead of from the standpoint of invariable cause-effect relationships. The error component (e.g. observation errors, sampling variability, etc.) resulting from such variability will inevitably be present in any assessment that is attempted of either (a) situational or stimulus conditions, (b) organismic conditions (genetic bases, past experience, motivation), or (c) teacher behaviour (the dependent variable, or criterion). Behaviour can be predicted only with varying degree of probability.

Sub-assumption Four

Teacher Behaviour is a Function of Personal Characteristics of the Individual Teacher - Teacher behaviour is determined in part by the teacher's personal and social characteristics (e.g. intelligence, temperament, etc.) which have their sources both in the genetic (unlearned) and experiential (learned) backgrounds of the individual. Knowledge of such

characteristics contributes to prediction within limits of teacher behaviour.

Sub-assumption Five

Teacher Behaviour is a Function of General Features of the Situation in Which It Takes Place - Teacher behaviour is determined in part, by general features of the situation in which it has its setting-features which may be observed to be common to situations of a general class and which, therefore, may be distinguished from the unique features of specific teaching situations. Information about such relevant features assists in the prediction of teacher behaviour.

Sub-assumption Six

Teacher Behaviour is a Function of the Specific Situation in Which It Takes Place - Teacher behaviour is determined, in part, by unique features of the particular situation in which it has its setting at a particular time. These features vary from situation to situation and contribute to the aspect of teacher behaviour which is to an extent unique to the particular situation.

ASSUMPTION TWO

Teacher Behaviour is Observable - When we attempt to study teacher behaviour, we also make the assumption that teacher

behaviour may be identified objectively, either by direct observation or by indirect approaches that provide correlative indices of teacher behaviour. Examples of the indirect approaches are the assessment of pupil behaviour, the use of tests of teacher abilities and knowledge, and the use of interviews or inventories to elicit expression of teacher preferences, interests, beliefs, and attitudes.

This assumption too has some sub-assumptions discussed below :

Sub-assumption One

Teacher Behaviours are Distinguishable - If teacher behaviours are observable, it follows that those with certain features must be capable of being identified and described so as to be distinguished from other teacher behaviours. Some behaviours have certain characteristics in common which constitute generic or core components that may be abstracted to facilitate (a) communication of generalized descriptions of those behaviours, and (b) the identification of such behaviours in individual teachers. Teacher behaviours can be distinguished under observation.

Sub-assumption Two

Teacher Behaviours are Classifiable Qualitatively and Quantitatively - A second aspect of the assumption of the observability of teacher behaviour is that teacher behaviours

are classifiable, both qualitatively and quantitatively. A class, or category of teacher behaviour is simply a grouping of specific behaviours which have many resemblances to one another and relatively few important differences. When we find such behavioural analogues, we take them as an indication that still other resemblances may exist, since resemblances in nature tend to go together in fairly large groups. When behaviours have been grouped together in the light of their resemblances, it becomes possible to abstract the general class descriptions of specific manifestations and thereby provide the basis for a "concept" of teacher behaviour of a certain kind and permit greater common understanding of behaviour.

Teacher behaviours that are similar, that have certain resemblances or common elements may be classified in the same qualitative category. Within any given category, these behaviours may be further assigned to sub-classes which may be treated quantitatively. This is to say that teacher behaviours are subjectable to measurement - albeit approximate measurement. These quantitative sub-classes may be of two types, i.e. either

- (1) those permitting enumeration, or counting only, or
- (2) those characterized by continuity and varying as a metric.

It is pertinent to recall at this point that the measurement of teacher behaviour always must be approximate rather than exact - this being not only a theoretical consideration growing out of the assumption of continuity but also an

empirical fact as consequence of (a) the complexity of organism-situation patterns and the resulting variability of behaviour and the (b) imperfection of behaviour descriptions and of devices employed to obtain measurements of described behaviours. As a result, the existence of error must always be assumed.

Various qualitative classifications of teacher behaviours are possible. For example, we might choose to group teacher behaviours broadly into such general categories as : those involving instruction and relationships with pupils; those involving relationships with the community. Or, we might classify teacher behaviours more specifically in establishing the frame-work, employing such categories as verbal aptitude, emotional stability, favourable attitude toward pupils, friendly understanding behaviour in dealing with pupils, responsible business like behaviour, and stimulating original behaviour.

Sub-assumption Three

Teacher Behaviours are Revealed Through Overt Behaviour and Also by Symptoms or Correlates of Behaviour - Teacher behaviours may be revealed, or may be observed, either (1) by the representative sampling of specific teacher acts or behaviours or (2) by specific signs, or indicators, or correlates of the behaviour under consideration.

In sampling behaviour we assume that the performance of the individual during the behaviour sample is approximately (and at some level of probability) representative of the larger aspects, or universe, of his behaviour. In judging behaviour from signs or correlates it is assumed that a behaviour can be inferred or estimated approximately, in probability terms, from observed correlates of that behaviour - from phenomena that are known to have been associated with that behaviour in the past.

PATTERNS OF TEACHER BEHAVIOUR

We saw in our previous discussion that teaching consists of teacher behaviour, i.e. different activities of the teacher are linked in an orderly form and result in teaching. However, during the entire process of teaching, many activities or behaviours of the teacher occur simultaneously or in sequence in a unified way. The set or grouping of such activities or behaviours is known as a "pattern of teacher behaviour" (37). In the lecture method, for example, the pattern consists of an uninterrupted sequence of oral statements by the teacher; in the classroom discourse, Bellack and others (12) found that "the fundamental pedagogical discourse consisted of a teacher's solicitation followed by a pupils response; this sequence was frequently followed by a teacher's reaction". Here, the component behaviours are the teacher's asking a question, the pupil's response and the teacher's reaction to

or rating of pupil's response; their occurrence in a given sequence constitutes the pattern, and the recurrence of the pattern constitutes a teaching method.

ORIGINS OF PATTERNS OF TEACHER BEHAVIOUR

Writers who are concerned with the social class origins of teachers, have inquired into the origins of the patterns of teacher behaviour and have offered six classification of the origin of patterns of teaching behaviour (36).

1. Patterns derived from teaching traditions, e.g. a teacher teaches as he was taught.
2. Patterns derived from social learnings in the teacher's background, e.g. a teacher reinforces the behaviour of pupils so as to develop a middle class ideology.
3. Patterns derived from philosophical tradition, e.g. a teacher teaches in accordance with the Froebel or Rousseau tradition.
4. Patterns generated by the teacher's own needs, e.g. a teacher adopts a lecture method because he needs to be self-assertive.
5. Patterns generated by conditions existing in the school and community, e.g. a teacher conducts his classroom in such a way as to produce formal and highly disciplined behaviour because this represents the pattern required by the principal.

6. Patterns derived from scientific research on learning.

1. Patterns derived from Teaching Traditions

Any visitor who spends time in the schools of a foreign country is impressed by the fact that the behaviour of the teachers in that country is different from the behaviour of teachers in his own country. Indeed, the first impression of a visitor may be that the teachers in the foreign country differ little from one another. Probably, the same impression would be gained by a foreign visitor who spent time in the schools of our country. Teaching reflects the culture and traditions of each country. A nation's traditional way of teaching is not necessarily that which teacher training institutions attempt to foster. There may be a broad gap between the cultural condition that prevails and the pattern of teacher behaviour that professors of education attempt to inculcate in students of education. The training pattern and the prevailing cultural pattern may even be in opposition to one another. In U.S.A. for instance, institutions training elementary school teachers have tended to endorse a pattern of behaviour for teachers which differs considerably from that represented by the cultural traditions. The relaxed and quite permissive pattern of behaviour endorsed by textbooks on elementary education, with their emphasis on delegating decision-making functions to the child differs markedly from the pattern typically manifested by elementary school teachers,

who control the classroom in the way which has traditionally been expected of them.

Principals commonly voice the opinion that most teachers do not teach in accordance with the pattern prescribed by teacher training institutions, but rather teach in accordance with the pattern they observed when they were pupils and which they believe is expected of them. This is hardly surprising. Institution is a well established phenomenon. The long period of exposure to teachers during the growing years provides body of experiences and pattern to initiate which may well serve the new teacher as a guide to action. This rich background of direct experience with teaching probably provides a much more vivid guide to action in the classroom than does the period of teacher training, which consists so largely of verbal experiences.

A few teacher-training institutions have attempted to develop systematic procedures to counteract the tendency of teachers to initiate the teacher behaviour they have previously observed as pupils. A few institutions, for example, require the student of education in the early stages of his training to observe teachers who are considered models of behaviour. It is assumed that the observation of these selected teachers will provide a pattern to initiate which will be a positive and desirable influence on their own behaviour in the classroom. An initiative process is assumed to occur but the behaviour to be initiated is backed up by a cognitive structure which

should give it a strength and potency over the behaviour observed when the trainees were pupils. Whether it is possible by this means to develop initiative tendencies is not known at this time.

Other conditions also tend to give permanence to a particular pattern of teaching within a culture. One of these is in fact that the teaching personnel of most schools cover an age span of 30 or more years, often with a predominance of persons who took their training 20 or more years previously. A new teacher placed in subculture may be expected to conform to some extent to the model pattern of behaviour manifested by the other teachers, and that pattern inevitably tends to accord with the tradition of the culture.

2. Patterns derived from Social Learnings in the Teacher's Background

Teacher's own personality prior to the impact of a teacher education programme is the main determinant of teacher behaviour in the classroom. Of fundamental importance then is the great complex of factors referred to as social background. Considerable interest has been shown in recent years in these determinants of teacher behaviour through work done by Havighurst and his associates at the University of Chicago.

Interest in how the pattern of behaviour of the teacher is determined by his social class affiliation has long been

a matter of considerable interest to sociologists, social psychologists, and scholars concerned with the educational system. The interest in this problem stems from the possibility that teachers who represent a particular social stratum in society will favour pupils who also come from a similar social stratum. In addition they may be expected to promote in pupils those behaviours which conform to the social mores of the class with which the teacher affiliates and conversely to react with lack of understanding, if not punishment, to behaviours of pupils from a different social class. All of this is, of course, quite speculative. Little is known about what behaviours teachers tend to foster outside of the academic area. Furthermore, while no social class has monopoly of human virtues neither does any class have a monopoly of the vices.

One of the earliest studies of the social background of teachers was conducted by Florence Greenhoe (42), who collected information about the family background of 9122 teachers in elementary and high schools. By far the largest group of these teachers, 38 per cent reported that the occupation of their fathers was farming; 18 per cent reported that their fathers worked on a day-to-day basis, and 26 per cent reported that their fathers were engaged in business pursuits. Of particular interest is the fact that only 4 per cent of the teachers reported that their fathers were engaged in professional pursuits. If social background influences teacher

behaviour, then this influence will be derived mainly from sections of the culture.

If the teacher is considered to have even semi-professional status, then one must regard this group of teachers as one which is moving up the occupational ladder, if not up the class system. What is not clear is whether teachers reflect the social mores and behaviour patterns of the classroom from which they come or the class which they are identified by those who see them in the community. At least some evidence indicates that the teachers themselves tend to identify with the new social class in which their training and occupation place them. This was illustrated by Backer (10) who found that teachers in Chicago tended to seek transfers out of schools attended by pupils from lower class homes and into schools attended by upper class children. Another explanation of this finding is that teachers may seek out pupils who belong in the same general intelligence grouping as they do. Class-conscious writers in this area are prone to interpret a great range of behaviour as resulting from the need of the teacher to establish a position in a particular social class. Much of the behaviour may be more easily understood, in terms of feelings of compatibility with those pupils who have educational goals similar to their own.

Brookover (18,19) has considered the way in which the pattern of behaviour of the teacher may be determined by his class origin and may affect learning in the classroom. In

considering this problem, he classifies teachers into four groups, viz. (i) middle-class teachers, (ii) established middle-class teachers, (iii) striving middle-class teachers, and (iv) teachers who are unranked in the social stratification scheme. To each one of these groups of teachers he attributes particular patterns of classroom behaviour which are assumed to have particular consequences for the learning process.

Warner, Havighurst, and Loeb (100) have emphasized the influence that the social class of the teacher may have on the values learned in school and have asserted that these values are likely to be middle class because most teachers are middle class. Yet while the latter idea is frequently found in recent educational literature, it is speculative rather than founded on fact.

The patterns of teacher behaviour discussed in this section must be considered to be postulated rather than established. There seems to be little evidence to support the proposition that class background generates particular teaching methods with corresponding patterns of reinforcement. Some writers on this subject make little distinction between patterns of behaviour which are actually demonstrated to exist and patterns of behaviour which are postulated to exist under specified conditions. Perhaps research in this area needs to begin by finding out which aspects of such patterns of behaviour are real and which are imaginary.

3. Patterns Derived from Philosophical Traditions

Teacher training institutions have a long history of associating themselves with particular philosophical traditions. The aim of many teacher training programmes is to develop a pattern of teacher behaviour consistent with the particular philosophy that the institutions has adopted. Indeed, one of the earliest of teacher training programmes was just an attempt to indoctrinate teachers in a certain philosophical tradition to which were added a number of more or less imaginary laws of development. We refer here to the teacher training programme developed by Froebel in the early decades of the 19th century. The conceptual system of Froebel and the methods by which he trained teachers are so similar to those of much more recent times that a brief discussion of his approach to the problem of generating a pattern of teacher behaviour is of value here. His problems are also the problems of contemporary teacher training.

From philosophical point of view Froebel belongs in the tradition of Rousseau, whose influence is still evident in contemporary teacher training institutions. Like Rousseau, he was influenced by the concept that development will proceed harmoniously of its own accord if the child is provided with a suitable environment. Emphasis was placed on the individual worth of each child, and teacher behaviour had to be such that it did not do violence to the natural laws of growing organism.

The teacher must be permissive so that the natural process of development will not be violated. Nevertheless, certain activities considered desirable by adults will be accepted naturally by the child if they are properly chosen and are completely harmonious with his own needs and motives at the time. From the point of view of the behavioural sciences the orientation of Froebel to problems of development was almost mystical. He saw wholeness in nature and amity in all natural law. The current emphasis in teacher education on the wholeness and unity of child closely resembles the outlook of Froebel from which it derives. It is not primarily a scientific doctrine but one which stems from religious mysticism and the concept of unity within the soul, a concept which may be extended to that of unity within the universe. It is a doctrine which may lead to respect, if not reverence, for the developing person, but it is also one which presents enormous difficulties when used as a basis for the development of patterns of teacher behaviour, since it provides no basis for predicting outcomes of certain behaviours.

Froebel seems to have made the assumption, implicit in much of teacher education, that a correct outlook on educational problems would result in a sound behaviour patterns on the part of teachers. Yet there appears to be a growing conviction that teacher education does little to generate appropriate patterns of teacher behaviour in student's education. Indeed, there are serious doubts in some quarters whether teacher

education can even be considered to generate any teaching patterns. However, this does not mean that much is not accomplished by professional training.

The outlook of Froebel, which is still well represented in many textbooks written for students of education, later found two powerful allies in the form of Gestalt psychology and clinical psychology. Of particular significance in the present context is the assimilation of ideas derived from clinical psychology, for these ideas offered a pattern of behaviour for the teacher to manifest in the classroom. This pattern was to be in many respects similar to that of the mental therapist.

Numerous writers have suggested that the pattern of behaviour of the teacher in the classroom must, first and foremost, foster mental health and provide some degree of therapy. The view point expressed by these writers has been well accepted by many of those involved in the training of teachers and frequent reference is found to "the mental health role" of the teacher.

Every school of psychotherapy has advocates who suggest that the teacher should adopt the particular patterns of behaviour which that school believes to be effective. Questions may be raised whether such suggestions represent an extension of scientifically developed techniques to new areas or whether they are merely attempts to extend the influence of

certain schools of thought. It cannot be denied that the various schools of psychotherapy exert a powerful influence on educational thought. A brief discussion of the writings of a few of the proponents of teaching methods based on psychotherapeutic practices is in order here.

Articles by Zweibel (108) and Seidler (83) suggest that teachers can become most effective if they study the teachings of Alfred Adler. These teachings are offered as a basis, both for understanding child behaviour and for action with respect to it. Both articles are more dogmatic assertions of faith than a set of conclusions based on a careful evaluation of evidence. Writers in this area often make claims that seem excessive. For example, Dreikurs (26) claims that the Adlerian approach permits "an immediate understanding of any child". Other articles which stress the role of the teacher as therapist and guidance worker are those by Sobel (88) and Arbuckle (6).

4. Patterns Generated by the Teacher's Needs

Many of the commonly discussed teaching methods appear to be generated largely by the needs of the teachers who promote them. A few examples will clarify the origin of some of these patterns of teacher behaviour.

Many workers in education advocate that teaching at levels above the elementary school should be conducted by a lecture method in which the teacher speaks and discusses and the pupil

listens and thinks. Other students of education hold that although some learning takes place by this procedure, the lecture method is a rather inefficient method of producing learning. The concept of "learning by doing" was largely a reaction against the lecture-recitation method of teaching which was common in the early part of the twentieth century. If the lecture methods of teaching is not based on scientific knowledge of learning, then why is it so widely practiced and vehemently defended? One answer is that some teachers have a need to talk in the classroom and that their best rationalization for their behaviour is to insist that a lecture method is a good method of teaching. In large part, the lecture method exists as a recognized teaching method because many teachers like to talk. However different teachers may like to talk for different reasons. Some talk because they have learnt to emit great quantities of verbal behaviour. Some talk because this is a means of controlling the pupils. Some talk because this is a way of achieving recognition and so forth.

Needless to say, many advocates of the lecture method also genuinely, hold to the view that lecturing allows the presentation of facts, ideas, cognitive structures and the like, in ways that are more convenient and compelling than mere reading or other methods of transmission. This view has unfortunately been supported mainly by impressionistic evidence.

Other so called teaching methods may also reflect the need structure of those that promote them. It seems reasonable to hypothesize that those who advocate a teaching method in which the teacher is highly permissive would be persons with either a high control need or with a low control need. In the former case the advocacy of this method would represent a reaction against the need. In the latter case it would represent a situation compatible with this aspect of the need structure. One might further hypothesize that the friendly human relationships which form a part of this teaching method would also provide a means of satisfying a high affiliation need.

Probably on no other dimension do teaching methods differ more than on the matter of the exercise of control. The pattern of teacher behaviour which forms part of the cultural tradition is that of the teacher functioning as an authority figure who maintains order in the classroom. The exercise of this kind of authority is often postulated to be a necessary condition for learning. What is known about human need structures suggests that the authoritarian pattern of behaviour is highly compatible with the need structure of many who enter teaching and that hence it is pattern of behaviour widely advocated by practitioners in the educational profession. Often teachers advocate an authoritarian pattern of behaviour in such vigorous terms that the underlying reasons are more than plain.

In this area, as in others which have been considered, there is little evidence that any of the patterns of behaviour advocated have a clear relationship to the learning itself. Some of the studies suggest relationships which may exist and which should be explored in further research.

Gordon's (41) study suggests some of the relationships that may exist between these patterns of teacher behaviour and the total milieu in which learning occurs, particularly in the case of highly controlling pattern of behaviour. This is one of the few studies of the relationship of the teacher to the authority system, and the pattern of behaviour which this relationship usually prescribes. This study was undertaken in a four suburban high schools with a student enrollment of 576 pupils. The pupil population was derived largely from the lower middle class, but all socio-economic levels were presented in the school population. According to this study, the pattern of behaviour of the typical teacher in this school system was largely derived from the fact that he was an intermediary between the pupil and the principal in the authority system. The chief threat to the teacher as an authority figure, according to this study, came from interactions within the student group. Such interactions included talking, whispering, inattention, and horse-play. The teacher tolerated such behaviour upto the point where it became a challenge to his authority and then took some action to suppress this behaviour.

An important matter to note, according to Gordon, is that the point where such interaction was no longer tolerated was not the point where it became a serious competitor with learning but the point where it became a challenge to the status of the teacher. In other words, the need system of the teacher is a crucial factor. This point illustrates the contrast between the situation in the classroom as interpreted by the teacher and as interpreted by the psychologists or sociologist who is sitting there as a disinterested observer. Some data are provided to indicate the nature of the conflict that occurs between the teacher as an authority figure and student sub-culture. During a one year period, a tabulation was made of all pupil offences which resulted in the pupils being sent to the principal's office. Of 81 such referrals, 33 were as a result of the pupils being involved in a disturbance in a student group, 27 were for talking without permission, 14 were for talking back to the teacher, 4 for throwing objects and 3 for other offences. It is clear that the major threat to the teacher's authority position came from the interaction among pupils themselves, but the second major threat came from direct verbal suggestion of student against teacher.

5. Patterns Generated by School and Community Conditions

The practical school administrator commonly assumes that patterns of teacher behaviour in the classroom can be controlled to some extent by the school situation itself. If the school

establishes an educational policy requiring a particular pattern of teacher behaviour for its execution, the principal is likely to assume that teachers within the school can manifest the required pattern of behaviour merely by manifesting cooperation. This position has been taken commonly by educational reformers who assume that once teachers have seen the merit of manifesting a particular pattern of classroom behaviour, the behaviour will automatically follow.

Similar assumptions have also been made by superintendents and school boards fired with enthusiasm for reform.

A classic case of this tendency was provided by the Board of Education of New York City (49) of the mid-thirties which decided to change the curriculum in 69 schools to conform to what was then called an activity curriculum. This changed curriculum required a change in the behaviour of the teachers and it was assumed that this change would occur merely by asking the teacher to make the change. That relatively little change did occur in teacher behaviour when the new curriculum was introduced was manifestly clear when instruments were applied which were designed to measure the extent of that change. Large number of classrooms under the old and so called traditional curriculum were found to display for more of the features of an activity curriculum than did many of those under the new curriculum. The teachers of the new curriculum were not able to make the substantial changes in their behaviour which the new curriculum required. This was

not a matter of lack of cooperation, for the difficulties are much more deep-seated than those involved in merely obtaining cooperation. Psychologists know that behaviour patterns which are as deeply ingrained as those of teachers with many years of teaching experience cannot be changed overnight. The situation is somewhat analogous to expecting the hardened criminal to change his ways after he had been told by the prison warden that the time has come for a change.

A similar difficulty occurs in the type of teaching method experiment in which each teacher serves as his own control. In this form of experiment, a teacher first teaches a class by one method and then switches the method either with a new class or with the same class. Replications of this design are of course necessary with different teachers. The design also makes the assumption that the teacher is able to switch patterns of classroom behaviour at will. It is hardly surprising that such experiments rarely result in significant differences between treatments. Even if such classes were to be taught by persons trained in acting, it would be unreasonable to expect that any actor could assume any pattern of behaviour. In casting a play the producer is careful to select actors for specific parts who already manifest some patterns of behaviour consistent with the role they are to play. Yet some educational researchers do expect a teacher who has ruled his class with a rod of iron for the last 30 years, to change overnight into a relaxed, permissive teacher who functions mainly as a consultant for a democratically run class.

Any person who visits schools regularly recognizes that teaching patterns vary to some extent from school to school, but little evidence has been forthcoming from research to indicate the extent to which this is so. Indeed the little evidence that is available indicates that school policy and pressures of the other members of a teaching group within the school may have only a small influence on the pattern of behaviour of the teacher in the classroom.

In addition, the local community sometimes exerts pressures for the teachers to behave in particular ways. A community of professional people is likely to make different demands on the schools than would one consisting of unskilled labouring groups. Often teachers have difficulty in conforming to these community demands and conflict may result between teaching group and representatives of the community. Just what teaching patterns result from such pressures is not known at this time.

6. Patterns Derived from Research on Learning

Research on teaching methods should begin with the design of teaching methods in terms of scientific knowledge of learning. The five different teaching patterns discussed above reveal that they are not products of forces which have little to do with scientific knowledge of learning. While here and there one can discern some inroad of scientific knowledge as for example, in the use of controlled vocabularies,

most prescribed teaching patterns have been influenced much more by philosophical traditions, cultural traditions, the needs of teachers and professors of education, and so forth, than they have been influenced by research on learning.

One cannot question the proposition that teaching methods must be built on the basis of an educational philosophy, for different methods are probably required for achieving different values. Nevertheless, once the values to be achieved have been set, the design of a teaching method should be based as far as possible, on scientific knowledge of learning rather than on folklore. Why then have the behavioural sciences been so lacking in influence in the design of teaching methods? The reasons are many and complex and cannot be discussed in detail here, but in passing we briefly discuss a few that are of major importance.

First, there has been a tendency in education to pick and choose elements from the behavioural sciences that appear to fit with the philosophical traditions of teacher education. For this reason Gestalt psychology has enjoyed great popularity among educators. The latter approach to perceptual problems presents a certain harmony with the philosophical tradition of Rousseau, Froebel and many modern thinkers. The unity of behaviour emphasized by Gestalt psychologists bears a close resemblance to the unity of both in man and nature which Froebel emphasized. The wide-spread acceptance of Gestalt psychology by educators represents a selection of those

psychological facts which are compatible with a philosophical position. The misfortune is that the discoveries of the Gestalt psychologists provide little value in the design of teaching methods. As a matter of fact of all approaches to problems of learning Gestalt psychology has least to say about the way in which learning conditions should be manipulated if learning is to occur with maximum effectiveness. The consequence is that educators tend to be most unfamiliar with those aspects of the science of learning which have the most to contribute to the scientific design of teaching methods.

Second, within the field of education there has been little place until now for the specialist in the behavioural sciences. A few names stand out as notable exceptions to this generalization, but teachers colleges have tended to close their doors on persons who are primarily the specialists, needed for the systematic design of teaching methods. Many such institutions require that all staff members hold a teaching certificate, which necessarily excludes those that are specialists in other disciplines.

It is true, of course, that a few attempts have been made to design teaching methods systematically in terms of modern knowledge of the behavioural sciences. When Carleton Washburne (101) was at Winnetka, he made a notable effort to do this and developed a curriculum and a related teaching method which became known as the Winnetka Plan. Olson (69) has also in a sense attempted to develop a teaching method on the basis of

the findings of a series of scientific studies carried out by him and his associates. The method which derives from the work of Olson is probably different from that which would be constructed on the basis of a broad review of current psychological knowledge.

A new and quite elaborate teaching model has been developed by Woodruff (106). Based to a considerable extent on his earlier learning model, the teaching model not only lists a set of learning principles which have relevant applications in the classroom but indicates the behaviour that the teacher should manifest in order to make effective use of these principles. This raises a point which has been missed by many of those who have concerned themselves with design of teaching methods - a teaching method cannot be designed in terms of a set of laws of learning alone. It must also include a set of laws which should characterize the behaviour of the teacher. How such laws should be specified is still a matter for speculation.

PRESENT INQUIRY

Considering the problem of teacher behaviour to be of utmost importance in teacher education the present research is aimed to study certain relationships between teacher behaviour dimensions and the personality traits and attitudes. The problem is elaborated in chapter three.

OUTLINE OF THE THESIS

The first chapter of thesis is an introductory one wherein relationship between education, teaching and teacher behaviour is described, along with the theoretical aspects of teacher behaviour and patterns of teacher behaviour.

The second chapter is review of past studies. In this chapter all the relevant studies which have dealt with teacher behaviour and its relationship with personality and attitudinal variables are included.

In third chapter of the thesis the problem of the present research is elaborated with the description of dependent and independent variables, teacher's personality and attitudes.

In the fourth chapter procedure and modus operandi adopted in the research are discussed, and it is followed by analysis procedure and statistical methods.

The fifth chapter incorporates the results and discussions thereon, and the last and final chapter is the summary.