Chapter One

I_N_T_R_O_D_U_C_T_I_O_N

The truism that a teacher should be effective is admitted by all educationists no matter how different their concepts of teaching. That his skill in teaching or his teaching effectiveness is the determinant of what he is or what he might be after he leaves the portals of his Alma Mater is denied by no one who knows the realm of education.

A teacher must be well prepared if he is to deliver the goods properly. In academic professions it is the preparation that involves the real work. The arts of preparation involves no more than an ability to know in advance what will bear intellectual fruit.

It is usually claimed that teachers must first of all be thoroughly familiar with the subject matter. It should have been well learned.

The second stage of preparation is inevitably concerned with considering the subject from the point of view of pedagogy. At this stage our primary concern is no longer the content, but the way in which the subject lends itself to the purpose of teaching. Now our main aim should be to justify in education the use of that piece of content which we are dealing with.

How is it possible to establish the major relevance of the subject with respect to teaching? What is it that makes subject suitable teaching material? What makes a teacher effective and how to assess it? These are the propositions beset with difficulties.

The problem of measuring teaching success of teachers is in no way different from measuring teaching effectiveness. The success of teacher education programme depends on developing among the college students who are preparing to enter the teaching profession a skill to identify different teaching objectives, attitudes and patterns of teaching behaviour, perform them, string them together into strategies of class room instruction and carry them out to compare different patterns of his own teaching behaviour and different strategies of teaching in terms of its consequences. An effective teacher guides the learning activities of the children so that they may learn. A teacher as a professional developes certain skills to use his knowledge to organise, encourage and assist certain generally approved kind of learning. As a teacher makes efforts to help pupils learn, as a leader he interacts with the children both as individuals and as a group. In the process of interaction he influences the children. Children too as a result of participation in classroom activities soon develop shared expectations about how the teacher will act and what kind of person he is and feelings about how they like their class. These expectations and feelings colour all aspects of classroom behaviour, creating a social and emotional atmosphere or climate that appears to be fairly constant once established. But how much knowledge does a teacher have about the methods of influence he is using? How much does he know about how children perceive his behaviour? How much control is he able to exert over his behaviour in the classroom? How much knowledge does he have regarding the relationship between classroom interaction and teaching acts so as to explain some of the variability in the chain of events? How much

insight does he have regarding his success and what contributed to his success and how greater success might be achieved?

This involves a careful study of his own behaviour in some systematic and objective manner so that the teacher may gain deep insight into his own pattern of influence. As he gains insight into his behaviour, he may decide that he wants to change his behaviour, either because he is not achieving what he thought he was achieving, or he is not achieving what he has later decided to achieve on the basis of new insight how pupils learn and how to help them learn progressively improved conditions of learning. He may also discover laws that explain variations that exist within the chain of classroom events and actions of the teacher. This indicates that the teacher as a professional uses his knowledge. But what knowledge does he use, and hence with what knowledge is it the purpose of his professional course in teacher education to equip him.

Andrew (1964), says that the objective of teacher education is to provide a basis for personal decision to become or not to become a teacher, developing readiness for a professional course, professional experiences, professional growth and full responsibility teaching; developing mature professional purposes and attidues, strengthening understanding by exposure to reality, which adds feeling and other sensory impressions to verbalise knowledge, providing an opportunity to acquire, use and test information, developing professional understanding of concepts and theories from professional and related disciplines; developing skill in the use of professional techniques; developing insight and judgement in applying professional knowledge; providing a basis for evaluating

professional, social and personal growth, providing a feeling of significant personal worth, the satisfaction that comes from useful professional service.

Any appraisal of teaching effectiveness of a teacher should entail an analysis of his efforts and in attempting to increase the effectiveness of teaching, a need exists for an instrument to analyse and describe different forms of that activity; and a means of communication of the results of such an analysis to beginners so that they can initiate self directed improvement and become more analytical and precise in stating their instructional objectives.

According to Flanders (1970), techniques for analyzing class-room interaction are based on the notion that the acts of teaching lead to reciprocal contacts between the teachers and the pupils, and that these reciprocal contacts can be perceived as a series of events which occur one after another.

Teachers can analyse their classroom interaction in order to obtain information about the chain of events and especially their own acts of teaching behaviour. Student teachers who are preparing themselves to be teachers, can use this information to develop and to control their teaching behaviour in a continuing programme of self development. Those who assist in teacher preparation programme can learn the skills of interaction analysis to improve the teaching behaviour of the pre-service trainees.

Flanders (1964), is of the opinion that the lack of feedback has plagued teacher training for centuries. Interaction analysis, if learned by student teachers, would be valuable tool for helping them view their own behaviour in student teaching more objectively and help them find out relationship between their intentions, goals

and behaviour. The recently developed process of systematic
observation of interaction analysis shows great promise as a
vehicle for the feedback of information, which is very essential
to change the behaviour of teachers so that quality of their class-
room interaction is improved.

Further, a training situation which blended understanding
of the theory of the teaching-learning process with an opportunity
to try out such theory in the classroom would be a useful experience
for helping student teachers find personal meaning in theoretical
principles of teaching and learning. This needs a consistant
laboratory experience whereby they can become more aware of and
flexible in using a variety of appropriate teaching behaviours. It
is assumed that teachers who are aware of and able to utilise a
variety of appropriate verbal behaviours will be able to facilitate
more learning in their classrooms.

In teacher preparation programme it is mostly the responsi-
bility of the training college supervisors, the practising school
teachers and the peer group to provide information to a student
teacher about his teaching behaviour which is rich enough and clear
enough to enable him to compare his performance with his own
intentions and to discover whether the modifications were or were
not improvement. The success of teacher education programme depends
most of all, on the quality of guidance provided to the student
teacher and soundness of the supervision programme in helping him.

The present inquiry has been designed to study the effective-
ness of supervision and feedback of information especially as it
applies to helping a teacher change his behaviour. Its prime concern
is with the organisation of information about the spontaneous verbal

behaviour of a teacher and how to incorporate this information in
a programme of student teaching or teaching intership. One possible
goal of such a training programme is to help a teacher understand
his behaviour and discover the extent to which the spontaneous
patterns of verbal communication which are observed are consistant
with the goals of behaviour laid down by the teacher and why he did
not achieve his teaching objectives. In such a programme the
assumption is made that behaviour can be modified and made more
consistent with intention and teaching objectives. To achieve this
objective it is essential to provide objective and rich information
to a student teacher about his teaching performance and enable him
to compare it with some standard or model of what should have
happened. This way a student teacher can identify different patterns
of his teaching behaviour, assess them, perform them, string them
together into strategies of classroom instruction, make himself more
self analytical and precise in stating instructional objectives.

The purpose of interaction analysis is to study teaching
behaviour and to help an individual study, develop and control his
teaching behaviour. In the present study we intend to compare the
effects of interaction analysis feedback from various sources that
a student teacher most likely is expected to experience during the
course of his initial teacher training and to understand which
particular source of treatment would most likely help a teacher
improve his classroom behaviour and instruction. This involves
the study of the relationship between the kind of treatment and kind
of change in the teaching behaviour. Here the performance criterion
is improvement, and measures of improvement should be used in making
decisions about the nature of treatment. Thus the present inquiry

intends to compare the affects of different treatments on the scores obtained by the group of student teachers on a schedule of interaction analysis and has been stated pin pointedly as follows:

" A Study Of The Effects Of Feedback From
Different Sources On The Classrom Behaviour
Of Student Teachers Using The Technique Of
Interaction Analysis."

DEFINITION OF THE TERMS:

The different terms involved in the present study have been defined as follows:

INTERACTION ANALYSIS:

Classroom interaction analysis refers not to one system, but to many systems of coding spontaneous verbal communication, arranging the data into a useful display, and then analyzing the results in order to study patterns of teaching and learning. Each system is essentially a process of encoding and decoding, i.e. categories for classifying statements are established, a code symbol is assigned to each category, and a trained observer records data by jotting down code symbols. Decoding is the reverse process: a trained analyst interprets the display of coded data in order to make appropriate statements about the original events which were encoded, even though he may not have been present when the data were collected. A particular system for interaction analysis will usually include (a) a set of categories, each defined clearly, (b) a procedure for observation and a set of ground rules which governs the coding process,

(c) steps for tabulating the data in order to arrange a display which aids in describing the original events, and (d) suggestions which can be followed in some of the more common applications.

The Flanders system, which is the system of interaction analysis, described in this study, is concerned with verbal behaviour only, primarily because it can be observed with higher reliability than can non-verbal behaviour. And further the assumption is made that verbal behaviour of an individual is an adequate sample of his total behaviour. It was developed by Flanders and others* at the University of Minnesota between 1955 & 1960. A detailed description of the Flanders' Interaction Analysis Categories is as follows:

DESCRIPTION OF CATEGORIES:

In the Flanders system of interaction analysis observation all teacher statement are classified first as either indirect or direct. This classification gives central attention to the amount of freedom the teacher has a choice. He can be direct, minimizing the freedom of the student to respond. His choice, conscious or unconscious, depends upon many factors, among which are his perceptions of the classroom interaction and the goals of the particular learning situation.

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* Individuals at Minnesota who influenced the early development include : Sulo Havumaki, Thomas Filson, Edmund Amidon, Theodore Storlie, and J. Paul Anderson. Earlier work at the University of Chicago also influenced the shape of the ten categories. These individuals include: Herbert Thelen, John Withall, and John Glidewell. In fact, the work of John Withall provided the first experiences of the author in the field of interaction analysis.

In order to make total behaviour of total interaction in the classroom meaningul, the Flanders system also provides for the categorizing of student talk. A third major section, that of silence or confusion, is included in order to account for the time spent in behaviour other than that which can be classified as either teacher or student talk.

All statements that occur in the classroom, then, are categorized in one of three major sections: (1) teacher talk, (2) student talk, and a separate category, (3) silence, confusion, or anything other than teacher or student talk.

The larger sections of teacher and student verbal behaviour are subdivided in order to make the total pattern of teacher-pupil interaction more meaningful. The two subdivisions for teacher verbal behaviour, indirect and direct teacher talk, are further divided into smaller categories. Indirect influence consists of four observation categories: (1) accepting feeling, (2) praising or encouraging, (3) accepting ideas, and (4) asking questions. Direct influence is divided into three categories: (5) lecturing, (6) giving directions, and (7) criticizing or justifying authority. Student talk is divided into only two categories: (8) responding to teacher, and (9) initiating talk. All categories are mutually exclusive; yet together they are totally inclusive of all interaction occurring in the classroom.

INDIRECT TEACHER BEHAVIOUR:

CATEGORY 1, Acceptance of Feeling

The teacher accepts feelings when he says he understands how the children feel, that they have the right to have these feelings, and

that he will not punish the children for their feelings. These kinds of statements often communicate to children both acceptance and clarification of their feeling.

Also included in this category are statements that recall past feeling, refer to enjoyable or uncomfortable feelings that are present, or predict happy or sad events that will occur in the future.

In our society people often react to expressions of negative feelings by offering negative feelings in return. Acceptance of these emotions in the classroom is quite rare, probably because teachers find it difficult to accept negative emotional behaviour. However, it may be just as difficult for them to accept positive feelings. Feelings expressed by students may also be ignored by the teacher if he considers the classroom to be a place where people are concerned primarily with ideas rather than feelings.

CATEGORY 2. Praise or Encouragement:

Included in this category are jokes that release tension, but not those that threaten students or are made at the expense of individual students. Often praise is a single word: " Good," or " Right." Sometimes the teacher simply says, " I like what you are doing." Encouragement is slightly different and includes such statements as: " Continue," " Go ahead with what you are saying, " Um hm; go on; tell us more about your ideas." Praise may also be given in the form of repetition of a student's answer when this repetition communicates to the child that his answer is correct.

CATEGORY 3, Accepting Ideas:

This category is quite similar to category 1; however, it includes
only acceptance of student ideas, not acceptance of expressed
emotion. When a student makes a suggestion, the teacher may
parapharase the student's statement, restate the idea more simply,
or summarise what the student has said. The teacher may also say,
" Well, that is an interesting point of view. I see what you mean."
Statements belonging in category 3, are particularly difficult to
recognize; often the teacher will shift from using the students idea
to stating the teacher's own idea. When a teacher repeats a
student's idea, indicating that the student's idea is one that
should be considered rather than that it is the correct answer,
record a 3. Statements belonging in category 3 can be identified
by asking the question, " Is the idea that the teacher is now stating
the student's or is it the teacher's?" If it is the student's
idea, then this category is used; if it is the teacher's another
category must be employed.

CATEGORY 4, Asking Questions:

This category includes only questions to which the teacher expects
an answer from the pupils. If a teacher asks a question and then
follows it immediately with a statement of opinion, or if he begins
lecturing, obviously the question was not meant to be answered. A
rhetorical question is not categorized as a question. An example
of another kind of question that should not be classified in
Category 4 is the following, " What in the world do you think you
are going to do out of your seat, John?" With proper intonation the
question is designed to get John back in his seat; if such is the

case, it must be categorized as criticism for the student's
behaviour (Category 7).

Questions that are meant to be answered are of several kinds.
There are questions that are direct in the sense that there is a
right or wrong answer. The question " What are 2 and 2?" is one
that limits the freedom of the student to some extent. Although he
can refuse to answer, give the wrong answer, or make a statement of
another kind, in general this kind of question focusses the
student's answer more than does a question such as, " What do you
think we ought to do now?" Questions, then, can be either narrow
and restrict the student in his answer, or they can be very broad
and give the student a great deal of freedom in answering. All
questions, however broad or narrow, which require answers, and are
not commands or criticism, fall into Category 4.

DIRECT TEACHER BEHAVIOUR

CATEGORY 5, Lecture:

Lecture is the form of verbal behaviour used to give information,
facts, opinions, ideas, or orientation to children. The present-
ation of material may be used to introduce, review, or focus the
attention of the class on an important topic. Usually information
in the form of lecture is given in fairly extended time periods,
but it may be interspersed with children's comments, questions, and
encouraging praise.

When ever the teacher is explaining, discussing, giving
opinion, or giving facts or information, category 5 is used. When
the teacher is orienting the class to a topic or explaining the
procedure that the class will follow, this is also classified in

Category 5. These statements are often referred to a procedural
5's. Rhetorical questions are also included in this category.
Category 5 is the one most frequently used in classroom observation.

CATEGORY 6, Giving Directions:

The decision about whether or not to classify the statement as a
direction or command must be based on the degree of freedom that
the student has in response to teacher direction. When the teacher
says, " Will all of you stand up and stretch?" he is obviously giving
a direction. If he says, " John, go to the board and write your
name, " he is giving a direction or command. When he says, " John, I
want you to tell me what you have done with your reader," he is
still giving a direction. This category is used only when the
student's compliance would take the form of an observable act.

CATEGORY 7, Criticizing or Justifying Authority:

A statement of criticism is one that is designed to change student
behaviour from non acceptable to acceptable. The teacher is saying,
in effect, " I do not like what you are doing. Do something else."
Another group of statements included in this category are those
that might be called statements of defence or self-justification.
These statements are particularly difficult to detect when a teacher
appears to be explaining a lesson or the reasons for doing a lesson
to the class. If the teacher is explaining himself or his authority,
defending himself against the student, or justifying himself, the
statement falls in this category.

Categories 1 through 4, those of indirect teacher influence,

have been described. They are all categories of teacher talk. Whenever the teacher is talking, the statements must be categorized in one of the first seven categories. If the observer decides that with a given statement the teacher is restricting the freedom of children, the statement is tallied in categories 5, 6 or 7. If on the other hand, the observer decided that the teacher is expanding freedom of children, the category used is either 1, 2, 3 or 4.

There are three additional categories for use in classroom interaction:

CATEGORY 8, Student Talk - Response:

This category is used when the teacher has initiated the contact or has solicited student statements, when the student answers a narrow question asked by the teacher, or when he responds verbally to a direction the teacher has given. Anything that the student says that is clearly in response to initiation by the teacher belongs in Category 8.

CATEGORY 9, Student Talk - Initiation:

In general, if the student raises his hand to make a statement or to ask a question when he has not been prompted to do so by the teacher, the appropriate category is then 9.

Distinguishing between Categories 8 & 9 is often difficult. predicating the general kind of answer that the student will give in response to a question from the teacher is important in making this distinction. If the answer is one that is of a type predicated by the observer (as well as the teacher and class), then the

statement comes under category 8. When in response to a teacher question the student gives an answer different from that which is expected for that particular question, then the statement is categorized as a 9. Statements in response to broad teacher questions, which give the student an opportunity to express his own opinion or his own ideas on the topic, are classified as 9's. In general, a broad teacher question is a clue that the answer is a 9.

CATEGORY 10, Silence or Confusion:

This category includes anything not included in the other categories. Periods of confusion in communication, when it is difficult to determine who is talking, are classified in this category.

A summary of these categories, with brief definitions for use of the observer, follows.

FIGURE - 1   16

Flanders' Interaction Analysis Categories* (FIAC)

Teacher Talk	:Response	1. <u>Accepts feeling</u>. Accepts and clarifies an attitude or the feeling tone of a pupil in a non-threatening manner. Feelings may be positive or negative. Predicting and recalling feelings are included.
		2. <u>Praises or encourages</u>. Praises or encourages pupil action or behaviour. Jokes that release tension, but not at the expense of another individual; nodding head, or saying "Um hm?" or "go on" are included.
		3. <u>Accepts or uses ideas of pupils</u>. Clarifying, building, or developing ideas suggested by a pupil. teacher extensions of pupil ideas are included but as the teacher brings more of his own ideas into play, shift to category five.
		4. <u>Asks questions</u>. Asking a question about content or procedure, based on teacher ideas, with the intent that a pupil will answer.
	Initiation	5. <u>Lecturing</u>. Giving facts or opinions about content or procedures; expressing his own ideas, giving his own explanation, or citing an authority other than a pupil.
		6. <u>Giving directions</u>. Directions, commands, or orders to which a pupil is expected to comply.
		7. <u>Criticizing or justifying authority</u>. Statements intended to change pupil behaviour from nonacceptable to acceptable pattern; bawling someone out; stating why the teacher is doing what he is doing; extreme self-reference.
Pupil Talk	Response	8. <u>Pupil-talk--response</u>. Talk by pupils in response to teacher. Teacher initiates the contact or solicits pupil statement or structures the situation. Freedom to express own ideas is limited.
		9. <u>Pupil-talk—initiation</u>. Talk by pupils which they initiate. Expressing own ideas; initiating a new topic; freedom to develop opinions and a line of thought, like asking thoughtfulquestions; going beyond the existing structure.
Silence		10. <u>Silence or confusion</u>. Pauses, short periods of silence and periods of confusion in which communication cannot be understood by the observer.

*There is no scale implied bythese numbers. Each number is classificatory, it designates a particular kind of communication event. To write these numbers down during observation is to enumerate, not to judge a position on a scale.

F_E_E_D_B_A_C_K

The term " Feedback " has been used in the present inquiry to refer to most of the information that come to a teacher in the conduct of his work. Especially it is applied to helping a teacher understand his behaviour, assess it and discover whether the spontaneous patterns of verbal communication which are observed are, or are not, consistent with the intention of teacher. It provides a teacher information about his verbal patterns of behaviour which permits a comparison with some standard or model of what should have happened. This information should be rich enough and clear enough to help a teacher understand his behaviour and determine why did he not achieve his teaching objectives.

In such a programme the assumption is made that modifying behaviour in order to make it more consistent with intent will, in most instances, result in an improvement. The model toward which behaviour is modified is created by the teacher attempting to change.

According to Flanders (1971), feedback refer to information obtained by teacher as part of a carefully designed inquiry in which (a) there are goals for behaviour change, (b) these changes hopefully lead to improvement, (c) information about teaching behaviour in two or more comparison situations will be feedback to the teacher, (d) decision about teaching can be made from an analysis of the information, and (e) further explorations of teaching behaviour are likely to follow.

SOURCES OF FEEDBACK:

Different sources of feedback in the present inquirty are:
the self; the peer; the college supervisor; and the external observer

who in the present study is a teacher from the practising school.

The self, refers, to the individual who is making a self appraisal of his behaviour when an observation sheet is presented and deciding independently the steps for continual self improvement.

The assumption is that a student teacher trained in the use of interaction analysis can identify different patterns of teaching behaviour, assess them, design inquiry projects and carry them out to modify her teaching behaviour and discover whether the modification were or were not an improvement.

The peer is one classmate of a student teacher whose behaviour is being investigated and attempted to modify. In the peer feedback group one classmate trained in the use of the technique ofFlanders' Interaction Analysis Categories, observes the behaviour, analyses it, interprets it and arranges a feedback meeting to discuss it with a specific student teacher and decides the steps for further improvement so as to achieve the goals of behaviour. It is assumed that a competent colleague can help a teacher observe, study, and compare patterns of verbal teaching behaviour, provide consultation and accept the responsibility of helping other to analyse their teaching behaviour. It is most redily available source and has been created to study its implications for pre-service training and its usefulness for the subsequent in service education programmes.

The college supervisor is a college lecturer engaged in the supervision of teaching behaviour of student teachers. It is her responsibility to develop the teaching skill and effectiveness of the student teachers preparing to enter the profession.

In the present study a college lecturer has been involved to observe, feedback information of teaching behaviour and suggest steps for further improvement. It is a very common and usual source of feedback in a teacher preparation programme.

The external observer is a teacher from the practising school and her class has been selected for practice in teaching by the student teachers. Class teacher is genuinly interested in pupil attitudes and achievements and to relate measures of these outcomes to various teaching strategies.

STUDENT TEACHERS:

The term " Student Teachers " refers to a group of students who are preparing to enter the profession of teaching. The initial training which they are receiving in a college of education concerns with developing and controlling teaching behaviour with independence and self direction. In this study, they are graduates and undergoing one years course in the Theory and Practice of Education at the Secondary Level. The integrated course includes instructions in Theory of Education, Educational Psychology, Methods of Teaching, School Management and supervised practice in teaching.

CLASSROOM BEHAVIOUR:

It has been defined as acts by the teacher which occur in the context of classroom interaction. It is what makes a teacher effective. It includes the understanding, development and use of skills which makes a teacher's teaching effective. It is based on an overall teaching competency obtained from an assessment made by a supervisor.

To sum up the present investigation aims to examine the classroom verbal behaviour of student teachers preparing themselves for the teaching profession and whether interaction analysis feedback from different sources exhibit modification and improvement of teaching behaviour in the predicted direction, and if so to what extent relative to their effectiveness.

The present investigator thought of extending this research in teacher education by studying systematically the effects of feedback using the technique of interaction analysis on the verbal behaviour of groups of student teachers trained in interaction analysis and see how interaction analysis can aid student teachers in becoming more aware of their teaching behaviour and the effects of their teaching behaviour on others.