
A Comparative Study of Thinking Style of Art and Science College Students

Dr. Mamta Sharma

Assistant Professor, Noida College Of Physical Education, Dadri. G.B.Nagar. (U.P)

Abstract: This study investigated the thinking style of art and science college students. Study conducted on 80 students. Lottery method was used. Tools was used "Thinking styles inventory made by Sternberg and Wagner (1992) was used to assess the thinking style of college student. It is a self-report test consisting of 104 items. The inventory has 13 scales with 8 items on each scale" but researcher took only six dimension of the tool.

1. INTRODUCTION

Dr.A.P.J.Abdul Kalam wrote

“When learning is purposeful,Creativity blossoms,
When creativity blossoms , Thinking emanates
When thinking emanates,Knowledge is fully lit,
When knowledge is lit, Economy flourishes”

The knowledge which is key to growth and development of developing countries depends largely on different types of thinking such as convergent/scientific thinking and divergent/creative thinking and their development. These in turn depend on thinking styles of the individual learners. Thinking styles are preferred ways of exploiting thinking abilities. This way, one may conclude that understanding, development and application of variety of thinking styles of individuals go a long way in all round development of the nation. Moreover, many of the students we are consigning to the dust heaps of our classrooms, have the abilities to succeed. It is the teachers, not they (students) who are failing. Indeed teachers are failing to recognize the variety of thinking and learning styles they (students) bring to the classrooms and reaching them in ways that don't fit them. Therefore, Sternberg (1997) very rightly suggested that we need to take into account student's styles of thinking if we hope to reach them, especially in teaching. This situation warrants that investigations be carried out on thinking styles of students.

2. OPERATIONAL DEFINITIONS

Thinking Style:

Sternberg defines the 'Thinking Styles' way of thinking as the individual's preferred thinking style when doing business and describes how the individual uses or exploits the capacities that he owns (such as knowledge) which is not an ability but it is located between the character and capacities (character - ways of thinking capacity). 13

College Students:

"Someone who has admitted to a college or university".

Art Students:

"Students which deal with a dynamic combination of materials, methods, concepts and subjects that challenge traditional boundaries and defy easy definition". They deal with subjective and aesthetic aspect of education.

Science Students:

"Students which deal with systematic knowledge of the physical or material world gained through observation and experimentation". They deal with objective aspect of education

3. OBJECTIVES OF THE STUDY

1. To compare the legislative thinking style of arts and science college students.
2. To compare the Executive thinking style of arts and science college students.
3. To find out the judicial thinking style of arts and science college students.
4. To find out the monarchic thinking style of arts and science college students.
5. To find out the hierarchic thinking style of arts and science college students.
6. To find out the oligarchic thinking style of arts and science college students.

4. HYPOTHESIS

1. There is no significant difference between legislative thinking style of art and science college students.
2. There is no significant difference between Executive thinking style of art and science college students.
3. There is no significant difference between Judicial thinking style of art and science college students.
4. There is no significant difference between Monarchic thinking style of art and science college students.
5. There is no significant difference between Hierarchic thinking style of art and science college students.
6. There is no significant difference between Oligarchic thinking style of art and science college students.

5. NEED OF THE STUDY

Traditional Education is not enough to gain employment because in schools and college students are not be taught according to abilities. These abilities are their intelligence, learning style, thinking style, motivational type, process of adjustment attitude and interest, we usually see that a student is lower in academic achievement but he is better in thinking. So, first of all we will have find thinking style of students, who learn and think in unique individualized ways.

In search of solution of teaching problems of college students, some work has been done on thinking style of students in foreign Zhang and Sternberg conducted a study style abilities and academic achievement. Chang Zhu nad Li Fang Zhang presented a study about thinking style and conceptions of creativity among university students. In India Kumari, Vandana studied thinking styles, learning modes and preference for teaching methods among university students, but in India no such attempt has been made so far. Thinking style is very important component of learning process of college education. After confirming the thinking style of college students

Method, sample and tools

The population of this study included all the Final Year (Art and Science) students of graduation studying in government degree colleges of district Ghaziabad. 40-40 students of Art and Science stream were selected randomly by simple lottery method from both the colleges.

Thinking styles inventory made by Sternberg and Wagner (1992) was used to assess the thinking style of college student. It is a self-report test consisting of 104 items. The inventory has 13 scales with 8 items on each scale.

Analysis and Interpretation

1- "There is no significant difference between legislative thinking style of art and science college students".

Comparison of Art and Science college students on legislative thinking style

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.3	SD1 = 0.65	1.77
Science	N2 = 40	M2 = 4.01	SD2 = 0.80	

Table -1 shows that 't' value for the two groups came out to be 1.77. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is less than the table value.

It means that two groups namely Art group and Science group has not found significantly different on their legislative thinking style. They have equal egislative thinking style.

2- "There is no significant difference between executive thinking style of art and science college students".

Comparison of Art and Science college students on executive thinking style

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.65	SD1 = 0.67	6.56
Science	N2 = 40	M2 = 3.64	SD2 = 0.71	

Table -2 shows that 't' value for the two groups came out to be 6.56. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is greater than the table value.

It means that two groups namely Art group and Science group has found significantly different on their executive thinking style. They have sufficient executive thinking style.

3- "There is no significant difference between Judicial thinking style of art and science college students".

Comparison of Art and Science college students on Judicial thinking

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.57	SD1 = 0.70	2.64
Science	N2 = 40	M2 = 4.4	SD2 = 0.83	

Table -3 shows that 't' value for the two groups came out to be 1. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is less than the table value.

It means that two groups namely Art group and Science group has not found significantly different on their Judicial thinking style. They have equal Judicial thinking style.

4-"There is no significant difference between monarchic thinking style of art and science college students

Comparison of Art and Science college students on monarchic thinking style

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.41	SD1 = 0.59	2.81
Science	N2 = 40	M2 = 4.87	SD2 = 0.61	

Table-4 shows that 't' value for the two groups came out to be 2.81. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is greater than the table value.

It means that two groups namely Art group and Science group has found significantly different on their monarchic thinking style. They have different monarchic thinking style.

5- "There is no significant difference between hierarchic thinking style of art and science college students".

Comparison of Art and Science college students on hierarchic thinking style

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.46	SD1 = 0.45	0.092
Science	N2 = 40	M2 = 4.61	SD2 = 0.52	

Table shows that 't' value for the two groups came out to be 0.092. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is less than the table value.

It means that two groups namely Art group and Science group has not found significantly different on their hierarchic thinking style. They have equal hierarchic thinking style.

6-There is no significant difference between oligarchic thinking style of art and science college students".

Comparison of Art and Science college students on oligarchic thinking style

Stream	N	Mean	S.D.	t-value
Art	N1 = 40	M1 = 4.14	SD1 = 0.73	1.93
Science	N2 = 40	M2 = 4.45	SD2= 0.72	

Table-6 shows that 't' value for the two groups came out to be 1.93. The df is 78. The table value for df (78) at 0.05 level is 1.99 and at 0.01 level is 2.64. The obtained 't' value is less than the table value.

that college students with Art and Science stream do not differ significantly on oligarchic thinking style

6. FINDING

1. College students did not differ significantly on legislative thinking style in relation to their stream. Art and Science college student showed no significant difference between legislative thinking style. The reason for this may be that both groups think with their own ways of doing things.
2. College students differed significantly on executive thinking style in relation to their stream, Art students had significantly more inclination towards executive thinking style than science students. For this the reason may be that the students in art group are more depended on others and prefer problems that are pre-structured and prefabricated.
3. College students did not differ significantly on judicial style of thinking in relation to their stream. Art and science college students showed no significant difference between judicial style of thinking but on the basis of mean, art group was slightly better than science group and the reason for this may be that students in art group like to evaluate rules and procedures.
4. College students differed significantly on monarchic style of thinking in relations to their stream. Science students had significantly more inclination towards monarchic style of thinking than art students. The reason for this may be that the students in science group are single minded. They do not let come any thing in their way in solving a problem.
5. College students did not differ significantly on hierarchic style of thinking in relation to their stream. Both the group of student showed no significant difference between hierarchic style of thinking, but on the basis of mean, science group was slightly better than art group, the reason may be that the students in science group have the hierarchic of goals and recognizes the needs to set priorities.
6. College students did not differ significantly on oligarchic style of thinking in relation to their stream. Art and science college students showed no significant difference between oligarchic style of thinking. But on the basis of mean, science group was slightly better than art group and the reason may be that students in science group tend to be motivated by several often completing goals of equal perceived importance.

7. EDUCATIONAL IMPLICATIONS OF FINDING

Research work is incomplete unless educational implications are drawn out of it. The following implications may be drawn for higher education. The findings show that the thinking style is linked with the choice of subjects. Art students was good in several thinking styles. Thus it is suggests that educational administrators may make use of these thinking styles to promote better conditions for teaching/learning environment. Teacher may manage the teaching learning process to determine thinking style of students. classroom transactions, curriculum framing, assignment designing may be based on thinking styles of college students so that diversity in thinking styles of college students may be properly expositied for their development. Parents can guide their children to choose subjects a/c to their thinking styles and other abilities.

REFERENCES

- Adam, C.E. (1988)** : The relationship between creative style and leader behavior in chief, nurse administrator, DAI, 1989, Vol.49(7), 2566-B
- Agor, W.H. (1983)** : Brain skills development I management training. Training and development Journal, Vol.38, 78-82
- Aliotti, N.C. (1981)** : Intelligence, Handedness and Cerebral Hemispheric Preference in gifted adolescents. Gifted child quarterly, 25, 36-41

- Al-Sabaty, Ibrahim, Davis, G.A.(1989)** : Relationship between creativity & right, left and integrated thinking styles. Creativity Research Journal, Vol.2 (1&2) 111-118.
- Allinson, C.W. & Hayes. J. (1996)** : The cognitive style Index: a measure of intuition analysis for Organizational research, Journal of management Studies 33:119-135
- Andrews, M.F. (1980)** : The consonance between right brain and affective Subconscious and multisensory functions. Journal of creative behavior , 14(2), 77-87.
- Arora M, Murthy, V.N. (1975)** : Cognitive style and personality Indian Journal of clinical psychology. 2:39-44 73
- Attri A.K. (2001)**: A study of styles of thinking and modes of learning of professional studies. M.Ed. Dissertation, HPU.
- Basadure, M. Wakabayashi, M. and Gaen, G.B. (1990)**: Individual problem solving styles and attitudes towers Divergent thinking before and after. Bulletin, 82, 87-103. **Doer, S. (1980)** Conjugate lateral eye movement eye movement cerebral dominance and the figural creativity factors of fluency, flexibility and elaboration. Studies in art education, 21 (3), 5-11.