A study of Impact of Socio-demographic factors on creativity of high school students”

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Abstract: Creativity is the power of the human mind to create new contents by transforming relations and thereby generating new correlates,” Spearman

Teenagers are highly critical of the products they make and ideas they have. They try to express themselves creatively in a more adult-like way. Their creativity is influenced by their individual differences, physically, mentally, emotionally, and socially. In most high schools, classes that stress creativity, such as art, music, writing, and drama are electives and many may not be required. For many adolescents, high school is their last opportunity to take these creative classes. teens become more self-aware and self-conscious. This focus often causes them to conform to their peers, which stifles their creativity and makes their thoughts less flexible. Flexibility refers to the ability to consider various alternatives at the same time. The study will be delimited to students of High School Level., The study will be delimited to Haridwar district., The Socio-demographic Factors delimited to sex, locale, family type, parental education.

INTRODUCTION

Modernization refers to the deeper change in man’s way of thinking and feeling, a change in his whole attitude to life’s problems, society and universe. Females in the past were considered physically and mentally weaker, but in this new age they have proved it a chimera. As and when girls have not appropriate opportunities to girls then they are on the highest positions almost in all the spheres of life. Mrs. Pratibha Patil-the first female president of India, Kiren Bedi- the first lady I.P.S. of India.

Undoubtedly parents are the god on the earth for their children. They not only give them birth but they decide and choose everything for their children. So their education and attitude towards the education effect the Intelligence level and Attitude of students. Locality or Family size also play importance in the life of the students. Family size
affects positively or negatively the level of the achievement of the students.

Family is the basic and universal social structure of human society. It fulfills needs and performs functions, which are indispensable for the continuity, integration and change in the social system. The forms and functions of family have undergone adaptive changes in the technological and economic superstructure of present society. The family may be broadly perceived as a unit of two or more persons united by the ties of marriage, blood, adoption or consensual unions. It is considered the basic unit of the society, to meet the needs of individuals and those of other societal institutions. It determines the development of individuals, in that; it is a major source of nurturance, emotional bonding and socialization. In contemporary urban society, families present a peculiar combination of traditional and modern values. The new identities and changing value patterns also affect the attitude of the individual members of the family. Creativity is a process that helps to achieve dignity and meaning in life. Creative thinking can lead the world to the peak of achievement and thus it can build a new and desirable era in the world. UNESCO has taken a positive stand on it because both knowledge and creativity are peace.

**CREATIVITY:-**

Creativity as the capacity or ability of an individual to create, discover or produce a new or novel idea or object, including the rearrangement or reshaping of what is already known to him which proves to be a unique personal experience. Creativity refers to the phenomenon whereby a person creates something new (a product, a solution, a work of art etc.) that has some kind of value. What counts as “new” may be in reference to the individual creators, or to the society or domain within which the novelty occurs. What counts as “valuable” is similarly defined in a variety of ways. Creativity is the very important process for the progress and major advances in every field. It is the basis of all the social development and new inventions and discoveries in the field of sciences and Technology.

**Stagner and karwoski (1973),**”Creativity implies the production of a ‘totally or partially’ novel identity.”

**Wilson, Guilford and Christenses (1974),**“The Creativity process is any process by which something new is produced—an idea or an object including a new form or arrangement of old elements. The new creation must contribute to the solution of some problem.

- **SENSITIVITY:** “Creativity is the encounter of the intensely conscious human being with his world” (Rollo May).
- **UNUSUALNESS**- According to Simpson, ‘Creativity is the ability to break away from the usual way of thinking and them altogether a different pattern of thought’.
- **ORIGINALITY**- Barron considers creativity as the process which is ‘characterized by originality, uniqueness and even sometimes idiosyncratic ways of doing things or showing problems.’
- **PRACTICABILITY**- According to Losswell, “Creativity is the disposition to make and to recognize valuable innovations.”
- **PRODUCT & PROCESS**- Both product and process are important in creativity. Without the process, there would be no product and without product no creativity.


- **COMBINATION** - Creativity is the capacity of forming new combinations according to our specified and useful requirements.

**LEVELS OF CREATIVITY:**

There are five important levels of Creativity.

- Expressive creativity level
- Productive creativity level
- Inventive creative level
- Innovative creative level
- Imaginative creativity level

**APPROACHES OF CREATIVITY:**

1. **The product Approach:** Mackinnon has given 5 criteria or requirement to decide the creativeness of a product. These are:
   - Product should have originality, novelty and statistical in frequency.
   - Has aesthetically pleasant experience.
   - Should have ability to elaborated.
   - Ability to create new conditions of human existence.
   - Product should serve to solve the problems.

2. **The process Approach:** The Wallas (1926) describe four distinct aspect of the creative process. They are
   - Preparation
   - Incubation
   - Illumination
   - Verification

3. **The person Approach:** It is based on the fact that the creativity may be understood easily in terms of three abilities of creative persons these are
   - Performance
   - Evaluation
   - Measuring self actualization

4. **The press Approach:** It includes following factors
   - Extraordinary respect & recognition of a child by his parents
   - No over-dependence or under dependence for the child
   - Freeness of prematurely child’s professional identity.
Creativity at Preschool Age: Preschoolers can use the same materials as toddlers but can use them in more complex ways. By age five, many children start drawing recognizable objects. By age six, they are usually interested in explaining their art works. They also like to tell stories and can make books of their stories, including drawing pictures to accompany the writing. At this age fantasy play becomes more complex. Preschoolers often direct each other on what to do or say as they play "Let's pretend." Play is a critical part of developing creativity.

Creativity at School age: Early school-age children, six to nine years, incorporate lots of fantasy into their play, including action games with superheroes. Children of this age group spend much of their time daydreaming. Some daydreams become "real" as children begin to act them out in stories and plays. They believe this applies whether the class is in art, history, science, or humanities. Science clubs are open to the young, in different countries, in which students can unleash their ideas and imagination. Student science fairs are also useful in developing creativity.

- At ages nine to 12, children's creativity is greatly affected by peer influence. They increase the amount of detail and use of symbols in drawing. They also have expanded their individual creative differences and begin to develop their own set of creative values.
- Teenagers are highly critical of the products they make and ideas they have. They try to express themselves creatively in a more adult-like way. Their creativity is influenced by their individual differences, physically, mentally, emotionally, and socially. In most high schools, classes that stress creativity, such as art, music, writing, and drama are electives and many may not be required. For many adolescents, high school is their last opportunity to take these creative classes.
- Also, teens become more self-aware and self-conscious. This focus often causes them to conform to their peers, which stifles their creativity and makes their thoughts less flexible. Flexibility refers to the ability to consider various alternatives at the same time.

Parental concerns:

- Environment appears to play a greater role than heredity in the development of creativity: identical twins reared apart show greater differences in creativity than in intellectual ability. Family environments with certain characteristics have been found to be more conducive to creativity than others. One of these characteristics is a relaxed parental attitude rather than one that is overly anxious or authoritarian.
- On the whole, the families of creative children discipline them without rigid restrictions, teaching them respect for values above rules. Similarly, they emphasize achievement rather than grades. The parents in such homes generally lead active, fulfilling lives themselves and have many interests. Finally, they reinforce creativity in their children by a general attitude of respect and confidence toward them and by actively encouraging creative pursuits and praising the results. It has been found that creativity in both children and adults is affected by positive reinforcement.
Educational Provisions for helping and fostering creativity:-

We can foster and promote creative ability among our students by using following principles:-

- **Creativity is fostered by intellectual curiosity.** Therefore the required freedom should be given to students to work, play and study. It is very important for the development of creativity.
- **Creativity is foster by self-confidence.** Therefore the teacher should try to build up confidence among his students. If the students lack in it they will develop shyness and will never be able to create or exhibit their abilities.
- **High energy is the source of creativity.** It is the duty of teacher to encourage student’s energetic attitude.
- **Positive attitude towards work.** It should be emphasized that ‘no work is big or small, prestigious or insulting or white coloured.’ Every work is equal and students should respect all types of job.
- **Motivation is necessary for creativity.** And therefore the teacher should motivate his students according to their interests, hobbies abilities.

Socio-demographic factors

Dictionary defines the socio-demographic factor as pertaining to, or characterized by a combination of Sociological (=related to sociology) and Demographic (=relating to populations) characteristics. There factors includes:- age, sex, locality, parental education, family type etc.

Demographics or demographic data are the characteristics of a human population. These types of data are used widely in sociology, public policy, and marketing. Commonly used demographics include gender, race, age, income, disabilities, mobility (in terms of travel time to work or number of vehicles available), educational attainment, home ownership, employment status, and even location. Demographic trends describe the changes in demographics in a population over time (for example, the average age of a population may increase or decrease over time). Both distributions and trends of values within a demographic variable are of interest.

Differences in socio-demographic background between participating and non-participating parents have been shown in several studies . One important factor seems to be parents' educational level with highly educated parents participating to a greater degree than parents with a lower educational level. Gender is another factor that in some studies has been a predictor of participation. Fathers seem to have lower interest in parental programs than mothers. Mothers perceive family-focused prevention programs as more beneficial than fathers. Families with girls appear to be more likely to participate than families with boys . There are inconsistent results from previous studies of the significance of other socio-demographic factors. Some studies indicate that marital status and income are important, and some do not . The conclusion from previous studies is that socio-demographic factors are important for the decision about participation, but there are some inconsistent results between the studies about the importance of a single factor.
A census is a collection of the demographic factors associated with every member of a population.

- Actually, as it turns out, it does for those who comprise one of two specific socio-demographic groups and go into it well-informed and with their eyes wide open.

- When we use socio-demographic variables to determine who is similar, we find that the differences in outcomes between children with teenage mothers and children with older mothers are substantially smaller than appears to be the case based on simple averages.

- Clinical and research interests: evidence-based assessment and intervention in pediatric psychology, socio-demographic and family factors in disease management and quality of life in pediatric oncology and sickle cell disease, patient-provider communication to enhance disease management.

**Age:** We tend to think of age and its measurement as being relatively non Problematic, the number of days months and years since birth. But for some societies such exact counting from birth is not relevant, and dates of birth may not be known or be inexact, to say nothing of differences in calendar. In this report we will not treat this notion as problematic, but will simply depend on reports of age from our reviews.

**Gender:** is a set of characteristics distinguishing between male and female, particularly in the cases of men and women. Depending on the context, the discriminating characteristics vary from sex to social role to gender identity. Gender and sex: Sex and gender are often used in the literature interchangeably and thus incorrectly. Sex refers to a biological entity; gender to social construction, and includes social, cultural or psychological dimensions. Since gender is what people report (not sex) and since this review of the literature depends on social discourses, rather than direct observation of biology, we will use the term gender, regardless of what term the authors of the papers reviewed themselves use. Generally we categorized gender as Male and Female.

**Male:** characteristic of a man; "a deep male voice"; "manly" sports.

**Female:** Belonging to an individual of the female sex; characteristic of woman; feminine; as, female tenderness.

**Family:** The family may be broadly perceived as a unit of two or more persons united by the ties of marriage, blood, adoption or consensual unions. It is considered the basic unit of the society, to meet the needs of individuals and those of other societal institutions. It determines the development of individuals, in that; it is a major source of nurturance, emotional bonding and socialization. In contemporary urban society, families present a peculiar combination of traditional and modern values. The new identities and changing value patterns also affect the attitude of the individual members of the family. One way to look at families is based on structural features. Families contain varying numbers of persons who are related in particular ways, including such persons as mothers, fathers, and children. This view may be extended to include grandparents, in-laws, step-relations, and perhaps even former relatives. Structural definitions of family focus on the composition of its membership. They may indicate that family members are related by blood, marriage, or some other legal bond such as adoption. Sharing a household may be another structural feature. With a structural definition, the theorist is able to determine which kinds of social groups
do not qualify as families and which individuals are in a particular family.

**OBJECTIVES OF THE STUDY:**

The specific objectives of the study are: To find out

- The impact of sex on creativity.
- The impact of locale on creativity.
- The impact of family type on creativity.
- The impact of parental education on creativity.

**HYPOTHESIS:**

- There is no difference between the creativity of pupils due to sex.
- There is no difference between the creativity of pupils due to locale.
- There is no difference between the creativity of pupils due to family type.
- There is no difference between the creativity of pupils due to parental education.

**VARIABLES:** Variables are the conditions or characteristics that are observed, manipulated and controlled by the experimenter. In the present study two types of variables are:

- **Independent Variable** – Socio demographic factors (Gender, locale, family type, and parental education)
- **Dependent Variable** – Creativity

**DESIGN OF THE STUDY:** In the present study investigator has used Descriptive Survey Method. It focused on the present and at same time takes the help of past and also predict the future. This survey technique involves the collection of primary data about subjects, usually by selecting a representative sample of the population under study, through the use of questionnaire.

**TOOL:** Baquer Mehdi’s Verbal Test of Creativity.

**STATISTICAL TECHNIQUES:**

We will use following Statistical Techniques: **Mean, S.D, T-test, ANOVA**

**DELIMITATION OF THE STUDY:**

- The study will be delimited to students of High School Level.
- The study will be delimited to Haridwar district.
- The Socio-demographic Factors delimited to sex, locale, family type, parental education.
### Description of the data:

#### Table 1

<table>
<thead>
<tr>
<th>GENDER</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T-VALUE</th>
<th>Significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td>55.72</td>
<td>12.35</td>
<td>125</td>
<td>248</td>
<td>0.4</td>
<td>t-value is non-significant at both the level of significance i.e. 0.05 level and 0.01 level</td>
</tr>
<tr>
<td>FEMALE</td>
<td>54.86</td>
<td>8.84</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Calculation of t-value to compare the Creativity of MALE and FEMALE.**

**Interpretation:**- The calculated t-value is 0.4 is less than the critical value at 0.01 level and 0.05 level of significance which are 2.63 & 1.98 respectively. Hence, null hypothesis is Accepted at both the levels.

A graph showing **Mean** of MALE and FEMALE.

A graph showing **S.D.** of MALE and FEMALE.
Calculation of t-value to compare the Creativity of RURAL and URBAN Students.

<table>
<thead>
<tr>
<th>LOCALE</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>RURAL</td>
<td>49.6</td>
<td>5.99</td>
<td>125</td>
<td>248</td>
<td>6.24</td>
<td>t-value is significant at both the level of significance i.e. 0.05 level and 0.01 level</td>
</tr>
<tr>
<td>URBAN</td>
<td>60.98</td>
<td>11.43</td>
<td>125</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Interpretation:** The calculated t-value is 6.24 is higher than the critical value at 0.01 level and 0.05 level of significance which are 2.63 & 1.98 respectively. Hence, null hypothesis is Rejected at both the levels.

A graph showing **Mean** of RURAL and URBAN Students.

A Grapgh showing the **S.D** of RURAL and URBAN Students.
Table 3

Calculation of t-value to compare the Creativity of Students living in JOINT and NUCLEAR Family.

<table>
<thead>
<tr>
<th>FAMILY TYPE</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
<th>Df</th>
<th>T-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>JOINT</td>
<td>54.61</td>
<td>10.24</td>
<td>136</td>
<td>248</td>
<td>0.156</td>
<td>t- value is non-significant at both the level of significance i.e.0.05 level and 0.01 level</td>
</tr>
<tr>
<td>NUCLEAR</td>
<td>55.02</td>
<td>15.95</td>
<td>114</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Interpretation:** The calculated t-value is 0.156 is less than the critical value at 0.01 level and 0.05 level of significance which are 2.63 & 1.98 respectively. Hence, null hypothesis is Accepted at both the levels.

A graph showing **Mean** of Students living in JOINT and NUCLEAR Family.

A Graph showing the S.D of Students living in JOINT and NUCLEAR Family.
TABLE 4

Calculation of anova to compare the Creativity of Students on the bases of Parental Education.

<table>
<thead>
<tr>
<th>Source of Variable</th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square Variance</th>
<th>F ratio</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between groups(s²b)</td>
<td>1129.4</td>
<td>2</td>
<td>1129.4/2=564.7</td>
<td>5.23</td>
<td>F value is significant at both the level of significance i.e.0.05level and 0.01level</td>
</tr>
<tr>
<td>Within group(s²w)</td>
<td>10461.19</td>
<td>247</td>
<td>10461.19/97=107.85</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:- The calculated value of F is greater than the critical value at 0.01 and 0.05 level of significance which are 3.09 & 4.82 respectively. This result is quite significant and consequently null hypothesis is Rejected i.e. there is significant difference among the means.

Table 5

Calculation of t-value to compare the Creativity of Students on the bases of Parental Education.

<table>
<thead>
<tr>
<th>Parental Education</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
<th>df</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>illiterate</td>
<td>51.94</td>
<td>7.37</td>
<td>25</td>
<td>170</td>
<td>0.57</td>
<td>t- value is non-significant at both the level of significance i.e.0.05level and 0.01level</td>
</tr>
<tr>
<td>School level</td>
<td>53.19</td>
<td>9.18</td>
<td>147</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Interpretation:- The calculated t-value is 0.57 is less than the critical value at 0.01 level and 0.05 level of significance which are 2.65 & 2 respectively. Hence, null hypothesis is Accepted at both the levels

A graph showing Mean of Students on the bases of parental education.

A graph showing S.D. of Students on the bases of parental education.
Table 6
Calculation of t-value to compare the Creativity of Students on the bases of Parental Education.

<table>
<thead>
<tr>
<th>Parental Education</th>
<th>MEAN</th>
<th>S.D</th>
<th>N</th>
<th>df</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>School level</td>
<td>53.19</td>
<td>9.18</td>
<td>147</td>
<td>223</td>
<td>2.646</td>
<td>F value is significant at both the level of significance i.e.0.05level and 0.01level</td>
</tr>
<tr>
<td>College level</td>
<td>59.83</td>
<td>12.57</td>
<td>78</td>
<td>8</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Interpretation:-**

The calculated t-value is 2.646 is greater than the critical value at 0.05 level of significance which is 1.98 and equal to the critical value at 0.01 level of significance. Hence, null hypothesis is Rejected.

A graph showing **Mean** of Students on the bases of parental education.

A graph showing **S.D.** of Students on the bases of parental education.
Table 7

Calculation of t-value to compare the Creativity of Students on the bases of Parental Education.

<table>
<thead>
<tr>
<th>Parental Education</th>
<th>MEAN</th>
<th>S.D</th>
<th>df</th>
<th>t-value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Illiterate</td>
<td>51.94</td>
<td>7.37</td>
<td>101</td>
<td>2.88</td>
<td>t-value is significant at both the level of significance i.e. 0.05 level and 0.01 level</td>
</tr>
<tr>
<td>College level</td>
<td>59.83</td>
<td>12.57</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Interpretation:** The calculated t-value is 2.88 is higher than the critical value at 0.01 level and 0.05 level of significance which are 2.68 & 2.01 respectively. Hence, null hypothesis is rejected at both the level.
FINDINGS: The results have been drawn keeping in mind the objectives formed for the study and by testing the hypothesis formulated thereafter. The major findings of the study are:

- The first hypothesis of the present study was that there is no difference between the creativity of pupils due to sex (Male/Female). After the analysis & interpretation of data was observed that the t-value is non-significant. Hence, our hypothesis is Accepted.
- Second hypothesis of present study was that there is no difference between the creativity of pupils due to locale (rural/urban). After the analysis & interpretation of data was observed that the t-value is significant. Hence, our hypothesis is Rejected.
- Third hypothesis of the present study was that there is no difference between the creativity of pupils due to family type (joint/nuclear family). After the analysis & interpretation of data was observed that the t-value is non-significant. Hence, our hypothesis is Accepted.
- The next hypothesis of present study was that there is no difference between the creativity of pupils due to parental education. After the analysis & interpretation of data was observed that the f-value is significant. Hence, our hypothesis is Rejected and we need for further studies.

The objective was to find out the impact of parental education(Illiterate/secondary level) on the Creativity of students high school students. After interpretation it was observed that the calculated t-value is less than the critical value of t at both the level of significance. So our hypothesis is Accepted. The objective was to find out the impact of parental education(Secondary level/Higher level) on the Creativity of students high school students. After interpretation it was observed that the calculated t-value is less than the critical value of t at 0.05 level of significance and equal. So our hypothesis is rejected. The objective was to find out the impact of parental education(Illiterate/Higher level) on the Creativity of students high school students. After interpretation it was observed that the calculated t-value is higher than the critical value of t at both the level of significance. So our hypothesis is rejected.
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