DISCUSSION AND TEST OF 
TENABILITY OF HYPOTHESIS

Restatement of Hypothesis

1. Socio-economic status has no significant impact on creativity (fluency, flexibility, originality and elaboration), intelligence and academic achievement

CREATIVITY (VERBAL)

The socio-economic condition (SES) of an individual plays an important role in the field of creativity, intelligence and academic achievement. The effect of SES has been examined in relation to creativity index and conflicting results have been obtained with regard to socio-economic condition and creativity.

Alam Shah (1972), William Theolor and Halow (1973), Hussain (1974), Singh (1970), Ward and Cocks (1974) found that higher socio-economic status will give higher creative index. Ogletree (1971) concludes that creativity depends on social class, favouring the upper and middle class groups. Ogletree and Ujalaki (1973) in cross cultural study of English, Scottish and German subjects observed that creativity scores were function of socio-economic backgrounds. They further observed that an
all countries, subjects from upper class obtained significantly higher creativity scores in comparison to middle and lower classes. But Greenberg Shower and Davidson (1972) found that creative index did not significantly differentiate different social class subjects. Bhana (1970) observed that none of the social class status was significantly related to creative potentials of the subjects. Torrence (1963) observed that lower class youngsters were superior in non-verbal tasks of creativity (competitiveness). This is almost similar to the concept of n'Ach of McClelland which says that anybody will always try to complete the work with a standard of excellence (McClelland, 1953).

**FLUENCY**

In the present investigation, the SES groups have shown a significant difference in fluency, a component of creativity, which is in accordance with the work of Dillon and Mehra (1990) who have reported that high SES group significantly differed from the middle SES group on the factor of fluency.

In the present study, the boys and the girls do not show any difference in fluency factor. The SES and sex interaction was found to be non-significant. The mean scores of boys declined from high SES group to the low SES group, and a similar declining trend was also observed in the case of girls in fluency factor. This confirms the reports of Dillon and Mehra (1990). The F value obtained in the present study also confirms the earlier findings of Dillon and Mehra.
Bhan (1970) reports that the social status was significantly related to the creative potential of the subjects. Douglass children were superior in non-verbal task of creativity.

**FLEXIBILITY**

Hussain and Sajid (1990) report that SES is positively related to creativity because high SES groups have more material possessions which may tend to develop manipulative tendency in the children. The flexibility factor of verbal creativity in SES groups differs significantly. The difference was also significant in relation to sex. Here again independent variables influence the flexibility scores of verbal creativity very significantly. This is in accordance with the findings of Dillon and Mehra (1990) and also Katiyar, Jariai and Jaisanwala (1981) who report that SES and sex affect the development of verbal flexibility significantly. Further the mean values obtained in the present study reveal significant differences. The high SES group seems to be equally benefited from the treatment with respect to verbal flexibility whereas the low SES group shows a poor verbal flexibility as compared to the other SES groups. The decline in the mean values of high SES to low SES can be observed in the present study. The main mean value of females is higher than the main mean value of boys. The interaction indicated that the decrease in mean flexibility scores along with the decline in SES shows no differential variability between the two sexes. Here also we see that it is in accordance with the findings of Katiyar, Jariwal and Sunsawal who report that the flexibility of
significant factor in improving creativity of the subjects belonging to different SES groups.

The significant effect of treatment may be due to a number of factors. The most prominent among those are nature of the training programme, the maintenance of motivation and interest he gets at home. It might be due to urban background. Most of the present younger generation are exposed to the modern cities which in turn generate competition among them to come at par in all walks of life with the people of other SES groups. They might be forced to work hard to compete with others. This results into the development of their cognitive level.

Bear John Mets Jr. (1991) work is in accordance with the present finding. Srivastava and Budohori's (1989) work is almost similar to the present finding.

**ORIGINALITY**

In the present study, the various statistical values obtained do not reflect any variability in originality factor which is a component of verbal creativity. The different sex groups studied in the present research work show no difference in originality. This clearly indicates that SES and sex have no interaction. This work is in accordance with Guilford’s findings.

The mean values also indicate no difference between high and middle groups, as well as between high and low and middle and low groups. Th
might be due to the fact that three groups of children might have been exposed to similar environment.

But it is observed that the high and middle groups have better opportunities in life compared to the low SES group. The high and middle group will be exposed to modern life in a better way due to their economic stability compared to the lower group. It is this economic stability which aids to the material possession of modern gadgets which enables the individual to develop originality. The middle group due to the competitive spirit may always try to excel the higher group who are self satisfied compared to higher group. They would like to climb the social ladder. If the exposition is poor that is what it happens in the low SES group. Generally the group could not develop this factor which results in lack of curiosity to know things. If the group is exposed to many things, they generally develop a character which helps in doing things in their own unique way.

The present findings are contradictory to the above mentioned reasons. It may be due to the lack of incentive, or the families may be conservative or may not be interested in spending for the improvement of their children's mental make up.

The mean values indicate no difference between high and middle SES group of girls in originality. It is observed that in Indian setting, the girls are generally conservative and brought up in traditional approach. In
lower class, the boys are compelled by circumstances to break the barriers of tradition and accept new things that come in their way.

The present work shows no variability among boys and girls belonging to different SES families which is contradictory to the findings of some Western studies and Indian studies. But some studies confirm the present findings. The presence of superiority of boys over the girls in their creative ability was also supported by Bhavani and Hurr (1972), Tara (1981), Dharmangadan (1981) and Shukla (1982).

COMPOSITE CREATIVE SCORE (VERBAL CREATIVITY)
The composite creativity score values obtained in the present study indicate a difference among the different socio-economic groups. The girls are more creative than boys whereas the mean value of middle SES boys and girls do not show any significant difference. The low group also shows the same trend in verbal creativity.

The post-hoc comparison between high and middle in Scheffe's F test shows very significant difference in composite creative score of verbal creativity in SES groups. The SES groups also show significant variability in composite score of verbal creativity. This might be due to the fact that the high SES group due to its economic and vocational status is exposed to the modern life, whereas the low SES group generally cannot afford to possess or get exposed to these things. Hence the variation might have
occurred. This finding is in accordance with some and contradicts the others.

A non-significant interaction was found between SES and sex indicating a similarity in the pattern of boys and girls in relation to socio-economic status. It might be due to the similarity in economic, social and educational aspects of the sample studied in this investigation.

CREATIVITY (NON-VERBAL)

ORIGINALITY

In the creativity non-verbal format, in the originality factor the SES groups did not show any difference. The sex factor also indicates the same trend and the SES and sex interaction is not significant. The mean values obtained in the study also do not show any variability among the boys and girls belonging to various SES groups. However, it is observed that in the Indian setting, girls are not much distracted, get sufficient opportunity or time to think original things. This has been very well shown in girls that they are more original in preparing new dishes or design new garments at home. They are generally good in dexterous work which has been shown in their embroidery and knitting work.

The superiority of girls over boys in creative thinking was found to be significant according to Goel (1973), Hussain (1974) and Singh (1978) who showed that girls had higher personality traits than boys. The present findings are quite opposite to these findings.
**ELABORATION**

In the case of elaboration factor in non-verbal creativity test, the SES and sex groups do not show any difference. The F value is not significant. The F value shows that the SES and sex are independent variables. The mean values are almost identical. The ANOVA table shows that the boys and girls show significant variability. Perhaps this might be due to the fact that boys are more exposed to material possession and modernity, might be the reason for getting this variation.

**COMPOSITE CREATIVITY SCORE**

The trend obtained in the study on composite creativity score for non-verbal creativity score shows no significant difference. Sex result also shows the same thing. This indicates no difference and the SES and sex interaction shows negative trend.

The mean values do not show any difference. This might be due to the fact that the sample selected for the study might have been by chance belonging to conservative group. Though their economic, professional and educational factors being the same or different, their approach to life and values they have developed and the environment they are brought up, might have been the cause of showing no difference.

Bhan (1970) reports that social class status was significantly related to creative potentials of the subjects. Torrance (1963) observed that
Douglass children were superior in non-verbal task of creativity. The parental involvement in creative activities was found to be significantly associated with non-verbal creativity. In the present study also, the parents might not be encouraging to the boys.

**TOTAL CREATIVITY**

When the total creativity is taken (verbal + non-verbal), the different SES groups show significant difference in creativity. This might be due to the fact that the sample's exposition to various modern things and situations in life varies significantly. Only the middle group differs from the other groups when the mean scores were compared. It is reported that ordinal positions show different degrees of creativity. Middle and later born are more creative than first born. However, in the present study the ordinal position was not considered.

These days the activities of children are inhibited to the extent of suppressing their creative talent due to the family atmosphere or due to their economical, social and educational shortcomings of their parents.

The treatment and opportunities provided by the parents of children and other members of the family in society enhances creative potential.

The present study is supported by Vidyasagar (1960), Lichen Walner and Maxwell (1969), Kasaturi and Nathavatha (1982), Acharaya elu Yesodahara (1984), Begum (1987) who found no significant difference
between the sexes on the creativity scores of pre-school children. But the present findings do not agree with the work of Torrance (1964), Jackwalin and Murray (1965) who found that girls scored lower than boys in the manifestation of creativity.

Schaffler (1975) reports that intelligence and other factors bring variation in creativity. Boys show greater creativity than girls especially as childhood advances. Boys are given opportunity to be independent and encouraged by parents and teachers to show more initiative and originality (Arasteeh, 1968; Bhavani & group, 1972). Children with advanced age have more new ideas in handling social conflict situations and are able to formulate more solution to these complex situations.

Katiyar et al. report that low SES students have scored significantly lesser than those of high SES on composite verbal creativity

SES has significantly affected the students' gain on verbal flexibility. SES has significantly affected the student's gain on composite verbal creativity.

**FACTORS**
Motivation, feedback, urban background, the low SES works and utilizing the resources in the best possible manner. This might have developed the cognitive level
Singh (1981) reports that SES has significant impact on creative thinking abilities of a child favouring advantaged and average classes. This is in agreement with the Knapp and Goodrich (1952), Roe (1952), Repucci (1962), Hurr (1968), Ogletree (1971) and Ujalaki (1973) all report SES relationship with creative thinking. But it is not supporting the findings of Karston (1968), Solomon (1968), Cantey (1974), Mcdaniel (1974) and Badrinath and Satyanarayana (1978, 1979), who have reported non-significant impact of SES on creativity.

The reasons might be the way of life, values, attitudes, aspirations and even material condition.

Alam Shah (1972), William Teowner and Hallo (1973), Hussain (1974), Singh (1970), Ward and Cochs (1974) report that social class has definite influence on creativity favouring the upper and middle class groups. Ogletree and Ujalaki in a cross cultural study of English, Scottish and German subjects observed that creativity scores were functions of socio-economic background

Greenberg Shaw and Davidson (1972) found that creativity index did not significantly differentiate different social class subjects.

**INTELLIGENCE**

In the present investigation, it has been found that the different SES groups tested in the present investigation differ significantly in
intelligence. However, the sex groups do not show any difference. But the interaction between SES and sex is significant. This result clearly shows that the two groups differ significantly due to social handicap and economic handicap. So, in spite of the fact that the sample tested in the study born in different SES conditions do not lack several of the experiences necessary for developing intelligence.

The variation in the environment in which he is living and the roles he has to play in society do not have any effect on this factor. The socio-cultural variations have not in any way affected the intellectual aspect of the sample. This confirms the results obtained by Basavana et al. (1983).

The sex also shows no significant difference. It might be due to the fact that Indian girls are generally brought up in a conservative environment, whatever may be their SES.

The results show that neither social handicap nor economic handicap has any difference on the basic central intellectual faculty but the social impoverishment affects intelligence. Findings of Srivastava and Budohori (1990) that high intelligence shows the nature of verbal creativity.

At low level of intelligence, creativity was fostered by achievement, autonomy and dominance.
ACADEMIC ACHIEVEMENT

The present study shows a significant difference between the different SES groups in academic achievement. A variance is also found between the boys and girls in academic achievement. The interaction between SES and sex has been found. The means also indicate the same trend. This might be due to the fact that in an Indian setting, there are lot more differences in cultural, economic and social factors. Depending upon these things, the upper class is exposed to a better living condition and training for academic achievement, compared to the other groups. The social impoverishment affects the kins for academic achievement. The results support a theoretical model which hints at the damaging affect of socially handicap on student’s academic performance. Though their basic non-verbal, intellectual dimension is intact, a child born in low SES condition lacks several of the experiences necessary for developing verbal, conceptual, attentional and communicative skills essential for school learning. Though he has the basic intelligence he is denied of acceptable environment in which he is forced to live and the inferior role assigned by the society do not give up an opportunity to perform better in academic field. He lacks proper models to imitate his circle. His family condition will not encourage him because the parents may not be in a condition to afford the necessary environment for better academic achievement. They may lack motivational and emotional factors necessary for better achievement in life.
General creativity was not found to be related to school achievement. There was no interactional effect between academic achievement and SES. Marjorbanks (1974) discovers that within certain range of material conditions, school performance is more or less proportional to the material facilities. This is likely to encourage their academic abilities.

It has been reported that academic performance of subjects depends on the attitude of fathers. This view has been supported by several studies (Teheran, 1963; Gross Allen, 1979; Marrow & Wilson, 1971). The child who has fear for his/her father is fearful about exposure to environment independently which results in hindering the academic achievement. Nelson and McCoby (1966), Wallsh (1966) found similar trends in their studies. Parents of high achievers were found to make their children to feel more sense of family belongingness as those of under achievers.

The father who perceived as acceptant and democrat helped better academic achievement.

**CORRELATIONS**

The intelligence score of child increases creativity score. Intelligence and creativity tend to go hand in hand. This finding is supported by findings of Jarial and Sharma (1980), Chadda and Sen (1981) who report that creativity and intelligence are related.
Contradictory findings were reported by researchers like Wallach and Kogan (1965), Helson and Crutchfield (1970), Getzel and Jackson (1975). The relationship between creativity and intelligence was found to be negative. This finding confirms the studies of Wallach and Kogan reported earlier. Some other studies indicate that creativity is related to intelligence.

The relationship between creativity and academic achievement is positive. This might be due to the fact that creative people are more inquisitive which enables them to organize their experience for better achievement in life.

The relationship between intelligence and academic achievement was found to be non-significant indicating no relationship between intellectual ability and academic achievement. This appears to be a bit perplexing because, for academic achievement the intellectual capacity must be good. Otherwise the individual is likely to perform poorly in the educational field. The individual might be having intellectual capacity but may not have the required environment to foster academic achievement. Their might be lot more diversion and the individual may not be able to achieve success in the right direction.