

## Study of Left- Handed and Right- Handed Adolescent Students in Relation to their Ego-Identity

Mamta Kandpal<sup>a</sup>, Dinesh Chandra Kandpal<sup>b</sup>, Manisha Pant<sup>c</sup>

<sup>a</sup>Assistant Professor Shiksha Sankay, S.S.J. University Almora Uttarakhand .

<sup>b</sup>Assistant Professor School Of Education, Uttarakhand Open University Haldwani Nainital.

<sup>c</sup>Assistant Professor School Of Education, Uttarakhand Open University Haldwani Nainital.

### Abstract

Education is the basic need for the development of a person, family, state or a country. Every country develops some objectives for the education and also makes the planning for achieving these objectives. Before independence our educational policies were based on the requirement of the British Government and they prepared objectives as per their need. But after independence the need of our country in the field of the education was totally changed. So the government of India have introduced number of educational policies since independence. In the continuation of these policies our country has introduced National Education Policy 2020. On going through the most of the policies there is no inclusion of handedness. The most of the infrastructures for the class rooms are prepared according to the students having right handers. Left handers students are ignored while making the policies.

Even in the census there is no column for the handedness. Manufacturer of different industries also preparing most of the things only for the right handers, due to the minority in the population left handers are forced to use the things which are made for the right handers. It is the responsibilities of the policy makers to give their attention in the point of handedness while making educational policies. The present study conducted an overview between the relationship of the handedness and Ego-Identity.

**KEYWORDS:** Handedness: Left Handed and Right Handed, Ambidextrous, Ego-Identity, Adolescent Students

### Introduction:

There are two kinds of people in the world; one who use their right hand for most of the daily activity or those who use their left hand for the same. In simply we can say one is right handed or other is left handed. The term handedness is coined for the same. In ancient period the difference between the populations of these two groups are almost equal, but due to the superstitions, present scenario is totally changed. Many of the studies reported that the present ratio of Right handed and Left handed population is 90:10. Only 10 percent of the people worldwide are left handed. The question arises that why a person is either right handed or left handed?

According to the biological science, it is decided about the handedness of a fetus in the first trimester of pregnancy that how a child takes birth with handedness either left handed or right handed. As per the reports of the physiological science our left brain is responsible for the right part of our body and vice versa the right brain is responsible for the left part of the body. As a result we can say Lefties are always Right. In every religion there are so many customs and superstitious things which are not in the favour of left handed persons. As a result the population of Right handed is

increased and most of the left handers are converted into right handed. Due to this practice a few of left handers are able to use their both hands equally such kinds of persons are known as Ambidextrous.

Handedness is the polymorphic trait in human. Research shows that 90% of populations is said to be right- handed and remaining 10% consisting of person variability identified as left-handed, ambidextrous or ambiguously handed (Mc Manus C, 2002, Soper et al, 1986 Ferrarim, 2007), Left handed are in the minority in all human population.

Irrespective of the fact that human beings differ in their handedness, they all go through psychosocial and biological stages in sequential manners

It need to be accepted here that educational practices are framed and education first developed in such a manner which suit the requirement of Right handed Students. No specific provision is made for Left-handed student while constructing various infrastructure facilities and instructional facilities in educational institute. No specific provisions are made available to the left-handed students with regards to the various results under the psychomotor domain of educational object under Bloom's taxonomy of educational objectives. Hence it is research worthy to find out whether Left Handed Students and Right Handed Students differ with respect to their Ego-Identity.

## Definitions of the Terms

### Ego-identity:

The Psycho Social Developmental Stage theory proposed by Erik H. Erikson elaborates eight life crises during the entire period of human life. These life crises may be present throughout the human life but each one is of paramount significance at a particular stage of human life. The eight life crises and their corresponding age groups have been mentioned below-

S.N	Life Crises	Age Group
1	Trust Vs. Mistrust	Birth to 1 ½ year
2	Autonomy Vs. Shame	2 to 4 years
3	Initiative Vs. Guilt	4 to 5 years
4	Industry Vs. Inferiority	6 to 12 years
5	Identity Vs. Role Confusion	Adolescence
6	Intimacy Vs. Isolation	Youth hood
7	Generativity Vs. Stagnation	Adulthood
8	Integrity Vs. Despair	Old age to death

(Source- *Theories of Development by William C. Crain, 1980: 157*)

A successful resolution of the above mentioned first six life crises culminates into a sense of strong ego identity whereas unresolved crises tend to weaken the identity. According to Erikson successful resolution of first crisis facilitates the resolution of second crisis and so on. Overall success in resolving these crises enables an individual to form and attain a strong sense of ego identity and vice-versa.

Operationally, Ego-identity of the adolescent students, here in this investigation, has been measured by administering Ego-identity Scale of Joshi, J.K. (1984). This Scale is a translated, modified and revalidated version of Ego-identity Scale developed and validated by Rasmussen (1964) on the basis of Eriksonian

theoretical framework. This revalidated version contains 36 items spread over the first six life crises. It is a two point Scale and contains six statements with regard to each of the first six life crises.

**Adolescent Students-** ‘Adolescent students here in this investigation, refer to the students studying in class XI of the Government Intermediate Colleges situated in Nainital and Udham Singh Nagar districts of Uttarakhand.

#### **Left Handed Adolescent Student:**

Left-handed adolescent student here in this investigation refer to the students of class XI who use their left hand more skilfully or easily than the right hand Or those who use their left hand for writing work.

#### **Right Handed Adolescent Student:**

Right handed adolescent student here in this investigation refer to the students of class XI who use the right hand more skilfully or easily than the left hand Or those who use their right hand for writing work.

Operationally handedness was determined by observations, based on the writing hand of the adolescent students.

#### **Tools:**

The following Tools were employed to collect the relevant data-

1. Personal Data Schedule (PDS) developed by the researcher.
2. Ego-Identity Scale of Joshi, J.K. (1984)

#### **Objectives:**

- 1- To find out whether Left-Handed Female Adolescent Students and Right-Handed Female Adolescent Students differ in their Ego-identity.
- 2- To find out whether Left-Handed Male Adolescent Students and Right-Handed Male Adolescent Students differ in their Ego-identity.
- 3- To identify Left-Handed Adolescent Students and Right-Handed Adolescent Students differ in their Ego-identity.

#### **Hypotheses**

- 1- There is no significant difference in the Ego-Identity of Left-Handed Female Adolescent Students and Right-Handed Female Adolescent Students
- 2- There is no significant difference in the Ego-Identity of Left-Handed Male Adolescent Students and Right-Handed Male Adolescent Students
- 3- Left-Handed Adolescent Students and Right-Handed Adolescent Students do not differ in their Ego- identity.

#### **Sample**

The sample includes 180 students (90 Left Handed and 90 Right Handed) of class XI of Government Intermediate Colleges situated in Nainital and Udham Singh Nagar districts of Uttarakhand.

**Ego- Identity of Left Handed Female Adolescent Students**

<b>S.N</b>	<b>D1</b>	<b>D2</b>	<b>D3</b>	<b>D4</b>	<b>D5</b>	<b>D6</b>	<b>EGO ID TOTAL</b>
1	5	3	4	5	5	3	25
2	4	3	2	5	4	3	21
3	4	4	4	4	5	6	27
4	5	3	3	4	5	3	23
5	4	3	6	6	5	4	28
6	5	4	5	4	2	2	22
7	4	3	4	4	4	3	22
8	4	2	5	2	2	2	17
9	5	2	5	5	6	6	29
10	5	3	4	4	6	6	28
11	5	3	6	5	4	5	28
12	5	1	4	5	2	2	19
13	5	2	6	5	4	5	27
14	6	5	2	4	2	2	21
15	3	4	5	4	5	5	26
16	5	4	5	4	4	3	25
17	6	2	5	5	4	3	25
18	3	3	6	3	2	4	21
19	5	3	5	6	6	5	30
20	3	3	2	6	3	5	22
21	3	4	5	5	5	6	28
22	3	4	4	4	5	5	25
23	6	1	5	5	6	6	29
24	3	2	5	4	3	2	19
25	3	3	3	2	3	2	16
26	2	4	6	6	6	4	28
27	6	3	5	4	4	5	27
28	5	4	2	3	2	5	21
29	5	2	5	3	5	6	26
30	5	2	4	6	6	5	28
31	6	4	5	5	6	5	31
32	4	2	5	4	5	6	26
33	1	3	5	2	5	2	18
34	5	3	6	6	6	4	30
35	5	1	6	4	3	3	22
36	3	3	4	5	4	5	24
37	6	2	4	5	4	3	24
38	4	4	6	4	5	5	28
39	5	2	6	5	2	3	23
40	5	6	5	6	6	6	34
41	4	2	6	5	5	3	25
42	6	4	5	4	6	6	31

43	4	4	6	5	4	4	27
44	5	1	5	5	5	3	24
45	4	2	3	6	4	2	21

Where D1, D2, D3, D4, D5 & D6 are six dimensions of Ego-Identity

### Ego- Identity of Right Handed Female Adolescent Students

S.N	D1	D2	D3	D4	D5	D6	EGO ID TOTAL
1	4	3	5	6	4	2	24
2	5	1	6	5	5	4	26
3	5	3	3	2	5	2	20
4	5	3	5	4	4	4	25
5	6	1	3	4	4	1	19
6	3	5	5	5	6	6	30
7	4	1	6	5	4	5	25
8	3	4	5	4	3	4	23
9	6	3	6	5	4	5	29
10	5	4	4	4	3	3	23
11	5	4	3	3	4	4	23
12	4	4	6	3	5	4	26
13	5	1	5	4	3	4	22
14	5	3	6	4	2	4	24
15	5	2	3	3	5	1	19
16	3	3	5	3	6	5	25
17	6	3	6	4	6	4	29
18	4	1	5	3	4	2	19
19	6	5	5	4	5	3	28
20	6	2	6	4	5	4	27
21	6	3	6	4	6	4	29
22	3	3	5	3	6	5	25
23	5	2	4	4	4	6	25
24	5	4	6	5	4	6	30
25	6	3	6	2	4	4	25
26	5	2	5	4	3	5	24
27	6	2	3	2	5	4	22
28	2	1	6	3	3	5	20
29	4	3	4	3	2	4	20
30	4	5	5	3	2	4	23
31	4	3	6	5	4	3	27
32	6	4	3	4	5	4	26
33	4	2	5	4	6	3	24
34	6	3	5	6	4	4	28
35	5	5	4	3	6	2	25

36	6	3	5	6	4	4	28
37	4	2	4	4	6	5	25
38	3	4	5	3	3	5	23
39	6	3	6	4	4	4	27
40	6	2	5	5	2	4	24
41	6	2	5	5	5	4	27
42	4	4	5	5	5	5	28
43	6	5	4	4	6	5	30
44	3	2	4	4	6	6	25
45	4	3	5	4	6	5	27

Where D1, D2, D3, D4, D5 & D6 are six dimensions of Ego-Identity

### Ego- Identity of Left Handed Male Students

S.N	D1	D2	D3	D4	D5	D6	EGO ID TOTAL
1	5	4	5	6	5	6	31
2	5	4	5	4	6	5	29
3	5	3	6	4	3	3	24
4	4	3	5	4	3	3	22
5	3	3	3	1	5	2	17
6	5	4	6	6	3	5	29
7	5	4	6	6	3	5	29
8	4	2	3	5	5	3	22
9	4	5	4	5	4	5	27
10	4	3	3	6	3	5	24
11	4	4	5	5	6	4	28
12	4	2	6	5	3	5	25
13	3	3	6	5	3	4	24
14	6	3	4	5	6	2	26
15	5	3	6	5	5	2	26
16	5	2	5	4	4	2	22
17	6	3	3	4	4	4	23
18	5	3	4	4	5	3	24
19	5	5	3	5	6	6	30
20	5	4	6	6	6	5	32
21	3	3	3	6	4	3	22
22	4	2	3	5	5	3	22
23	6	3	4	4	5	5	27
24	6	4	5	5	5	6	3
25	4	1	5	5	5	5	25
26	5	5	6	5	6	6	33
27	3	4	4	4	4	4	23
28	4	2	3	5	5	5	24

29	6	3	5	6	6	5	31
30	5	2	6	6	4	5	28
31	4	2	1	3	6	4	20
32	4	4	5	6	5	4	28
33	4	3	4	1	4	3	19
34	3	3	5	6	5	5	27
35	4	5	4	4	4	4	25
36	2	5	4	5	5	5	26
37	5	1	6	3	2	3	20
38	5	4	2	6	5	5	27
39	4	3	6	4	6	5	28
40	5	4	5	5	6	5	30
41	6	1	6	5	6	4	28
42	5	3	3	4	4	4	23
43	6	2	5	0	4	1	18
44	5	2	5	4	5	2	23
45	5	4	6	5	6	3	29

Where D1, D2, D3, D4, D5 & D6 are six dimensions of Ego-Identity

### Ego-Identity of Right Handed Male Adolescent Students

S.N	D1	D2	D3	D4	D5	D6	EGO ID TOTAL
1	5	2	6	6	3	2	24
2	5	5	6	6	5	6	33
3	5	4	5	3	5	4	26
4	5	5	5	4	4	5	28
5	4	2	5	3	2	1	17
6	3	2	5	5	4	5	24
7	4	3	5	5	5	3	25
8	5	6	4	4	5	6	30
9	4	6	5	3	4	2	24
10	5	4	2	3	2	4	20
11	3	4	4	5	4	5	25
12	4	1	6	4	4	6	25
13	5	2	5	5	3	3	23
14	5	5	5	4	4	4	27
15	6	3	5	4	4	2	24
16	6	5	4	4	2	4	26
17	5	6	6	3	4	3	27
18	3	4	6	5	6	5	29
19	5	2	4	5	4	5	25
20	5	5	6	6	5	6	33
21	5	5	5	6	6	6	33

22	4	4	3	5	2	4	22
23	5	3	5	5	5	5	28
24	5	3	3	6	3	3	23
25	5	2	5	5	2	3	22
26	5	4	6	5	6	2	28
27	5	3	3	4	5	3	23
28	6	3	6	4	6	3	28
29	6	3	4	4	4	2	23
30	5	4	3	3	5	5	25
31	4	2	4	5	4	4	23
32	4	4	6	3	2	5	24
33	2	2	4	3	6	4	21
34	5	3	5	3	6	4	26
35		5	4	4	6	5	29
36	4	3	4	2	3	2	18
37	5	3	6	6	5	4	29
38	6	3	5	3	5	5	27
39	5	4	6	3	3	3	24
40	3	3	5	4	5	2	22
41	6	4	5	5	3	6	29
42	5	4	6	6	6	6	33
43	4	5	6	4	6	4	29
44	6	4	5	4	5	4	28
45	4	3	3	5	3	3	21

Where D1, D2, D3, D4, D5 & D6 are six dimensions of Ego-Identity

### Data Analysis and Results

In order to attain the objectives of the study and to accept/reject the hypotheses, values of relevant t-ratios were computed.

S.N	Handedness groups	N	M	SD	t-ratio	df	Significance at 0.05 level of significance
1-	LHFAS	45	24.91	4.0160	0.053	88	Significant
	RHFAS	45	24.95	3.0447			
2-	LHMAS	45	24.95	5.0269	0.750	88	Significant
	RHMAS	45	25.62	3.7736			
3-	LHAS	90	24.93	4.5240	0.583	178	Significant
	RHAS	90	25.28	3.42567			

### Conclusions:

1. Hand wise two groups of the Adolescent students with different handedness differ in their Ego- identity. This implies that Hand wise different adolescent students with different handedness (Left Handed Female Adolescent Students and Right Handed Female Adolescent Students) tend to be differing in their Ego- identity.



2. Hand wise two groups of the Adolescent students with different handedness differ in their Ego- identity. This implies that Hand wise different adolescent students with different handedness (Left Handed Male Adolescent Students and Right Handed Male Adolescent Students) tend to be differing in their Ego- identity..

3. Students of two groups having different handedness i.e. Right Handed Adolescent Students (RHAS) and Left Handed Adolescent Students (LHAS) also differ in their Ego- identity.

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