CHAPTER IV

ANALYSIS AND FINDINGS

Hypotheses formulated earlier to achieve the objectives of the study were examined in the light of data collected from experimental and control groups of students. The statistical procedures adopted in this context, and the findings are presented in this chapter.

Statistical Techniques Used

In analysing the data and testing the hypotheses the following statistical techniques were used:

(1) One-way analysis of variance: This technique was used to test the homogeneity of school means within the instructional television schools (ITV schools) and non-instructional television (Non-ITV)schools.

(2) Two-way analysis of variance: To find out the interaction effects of instructional television with other factors, this technique was employed. The interaction effects of instructional television and intelligence were studied in one set of hypotheses; and interaction effects of instructional television and caste were studied in another set of hypotheses.

This analysis was also done to provide F values to test those hypotheses which involved testing of significance of the difference between the means of the ITV and Non-ITV groups.

(3) t test: Where the F values were not available, 't' test was used to test the significance of the difference between the two means.

Equating Groups on Intelligence

It may be recalled that the ITV and the Non-ITV schools were randomly drawn and the children in each school were randomly selected. Certain factors were controlled such as: type of school (all Municipal Corporation Schools); sex (all boys); schools of comparable standards (on the basis of inspectors of schools' judgement); and caste categories (all three castes equally represented in both).

Intelligence has been taken to be an important intervening variable. Therefore before examining the hypotheses and making comparative analysis among the randomly drawn samples of ITV and Non-ITV children, it was considered desirable to equate the groups on intelligence. In both these groups, the school means were also

examined. This was done to check the homogeneity of the whole ITV and Non-ITV schools, within their respective groups.

The mean and SD on intelligence of the different schools from the ITV group are given in Table-4.1. To test whether the school means differed significantly or not,analysis of variance technique was applied.

Table-4.1

MEAN INTELLIGENCE SCORES OF SCHOOLS IN THE ITV GROUP

School	N	M	SD
1. Alipur	12	18.33	4.12
2. Bawana Old	12	17.67	4.33
3. Chatterpur	12	19.17	4.99
4. Ghitorni	12	13.42	1.78
5. Kheda Kala	12	17.42	3.65
6. Nangloi	12	17.08	4.87
7. Narela II	12	16.75	4.50
8. Patpad Gunj	12	19.08	5.60
9. Roshanpura	12	16.42	5.12

The results are presented in Table-4.2. The obtained F value of 1.73 is not significant at .05 level. This showed that the schools selected in the ITV group did not significantly differ on intelligence.

Table-4.2

ONE-WAY ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON INTELLIGENCE FOR THE ITV SCHOOLS

Source	df	SS	MSS	F	P
Schools	8	288.9	36.11	1.73	NS
Within	99	2069.8	20.91		
Total	107	2358.7			

Table-4.3 shows the means and SD on intelligence for the different schools from the Non-ITV group. The

Table-4.3

MEAN INTELLIGENCE SCORES OF SCHOOLS IN THE NON-ITV GROUP

School	N	M	SD
1. Bakhtawarpur	12	18.58	4.54
2. Bawana New	12	15.67	4.16
3. Dichau	12	15.58	4.60
4. Kair	12	15.25	5.85
5. Mandavali	12	17.25	4.92
6. Mundka	12	14.75	3.84
7. Nab Sarai	12	18.83	5.51
8. Narela I	12	18.67	5.80
9. Sahibabad Daulatpur	12	18.33	5.33

results of the analysis of variance are given in Table-4.4. The obtained F value of 1.34 is not significant at .05 level. This indicated that the schools selected in the Non-ITV group also did not differ significantly on intelligence.

Table-4.4

ONE-WAY ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON INTELLIGENCE FOR NON-ITV SCHOOLS

Source	df	SS	MSS	F	P
Schools	8	268.7	33.59	1.34	NS
Within	99	2472.3	24.97		
Total	107	2741.0			

Thus it can be inferred from the above analysis that in both the groups, the ITV and the Non-ITV, no school effect on the intervening variable of intelligence was discernable and the schools could be treated together in their respective groups.

The means of the ITV and Non-ITV groups on intelligence are 17.26 (SD = 4.70) and 16.99 (SD = 5.06) respectively as shown in Table-4.5. The obtained 't' value of .40 indicates that the two group means do not

Table-4.5

SIGNIFICANCE OF MEAN DIFFERENCE ON INTELLIGENCE BETWEEN ITV AND NON-ITV GROUP

Group	N	M	SD	t	P
ITV	108	17.26	4.70	.40	NS
Non-ITV	108	16.99	5.06		

differ significantly. Therefore the two groups were found to be well equated on intelligence, for further analysis.

Testing the Hypotheses

The results are presented with reference to each hypothesis. Hypotheses in the null form are stated, one at a time, for statistical analysis and interpretation. Each hypothesis involved testing on a number of measures. These measures are stated in the hypothesis itself, either as a part of it, or given separately in the brackets, after the hypothesis.

There were two types of hypotheses. The first four hypotheses, (Hypotheses 1 to 4) required testing of the significance of difference between means of the

ITV and Non-ITV groups on measures under consideration. The last two hypotheses, (Hypotheses 5 and 6), required testing of interaction effects. In Hypothesis 5, the interaction effects of ITV-treatment and intelligence were examined. In Hypothesis 6, interaction effects of ITV-treatment and caste were tested. Since testing of the last two hypotheses readily provided the statistics to test the first four hypotheses, they are discussed first.

To test interaction effects in Hypotheses 5 and 6, two-way analysis of variance was used. The results obtained from the two-way analysis of variance with respect to ITV-treatment x caste were used to test Hypothesis 6, as also Hypotheses 1 to 4. This analysis assesses the main effects of two factors, namely, ITV-treatment and caste. The ITV-treatment comprised of two levels or groups: treatment group (ITV group) and non-treatment group (Non-ITV group). Caste comprised of three levels, namely, scheduled, backward and upper. This provided a 2 x 3 matrix in which all the 216 cases were distributed. Using this matrix, two-way analysis of variance was worked out separately for each measure. The results obtained by this analysis are given in Table-4.7 to 4.20.

Table-4.6

MEANS OF ITV AND NON-ITV GROUPS ON VARIABLES UNDER STUDY

	ITV Group (N = 108)		Non-ITV Group (N = 108)	
	M	SD	M	SD
Curiosity Box:				
Time	130.22	85.51	119.52	72.50
Things	13.57	8.31	12.77	7.92
Questions	1.76	3.24	1.40	2.60
Curiosity Cards:				
Curiosity Index	14.93	19.16	12.31	15.87
Inquiry Card:				
Meaningful Questions	2.53	3.47	1.60	2.90
Instances Procedure:				
Number	34.78	13.96	30.44	13.88
Uniqueness	1.34	1.98	.99	1.62
Picture Construction:				
Fluency	7.22	3.52	6.67	2.94
Originality	8.06	7.88	6.01	6.46
Flexibility	5.44	2.40	4.57	1.97
Language Tests:				
Language Fluency	22.87	15.05	16.51	10.53
Language Refinement	8.86	2.65	8.89	2.98
School Attitude:				
Attitude Towards School	9.93	2.81	8.35	2.59
Motivation	8.40	1.47	8.24	1.53

Fig.4.1 to 4.4 illustrate these results.

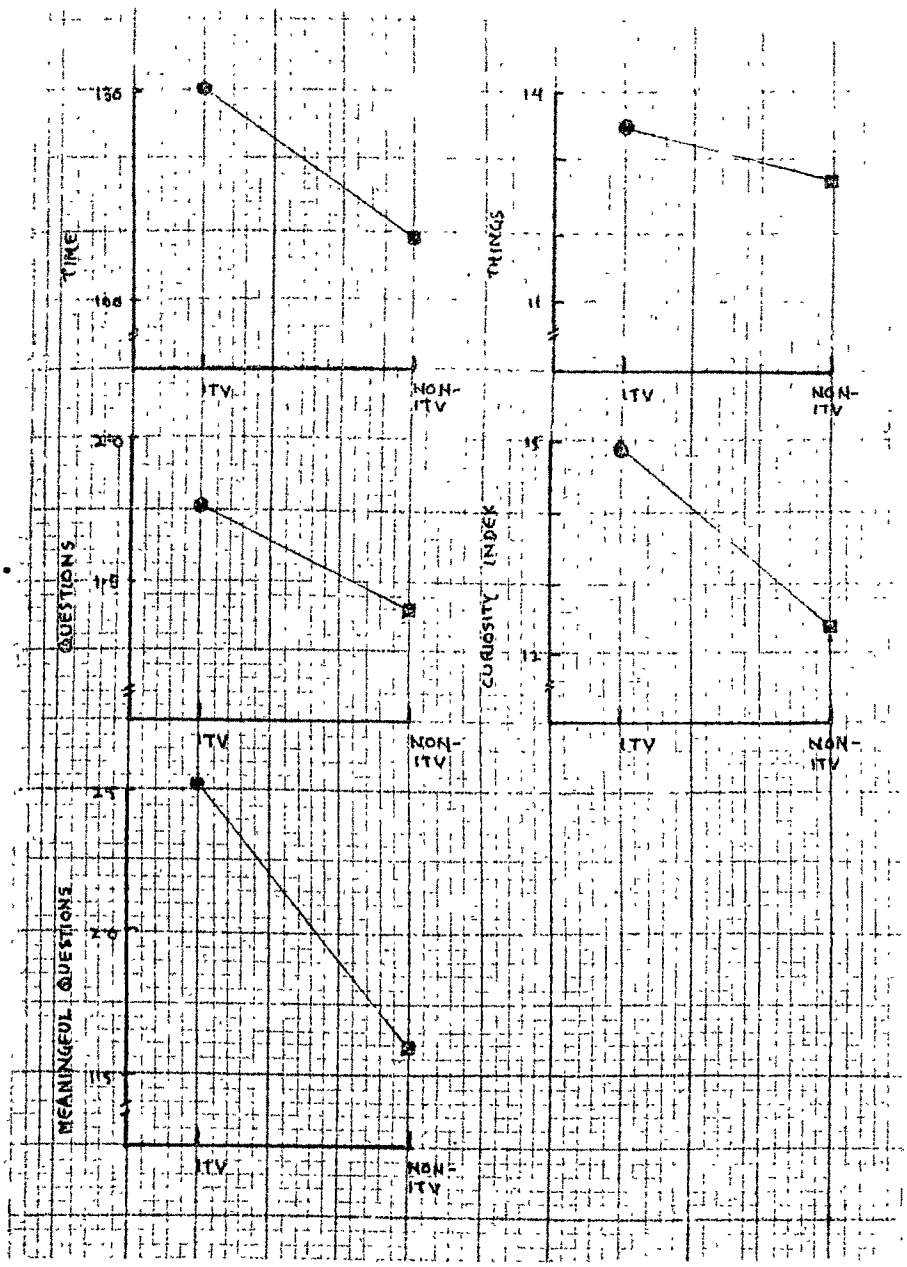

Fig. 4.1 ITV and Non-ITV group means compared on curiosity measures

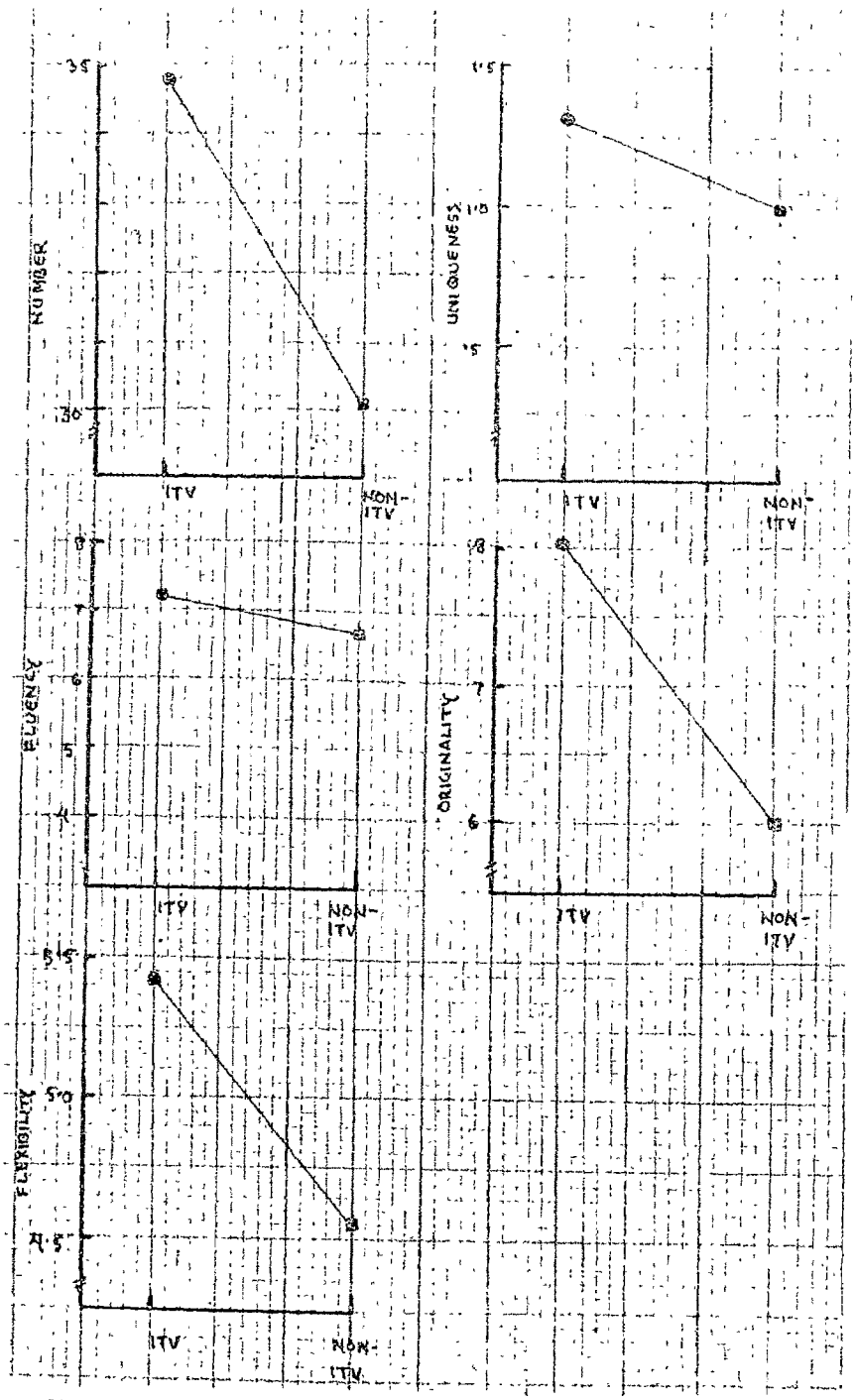

Fig. 4.2 ITV and Non-ITV group means compared on creativity measures

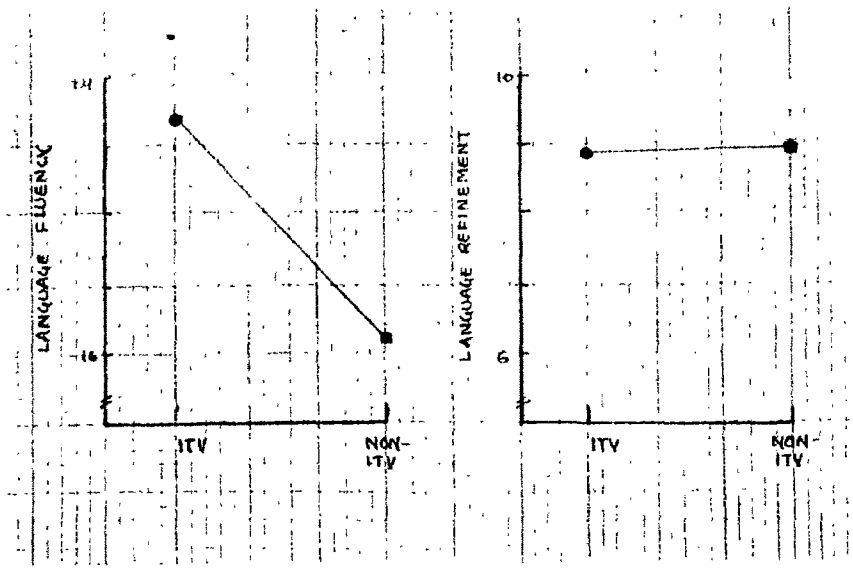

Fig. 4.3 ITV and Non-ITV group means compared on language measures

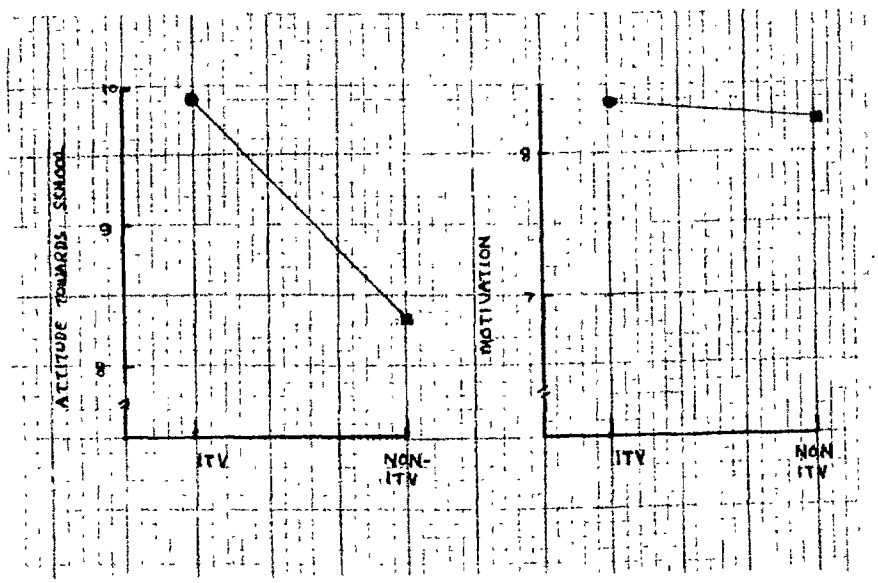

Fig. 4.4 ITV and Non-ITV group means compared on attitude measures

Each table provides three F values: (i) The first F value relates to variance due to ITV-treatment and is used to test Hypotheses 1 to 4. It indicates whether the difference between the ITV and the Non-ITV groups are significant or not. (ii) The second F value gives variance due to caste and is of no particular use for any of the hypotheses under consideration. (iii) The third F value gives the interaction effects of ITV-treatment and caste, and is used to test Hypothesis 6. In reporting these results, the F value and significance is quoted along with the text but the degrees of freedom and other details could be had in the tables.

Hypothesis:1

> There is no significant difference between the children exposed to instructional television (ITV group) and children not exposed to instructional television (Non-ITV group) in respect of the following measures of curiosity:
>
> (a) the measure of time
> (b) the measure of things
> (c) the measure of questions
> (d) the measure of curiosity index
> (e) the measure of meaningful questions

The results concerning these five sub-hypotheses are given in the two-way (ITV-treatment x caste) analysis of variance Tables 4.7 to 4.11. Each of these

tables,as explained earlier, give three F values with respect to (i) the ITV-treatment, (ii) caste and (iii) interaction of ITV-treatment and caste. To test these five sub-hypotheses, consideration of F values with respect to the treatment only is sufficient. Other F values, given in the table would be referred to later on, with respect to testing of other hypotheses. For testing purposes, the F value with respect to each hypothesis and its significance at .05 or .01 level would be indicated in the text. Degrees of freedom and other details are given in the table itself.

Table-4.7

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON TIME (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	6186.75	6186.75	.98	NS
Caste (B)	2	9221.00	4610.50	.73	NS
Interaction(AxB)	2	11876.30	5938.15	.94	NS
Error	210	1323640.25	6303.05		
Total	215	1350924.30			

Table-4.7 gives F values with respect to the time measure of the curiosity box. The F value of .98

is not significant at .05 level. Hence there is no evidence to reject the null hypothesis 1(a). Therefore, it can be inferred that there is no significant difference between the ITV and the Non-ITV groups on the measure of time.

Table-4.8

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON THINGS (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	35.04	35.04	.52	NS
Caste (B)	2	63.95	31.98	.48	NS
Inter-action (A x B)	2	115.75	57.88	.87	NS
Error	210	13919.91	66.28		
Total	215	14134.65			

Table-4.8 gives F value with respect to things measure. The obtained F value is .52 which is not significant at .05 level. There is, therefore, no evidence to reject the hypothesis 1(b). This shows that there is no significant difference between the ITV and Non-ITV groups on the measure of things.

Table-4.9

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON QUESTION MEASURE (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	7.04	7.04	.81	NS
Caste (B)	2	5.01	2.50	.28	NS
Interaction (AxB)	2	16.08	8.04	.92	NS
Error	210	1824.53	8.69		
Total	215	1852.66			

F value with respect to the question measure is given in Table-4.9. The F value of .81 is not significant at .05 level. Thus, there is no evidence to reject the hypothesis 1(c). From this it can be inferred that there is no significant difference between the ITV and Non-ITV groups on the measure of questions.

Thus all the three measures derived from the curiosity box, namely, time, things, and questions, have not shown any significant difference between the ITV and the Non-ITV groups.

The results with respect to the curiosity index are given in Table-4.10. The obtained F value of 1.2 is not significant at .05 level, indicating no evidence

Table-4.10

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON CURIOSITY INDEX (CURIOSITY CARD)

Source	df	SS	MSS	F	P
Treatment (A)	1	370.78	370.78	1.20	NS
Caste (B)	2	582.40	291.20	.94	NS
Interaction (AxB)	2	779.41	389.70	1.26	NS
Error	210	64848.52	308.80		
Total	215	66581.10			

to reject hypothesis 1(d). The hypothesis that there is no significant difference between the ITV and the Non-ITV groups on the measure of curiosity index is retained.

The results with respect to hypothesis 1(e) are given in the Table-4.11. They are on the measure of meaningful questions. The F value of 4.59 is significant at .05 level of significance. The null hypothesis is therefore rejected, implying that there is a significant difference between the ITV and the Non-ITV groups on the measure of meaningful questions. The means of the two groups are given in Table-4.6. The ITV group mean of 2.53 is higher than the Non-ITV group mean of 1.60. The results are favourable to the ITV group.

Table-4.11

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON MEANINGFUL QUESTIONS (INQUIRY CARD)

Source	df	SS	MSS	F	P
Treatment (A)	1	46.30	46.30	4.59	.05
Caste (B)	2	37.84	18.92	1.88	NS
Interaction (AxB)	2	30.78	15.39	1.53	NS
Error	210	2116.17	10.08		
Total	215	2231.09			

To sum up, the hypothesis concerning curiosity behaviour was tested on five curiosity measures. These measures were time, things and questions derived from curiosity box; curiosity index derived from curiosity cards; and meaningful-questions derived from the inquiry card. Of these, the results on four of the measures have indicated that there is no significant difference between the ITV and the Non-ITV groups and only on one, the difference was found to be significant. The curiosity measures on which there was no significant difference were time, things, questions and curiosity index. These measures relate to the curiosity box and curiosity cards. The performance of the ITV group on

the curiosity box was no different than that of the Non-ITV group. On the three measures derived from this instrument, both the groups, it can be inferred, showed uniform curiosity with respect to the time they took to see the box, the number of articles taken out from the box, and the number of questions they asked concerning the articles contained in the box. So also was the result with respect to the curiosity cards. From the curiosity index results, it can be inferred that the cards aroused equal curiosity among the two groups. It was only with respect to the last measure, that of meaningful questions, derived from the inquiry card, that the ITV group asked significantly more number of meaningful questions than the Non-ITV group. This suggests that the ITV group was more inquisitive than the other group.

Hypothesis:2

> There is no significant difference between the children exposed to instructional television (ITV group) and children not exposed to instructional television (Non-ITV group) in respect of the following measures of creativity:
>
> (a) measure of number
> (b) measure of uniqueness
> (c) measure of fluency
> (d) measure of originality
> (e) measure of flexibility

The first two measures were obtained from the instances procedure and represent the verbal aspect. The other three measures derived from the picture construction test represent the non-verbal aspect.

The results concerning these five sub-hypotheses are given in the analysis of variance Tables 4.12 to 4.16. As was done previously, here also, in each table, only the F value concerning the ITV treatment is considered for testing the hypothesis.

Table-4.12

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON NUMBER (INSTANCES PROCEDURE)

Source	df	SS	MSS	F	P
Treatment (A)	1	1014.00	1014.00	5.17	.05
Caste (B)	2	63.59	31.80	.16	NS
Interaction (AxB)	2	197.53	98.76	.50	NS
Error	210	41202.21	196.20		
Total	215	42477.33			

Table-4.12 gives the F value with respect to the hypothesis 2(a) concerning the number measure of the verbal creativity. The obtained F value of 5.17 is

significant at .05 level. Hence the null hypothesis that there is no significant difference between the ITV and Non-ITV groups is rejected. Therefore it can be inferred that there is a significant difference between the ITV and the Non-ITV groups on the number measure of verbal creativity. Table-4.6 shows the mean of the ITV group to be 34.78 and the Non-ITV group to be 30.44 on number measure. The results are favourable to the ITV group.

Table-4.13

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON UNIQUENESS (INSTANCES PROCEDURE)

Source	df	SS	MSS	F	P
Treatment (A)	1	6.68	6.68	2.02	NS
Caste (B)	2	2.53	1.26	.38	NS
Interaction (AxB)	2	2.51	1.25	.37	NS
Error	210	694.28	3.31		
Total	215	706.00			

Table-4.13 gives the F value concerning the hypothesis 2(b) with respect to the uniqueness measure of the verbal creativity. The observed F value of 2.02 is not significant at .05 level. Hence there is no

reason to reject the null hypothesis that there is no significant difference between the ITV and the Non-ITV group on the uniqueness measure.

Table-4.14

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON FLUENCY (PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	16.67	16.67	1.58	NS
Caste (B)	2	29.69	14.85	1.41	NS
Interaction (AxB)	2	15.36	7.68	.73	NS
Error	210	2207.61	10.51		
Total	215	2269.33			

The F value concerning the hypothesis 2(c) is given in the Table-4.14. This is in relation to the fluency measure of the non-verbal creativity. The obtained F value of 1.58 is not significant at .05 level. Thus, there is no evidence to reject the null hypothesis that the ITV and Non-ITV groups do not differ on the fluency measure.

Table-4.15 gives the F value in respect of the hypothesis 2(d). This concerns the originality measure

Table-4.15

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON ORIGINALITY(PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	226.12	226.12	4.36	.05
Caste (B)	2	185.95	92.98	1.79	NS
Interaction (AxB)	2	23.34	11.67	.22	NS
Error	210	10895.36	51.88		
Total	215	11330.77			

of the non-verbal creativity. The obtained F value of 4.36 is significant at .05 level. Therefore, the null hypothesis, that there is no significant difference between the ITV and Non-ITV group on originality is rejected. Therefore it can be inferred that there is a significant difference between the ITV and the Non-ITV group on the measure of originality. The mean score for the ITV group is 8.06 and for the Non-ITV group is 6.01. The ITV group show significantly higher mean than the Non-ITV group.

F value concerning the hypothesis 2(e) is given in the Table-4.16. This is with respect to the flexibility measure of the non-verbal creativity. The F

Table-4.16

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON FLEXIBILITY (PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	40.04	40.04	8.30	.01
Caste (B)	2	12.90	6.45	1.33	NS
Interaction (AxB)	2	7.58	3.79	.79	NS
Error	210	1012.47	4.82		
Total	215	1072.99			

value of 8.30 is highly significant at .01 level. The null hypothesis that there is no significant difference between the ITV and the Non-ITV groups on flexibility is rejected. Hence there is a highly significant difference between the ITV and the Non-ITV group on the flexibility measure. The mean score of the ITV group is 5.44 and for the Non-ITV group it is 4.57. The results are favourable to the ITV group.

To sum up, the second hypothesis on creative behaviour was tested with respect to five measures, namely, number and uniqueness derived from the instances procedure; and fluency, originality and flexibility derived from the picture construction test. The results have indicated that ITV group showed a significantly

better performance on three of the measures, namely, number, originality and flexibility. But on the other two measures, namely, uniqueness and fluency, the ITV and Non-ITV groups did not differ significantly.

Number and uniqueness indicate the verbal aspect of creativity. The ITV group showed significantly better performance on number but not on uniqueness. Similarly there were three non-verbal measures of creativity. On these three measures, the ITV group showed better performance on originality and flexibility, but not on fluency.

These results can be interpreted to mean that the ITV group was able to produce significantly more number of verbal responses but not significantly more number of pictorial responses. On the other hand, the ITV group's pictorial responses were more original but the verbal responses were not. The pictorial responses also had greater flexibility, that is, the pictures drawn incorporated a greater number of different ideas.

Hypothesis:3

> There is no significant difference between the children exposed to instruction television (ITV group) and children not exposed to instructional television (Non-ITV) in respect of the following measures of language:

(a) measure of language fluency
(b) measure of language refinement

The results in respect of these two sub-hypotheses are given in the analysis of variance Tables 4.17 and 4.18. Each of these two tables give three F values. As indicated earlier, only the first F value concerning the ITV-treatment is sufficient to test the hypothesis.

Table-4.17

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON LANGUAGE FLUENCY

Source	df	SS	MSS	F	P
Treatment (A)	1	2185.04	2185.04	12.79	.01
Caste (B)	2	132.40	66.20	.39	NS
Interaction (AxB)	2	104.09	52.04	.30	NS
Error	210	35860.69	170.76		
Total	215	38282.22			

The result concerning the Hypothesis 3(a) is given in Table-4.17. This hypothesis relates to the language fluency measure. The obtained F value of 12.79 is highly significant at .01 level. The null hypothesis that there is no significant difference

between the ITV and Non-ITV groups on language fluency is rejected. Hence it can be inferred that there is a highly significant difference between the ITV and the Non-ITV groups on language fluency. The mean for the ITV group is 22.87 and for the Non-ITV group is 16.91. The results favour the ITV group.

Table-4.18

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON LANGUAGE REFINEMENT

Source	df	SS	MSS	F	P
Treatment (A)	1	.04	.04	.00	NS
Caste (B)	2	2.53	1.26	.16	NS
Interaction (AxB)	2	21.19	10.60	1.33	NS
Error	210	1673.86	7.97		
Total	215	1697.62			

Table-4.18 gives the results concerning the Hypothesis 3(b). This relates to the language refinement measure. The table indicates F value as zero. There is, therefore, no reason to reject the null hypothesis that there is no significant difference between the ITV and the Non-ITV groups on the measure of language refinement.

To sum up, in Hypothesis 3, the ITV and the Non-ITV groups were tested on two measures of language behaviour, namely, language fluency derived from language fluency test; and language refinement derived from language refinement test. On the measure of language fluency, the ITV group produced significantly more verbalization in response to the pictorial situation than the Non-ITV group. But the ITV group has not indicated any greater language refinement than the Non-ITV group.

Hypothesis:4

> There is no significant difference between the children exposed to instructional television (ITV group) and children not exposed to instructional television (Non-ITV group) in respect of the following measures of attitude:
>
> (a) measure of attitude towards school
> (b) measure of motivation

The results concerning these two hypotheses are given in the analysis of variance Tables 4.19 and 4.20. As earlier indicated only the first F value, that of ITV-treatment, in both the tables is to be taken into account.

Table-4.19 gives the results concerning the Hypothesis 4(a). It relates to the attitude towards

Table-4.19

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO ATTITUDE TOWARDS SCHOOL

Source	df	SS	MSS	F	P
Treatment (A)	1	133.79	133.79	18.25	.01
Caste (B)	2	.86	.43	.06	NS
Interaction (AxB)	2	23.96	11.98	1.63	NS
Error	210	1539.22	7.33		
Total	215	1697.83			

school measure. The obtained F value of 18.25 is highly significant at .01 level. The null hypothesis that there is no significant difference between the ITV and Non-ITV groups on school attitude is rejected. Therefore, it may be inferred that there is a significant difference between the ITV and the Non-ITV groups on attitude towards school measure. The mean score on attitude measure, is 9.93 for ITV group and 8.35 for the Non-ITV group. Thus the ITV group's attitude towards school is significantly more positive than that of the Non-ITV group.

The result in respect to the Hypothesis 4(b) on motivation is given in Table-4.20. The indicated F value of .59 is not significant at .05 level. Hence

Table-4.20

TWO-WAY (TREATMENT x CASTE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON MOTIVATION

Source	df	SS	MSS	F	P
Treatment (A)	1	1.34	1.34	.59	NS
Caste (B)	2	4.75	2.37	1.05	NS
Interaction (AxB)	2	2.62	1.31	.58	NS
Error	210	474.25	2.26		
Total	215	482.96			

there is no evidence to reject the null hypothesis that the ITV and the Non-ITV groups do not differ on motivation.

To sum up, in Hypothesis 4, attitude towards school and motivation measures derived from school attitude inventory were tested. The ITV group has shown a significantly more positive attitude towards school than the Non-ITV group. But on motivation the groups have not shown significant difference.

Hypothesis:5

> There is no significant interaction effects of instructional television and intelligence on the following behavioural variables:

(a) on curiosity (with respect to time, things, questions, curiosity index, and meaningful questions measures)

(b) on creativity (with respect to number, uniqueness, fluency, originality and flexibility measures)

(c) on language (with respect to fluency and refinement measures)

(d) on school attitude (with respect to attitude towards school and motivation measures)

This hypothesis involved interaction effects of two variables, namely, ITV-treatment and intelligence on the four behavioural variables under consideration. Here two-way analysis of variance was applied.

The entire sample, irrespective of the treatment was classified on the basis of intelligence into three categories. Approximately top 25 per cent of children constituted the high-intelligence group. Similarly about 25 per cent of the children at the bottom constituted the low-intelligence group. To bring out the effect more prominently only the two extreme groups, namely, the high-intelligence and low-intelligence were taken into consideration for analysis. This provided a total sample of 115 cases.

The sample under consideration was divided into ITV and Non-ITV groups; and each group was further

divided into high-intelligence and low-intelligence groups. This gave a 2 x 2 matrix in which 115 cases were distributed. Using this matrix, two-way analysis of variance (ITV treatment x intelligence) was worked out separately for each of the fourteen measures under consideration. The results are given in Tables 4.21 to 4.34.

In each of these tables three F values are given. (i) The first F value relates to ITV-treatment. (ii) The second F value concerns the effect of intelligence. Both these are not required for the purpose of testing the present hypothesis. (iii) The third F value concerns the interaction effect of the instructional television and intelligence and is used to test the hypothesis. Thus only the F value of the interaction (third entry in the table) is to be taken into consideration in the next fourteen tables. It may be mentioned here that the frequencies were not equal in all cells. Hence the total sum of squares given in these tables for error was corrected for unequal frequencies before mean sum of squares (marked *) was worked out.

In Hypothesis 5(a) interaction effects of ITV-treatment and intelligence were studied on the five

measures of curiosity, namely, time, things, questions, curiosity index, and meaningful questions. Results of the interaction effects with respect to these measures are given in Tables 4.21 to 4.25.

Table-4.21 gives the F value of 2.86 with respect to the time measure which is not significant at .05 level. In Table-4.22, F value of zero for things is not significant.

Table-4.21

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON TIME MEASURE (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	.62	.62	.00	NS
Intelligence (B)	1	113.46	113.46	.48	NS
Interaction (AxB)	1	682.05	682.05	2.86	NS
Error	111	761598.75	238.85*		
Total	114	762394.87			

* Correction is applied for unequal cell frequencies. This has been uniformly applied for Tables 4.21 to 4.34.

For questions measure, the F value of interaction effects given in Table-4.23 is .32. It is not significant at .05 level.

Table-4.22

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON THINGS MEASURE (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	.16	.16	.07	NS
Intelligence (B)	1	2.41	2.41	1.09	NS
Interaction (AxB)	1	.00	.00	.00	NS
Error	111	7028.24	2.20*		
Total	114	7030.81			

Table-4.23

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON QUESTIONS MEASURE (CURIOSITY BOX)

Source	df	SS	MSS	F	P
Treatment (A)	1	.00	.00	.00	NS
Intelligence (B)	1	.29	.29	1.18	NS
Interaction (AxB)	1	.08	.08	.32	NS
Error	111	783.97	.25*		
Total	114	784.34			

Table-4.24

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON CURIOSITY INDEX (CURIOSITY CARD)

Source	df	SS	MSS	F	P
Treatment (A)	1	.05	.05	.00	NS
Intelligence (B)	1	1.26	1.26	.13	NS
Interaction (AxB)	1	34.47	34.47	3.45	NS
Error	111	31887.66	10.00*		
Total	114	31923.44			

Table-4.25

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON MEANINGFUL QUESTIONS (INQUIRY CARD)

Source	df	SS	MSS	F	P
Treatment (A)	1	.48	.48	2.14	NS
Intelligence (B)	1	2.30	2.30	10.29	.01
Interaction (AxB)	1	.35	.35	1.55	NS
Error	111	713.71	.22*		
Total	114	716.84			

The F value with respect to the interaction effects on curiosity index is given in Table-4.24. The obtained value of 3.45 is not significant at .05 level.

The F value of the interaction effects on the meaningful questions measure, given in Table-4.25 is 1.55. The F value is not significant at .05 level.

Thus none of the obtained F values of interaction effects on the five measures of curiosity are significant. Therefore, the null hypothesis is sustained.

To sum up, the results of the Hypothesis 5(a) on curiosity, do not indicate any significant interaction effects of ITV-treatment and intelligence on any of the five measures of curiosity.

Hypothesis 5(b) relate to interaction effects of instructional television and intelligence on creativity. This required the interaction effects to be studied on the five measures of creativity, namely, number, uniqueness, fluency, originality and flexibility. Results concerning this hypothesis with respect to the above measures are given in Tables 4.26 to 4.30.

The interaction effects of ITV and intelligence on the number measure is given in Table-4.26. The obtained F value of .46 is not significant at .05 level.

Table-4.26

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON NUMBER (INSTANCES PROCEDURE)

Source	df	SS	MSS	F	P
Treatment (A)	1	19.02	19.02	2.99	NS
Intelligence (B)	1	83.04	83.04	13.03	.01
Interaction (AxB)	1	2.96	2.96	.46	NS
Error	111	20313.83	6.37*		
Total	114	20418.85			

Table-4.27

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON UNIQUENESS (INSTANCES PROCEDURE).

Source	df	SS	MSS	F	P
Treatment (A)	1	.01	.01	.06	NS
Intelligence (B)	1	.27	.27	2.08	NS
Interaction (AxB)	1	.49	.49	3.74	NS
Error	111	420.31	.13*		
Total	114	421.08			

Table-4.28

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON FLUENCY (PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	.07	.07	.16	NS
Intelligence (B)	1	2.27	2.27	5.45	.05
Interaction (AxB)	1	1.02	1.02	2.44	NS
Error	111	1330.64	.42*		
Total	114	1334.00			

Table-4.29

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON ORIGINALITY (PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	.00	.00	.00	NS
Intelligence (B)	1	33.18	33.18	18.71	.01
Interaction (AxB)	1	3.90	3.90	2.20	NS
Error	111	5656.10	1.77*		
Total	114	5693.18			

Table-30

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON FLEXIBILITY (PICTURE CONSTRUCTION)

Source	df	SS	MSS	F	P
Treatment (A)	1	.28	.28	1.47	NS
Intelligence (B)	1	.87	.87	4.64	.05
Interaction (AxB)	1	.47	.47	2.49	NS
Error	111	599.15	.19*		
Total	114	600.77			

For the uniqueness measure, the interaction effect is given in Table-4.27. The F value of 3.74 is not significant at .05 level.

In Table-4.28 the interaction effects on the fluency measure is given. The obtained F value of 2.44 is not significant at .05 level.

In Table-4.29 the interaction effect on the originality measure is given. The obtained F value of 2.20 is not significant at .05 level.

The interaction effect on flexibility is given in Table-4.30. The F value of 2.49 is not significant at .05 level.

Thus the results concerning Hypothesis 5(b) on creativity measures indicate that all the five measures the obtained F values of interaction effect of ITV-treatment and intelligence are found to be not significant. Thus there is no significant interaction effects of ITV-treatment and intelligence on the five measures of creativity.

Hypothesis 5(c) relates to interaction effect on language. The hypothesis is tested on the two measures of language, namely, language fluency and language refinement. The results concerning these are given in Tables 4.31 and 4.32.

Table-4.31

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON LANGUAGE FLUENCY

Source	df	SS	MSS	F	P
Treatment (A)	1	19.50	19.50	3.75	NS
Intelligence (B)	1	26.13	26.13	5.02	.05
Interaction (AxB)	1	20.20	20.20	3.88	NS
Error	111	16596.91	5.20*		
Total	114	16662.74			

Table-4.31 gives the results on language fluency. The F value of 3.88 is not significant at .05 level. There is no evidence to reject the null hypothesis on language fluency. Therefore it can be inferred that there is no significant interaction effect of ITV-treatment and intelligence on fluency.

Table-4.32

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON LANGUAGE REFINEMENT

Source	df	SS	MSS	F	P
Treatment (A)	1	.15	.15	.53	NS
Intelligence (B)	1	.78	.78	2.68	NS
Interaction (AxB)	1	.91	.91	3.13	NS
Error	111	932.15	.29*		
Total	114	933.99			

Table-4.32 gives the result of the interaction on language refinement. The obtained F value of 3.13 is not significant at .05 level. Thus the null hypothesis on language refinement is retained implying that on this measure there is no significant interaction effect.

The results on the Hypothesis 5(c) do not show interaction effects of ITV-treatment and intelligence on the two language measures, namely, language fluency and language refinement.

Hypothesis 5(d) refers to the interaction effects on school attitude. The hypothesis is tested on two measures, namely, attitude towards school and motivation in learning. The results concerning these are given in Tables 4.33 and 4.34.

Table-4.33

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON ATTITUDE TOWARDS SCHOOL

Source	df	SS	MSS	F	P
Treatment (A)	1	2.47	2.47	11.14	.01
Intelligence (B)	1	3.95	3.95	17.85	.01
Interaction (AxB)	1	.00	.00	.00	NS
Error	111	706.23	.22*		
Total	114	712.65			

Table-4.33 gives the results on attitude towards school. The F value of the interaction is zero, and hence the question of significance does not arise.

Table-4.34

TWO-WAY (TREATMENT x INTELLIGENCE) ANALYSIS OF VARIANCE WITH RESPECT TO SCORES ON MOTIVATION

Source	df	SS	MSS	F	P
Treatment (A)	1	.01	.01	.14	NS
Intelligence(B)	1	.30	.30	3.94	.05
Interaction (AxB)	1	.04	.04	.52	NS
Error	111	245.37	.07*		
Total	114	245.72			

Table-4.34 gives the results of the interaction on the motivation measure. The obtained F value of .52 is not significant at .05 level.

Both these two results do not provide evidence to reject the null hypothesis. Therefore, it may be inferred that there is no significant interaction effect of ITV-treatment and intelligence on the measures of school attitude and motivation.

To sum up, in Hypothesis 5 the interaction effects of ITV-treatment and intelligence were tested on four behavioural variables. These behavioural variables and their measures were. curiosity (time, things, questions, curiosity index, and meaningful questions); creativity

(number, uniqueness, fluency, originality and flexibility); language (fluency and refinement); and school attitude (attitude towards school and motivation). On none of these measures significant interaction effects of instructional television and intelligence were noted.

Hypothesis:6

> There is no significant interaction effects of instructional television and caste on the following behavioural variables:
>
> (a) on curiosity (with respect to time, things, questions, curiosity index and meaningful questions measures)
>
> (b) on creativity (with respect to number, uniqueness, fluency, originality and flexibility measures)
>
> (c) on language (with respect to fluency and refinement measures)
>
> (d) on school attitude (with respect to attitude towards school and motivation measures)

As in the previous hypothesis, in Hypothesis 6 also, all these four sub-hypotheses are concerned with the effects of interaction between ITV-treatment and caste. Each sub-hypothesis is tested on the measures given in the brackets. The two-way analysis of variance (ITV-treatment x caste) provided the interaction effects. The details of the statistical analysis have already been reported while testing Hypothesis 1 to 4. To test the

present hypothesis, these tables are referred to again. But now the F value relating to interaction effects are considered. To facilitate ready reference, these F values are reported in the summary tables. The details are given in the original tables (Tables 4.7 to 4.20).

Table-4.35

INTERACTION EFFECTS OF TREATMENT x CASTE ON CURIOSITY MEASURES

Measures	F*	P
Time	.94	NS
Things	.87	NS
Questions	.92	NS
Curiosity Index	1.26	NS
Meaningful Questions	1.53	NS

* df = 2, 115
Details are given in Tables 4.7 to 4.11.

Hypothesis 6(a) relates to the interaction effects of ITV-treatment and caste on curiosity. The interaction effects are tested on five measures of curiosity, namely, things, time, questions, curiosity index and meaningful questions. Results are given in Table-4.35. The obtained F values vary from .87 to 1.53 for these measures. None of these F values are

significant at .05 level. Hence the hypothesis that there is no significant interaction effect of television treatment and caste is retained.

Table-4.36

INTERATION EFFECTS OF TREATMENT x CASTE ON CREATIVITY MEASURES

Measure	F*	P
Number	.50	NS
Uniqueness	.37	NS
Fluency	.73	NS
Originality	.22	NS
Flexibility	.79	NS

* df = 2, 115

Two-way analysis of variance; details in Tables 4.12 to 4.16.

Results concerning Hypothesis 6(b) relate to interaction effects of ITV-treatment and caste on five creativity measures. These measures are number, uniqueness, fluency, originality and flexibility. The F values vary from .22 to .79. None of these are significant at .05 level. The results therefore support the hypothesis that there is no significant interaction effects of ITV-treatment and caste on the five creativity measures.

Table-4.37

INTERACTION EFFECTS OF TREATMENT x CASTE ON LANGUAGE MEASURES

Measure	F*	P
Language Fluency	.30	NS
Language Refinement	1.33	NS

* df = 2,115
Details are given in Tables 4.17 and 4.18.

Hypothesis 6(c) is concerned with the interaction effects of ITV-treatment and caste on the two language measures, namely, language fluency and language refinement. The results are shown in Table-4.37. The obtained F values are .30 and 1.33 respectively for the two measures. These values are not significant at .05 level. Therefore, there is no evidence to reject the null hypothesis that there is no significant interaction effects of ITV-treatment and caste on the two language measures.

Results concerning Hypothesis 6(d) are related to the interaction effects of ITV-treatment and caste on the two measures of school attitude are shown in

Table-4.38. The obtained F values are 1.63 for attitude towards school and .58 for motivation measures. These are not significant at .05 level. The null hypothesis that there is no significant interaction effects between the ITV-treatment and caste on the two attitude measures is retained.

Table-4.38

INTERACTION EFFECTS OF TREATMENT x CASTE ON ATTITUDE MEASURES

Measure	F*	P
Attitude Towards School	1.63	NS
Motivation	.58	NS

* df = 2,115

Details are given in Tables 4.19 and 4.20.

To sum up, in Hypothesis 6, the interaction effects of ITV-treatment and caste were studied on the four variables. These variables and their measures were: curiosity (time, things, questions, curiosity index, and meaningful questions); creativity (number,

uniqueness, fluency, originality and flexibility); language (fluency and refinement); and school attitude (attitude towards school and motivation). None of the results of interaction effects of ITV-treatment and caste were found to be significant.

Discussion

The results of the study are discussed in relation to the six objectives laid down earlier.

1. Curiosity:

Impact of instructional television on child's curiosity was studied in three operational situations and five curiosity measures were obtained. In the first situation children were presented with a number of novel, strange or mysterious objects in a box. Children exposed to television differed in no significant way from those not exposed to it, in the total time taken to explore the objects presented, in the number of objects taken out for examination, and in the number of questions asked concerning these objects. In the second situation, the children were presented with normal and incongruous pictures of animals. The exposed group of children gave no extra attention to the incongruous

pictures in comparison with the non-exposed children. The performance of both, the exposed and the non-exposed children, was similar. The third situation was meant to provoke questioning. The exposed children asked more meaningful questions than the non-exposed children. Asking meaningful questions reflects child's inquisitiveness.

The findings of the study are consistent with the results reported by Shukla and Kumar (1977), and by Elias and Elias (1976). Shukla and Kumar (1977) studied the impact of the SITE programme on the rural children. They used Flander's interaction method and found the Pupil's interaction ratio to be significantly higher in the SITE exposed group from the non-exposed group during the teaching of general science. The ratio refers to the classroom interaction by children on their own initiative. This, they interpreted as a manifestation of child's inquisitiveness. They also observed that children have shown curiosity while learning of mother tongue. In the present study the television exposed children were able to generate larger number of meaningful questions, whereas the SITE children took more initiative of their own, during the teaching of general science, and expressed their inquisitiveness.

Child's inquisitiveness as reflected through the meaningful questions is an important part of curiosity. It is this part of curiosity, which appears to have been greatly stimulated.

Elias and Elias (1976) studied children from open and traditional classroom on a curiosity scale. Their results suggest that the open classroom may better encourage some aspects of curiosity. It is possible that classroom climate under television exposure undergoes a change favouring inquisitive behaviour.

Fahey (1942) has extensively reviewed question asking behaviour and recently Meyer and Shane (1973) and Yamamoto (1962) have also worked on it. Nash and Torrance (1974) have shown that the incompleteness of knowledge encountered in reading experiences will improve questioning performance of the child. However they have related questioning behaviour with creativity. Polner and Barron (1964) have collected questions most frequently asked by children and have emphasised the importance of suitably replying to the questions raised. This would sustain and reinforce child's curiosity. Two intervention studies to develop question asking behaviour need special mention. Blank and Covington (1966) developed auto-instructional programmes to induce

question asking behaviour and Suchman (1961) also demonstrated how inquiry skills can be developed. But most of these investigations emphasised the question asking behaviour or skill, more suitable to the classroom situation, with little emphasis to the curiosity aspects; and none of them studied the role of television in stimulating them.

2. Creativity:

The impact of instructional television on creativity was measured on two tests, one verbal and another non-verbal. These two tests provided five measures. Of these, on as many as three, positive impact could be seen. The children exposed to television gave larger number of verbal responses, produced more original drawings, and these drawings incorporated greater number of varied ideas. However the exposed children's verbal responses were in no way different in being more unique (or original); and the pictorial responses were also not more in number, in comparison to the non-exposed children,

It may thus be observed that whereas children exposed to television showed greater originality in drawings, they did not exhibit a similar performance on

the verbal task, that is, they did not show more uniqueness in verbal response.

Findings indicate that whereas instructional television influenced non-verbal aspect of originality, its verbal counterpart remained unaffected. Similar results have been obtained on number and fluency, which are measures of ideational fluency on verbal and non-verbal tasks respectively. Number (which is verbal) has been influenced, whereas fluency (which is non-verbal) has not been influenced.

The findings on flexibility suggest that instructional television influenced the production of greater variety of ideas in pictorial expression.

On creativity as compared to curiosity behaviour, impact appears to be more pronounced.

These findings may be compared with some of those reported by the western investigators. Stern (1974) has reported a decrease in creativity among the mentally gifted children as a result of viewing commercial television. Harrison and Williams (1977) worked with Wallach and Kogan's tasks. They found decrease in verbal fluency as a result of television exposure but on figural fluency there was some increase. They concluded that television

seemed to have an impact on creativity scores.

The findings of the present study are not strictly comparable to those of the western study. For one thing, the television exposure has a different meaning in both the situations. Whereas the children in the present study had an extremely limited exposure, the children in the western studies had extensive exposure. The children in this study belonged to the rural areas. The exposure probably served a great need for such programmes particularly in the rural setting. This may have helped to trigger the creative process.

In this context some other techniques and programmes to enhance creativity may be sighted. The Brainstorming process developed by Parnes (1967) was the technique devised by Osborn (1953). Facilitating effects have been reported by various investigators. One of the most widely studied programmes for training of creativity is the Productive Training Programme (Covington, Crutchfield, Davis and Olton, 1974). The evaluations have resulted in inconsistent results. The Purdue Creativity Programme (Feldnusen, Speedre, and Treffinger, 1971) was designed to foster divergent thinking abilities and a modest support for the effectiveness of the programme has been reported. In the present study the

television exposure was not regarded as a programme for the development of creativity, but rather it was hypothesised that, it could have some impact on it.

3. Language:

The impact of instructional television on language behaviour was studied with respect to two aspects, namely, fluency and refinement. The results indicate that the children exposed to television showed better performance on verbal fluency in comparison to the children not exposed to it. But the results on the language refinement have not shown any such trend. This suggests that the exposure was capable of influencing the language fluency but not language refinement. Language refinement was measured with reference to the child's ability to distinguish between the refined and not-so-refined language usage.

The SITE results (Shukla and Kumar, 1977) have come out with strong evidence to suggest that television influenced language development. Even though the nature of the measures used in both studies were different, (written in the SITE and verbal in the present study), the results on the language fluency were consistent. SITE study did not examine the refinement aspect. But it

appears that probably the exposure is inadequate for children to register any significant affect on the refinement aspect of the language. Sherrington (1973) has emphasised intense practice, which is dependent upon the length of television time available. He has advocated twenty minutes television time per school day, just for recognition of sound.

4. School Attitude:

Child's attitude towards school have shown encouraging results. The findings support the view that children with television exposure have a more positive attitude towards school than those children without it. But both, the exposed and not-exposed children did not differ on motivation in learning, as measured by the inventory. This suggests that probably the presence of television in a school situation, rather than the exposure as such, influenced positively the children's attitude towards school, whereas motivation remained uninfluenced.

5. Interaction: Television and Intelligence:

The results of the interaction effects of instructional television and intelligence do not suggest that

intelligence in any way modified the impact on the behaviours under consideration. On all the four behaviours, namely, curiosity, creativity, language expression and school attitude, the television impact remained uneffected, by the child's intelligence. That is, there is no ground to believe that the impact would be greater on the intelligent children in comparison to the less intelligent ones; neither is there evidence to believe the other way round. Rather, the findings suggest that intelligence is not a factor of importance as far as the impact is concerned.

Smith (1971-72) has shown that children with higher IQ ratings make more extensive use of television. Schramm (1961) found that initially the brighter children were heavier viewers but later on they drop out and the slower ones become heavier viewers. But these investigators only studied the viewing behaviour and do not report the impact in terms of the child's intelligence.

6. Interaction: Television and Caste:

The results of the interaction effects of instructional television and caste also do not provide evidence to believe that these two factors, in combination with one another may modify the impact on the four

behaviours mentioned earlier. Caste as a factor probably has no bearing on the impact.

Conclusions

Impact of instructional television on four aspects of behaviour were examined with reference to the elementary school children, from the rural areas. The analysis of results and discussion led to the following conclusions:

1. Creative behaviour of the elementary school children in the rural setting was found to be positively influenced as a result of exposure to instructional television. Both the aspects, namely, verbal and non-verbal, were influenced, to some extent.

2. The curiosity behaviour was not effected to the same extent as the creative behaviour. Children did not show any improvement on those aspects of curiosity which involved exploration, but the inquisitive aspect of curiosity appeared to have been stimulated.

3. As for the children's language behaviour is concerned, the results indicated improvement

in language fluency. But language refinement remained uneffected.

4. There is evidence to believe that as a result of television exposure, children showed more positive attitude towards school, though this was not reflected in their motivation to learn.
5. There is no evidence to suggest that intelligence together with television influenced the criterion behaviours. Similarly, no joint effects of caste and television were noted.

Implications

To sum up, the findings have brought out limited impacts, on selected behaviours of the rural elementary school children. These findings could have the following implications:

1. The instructional television exposure, taken as a package, has the potentiality to stimulate creative behaviour in the rural elementary school children. Therefore, the medium needs to be better harnessed towards this end. This may involve re-orientation in the production of software. The emphasis ought to be on educational programmes which will specifically attempt to stimulate the creative potential.

2. At the exposure level, the teachers could do a lot to reinforce the resultant creative behaviour. In a similar manner the inquisitive behaviour could also be nurtured. The teachers' reinforcement may sharply enhance the impact in these two areas. Therefore, it may be desirable that teachers be better oriented towards using this medium, and be capable of integrating its programmes with everyday teaching. Towards this end, short teachers training and orientation programmes on television usage could be very fruitful.

3. Television was found to have created favourable attitude among children towards school. This fact should be taken note of by school administrators, may prove useful in reducing the drop-out and also in increasing the school enrolment.

4. The fact that intelligence, as also caste, both were found not to have any relevance to the impact. This may have an important bearing. It could mean that all children, irrespective of their caste, are likely to benefit

from television. Therefore in a school set-up, the television-exposure situation could be utilized to bring children from different strata together.