

Abstracts

Creativity in Relation to Intelligence, Personality and Environment

Key words : creativity, intelligence, personality, school environment, home environment

Abstract

Aims of the study : In this study the attempt was made to raise and answer the following questions.

1. What are the characteristics of creativity? Can it be identified in a person?
How is it related to intelligence in the conventional sense?
2. What sort of personality does a creative individual possess? What are his adjustment problems?
3. Which environmental factors facilitate its functioning?

Methodology : For the purpose of the present study creativity and intelligence were operationally defined as the ability expressed in the performance on the appropriate psychological tests of Creativity and Intelligence.

Sample & Tools : A sample compared of 1054 boys studying in the grades VII through XI of a single school in Pune. Those who responded appropriately on tests of creativity, intelligence and personality variables were chosen for investigation (N= 828). It was a 4- stage exploratory study.

Stage 1- Tests of Creativity and Intelligence were administered to all (N= 1054).

Stage 2- For further exploration (N=828) tests of creativity, intelligence, personality inventory, school inventory, personal data i.e. School marks, hobbies, academic interests, rating by peers & teachers, and mechanical comprehension test (for higher grades) were used.

Stage 3- Students on & above 80th Percentile Rank on Creativity and Students on & above 80th Percentile Rank on Intelligence, were selected for deeper explorations. School Adjustment Inventory, Pupil Judgement Test, Speed of Thinking Test (Projective Test), Self Perception Checklist were administered (N= 271).

Three groups were available as follows :

High Creativity, High Intelligence (HH) - N = 59; High Creativity, Low Intelligence (HL)
- N = 91; Low Creativity, High Intelligence (LH) - N = 110

Stage 4- Extreme 9 students (HH - N = 4, HL - N = 2, LH - N = 3) were interviewed in depth and homes were visited.

Data Analysis- Descriptive Statistics, Correlational Analysis, and Factor Analysis were used appropriately. Data was also analyzed qualitatively.

Findings-

A. Characteristics of Creativity Vis a Vis Intelligence:

1. Creativity: a Unified Dimension: The Basic question was whether creativity is an ability of unified dimension that can be distinguished from intelligence. For this, the correlations between creativity and intelligence test scores were analyzed. Centroid method was used for Factor Analysis. This yielded one general factor showing a very small portion common to both the abilities and two distinct factors, one representing creativity and the other representing intelligence.

2. Creativity Scores:

- i. Dual Norms - Creativity was found to be susceptible to both age and grade but the effects of age and grade were not similar for all sub-tests
 - ii. Task- Specific Scores- The students' responses were scored for various factors of creativity on each sub test like fluency, flexibility etc. The correlation matrices and factor analysis pointed out that these factors were task specific rather than construct specific.
3. Development of Creativity: Creativity was found to be developing with certain ebbs-and-flow pattern different from that for intelligence giving an expression of rivalry between the two; with increasing age, creative thinking was found to be restricted to a greater degree.
 4. Creativity Intelligence Correlation: Creativity though related to intelligence to some extent was found to become more and more independent of it as the level of intelligence increased. Beyond 1.00 SD distance on the positive side of the intelligence distribution, creativity showed zero correlation with intelligence and negative beyond 1.25 SD distance.

B. Creativity and Personality Traits: Creative students were self-sufficient and confident but not sociable and they did not exhibit any neurotic tendency. It was further found that the creative students differed from the intelligent students in their hobbies and academic interests, preferences for teachers and desirability among peers and independence of thinking as expressed in occupational choices.

C. Creativity and Environment: Creativity was found to be significantly related to cultural practices. The interview reports distinguished clearly between two family patterns. The family protecting the creative potential seemed to be characterized by greater stimulation, more permissiveness, a closer mother-child relationship and more freedom of thinking and behavior, less success orientation and less practical adjustment. The family pattern not facilitating creativity seemed to value learning for some extrinsic goals. The parents equated training intellectual skills to the exercise in the class lesson. The creative students seemed to be maladjusted in school. They differed from the intelligent students in their perception of the problematic situation in school and their response to it. On the whole, the intelligent students seemed to be more objective, more adjusted and more reluctant to disclose personal matters. Their expressiveness in all fields ranged within narrow limit.

Conclusion : All that this adds up to is that creativity goes along with many other abilities. It makes a difference in the affective and motivational qualities, in the ways of perceiving the world and of adjusting to it. In the development of this core ability environment plays a dominant role. Parents, teachers and educationists should not ignore it.

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Guide : V.K. Kothurkar

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A Comparative Study of Thinking Processes of Rural and Urban Women with Special Emphasis on Creative Thinking

Key words : women, rural, urban, creative thinking

Abstract

Aim of the study : To compare the thinking processes, namely concept formation, Reasoning, Decision making, Problem solving and Creative thinking; of rural and urban illiterate women.

Historical background : Concerning creative thinking of rural and urban students by Indian researchers the studies deal with 'composite scores as well as factors of creative thinking are not conclusive. They do not indicate any trend about the differences in rural and urban samples.

The qualitative changes in creativity at the adult stage are discussed by Sasser-Coen. She stated that creativity, wisdom and mature adult thinking seem to share in a very fundamental way, integrative dynamic and dialectal thought, fueled by life experience. Some researchers have studied various aspect of creative motivation and personality in several sample of women. According to them the external bias of the environment inhibiting cultural influences and some of women's own inner tendencies seems to restrict their creative expression.

Methodology : Matched group method was used for testing the hypotheses of difference between rural and urban illiterate women.

Sample : The rural sample of 105 women was from nine villages in Bhor, Velhe and Haveli Tahasils in Pune District. The urban sample of 111 women was from various parts of Pune city. Their illiteracy was confirmed through reading test. The data could be collected for 63 to 94 women. The rural and urban groups were matched on age, intelligence, family type and religion.

Tools used : Personal data sheet, intelligence test, tools measuring concept formation, reasoning, decision making, problem solving and creative thinking were used.

Data Analyses: Descriptive statistics was applied to explore the data. To test the significance of differences between the performance of rural and urban groups, Mann- Whitney U nonparametric test was used, as the sample distribution did not approach normality. It was found that the sizes of the two groups were not comparable on two cross variables, namely age and socio-economic status; and family type and socio- economic status. So data were categorized in sub-groups along these cross variables and tested for significance of difference in performance.

Results : Thinking Processes of Illiterate Women : The results of the total sample – rural and urban compiled together – present the picture of illiterate women's thinking processes. It was possible to measure their thinking processes. Their performance was satisfactory on the instruments measuring concept formation, reasoning and decision making. However, it was low on problem solving and on creative thinking.

Comparison of Rural and Urban Illiterate Women's Thinking Processes : They exhibited similar performance on inferential and creative thinking. In general, urban women were superior to rural on concept formation, convergent thinking, decision making and problem solving. The rural – urban difference tended to decrease with increasing age.

Two pilot studies about training in thinking for neoliterates women were undertaken, results of which were quite encouraging.

This was the rare attempt to tap cognitive processes of the most deprived section of Indian population. The results may help in areas like, adult literacy, girls' education, training thinking of illiterates and of neoliterates.

Conclusion : Women coming from rural and urban areas were not different on creative thinking. These results are not further analyzed.

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Development of a Replicable Model for Enhancing Creative Thinking in School Classrooms

Key Words : creative thinking, classroom, students, teacher training, cluster resource coordinators

Abstract

The study aimed at development of a training program in creative thinking for Cluster Resource Coordinators (CRCs), who in turn trained the teachers. Teachers used the creativity techniques in a teaching learning process as a part of the classroom intervention program and the effect of the intervention program was tested on creativity and scholastic achievement of students.

The sample for the training program included eighteen Cluster Resource Coordinators (CRCs) and 46 teachers. The experimental sample for classroom intervention included 1000 class VII students from 25 schools from Pune city. Out of 25, twenty schools were Municipal Corporation schools and five private aided schools. The control sample included 62 students from one municipal corporation and one private aided school.

The effectiveness of the training program for CRCs and teachers was assessed with the help of some of the items from Torrance's Test of Creative Thinking, a standardized test. The difference between the pre-test and post-test means of both CRCs and teachers was found to be significant at 0.01 level.

The classroom intervention included creativity techniques like observation skills, inquiry skills, visualization, brainstorming and divergent thinking. The effectiveness of classroom intervention was assessed with the help of syllabi based valid and reliable creativity tests in Marathi, English, Geography, Science and Mathematics as well as the school marks in term examinations obtained in these curricular subjects.

It was found that there was a significant difference at 0.01 level in the post-test means of Total Creativity of the experimental group and the control group. The difference was not significant in the post-test means of scholastic achievement of the experimental group and the control group.

It was also found that there was a significant difference at 0.01 level in the pre-test and post-test means of Total Creativity and Scholastic achievement of the experimental group

With these results it can be concluded that the training program in creativity for CRCs and teachers, and the classroom intervention by teachers were effective in enhancing creativity of the students.

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