

# A Comparative Study of Verbal Behaviour of Pre-Service and In-Service Secondary School Teachers

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## *Abstract*

*Estimating differences, if any, in the verbal behaviour of pre-service and in-service teachers through systematic observation of teaching with interaction analysis procedures as a popular tool has been a subject of research since long. This paper reports a carefully carried out investigation on various interaction variables derived from the extended method of Ned Flanders interaction analysis technique in respect of social science subjects being taught at secondary school level in India.*

**Keywords:** Verbal Behaviour, Preservice & Inservice Teachers, Systematic Observation.

## **Introduction :-**

The study of teaching is a very complex act as it implies basically a probe into the teacher behaviour in relation to influence on student learning and the content delivery patterns which emerge in this process. In the past three decades, an effort has been made to define and describe the teaching behaviour concepts in terms of three specific criteria—the teachers' activity, the pupil response and the influence exercised on the basis of content.

Accordingly, teaching behaviour concepts have been formulated from observations of teacher activity in the context of classroom interactional settings. Various systems of interaction analysis procedures have been developed. In the researches on teaching a good deal of emphasis is laid on employing systematic classroom observation techniques. Medley (1982) defined systematic classroom observation as a "scheme that specifies both the events that the observer is to record and the procedure to be used in recording them". Generally, the data that is collected from this procedure focuses on the frequency with which specific behaviours or types of behaviours occur in the classroom and the length of time they occurred.

## **Teaching Behaviour Defined:**

Teaching is basically a system of activities in which a teacher swings into action by an interactional process through his efforts and planned techniques to achieve predetermined learning goals in a social environment.

In such a framework teaching behaviour is defined more appropriately in terms of the operations of teaching when a person is playing that role in the presence of pupils. Thus, while teaching in a classroom one may perform a number of specific acts such as presenting, asking, explaining, showing, demonstrating, directing, and commending and so on. These activities may form part of the concept of teaching behaviour and may represent 'teaching behaviour with various shades of activities and operations relevant to the pursuit of specific goal of teaching. Teaching behaviour like any other form of human behaviour, has a cognitive support and as such it gets readily organized.

## **Rationale:**

Step inside a classroom and what do you hear? The chances are better than 60 per cent that you will hear someone talking if you are in an elementary or secondary school classroom.

If someone is talking, the chances are that it will be the teacher more than 70 per cent of the time. Yes, the teacher talks more than all the students combined. He manages class activities by giving directions. He expresses his ideas by lecturing. He stimulates student participation by asking questions. He clarifies students ideas by applying them to the suggested solutions of a problem. He praises and encourages students from time to time. On rare occasions he may clarify or diagnose the feelings and attitudes expressed by students or inferred from their behaviour. He may also criticize the behaviour of a student or class. All are types of teacher verbal behaviour or statements that can be heard in a classroom.

## **Main Questions Examined:**

Viewed in this perspective verbal behaviour of teacher becomes a dominant influence in the classroom and pupil learning is directly influenced by it. In various studies the exact association between teacher verbal behaviour and pupil learning have been probed. The concern of the present research was directed at focussing on verbal behaviour of secondary school teachers of both pre-service and in-service categories, working in Eastern Uttar Pradesh.

It may be admitted that in the Indian context no systematic study has been made so far as the teaching behaviour patterns of pre-service and in-service teachers in respect of variables such as age, academic qualification and experience are concerned. The present research has been carried out with the intent of finding out the extent and nature of verbal behaviour in the subjects of social science at the secondary and higher secondary school levels.

## **Objectives of Study:**

The framework of this research has been developed with a few broad parameters pertaining to teaching behaviour concept. The specific objectives targeted to be realized were as follows:

- To investigate the existing patterns of relationship, if any, in the verbal behaviour of pre-service and in-service teachers of secondary schools.
- To identify the relationship between directness and indirectness of pre-service and in-service teachers of secondary schools.

## **Research Hypotheses:**

As the study belongs to the category of naturalistic observation and is basically of an ex-post-facto nature, the main variables studied were verbal behaviour in classroom setting and the specific variations in their occurrences in terms of their status being pre-service and in-service. The following hypotheses were set up for this research:

- **Hypothesis 1** - In overall terms the verbal behaviour patterns of pre-service and in-service teachers are different.
- **Hypothesis 2** - The elements of directness and indirectness in verbal behaviour do not depend on teachers belonging to pre-service and in-service categories.

### Sampling:

In this research, all the male and female pre-service and in-service teachers of eastern districts of Varanasi, Gazipur, Mirzapur and Jaunpur of U.P. teaching at secondary school level were identified as the population frame. These teachers were drawn from the school subjects comprising social sciences. Since it was practically not expedient to reach all such teachers, a purposive sample frame consisting of 100 teachers (50 preservice and 50 in-service) from 27 schools and 4 training colleges/ universities of eastern U.P. was identified. This was considered adequate for purposes of generalization. The main purpose of research was to focus on studying the verbal behaviour of pre-service and in-service teachers in terms of the possible effects of such variables as age, academic qualification and experience on teaching behaviour.

### Observation Tool:

For the purpose of the present study the modified version of Flanders Interaction Analysis Technique was used by the investigator. It has been adopted as a main tool for analyzing and establishing the forms and patterns of teaching behaviour of social science subjects in the live classroom situation.

### Statistics Employed:

For finding out the relationship between teacher talk, pupil talk and the extent of silence (SC) or confusion in the classroom verbal behaviour of both pre-service and in-service teachers, a chi-square test was used on the basis of contingency table. Subsequently, the value of contingency coefficient was also worked out from the obtained values of chi-square.

For indicating interaction patterns, ten variables were conceptualized and computed for reflecting the actual status of things pertaining to classroom behaviour as indicated in Table 1.

**Table-1**  
**Magnitude of Interaction in Respect of Ten Variables for Pre-service and In-service Teachers**

No.	Variable	N = 50	N = 50
		Pre-service Teachers (in %)	In-service Teachers(in %)
1.	Teacher Talk (TT)	86.365	99.040
2.	Pupil Talk (PT)	11.385	6.075
3.	Silence or Confusion (SC)	2.250	2.885
4.	Indirectness Ratio (IDR)	0.239	0.083
5.	Steady State Ratio (SSR)	71.560	86.925
6.	Content Cross Ratio (CCR)	92.040	94.470
7.	Teacher Question Ratio : Narrow (TQR:N)	14.347	6.608
8.	Teacher Question Ratio : Broad (TQR:B)	0.641	0.244
9.	Pupil Steady State Ratio (PSSR)	100.00	99.530
10.	Pupil Initiation Ratio (PIR)	4.084	6.420

It may be noted from the perusal of Table 1 that the percentages of teacher talk (TT), steady state ratio (SSR), content cross ratio (CCR) and pupil initiation ratio (PIR) for in-service teachers are relatively higher than that for pre-service category. The percentage figures for teacher talk (TT), steady state ratio (SSR) content cross ratio (CCR) and pupil initiation ratio (PIR) are 99.04, 86.93, 94.47 and 6.42 respectively as against the percentage figures for the same in respect of pre-service teachers which are 86.37, 71.56, 92.04 and 4.08 respectively. As against this, the percentage figures for pupil talk (PT), teacher question ratios (TQR:N, TOR:B) and pupil steady state ratio (PSSR) are relatively higher than those for in-service teachers. These figures are 11.38, 14.37, 0.64 and 100% respectively for pre-service teachers while in respect of in-service teachers' verbal behaviour these figures are 6.08, 6.61, 0.24 and 99.53% respectively. As to silence or confusion (SC) the magnitude of difference is of a very marginal nature. In case of in-service teachers, it is 2.89 while for pre-service teachers, it is 2.25%. In respect of ID Ratio also a similar situation appears to exist.

For pre-service teachers the ID ratio is 0.24 while for in-service teachers, it is 0.08.

It may, thus be stated that in terms of teacher talk, steady state ratio, content cross ratio and pupil initiation ratio in-service teachers seem to have an edge over their counterparts viz. pre-service teachers, As against this, it may also be averred that in terms of pupil talk, ID ratio, TQR:N, TQR:B and PSSR, the pre-service teachers appear to have a sliding up trend. In nutshell it may be generally stated that, although the differences are not statistically significant, the verbal behaviour of in-service teachers in respect of teacher talk, steady state ratio, content cross ratio and pupil-initiated talk appears to be slightly different and higher than that for pre-service teachers. Likewise, the pre-service teachers' behaviour appears to be different and higher than that of in-service teachers in respect of pupil talk, tendency for asking narrow questions, tendency for asking broad questions and pupil steady state ratio. The pre-service teachers also appear to be relatively more indirect as compared to in-service teachers.

### **Relationship Between Teacher Talk, Pupil Talk and Extent of Silence or Confusion in the Classroom Verbal Behaviour of Preservice and Inservice Teachers :**

The association or dependency between categories of behaviour- teacher talk (TT), pupil talk (PT) and silence or confusion (SC) and the status of teachers- preservice and in-service has been ascertained through estimation of contingency co-efficient (c) via chi- square. Table -2 summarizes the findings in this regard.

**Table-2**  
**Contingency Coefficient Reflecting the Teaching Behavior of Preservice and Inservice Teachers**

Category of Teachers	TT	PT	SC	TOTAL
Preservice Teachers	.86 (.89)	.86 (.89)	.86 (.89)	1.0
Inservice Teachers	.86 (.89)	.86 (.89)	.86 (.89)	1.0
Total	1.77	.17	.06	2
df=2,	chi-square=0.0177,		c=0.094	

It may be noted from table - 2 that the value of chi-square is 0.0177 with  $df=2$  which is not significant at both the levels of confidence (0.05 and 0.01 levels). The value of contingency coefficient is found to be 0.094 which also indicates a very low or in substantial relationship between the categories of talk- teacher talk, pupil talk and silence or confusion and the status of teachers-preservice and in-service.

It may, therefore, be asserted that the classroom verbal behaviour of preservice and in-service teachers at least in respect of TT, PT and SC do not appear to be different and hence the hypothesis 'that verbal behaviour of preservice and in-service teachers are different' may not be considered worth retaining.

### **Outcomes of the Study:**

In addition to the foregoing comparative picture, the following conclusions may be succinctly indicated in terms of the objectives and hypotheses formulated for this study:

- In overall terms, no significant difference was found in the verbal behaviour of pre-service and in-service teachers.
- No significant difference could be observed in the verbal behaviour of male and female in-service teachers of social science in the interactional setting of the classroom.
- It has been noted that the pre-service teachers of social science subjects were relatively more indirect than their counterparts. It has also been observed that the maximum number of teachers of in-service category was found to be direct as they tended to adopt lecturing procedures in their teaching.
- The in-service teachers of social science subjects are relatively more direct in their approach in comparison to the pre-service teachers.
- It has also come to light that in-service teachers of social sciences do not indulge in 'praise' or 'appreciate' response of pupils.
- Both pre-service and in-service teachers of social science subjects tend to adopt a marked preference for narrow or restricted thinking type of questions in their classroom interactions.
- The student-initiated behaviour moves tended to be infrequent in classroom behaviour of both pre-service and in-service teachers of social science.
- Teacher-talk tended to predominate in the classroom settings of both pre-service and in-service social science teachers.
- ID ratio has been found to be relatively higher in pre-service teachers while the same is found to be relatively less for in-service teachers of social science subjects
- The student response in the form of seeking clarification has been found to be relatively higher in pre-service teachers as compared to in-service teachers.
- The total magnitude of content cross has been found to be larger for experienced social science teachers when compared with those of their less experienced counterparts.

### **Implications and Suggestions for Further Research:**

The findings of the study have important implications for improving the teacher behaviour and the competencies of teacher educators especially those entrusted with social science teaching. The results also carry a direct message for all those who are actually interested and engaged in the

task of bringing about qualitative change in the conditions of classroom teaching and learning processes.

Needless to add that the study would serve as a conceptual framework for preparing functional guidelines for an effective teacher of secondary level. It would provide the basis for modifying teaching behaviour and organizing competency-based teaching programmes in respect of the teaching of social sciences. It would also function as mirror to the teachers of social sciences and induce them to changing their own behaviour. It would help prospective teachers to develop and improve their teaching behaviours and skills so as to become effective classroom managers in the subject of social sciences. The practice teaching programmes may also be recognized on the basis of the evidence adduced. For potential researchers in this field, the study would offer a background for conducting better planned researches in respect of classroom observations and interactional processes.

While completing this piece of research, many new ideas spring to mind which might be the basis for identifying and formulating further schemes of studies. The classroom observations for effective teaching at any level being a new approach, more endeavour is called for to conduct systematically planned researches in this area.

The following studies may be contemplated in the light of findings reported here:

- Correlational studies may be planned for various categories of subject teachers with reference to response and initiation modes of behaviour.
- The classroom verbal behaviour of teachers may be studied exclusively in terms of the class climates and extent of openness available in the structures of classroom organizations.
- Studies may be undertaken to go beyond verbal interaction by taking into account the full range of classroom events.
- Comparative studies may be conducted drawing teachers' samples from different types of educational institutions with a view to formulating guidelines for improvement of instructional strategies in divergent contexts.
- The extent of divergent and convergent thinking potentials in the behaviour of direct and indirect teachers may be analyzed in terms of variables of age, sex and experience.
- A comparative study may be planned keeping in view the teaching subjects as variables in the areas of science, geography, history and language teaching. It would also be useful to study the classroom interaction styles of teachers in different academic streams.

Classroom interactional styles of social science teachers may also be investigated through experimental studies. Experimental studies with controlled situations may be conducted to get further feedback.

The classroom scenario at the school level is undergoing change with the adoption of information technology in our school systems in the context of 21st century world and, in such contextualities, the relevance of systematic probe using classroom interaction procedures may be readily perceived. What is required is the enhancement of the research strategies so as to truly reflect the classroom reality situations focussing on the areas of remediation and correction in the instructional design.

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