The Effect of Training of Prospective Secondary School Teachers in Flander’s System of Classroom Interaction Analysis on the Classroom Verbal Behavior of their Students

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ABSTRACT

The teacher in any educational system performs a significant function since his role is to perpetuate society heritage and simultaneously to energize human resources towards social progress. The face of twentieth-century life is a rapidly changing society, a mentoring store of knowledge, amazing innovations and new understanding, theories and concepts about the teaching learning process. Efforts are being made all over the world to bring about the changes in all educational programs and practices according to the changing needs of society, time and subjects. The sample included 32 prospective teachers drawn from M.A. secondary education class. Eight male and eight female prospective teachers voluntarily participated in the study and formed the treatment group. Equal numbers of male and female prospective teachers, from the same population, were matched to the treatment group and formed a no-treatment group. Two trained observers categorized the classroom interaction on the teaching of Urdu English and Pakistan studies and gathered data in the quantitative form. The interobserver reliability coefficient on the data ranged from .97 to .99.

Three Factors Analysis of Variance with repeated measures was applied to find the effect of training, gender and subjects on the verbal behavior of the prospective teachers. The interaction effects between training & gender, training & subjects were also studied. Training of teachers in Flander’s system of classroom interaction analysis has a positive and significant effect on the verbal ‘behaviour of their students on the greater (accessed) use of the following categories of student talk on Spontaneous talk and Questioning by students. Flanders and other systems of classroom interaction analysis should be included and introduced in teacher education programs of the country at all levels. Teacher educators of all levels should use this system of classroom interaction analysis along with other observation procedures for the supervision and guidance of prospective teachers in practice teaching.

Key Words: Effect of Training, Prospective Secondary School Teachers, Flander’s System, Classroom, Interaction Analysis, Verbal Behavior

1. Background of the Study

The teacher in any educational system performs a significant function since his role is to perpetuate society heritage and simultaneously to energize human resources towards social progress. If it is accepted that the teachers are a central element in the
formal education of a national human capital and that the level of education cannot rise above the quality of the teachers are of significant social concern. Concerted efforts must be made, therefore to produce the best teacher that a nation can afford.

In fact, the education of educators provides the foundation and stability of any sound and successful system of education. The better the teachers are trained, the more are the chances of development and progress of any society. Teacher education is a specialized segment of education designed for systematic preparation for the development of teaching skills among those who may be attracted to this profession. (American Council 1988). It is a basic requirement of a sound educational system and one cannot ignore the importance of teacher responsibilities and his education in any effective system of education. Dr. Nasim Shaukat while discussing the current problems of teacher education in Pakistan has reported that “there seems to be a growing dissatisfaction in our country with present arrangements for the education and training of teachers.

The face of twentieth-century life is a rapidly changing society, a mentoring store of knowledge, amazing innovations and new understanding, theories and concepts about the teaching learning process. Efforts are being made all over the world to bring about the changes in all educational programs and practices according to the changing needs of society, time and subjects. The government of Pakistan deeply concerned with the teacher education programs in the country. It has analyzed the situation in the National Education policy document as under. “Unfortunately the standard of teacher education at present seems to be on the lower ebb because of multifarious reasons. Urgent needs have therefore been felt to upgrade the quality of teacher education. In order to improve the quality of teacher education, many countries have adopted modern innovative techniques. Pakistan needs to explore possibilities of using these.” The teaching process affects attitude emotional commitment and professional involvement not only of teachers but their students also. Teaching learning process is behavioral science, which by its very nature exists in a context of social interaction.

The act of teaching leads to reciprocal contacts between teacher and pupils and the interchange is called teaching. A great deal of this process consists of verbal
interaction between teachers and taught, particularly in a classroom situation. Verbal behavior is conceived as central to teaching behavior. It, therefore, constitutes an inseparable component of teaching and learning process. The type of verbal behavior of teacher directly affects the verbal behavior of their students in the classroom situation, with consequences on the overall behavior of teachers and students. Such verbal behavior is an essential part of all the activities that take place in the classroom. Its analysis can add a new dimension to the better understanding of teaching learning process.

In spite of the fundamental significance of verbal behavior in teaching learning process, this basic component is almost missing from all over teacher education programs and procedures. It is the most important but neglected area of teacher education. Interaction analysis is a system which is design primarily to describe and measure the verbal interplay between teacher and students in the actual classroom. Flander’s system of classroom interaction analysis is one of that many systems and is validity used for research and training of teachers. It was therefore considered imperative to use this system in experimental system and study its effect on the verbal behavior of the students and their teachers.

2. LITERATURE REVIEW

Objectives of the Study

The objectives of the study were:

1. To study the effect of training of SS teachers in Flander's system of classroom interaction analysis on the verbal behavior of their students.
2. To study the effect of gender of SS teachers on the verbal behavior of students.
3. To study the effects of different subjects by of SS teachers on the verbal behavior of their students.

Assumptions of the Study

Following were the assumptions of the study:

1. Verbal behavior is an adequate sample of a person’s total behavior.
2. Flander's system of classroom interaction analysis categorizes all verbal behavior found in the classroom.
3. Flander’s system objectively and reliably categories the verbal behaviors of the
classroom.

4. Spoken words are a form of behavior sufficiently significant to be treated in isolation from other forms of behavior without undue distortion of the interaction situation.

Procedure for the Study

Population: The population for the present study comprised of the prospective teachers of M.A. Secondary Education Program at Institute of Education and Research, University of Punjab Lahore.

Sample: The sample included 32 prospective teachers drawn from M.A. secondary education class. Eight male and eight female prospective teachers voluntarily participated in the study and formed the treatment group. Equal numbers of male and female prospective teachers, from the same population, were matched to the treatment group and formed a no-treatment group.

Experimental Treatment: Prospective teachers of the treatment group received 30 days training in understanding, practice, and use of Flanders system of classroom interaction analysis. The training program comprised of three activities, namely (a) a series of lectures (b) workshop and (c) Seminar.

Both groups did their teaching practice in male and female secondary schools. Two trained observers categorized the classroom interaction on the teaching of Urdu, English and Pakistan studies and gathered data in the quantitative form. The interobserver reliability coefficient on the data ranged from .97 to .99. Three Factors Analysis of Variance with repeated measures was applied to find the effect of training, gender and subjects on the verbal behavior of the prospective teachers. The interaction effects of training & gender, training & subjects were also studied. The simple t-test was used to single out the subject most affected by training in Flanders system. Flanders modified fifteen category system of classroom interaction analysis was used to gather data in quantitative form on the verbal behavior of the participants.

3. RESULTS

Table 1: Interobserver reliability coefficient on interaction analysis data in a different subject.
Inter-observer reliability coefficient on interaction analysis data in Urdu, English and Pakistan Studies for experimental and control groups ranged between .97 and .99 which was statistically significant and reliable.

Table 2: Analysis of variance of verbal behavior observation scores on "student talk"

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>11.85</td>
<td>1</td>
<td>11.85</td>
<td>.13</td>
<td>N.S.</td>
</tr>
<tr>
<td>Gender</td>
<td>269.07</td>
<td>1</td>
<td>269.07</td>
<td>3.01</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction</td>
<td>60.32</td>
<td>1</td>
<td>60.32</td>
<td>.67</td>
<td>N.S.</td>
</tr>
<tr>
<td>Within Cells</td>
<td>2497.70</td>
<td>28</td>
<td>89.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>2838.94</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>2244.01</td>
<td>2</td>
<td>1122.0</td>
<td>25.17</td>
<td>.01</td>
</tr>
<tr>
<td>Interaction</td>
<td>350.43</td>
<td>2</td>
<td>175.21</td>
<td>3.93</td>
<td>.05</td>
</tr>
<tr>
<td>Interaction</td>
<td>13.08</td>
<td>2</td>
<td>6.54</td>
<td>.01</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training)</td>
<td>379.53</td>
<td>2</td>
<td>189.76</td>
<td>4.25</td>
<td>.05</td>
</tr>
<tr>
<td>Within Cells</td>
<td>2495.39</td>
<td>56</td>
<td>44.56</td>
<td></td>
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<tr>
<td>Totals</td>
<td>5482.44</td>
<td>64</td>
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<td></td>
</tr>
</tbody>
</table>

The main effect of training F (1,28)=.13 was not significant at .01/.05 level, which indicated that training had no significant effect on "Student Talk" in favour of any group. The main effect of Gender F (1, 28) =3.01 was not significant at .01 and .05 levels. It indicated that gender of teachers did not significantly affect the "Student Talk". The main effect of subject F (2, 56) =25.17 was significant at .01 level. It indicated that the nature/type of subject had a Significant effect on "Student Tale' in the classroom. The interaction effect of training and gender on "Student Talk" in the classroom F(1,28).67 was not significant at .01 and .05 levels. The interaction effect of training and subject on "Student Talk" in the classroom F (2, 56) =3.93 was significant at .05 level.

The interaction effect of gender and subject on "Student Talk" in the classroom F (2, 56) =.01 was not significant at .01 and .05 levels. The interaction effect of training, gender and subject on "student Talk" in the classroom F (2, 56) =4.25 was significant at
The main effect of training F(1,28) = .6 was not significant at .01 and .05 levels, which indicated that training had no significant effect on "Student's Responsive Talk" in favor of any group. The main effect of gender ' F (1, 28) = 1.09 was not significant at .01/105 levels. It indicated that was of teachers did not significantly affect the "Student's Responsive Talk" in the classroom.

The main effect of subjects F (2, 56) =52.55 was significant at .01 level. It indicated that the nature/type of subject had a significant effect on "Student's Responsive Talk" in the classroom. The interaction effect of training and gender on "Student's Responsive Talk" in the classroom F (2, 56) =2.89 was not significant at .01/0.5 levels. The interaction effect of training and subjects on "Student's Responsive Talk" in the classroom F (2, 56) .88 was not significant at .01/.05 levels. The interaction effect of

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Table 3: Analysis of variance of verbal behavior observation score on "responsive talk"

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>344.34</td>
<td>1</td>
<td>344.34</td>
<td>.6</td>
<td>N.S.</td>
</tr>
<tr>
<td>Gender</td>
<td>616.56</td>
<td>1</td>
<td>616.56</td>
<td>1.09</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training X Gender)</td>
<td>1639.10</td>
<td>1</td>
<td>1639.10</td>
<td>2.89</td>
<td>N.S.</td>
</tr>
<tr>
<td>Within Cells</td>
<td>15826.95</td>
<td>28</td>
<td>565.24</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>18426.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>43668.79</td>
<td>2</td>
<td>21834.39</td>
<td>52.55</td>
<td>.01</td>
</tr>
<tr>
<td>Interaction (Training and Subjects)</td>
<td>731.90</td>
<td>2</td>
<td>365.95</td>
<td>.88</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Gender and Subjects)</td>
<td>298.78</td>
<td>2</td>
<td>149.39</td>
<td>.35</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training X Gender X Subject)</td>
<td>1692.25</td>
<td>2</td>
<td>846.12</td>
<td>2.03</td>
<td>N.S.</td>
</tr>
<tr>
<td>Within Cells</td>
<td>23263.81</td>
<td>56</td>
<td>415.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>69655.53</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
gender and subjects on "Student's Responsive Talk" in the classroom $F(2, 56).35$ was not significant at .01/.05 level. The interaction effect of training, gender and subjects on "Student's Responsive Talk" in the Classroom $T(2, 56)2.03$ was not significant at .01/.05 levels.

Table 4: Analysis of variance of verbal behavior observation score on "spontaneous talk"

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>94.08</td>
<td>1</td>
<td>94.08</td>
<td>10.86</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>73.89</td>
<td>1</td>
<td>73.89</td>
<td>8.52</td>
<td>.01</td>
</tr>
<tr>
<td>Interaction</td>
<td>62.55</td>
<td>1</td>
<td>62.55</td>
<td>7.22</td>
<td>.01</td>
</tr>
<tr>
<td>Within Cells</td>
<td>242.69</td>
<td>28</td>
<td>8.66</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Totals</td>
<td>473.21</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>141.15</td>
<td>2</td>
<td>70.57</td>
<td>3.47</td>
<td>.05</td>
</tr>
<tr>
<td>Interaction</td>
<td>45.60</td>
<td>2</td>
<td>22.80</td>
<td>1.12</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction</td>
<td>28.49</td>
<td>2</td>
<td>14.24</td>
<td>.70</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training)</td>
<td>4.26</td>
<td>2</td>
<td>2.13</td>
<td>.10</td>
<td>N.S.</td>
</tr>
<tr>
<td>Within Cells</td>
<td>1138.83</td>
<td>56</td>
<td>20.33</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>1358.33</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The main effect of training $F(1,28) 10.86$ was significant at .01 level, which indicated that training had a positive significant effect on the "Spontaneous Talk by Students" in the classroom in favor of treatment group. The main effect of gender $F(1,28) 8.52$ was significant at .01 level. It indicated that the gender of the teacher significantly affect the "Spontaneous Talk by Students" in the classroom, in favor of male groups The main effect of subjects $F(2,56)3.47$ was significant at .05 level. It indicated that the nature/type of subject had effects on "Students Spontaneous Talk" in the classroom. The interaction effect of training and gender on "Student's Spontaneous Talk" in the classroom $F(2,56)2.22$ was significant at .01 level. It indicated that training had different effects on this category of "Talk" for male and female teachers. The interaction effect of training and subjects on "Student's Spontaneous Talk" in the classroom $F(2,56)1.12$ was not significant at .01 and .05 levels. The interaction effect of gender and subjects on "Student's Spontaneous Talk" in the classroom $F(2,56)0.7$ was not significant at .01 and .05 levels. The interaction effect of training, gender and subjects on "Student's
Spontaneous Talk" in the classroom F (2,56)0.1 was not significant at .01 and .05 levels.

**Table 5: Analysis Of Variance of Verbal Behaviour Observation Scores On Questioning By Students**

<table>
<thead>
<tr>
<th>Source of Variance</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Squares</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Training</td>
<td>9468.65</td>
<td>1</td>
<td>9468.65</td>
<td>39.13</td>
<td>.01</td>
</tr>
<tr>
<td>Gender</td>
<td>1919.33</td>
<td>1</td>
<td>1919.33</td>
<td>7.93</td>
<td>.01</td>
</tr>
<tr>
<td>Interaction (Training X Gender)</td>
<td>1268.54</td>
<td>1</td>
<td>1268.54</td>
<td>5.24</td>
<td>.05</td>
</tr>
<tr>
<td>Within Cells</td>
<td>6774.20</td>
<td>28</td>
<td>241.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>19430.72</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subject</td>
<td>2525.95</td>
<td>2</td>
<td>126.47</td>
<td>.64</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training X Subjects)</td>
<td>205.28</td>
<td>2</td>
<td>102.64</td>
<td>.52</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Gender X Subjects)</td>
<td>227.95</td>
<td>2</td>
<td>113.97</td>
<td>.58</td>
<td>N.S.</td>
</tr>
<tr>
<td>Interaction (Training X Gender X Subject)</td>
<td>3762.15</td>
<td>2</td>
<td>1881.07</td>
<td>.63</td>
<td>0.01</td>
</tr>
<tr>
<td>Within Cells</td>
<td>10929.02</td>
<td>56</td>
<td>195.14</td>
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<td></td>
</tr>
<tr>
<td>Totals</td>
<td>15376.35</td>
<td>64</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The main effect of training F(1,28)39.13 was significant at .01 level, which indicated that training of teachers had significant positive effect on the "Questioning by Students" in the classroom in favor of treatment group. The main effect of subjects F (2, 56)3.47 was significant at .05 level. It indicated that the nature/type of subject had effects on the "Questioning by Students" in the classroom. The interaction effect of training and gender on "Questioning by Students" in the classroom F (1, 28)5.24 was significant at .05 level. It indicated that training had different effects on this category of "Talk" for male and female teachers. The interaction effect of training and subjects on "Questioning by Students" in the classroom F (2, 56).52 was not significant at .01 and .05 levels.

The interaction effect of gender and subjects on "Questioning by Students" in the classroom F (2, 56).58 was not significant at .01 and .05 levels. The interaction effect of
training, gender, and subjects on "Questioning by Students" in the classroom $F (2, 56) = 9.63$ was significant at .01 level. It indicated that training had different effects for different subjects and gender in this category of “initiated talk”.

**Table 6: Significance of Difference Between Means Of Treatment And No-Treatment Groups In Teaching Of Different Subjects**

<table>
<thead>
<tr>
<th>Subjects</th>
<th>Treatment $M_1$</th>
<th>SE$_M$</th>
<th>No Treatment $M_2$</th>
<th>SE$_M$</th>
<th>Difference $M_1 - M_2$</th>
<th>SE$_{DM}$</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urdu</td>
<td>15.78</td>
<td>1.88</td>
<td>9.81</td>
<td>1.22</td>
<td>5.97</td>
<td>2.24</td>
<td>2.66</td>
<td></td>
</tr>
<tr>
<td>English</td>
<td>15.91</td>
<td>1.59</td>
<td>8.87</td>
<td>.94</td>
<td>7.04</td>
<td>1.84</td>
<td>3.82</td>
<td></td>
</tr>
<tr>
<td>Pakistan</td>
<td>30.72</td>
<td>3.12</td>
<td>11.01</td>
<td>2.12</td>
<td>19.71</td>
<td>3.77</td>
<td>5.22</td>
<td></td>
</tr>
</tbody>
</table>

The difference between treatment and no-treatment groups in Urdu, and English ($t=3.82, 5.22$) was significant at .01 level. In regard to Urdu ($t=2.66$), it was significant at the same level. It indicated that training had effects on teacher talk in the teaching of English and Pakistan Studies. Whereas it had no significant effect on the teaching of Urdu.

### 5. DISCUSSION

The study attempted to find the effects of training of secondary school teachers in classroom interaction analysis on the verbal behavior of their students in the classroom. A number of null hypotheses were formulated and tested through three-factor analysis of variance with repeated measures (16:337).

The significance level for testing these was set at .01. The analysis revealed significance and the positive effect of teachers trained in classroom interaction analysis on two categories of student talk, namely "spontaneous talk and questioning by students". There were significantly less silence and confusion in their classes as compared to these teachers who were not trained in classroom interaction analysis. It clearly revealed that the training of the teachers in the modification of their own verbal behavior affects the verbal behavior of their students on the categories mentioned above and decrease the confusion and silence in the classrooms. Gender of the teacher was also a determinant factor for these two categories of student talk. The effect of subjects taught in the classroom had a significant effect on total student talk, responsive talk and spontaneous
talk by students. It has also a significant effect on confusion and silence in the classroom.

The interaction effect of training and gender, training, and subject, gender, and subject, and training, gender and subject were not significant on any aspect on .01 level except training and gender on a spontaneous talk by students. It means that training had different effects on male and female teachers. These findings support the research by Bondi and Ober (1969) who found that the students of the teachers trained in interaction analysis differ from others in their classroom verbal behavior.

These findings were generally similar to those of the studies by Mc. Leod (1966) Hough John, Lohman Ernest E. & Ober Richard (1969) Amidon and Flanders (1969). These studies demonstrated that the training of teacher in classroom interaction analysis not only helps to modify the behavior of the teacher but also affects the verbal behavior of their students. The analysis of the data revealed that the training of teachers in this system was almost equally effective for the students of male and female teachers, and helped them a lot in changing and modifying the verbal behavior of teachers and their students and also minimized the silence and confusion in the classroom. The nature and type of subject under study was the other factor which affected the behavior of students and teachers.

Findings

The major findings of the study were as under:

1. The effect of training in Flander's system of classroom interaction analysis:
   a. was not significant at .01 and .05 levels on the following categories of student talk in the classes of treatment and no treatment groups.
      i. total student talk
      ii. responsive talk
   b. was positive and significant at .01 level in the classes of treatment group on the following category of student talk.
      i. sopntonuous talk
      ii. initiated talk

2. The effect of gender of the teacher:
a. was not significant at .01 or .05 levels on the following categories of students talk in the classroom
   i. total student talk the responsive talk
b. was significant at .01 levels in the following categories of students talk in the classroom
   i. spontaneous talk (male classes)
   ii. Questioning (female classes)
3. The effect of the subject:
   a. was significant at .01 levels in the following categories of students talk in the classroom
      i. Total student talk
      ii. Responsive talk
      iii. It was, however, significant at .05 level on portions talk
   b. was not significant at .01 & .05 levels on initiated talk
4. The interaction effect of training and gender was:
   a. was not significant at .01 & .05 levels on the following categories of students talk in the classroom
      i. total talk
      ii. responsive talk
   b. significant at .01 level on Spontaneous talk and at .05 level on initiated by students in the classroom.
5. The interaction effect of training and subject was not significant at .01 level on any category of student talk in the classroom.
6. The interaction effect of gender and subject was significant at .01 level on total student talk in the classroom. This effect was not significant at .01 or .05 levels on any other category of student talk.
7. The interaction effect of training, gender and subject were not significant at .01 level on any category of student talk in the classroom.

4. CONCLUSIONS
The following conclusions were drawn on the basis of the findings of the study:
1. Training of teachers in Flander's system of classroom interaction analysis has no significant effect on the verbal behavior of their students in their respective classroom on the following categories of student talk:
   i. Total teacher talk
   ii. Responsive talk
2. Training of teachers in Flander's system of classroom interaction analysis has a positive and significant effect on the verbal behavior of their students on the greater (accessive) use of the following categories of student talk:
   i. Spontaneous talk
   ii. Questioning by students
3. Training of teachers in Flander's system of classroom interaction analysis has positive and significant effect in minimising the silence/confusion in the classroom.
4. Gender of the teacher is not a determinant factor to affect the verbal behavior of their students on the following categories of student talk:
   i. Total talk
   ii. Responsive talk
5. Gender of the teacher is a determinant factor to affect the verbal behavior of their students on the following categories of student talk:
   i. Spontaneous talk in the classes of male teachers.
   ii. Questioning by students in the classes of female teachers.
6. The nature and content of the subject is a determinant factor to affect the verbal behavior of students on the following categories of student's talk:
   i. Total talk
   ii. Responsive talk
   iii. Spontaneous talk

**Recommendations**

1. Flanders and other systems of classroom interaction analysis should be included and introduced in teacher education programs in the country at all levels,
2. Teacher educators of all levels should use this system of classroom interaction analysis along with other observation procedures for the supervision and
guidance of prospective teachers in practice teaching.

3. Provisions should be made for literature and training of supervisory staff of Education Department in the systems of classroom interaction analysis.

4. Workshops and seminars should be organized to acquaint and train the teacher educators with latest systems of classroom interaction analysis for verbal behavior modification of students and teachers.

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