

**Appendix- IX**  
**Evaluation sheet(Experimental Group)**

| Sr.No | CAT | STR | PrF | PrFI | PrO | PrE | PrCr | PoF | PoFI | PoO | PoE | PoCr |
|-------|-----|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|
| 1     | 4   | 1   | 59  | 46   | 16  | 45  | 168  | 65  | 55   | 45  | 76  | 241  |
| 2     | 1   | 1   | 48  | 43   | 23  | 58  | 172  | 68  | 56   | 43  | 86  | 253  |
| 3     | 3   | 1   | 40  | 32   | 10  | 20  | 102  | 60  | 47   | 24  | 43  | 174  |
| 4     | 3   | 1   | 55  | 38   | 12  | 45  | 150  | 57  | 45   | 33  | 55  | 190  |
| 5     | 3   | 1   | 32  | 27   | 09  | 45  | 113  | 49  | 41   | 33  | 61  | 184  |
| 6     | 1   | 1   | 23  | 20   | 07  | 23  | 73   | 49  | 40   | 30  | 46  | 165  |
| 7     | 3   | 1   | 41  | 34   | 11  | 40  | 126  | 70  | 55   | 38  | 72  | 235  |
| 8     | 3   | 1   | 38  | 26   | 08  | 33  | 105  | 51  | 43   | 35  | 47  | 176  |
| 9     | 3   | 2   | 41  | 32   | 20  | 57  | 150  | 68  | 51   | 45  | 71  | 235  |
| 10    | 3   | 1   | 40  | 35   | 14  | 44  | 133  | 57  | 47   | 40  | 72  | 216  |
| 11    | 2   | 1   | 58  | 42   | 18  | 47  | 165  | 69  | 55   | 52  | 73  | 249  |
| 12    | 2   | 1   | 48  | 40   | 12  | 31  | 131  | 69  | 57   | 44  | 59  | 229  |
| 13    | 3   | 1   | 47  | 38   | 29  | 46  | 160  | 65  | 49   | 52  | 82  | 248  |
| 14    | 3   | 1   | 23  | 20   | 12  | 40  | 95   | 50  | 39   | 40  | 63  | 192  |
| 15    | 2   | 1   | 21  | 18   | 05  | 29  | 73   | 58  | 48   | 35  | 56  | 197  |
| 16    | 2   | 1   | 49  | 35   | 11  | 38  | 133  | 52  | 40   | 40  | 74  | 206  |
| 17    | 2   | 1   | 35  | 25   | 03  | 21  | 84   | 50  | 38   | 31  | 41  | 160  |
| 18    | 2   | 1   | 51  | 35   | 16  | 49  | 151  | 61  | 49   | 36  | 60  | 206  |
| 19    | 2   | 1   | 59  | 38   | 15  | 39  | 151  | 71  | 59   | 42  | 67  | 239  |
| 20    | 3   | 2   | 43  | 35   | 33  | 44  | 155  | 64  | 52   | 57  | 44  | 217  |
| 21    | 1   | 1   | 65  | 42   | 27  | 54  | 180  | 77  | 59   | 58  | 81  | 275  |
| 22    | 2   | 1   | 41  | 35   | 12  | 17  | 105  | 64  | 51   | 35  | 52  | 202  |
| 23    | 3   | 1   | 49  | 31   | 07  | 37  | 124  | 68  | 55   | 38  | 60  | 221  |
| 24    | 3   | 1   | 50  | 34   | 09  | 45  | 138  | 74  | 53   | 38  | 64  | 229  |
| 25    | 3   | 1   | 38  | 30   | 07  | 42  | 117  | 58  | 45   | 42  | 66  | 211  |



| Sr.No | CAT | STR | PrF | PrFI | PrO | PrE | PrCr | PoF | PoFI | PoO | PoE | PoCr |
|-------|-----|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|
| 26    | 3   | 1   | 43  | 37   | 09  | 41  | 130  | 49  | 40   | 40  | 72  | 261  |
| 27    | 1   | 1   | 43  | 39   | 17  | 57  | 156  | 78  | 64   | 49  | 78  | 269  |
| 28    | 2   | 1   | 53  | 32   | 16  | 34  | 135  | 55  | 43   | 33  | 48  | 179  |
| 29    | 3   | 1   | 45  | 33   | 07  | 37  | 122  | 49  | 40   | 38  | 64  | 191  |
| 30    | 3   | 1   | 47  | 28   | 09  | 28  | 112  | 60  | 51   | 38  | 60  | 209  |
| 31    | 3   | 1   | 46  | 32   | 04  | 38  | 120  | 84  | 64   | 38  | 64  | 250  |
| 32    | 4   | 1   | 38  | 32   | 15  | 44  | 129  | 43  | 35   | 35  | 59  | 172  |
| 33    | 4   | 1   | 40  | 36   | 09  | 43  | 128  | 63  | 57   | 46  | 66  | 232  |
| 34    | 2   | 1   | 49  | 32   | 19  | 56  | 156  | 57  | 47   | 34  | 64  | 202  |
| 35    | 3   | 1   | 39  | 30   | 13  | 43  | 125  | 50  | 36   | 36  | 71  | 193  |
| 36    | 3   | 1   | 11  | 11   | 05  | 31  | 58   | 63  | 49   | 36  | 60  | 108  |
| 37    | 4   | 2   | 32  | 24   | 13  | 39  | 108  | 67  | 49   | 31  | 57  | 204  |
| 38    | 2   | 1   | 33  | 27   | 09  | 37  | 106  | 40  | 33   | 32  | 55  | 160  |
| 39    | 2   | 2   | 28  | 20   | 02  | 30  | 80   | 58  | 45   | 25  | 75  | 203  |
| 40    | 1   | 1   | 42  | 29   | 20  | 44  | 135  | 87  | 68   | 45  | 61  | 261  |
| 41    | 4   | 2   | 31  | 27   | 01  | 22  | 81   | 44  | 28   | 21  | 33  | 126  |
| 42    | 2   | 2   | 37  | 27   | 05  | 40  | 109  | 54  | 35   | 30  | 55  | 174  |
| 43    | 3   | 1   | 28  | 24   | 06  | 23  | 81   | 38  | 24   | 20  | 42  | 124  |
| 44    | 1   | 2   | 44  | 28   | 13  | 30  | 115  | 66  | 46   | 40  | 54  | 206  |
| 45    | 2   | 1   | 31  | 23   | 03  | 24  | 81   | 54  | 36   | 24  | 48  | 162  |
| 46    | 4   | 1   | 38  | 28   | 12  | 46  | 124  | 58  | 34   | 36  | 63  | 191  |

## Evaluation sheet(Control Group)

| Sr.No | CAT | STR | PrF | PrFl | PrO | PrE | PrCr | PoF | PoFl | PoO | PoE | PoCr |
|-------|-----|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|
| 1     | 3   | 2   | 41  | 29   | 15  | 40  | 125  | 40  | 26   | 11  | 41  | 118  |
| 2     | 4   | 1   | 34  | 26   | 07  | 32  | 99   | 32  | 25   | 09  | 33  | 99   |
| 3     | 4   | 1   | 40  | 31   | 12  | 35  | 118  | 41  | 28   | 10  | 33  | 112  |
| 4     | 2   | 2   | 46  | 30   | 06  | 49  | 131  | 47  | 27   | 07  | 47  | 128  |
| 5     | 2   | 1   | 25  | 21   | 05  | 31  | 82   | 27  | 18   | 05  | 29  | 79   |
| 6     | 2   | 1   | 36  | 31   | 08  | 33  | 108  | 26  | 28   | 07  | 34  | 95   |
| 7     | 2   | 1   | 27  | 21   | 08  | 29  | 85   | 26  | 22   | 07  | 29  | 84   |
| 8     | 1   | 1   | 32  | 26   | 20  | 61  | 139  | 35  | 26   | 17  | 50  | 128  |
| 9     | 2   | 1   | 29  | 23   | 11  | 39  | 102  | 32  | 22   | 08  | 38  | 100  |
| 10    | 1   | 1   | 39  | 34   | 14  | 41  | 128  | 37  | 32   | 12  | 41  | 122  |
| 11    | 2   | 1   | 20  | 18   | 08  | 24  | 70   | 21  | 16   | 08  | 26  | 71   |
| 12    | 3   | 1   | 39  | 33   | 09  | 28  | 109  | 41  | 32   | 08  | 30  | 111  |
| 13    | 3   | 1   | 41  | 38   | 15  | 50  | 144  | 41  | 36   | 17  | 48  | 142  |
| 14    | 4   | 1   | 43  | 36   | 17  | 36  | 132  | 44  | 35   | 15  | 35  | 129  |
| 15    | 3   | 1   | 26  | 24   | 17  | 45  | 112  | 28  | 25   | 15  | 46  | 114  |
| 16    | 3   | 1   | 35  | 30   | 06  | 37  | 108  | 33  | 22   | 06  | 35  | 96   |
| 17    | 4   | 1   | 37  | 21   | 29  | 58  | 145  | 40  | 29   | 26  | 53  | 148  |
| 18    | 3   | 2   | 33  | 26   | 06  | 54  | 119  | 36  | 25   | 07  | 51  | 119  |
| 19    | 3   | 1   | 31  | 30   | 19  | 48  | 128  | 31  | 28   | 16  | 46  | 121  |
| 20    | 2   | 2   | 23  | 21   | 12  | 17  | 73   | 25  | 20   | 12  | 16  | 73   |
| 21    | 3   | 1   | 42  | 35   | 21  | 56  | 154  | 43  | 33   | 23  | 53  | 152  |
| 22    | 3   | 1   | 24  | 22   | 03  | 22  | 71   | 25  | 21   | 04  | 25  | 75   |
| 23    | 3   | 1   | 54  | 39   | 18  | 55  | 166  | 55  | 37   | 18  | 56  | 166  |
| 24    | 3   | 2   | 57  | 43   | 28  | 57  | 185  | 56  | 42   | 24  | 57  | 179  |
| 25    | 3   | 1   | 50  | 38   | 09  | 51  | 148  | 47  | 37   | 13  | 51  | 148  |

| Sr.No | CAT | STR | PrF | PrFl | PrO | PrE | PrCr | PoF | PoFl | PoO | PoE | PoCr |
|-------|-----|-----|-----|------|-----|-----|------|-----|------|-----|-----|------|
| 26    | 2   | 2   | 35  | 33   | 05  | 36  | 109  | 34  | 32   | 04  | 36  | 106  |
| 27    | 2   | 1   | 26  | 25   | 10  | 28  | 89   | 28  | 22   | 07  | 28  | 85   |
| 28    | 2   | 1   | 37  | 34   | 14  | 54  | 139  | 37  | 32   | 13  | 49  | 131  |
| 29    | 4   | 2   | 39  | 35   | 45  | 55  | 174  | 42  | 32   | 44  | 54  | 172  |
| 30    | 3   | 1   | 32  | 27   | 13  | 31  | 103  | 34  | 26   | 13  | 30  | 103  |
| 31    | 4   | 1   | 19  | 17   | 16  | 50  | 102  | 22  | 17   | 15  | 50  | 104  |
| 32    | 4   | 1   | 38  | 31   | 10  | 48  | 127  | 39  | 33   | 08  | 49  | 129  |
| 33    | 1   | 1   | 29  | 22   | 04  | 26  | 81   | 31  | 25   | 04  | 26  | 86   |
| 34    | 4   | 2   | 35  | 29   | 18  | 45  | 127  | 34  | 29   | 14  | 45  | 122  |
| 35    | 4   | 1   | 35  | 27   | 02  | 26  | 90   | 36  | 30   | 05  | 28  | 99   |
| 36    | 3   | 1   | 47  | 43   | 40  | 53  | 183  | 28  | 20   | 20  | 55  | 123  |
| 37    | 3   | 2   | 24  | 23   | 05  | 28  | 80   | 26  | 22   | 06  | 30  | 84   |
| 38    | 3   | 1   | 21  | 21   | 08  | 40  | 90   | 21  | 17   | 06  | 34  | 78   |
| 39    | 3   | 2   | 25  | 22   | 08  | 40  | 95   | 27  | 22   | 06  | 39  | 94   |
| 40    | 2   | 2   | 29  | 27   | 13  | 35  | 104  | 30  | 26   | 11  | 37  | 104  |
| 41    | 2   | 2   | 34  | 32   | 07  | 34  | 107  | 36  | 31   | 09  | 33  | 109  |
| 42    | 1   | 2   | 28  | 25   | 18  | 27  | 98   | 28  | 25   | 12  | 35  | 100  |
| 43    | 3   | 2   | 25  | 25   | 14  | 35  | 99   | 29  | 23   | 11  | 33  | 96   |

CAT-caste category : SC-1 , ST-2 , SEBC-3 , GEN-4 .

STR-academic stream : GENERAL-1 , SCIENCE-2 .

PrF-pre-test fluency score :

PoF-post-test fluency score .

PrFl-pre-test flexibility score :

PoFl-post-test flexibility score .

PrO-pre-test originality score :

PoO-post-test originality score .

PrE-pre-test elaboration score :

PoE-post-test elaboration score .

PrCr-pre-test total creativity score :

PoCr-post-test total creativity score

POSTFLUE  
by GROUP group

Total Population

47.55  
( 89)

GROUP

0 1  
34.21 60.02  
( 43) ( 46)

\* \* \* A N A L Y S I S O F V A R I A N C E \* \* \*

POSTFLUE  
by GROUP group  
with FLUENCY

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F       | Sig of F |
|---------------------|----------------|----|-------------|---------|----------|
| Covariates          | 8927.715       | 1  | 8927.715    | 150.080 | .000     |
| FLUENCY             | 8927.715       | 1  | 8927.715    | 150.080 | .000     |
| Main Effects        | 9064.464       | 1  | 9064.464    | 152.378 | .000     |
| GROUP               | 9064.464       | 1  | 9064.464    | 152.378 | .000     |
| Explained           | 17992.179      | 2  | 8996.090    | 151.229 | .000     |
| Residual            | 5115.843       | 86 | 59.487      |         |          |
| Total               | 23108.022      | 88 | 262.591     |         |          |

89 cases were processed.  
0 cases (.0 pct) were missing.

\* \* \* C E L L M E A N S \* \* \*

POSTFLX  
by GROUP group

Total Population

37.18  
( 89)

GROUP

0 1  
26.88 46.80  
( 43) ( 46)

\*\*\* ANALYSIS OF VARIANCE \*\*\*

POSTFLX  
by GROUP group  
with FLEXIBIL

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F       | Sig of F |
|---------------------|----------------|----|-------------|---------|----------|
| Covariates          | 3635.549       | 1  | 3635.549    | 81.396  | .000     |
| FLEXIBIL            | 3635.549       | 1  | 3635.549    | 81.396  | .000     |
| Main Effects        | 7046.408       | 1  | 7046.408    | 157.762 | .000     |
| GROUP               | 7046.408       | 1  | 7046.408    | 157.762 | .000     |
| Explained           | 10681.957      | 2  | 5340.978    | 119.579 | .000     |
| Residual            | 3841.167       | 86 | 44.665      |         |          |
| Total               | 14523.124      | 88 | 165.035     |         |          |

89 cases were processed.  
0 cases (.0 pct) were missing.

\*\*\* CELL MEANS \*\*\*

POSTORG  
by GROUP group

Total Population

25.24  
( 89)

GROUP

0 1

11.93 37.67  
( 43) ( 46)

\*\*\* ANALYSIS OF VARIANCE \*\*\*

POSTORG  
by GROUP group  
with ORIGINAL

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F       | Sig of F |
|---------------------|----------------|----|-------------|---------|----------|
| Covariates          | 2608.545       | 1  | 2608.545    | 127.694 | .000     |
| ORIGINAL            | 2608.545       | 1  | 2608.545    | 127.694 | .000     |
| Main Effects        | 15868.684      | 1  | 15868.684   | 776.807 | .000     |
| GROUP               | 15868.684      | 1  | 15868.684   | 776.807 | .000     |

|           |           |    |          |         |      |
|-----------|-----------|----|----------|---------|------|
| Explained | 18477.229 | 2  | 9238.614 | 452.250 | .000 |
| Residual  | 1756.816  | 86 | 20.428   |         |      |
| Total     | 20234.045 | 88 | 229.932  |         |      |

89 cases were processed.  
0 cases (.0 pct) were missing.

\*\*\* CELL MEANS \*\*\*

POSTELEB  
by GROUP group

Total Population

50.72  
( 89)

GROUP

0 1  
39.40 61.30  
( 43) ( 46)

\*\*\* ANALYSIS OF VARIANCE \*\*\*

POSTELEB  
by GROUP group  
with ELOBORAT

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F       | Sig of F |
|---------------------|----------------|----|-------------|---------|----------|
| Covariates          | 6381.966       | 1  | 6381.966    | 161.885 | .000     |
| ELOBORAT            | 6381.966       | 1  | 6381.966    | 161.885 | .000     |
| Main Effects        | 11781.652      | 1  | 11781.652   | 298.854 | .000     |
| GROUP               | 11781.652      | 1  | 11781.652   | 298.854 | .000     |
| Explained           | 18163.618      | 2  | 9081.809    | 230.370 | .000     |
| Residual            | 3390.360       | 86 | 39.423      |         |          |
| Total               | 21553.978      | 88 | 244.932     |         |          |

89 cases were processed.  
0 cases (.0 pct) were missing.

\*\*\* CELL MEANS \*\*\*

POSTTOTA  
by GROUP group

Total Population

160.69  
( 89)

|       |        |        |
|-------|--------|--------|
| GROUP | 0      | 1      |
|       | 112.42 | 205.80 |
|       | ( 43)  | ( 46)  |

\*\*\* ANALYSIS OF VARIANCE \*\*\*

POSTTOTA  
by GROUP group  
with PRETOTAL

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F       | Sig of F |
|---------------------|----------------|----|-------------|---------|----------|
| Covariates          | 77793.306      | 1  | 77793.306   | 216.188 | .000     |
| PRETOTAL            | 77793.306      | 1  | 77793.306   | 216.188 | .000     |
| Main Effects        | 168143.543     | 1  | 168143.543  | 467.272 | .000     |
| GROUP               | 168143.543     | 1  | 168143.543  | 467.272 | .000     |
| Explained           | 245936.849     | 2  | 122968.424  | 341.730 | .000     |
| Residual            | 30946.342      | 86 | 359.841     |         |          |
| Total               | 276883.191     | 88 | 3146.400    |         |          |

89 cases were processed.  
0 cases (.0 pct) were missing.



SATISH PATHAK: CREATIVITY

\*\*\* CELL MEANS \*\*\*

DEPENDEN TOTAL SCORE ON EXPERIMENT  
by CLASS SOCIAL CLASS  
STREAMS STREAMS

Total Population

205.80  
( 46)

CLASS

| 1      | 2      | 3      | 4      |
|--------|--------|--------|--------|
| 238.17 | 197.71 | 205.20 | 194.33 |
| ( 6)   | ( 14)  | ( 20)  | ( 6)   |

STREAMS

| 1      | 2      |
|--------|--------|
| 195.00 | 207.74 |
| ( 7)   | ( 39)  |

STREAMS

| CLASS | 1              | 2               |
|-------|----------------|-----------------|
| 1     | 206.00<br>( 1) | 244.60<br>( 5)  |
| 2     | 188.50<br>( 2) | 199.25<br>( 12) |
| 3     | 226.00<br>( 2) | 202.89<br>( 18) |
| 4     | 165.00<br>( 2) | 209.00<br>( 4)  |

\*\*\* ANALYSIS OF VARIANCE \*\*\*

DEPENDEN TOTAL SCORE ON EXPERIMENT  
by CLASS SOCIAL CLASS  
STREAMS STREAMS

HIERARCHICAL sums of squares  
Covariates entered FIRST

| Source of Variation | Sum of Squares | DF | Mean Square | F     | Sig of F |
|---------------------|----------------|----|-------------|-------|----------|
| Main Effects        | 8802.890       | 4  | 2200.722    | 2.077 | .103     |
| CLASS               | 7997.015       | 3  | 2665.672    | 2.516 | .073     |
| STREAMS             | 805.874        | 1  | 805.874     | .761  | .389     |
| 2-Way Interactions  | 4176.622       | 3  | 1392.207    | 1.314 | .284     |
| CLASS STREAMS       | 4176.622       | 3  | 1392.207    | 1.314 | .284     |
| Explained           | 12979.511      | 7  | 1854.216    | 1.750 | .127     |
| Residual            | 40257.728      | 38 | 1059.414    |       |          |
| Total               | 53237.239      | 45 | 1183.050    |       |          |



**PREPARATION OF A CREATIVITY PROGRAMME  
FOR PRE-SERVICE TEACHER TRAINEES  
AT PRIMARY LEVEL AND A STUDY  
OF ITS EFFECTIVENESS**

**An  
ABSTRACT  
of the Thesis Submitted to  
The Maharaja Sayajirao University of Baroda  
for the degree of  
DOCTOR OF PHILOSOPHY  
(EDUCATION)**

**Guide :  
Dr. (Mrs.) N. A. Shelat**

**Investigator :  
Satish P. Pathak**

**Centre of Advanced study in Education  
Faculty of Education and Psychology  
The M. S. University of Baroda.  
November - 2002**



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