

ABSTRACT

The present study examines the four basic styles of Creative Intelligence of arts and science graduate students. It made use of simple random sampling in selecting 200 graduate students from all senior colleges in Shirpur city of Dhule district of Maharashtra. Data analysis involved the use of mean, standard deviation and t-test to investigate the significant difference between the Means. The Means obtained for the Creative Intelligence of arts and science graduate students were 60.77 and 62.35 respectively. It is found that there is no significant difference between the means of the two groups for CI. The arts students have higher preference for intuitive and inspirational basic style, while, science students have higher preference to innovative and imaginative basic style of Creativity.

Man does not live by bread alone. He is endowed with the most unique power of creative thinking. He always wants to create something new. He is not a mechanical computer. He is blessed with the capacity to image and to think. It is rightly said that the survival of a democratic society intimately is linked to a people capable of making wise selections through critical analysis.

Creativity is an important dimension of man's personality. Creativity indicates the power of an individual to produce something new or unusual. But all individuals may not invent entirely a new idea or object. The ability to re-shape or re-arrange the already known facts may also be regarded as creativity of an individual.

Creativity is considered as a God-given gift and an endowment. But we cannot ignore the influence of training and education on nurturing creativity. The old myth that creativity is the function of superior genes has been exploded. Now, it has been established that every individual is creative in a greater or lesser degree. So the development of creativity cannot be left to chance alone. In an increasingly complex and chaotic world, it is important to expand our focus on creativity.

Over the years, many descriptions of creativity have been based on observing individuals and their behaviors. However, there is no simple all inclusive definition. The perspective is that creativity is a reflection of our creative intelligence.

Creative intelligence can be grand as producing a world renowned masterpiece, or as mundane as knowing how to solve a routine problem. Creative intelligence reflects how we perceive the world around us. It is concerned both with the way we do things and the outcome or result achieved. An activity can be considered creative if it involves a new or unique approach, and if the results are considered useful and accepted. Knowing a person's creative intelligence helps to predict how they most likely would behave in different situations.

Like creativity, everyone has creative potential and any one can discover his or her hidden creative potential. We cannot see, hear or observe creative potential. Only after the fact can we judge whether a person has been creative. However, a way to determine creative potential without any prior evidence, as mentioned earlier, is by the use of a test instrument called the Creative Potential Profile to reveal an individual's creative potential. The value of the test instrument is that it helps us to easily identify each person's creative intelligence.

The Creative Potential Profile is a test instrument that measures an individual's preference for each of four basic Creative Intelligence Styles. These four basic styles are intuitive, Innovative, Imaginative and Inspirational.

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- Intuitive -** This style focuses on results and relies on past experience to guide decisions.
- Innovative -** This style concentrates on problems and data and is very systematic. Innovative individuals are willing to work hard and insist on precise and careful experiment. This style is typical of a scientist, engineer.
- Imaginative -** This style describes people who are artistic, enjoy writing, are good leaders, and can readily visualize opportunities.
- Inspirational -** This style focuses on introducing social change and willingly gives of one's self toward that end.

Creative Intelligence reflects the complexity of human beings and provides a description of a person's creativity. Most of the individuals have multiple styles of creativity. Creativity is not limited to any one field. People with high creative intelligence have the potential to produce significant results in a number of fields. The graduate students also have creative intelligence and they can also produce significant results in their respective field. Only the difference is that they can have more or less preference for the four basic styles of creative intelligence. This study is aimed at studying the creative intelligence of graduate students of colleges in Shirpur city of Dhule district.

OBJECTIVES OF THE STUDY

The objectives of the study were as follows :

1. To use the Creative Potential Profile test to measure the creative intelligence of graduate students.
2. To determine the preference of graduate students for each of the four basic creative intelligence styles of creativity.
3. To compare the creative intelligence of arts and science graduate students in relation to the four basic styles of CI.

HYPOTHESES OF THE STUDY

In the light of the objectives stated above the following hypotheses were formulated :

1. There is no significant difference between the arts and science graduate students in relation to the four basic styles of creative intelligence (intuitive, innovative, imaginative, inspirational)
2. There is no significant difference between the creative intelligence of arts and science graduate students.

METHODOLOGY

The research method adopted for this study was the survey method.

SAMPLE

The sample comprised 200 graduate students (120 arts and 80 science students) studying in the final years in the Senior Colleges in Shirpur city of Dhule district. The students were selected by simple random sampling method from a population of 2000 students.

TOOLS

The Creative Potential Profile Test Instrument – a Creative Intelligence Test.

A test instrument called the Creative Potential Profile was developed as a means to identify a person's creative potential. The Creative Potential Profile test uses 25 questions for determining the four basic styles of creativity. This test shows an individual's preference for each of the four creative intelligence styles. A detailed description of this test has been given in the book "Creative Intelligence – Discovering the Innovative Potential in Ourselves and Others" (Alan J. Rowe, 2005). This test is reliable, having a reliability of 0.82 and it has 0.95 predict validity. The average scores for each style are – Intuitive (64), Innovative (67), Imaginative (58) and Inspirational (61). The standard deviation for each of these categories is 8,7,6,6. With these two sets of data, we can determine and compare a large number of individuals who have taken the Creativity Potential Profile Test.

STATISTICAL TECHNIQUES USED

To analyse the data, the statistical techniques used were mean, standard deviation and t-test.

ANALYSIS

HYPOTHESIS -1

a) There is no significant difference between the Arts and Science graduate students in relation to intuitive creative intelligence style.

Table 1

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEANS OF SCORES (INTUITIVE STYLE) OF THE ARTS AND SCIENCE GRADUATE STUDENTS.

Group	N	M	S.D.	T - value
Arts	120	66.55	9.12	3.38
Science	80	63.84	8.62	Significant

From Table 1 it is found that the t-value 3.38 is significant at 0.05 level.

Hence the null hypothesis is rejected. Hence, it is concluded that there is a significant difference between the Arts and Science graduate students in relation to Intuitive Creative intelligence Style.

The mean values of this style of the arts and science students are 66.55 and 63.84 respectively and the average score for this style is 64. It clearly shows that Arts graduate students have more preference for the intuitive style than Science students.

b) There is no significant difference between the Arts and Science graduate students in relation to innovative creative intelligence style.

Table 2

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEANS OF SCORES (INNOVATIVE STYLE) OF THE ARTS AND SCIENCE GRADUATE STUDENTS.

Group	N	M	S.D.	t-value
Arts	120	62.52	10.12	0.58
Science	80	62.86	9.45	Not Significant

From Table 2 it is found that the t-value 0.58 is not significant at 0.05 level.

Hence, the null hypothesis is accepted. Hence, it is concluded that there is no significant difference between the Arts and Science graduate students in relation to Innovative Creative Intelligence Style.

The mean scores of innovative creative intelligence style of the Arts and Science students are 62.51 and 62.86 respectively.

These scores are less than the average score for this style (67). This clearly shows that the two groups of students have less preferences for the innovative style

c) There is no significant difference between the Arts and Science graduate students in relation to imaginative creative intelligence style.

Table 3

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEANS OF SCORES (IMAGINATIVE STYLE) OF THE ARTS AND SCIENCE GRADUATE STUDENTS.

Group	N	M	S.D	t-value
Arts	120	50.84	9.08	7.13
Science	80	59.61	10.23	Significant

From Table 3, it is found that the t-value 7.13 is significant at 0.05 level.

Hence the null hypothesis is rejected. Hence, it is concluded that there is a significant difference between the Arts and Science graduate students in relation to the Imaginative Creative Intelligence Style.

The mean score (59.61) of Science students is slightly greater than the average score (58) for this style and is comparably greater than the mean score (50.84) of the Arts students. It clearly shows that Science students have more preference to the imaginative style as compared to Arts students.

d) There is no significant difference between the Arts and Science graduate students in relation to inspirational creative intelligence style

Table 4

SIGNIFICANCE OF DIFFERENCE BETWEEN THE MEANS OF SCORES (INSPIRATIONAL STYLE) OF THE ARTS AND SCIENCE GRADUATE STUDENTS.

Group	N	M	S.D.	t-value
Arts	120	63.2	11.32	0.32
Science	80	63.08	10.25	Not Significant

From Table 4 it is found that the t-value 0.15 is not significant at 0.05 level.

Hence the null hypothesis is accepted. Hence, it is concluded that there is no significant difference between the Arts and Science graduate students in relation to Inspirational Creative Intelligence Style.

The average score for inspirational style is 61, which is less than the mean scores of both the groups of students, i.e. 63.20 and 63.08 which are nearly equal. This clearly shows that both the groups of students have preference above the average for this style of creativity.

HYPOTHESIS - 2

There is no significant difference between the creative intelligence of the Arts and Science graduate students.

Table 5

SIGNIFICANCE OF DIFFERENCE BETWEEN THE CREATIVE INTELLIGENCE SCORES OF THE ARTS AND SCIENCE STUDENTS.

Group	N	M	S.D.	t-value
Arts	120	60.77	8.11	1.43
Science	80	62.35	7.6	Not Significant

From Table 5 it is found that the t-value 1.43 is not significant at 0.05 level.

Hence the null hypothesis is accepted. Hence, it is concluded that there is no significant difference between the creative intelligence of these two groups of students.

CONCLUSION

The following conclusions are derived from this study.

1. The Arts graduate students are more intuitive than the Science graduate students and have higher preference for this style.
2. The Arts and Science graduate students are at the same level for Innovative Creative Style. Both the groups of students are found below the average level of Innovative Creative Style and hence have less preference for this style.

3. The Science graduate students are more imaginative than the Arts students. The Arts students have less preference as compared to the average level of Imaginative Creative Style.
4. Both the groups of graduate students have the same level of potential for Inspirational Creative Style and have slightly better preference for this style of creativity.
5. The Arts and Science graduate students do not differ as far as Creative Intelligence is concerned. They have the same capacity level of Creative Intelligence.

REFERENCE

1. Rowe, A. J. (2005) *Creative Intelligences*. Pearson Education (Singapore), Delhi.
2. Best & Khan (2006) *Research in Education*, Prentice Hall of India Pvt, Ltd., New Delhi.
3. Singh, H., (2005), *Methodology & Techniques – Use of Social Research*, Kanishka Publishers, New Delhi.

A cowardly teacher would never succeed in making his boys valiant and a stranger to self-restraint could never teach his pupils the value of self-restraint.

- Gandhi

Pupils should know to discriminate between what should be received and what rejected. It is the duty of his teacher to teach his pupils discrimination.

- Gandhi

Like fire in a piece of flint, knowledge exists in the mind; suggestion is the friction which brings it out.

- Swami Vivekananda.