



# Effect of personal variables on thinking skills of institutionalized adolescents: An exploratory investigation

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## ABSTRACT

The present study was conducted in Delhi and Haryana state. From Delhi, SOS (Save our Soul) village of Bawana and from Haryana, SOS village of Faridabad was selected purposively. The objective of the study was to assess the impact of personal variables on thinking skills of institutionalized adolescents. Separate lists of boys and girls in the age range of 13-19 years were prepared from both the SOS villages. Total of 200 adolescents (100 from SOS village Bawana and 100 from SOS village Faridabad) constituted the sample for the study to assess the existing thinking skills. From SOS village Bawana, 100 adolescents equally representing both the sexes *i.e.* 50 girls and 50 boys were selected on random basis. Same procedure was followed for SOS village Faridabad. The results revealed that age, gender and relationship with peers were significantly associated with thinking skills. Both boys and girls belonged to average category followed by below average category in thinking skills.

## INTRODUCTION

Institutionalized children are considered as highly deprived class of society. These children are helpless, abandoned and neglected due to social, economic and personal reasons. They are deprived of one or more necessities of life. Thinking skills includes decision making, problem solving, creative thinking and critical thinking. Decision making helps to deal constructively with decisions about lives *i.e.* for choosing the best amongst the various alternatives in many life situations. The situations may not really the problems, but require a

choice to be made. This skill enables to weigh the pros and cons of alternatives and make an informed decision.

Everyone faces problems in life. The fascinating thing about problems is that they are actually opportunities in disguise. Thus, problem solving skills enable us to deal constructively with problems that arise in our lives. Martinez (2005) problem solving is the process of moving towards a goal when the path to that goal is uncertain. Dodge (1985) regards social problem solving as a special, interpersonal form of more general problem-solving process. Social problem-solving has a profound impact on social competence. Problem

orientation is a metacognitive process involving the operation of a set of relatively stable cognitive-emotional schemas that describe how a person generally thinks and feels about problems in living, as well as his or her own problem-solving ability.

Creative thinking is not just being artistic and innovative; it is a state of mind, which could be applied to any situation. It helps to look beyond direct experiences and to respond to flexible situations in day to day life. Thus, creativity is an ability to generate new ideas by combining, changing or re-applying existing ideas. Family also plays an important role in shaping the creative thinking of children. Close parent/adolescent relationships, good parenting skills, shared family activities and positive parent role modelling all have well-documented effects on adolescent health and development (Trivedi and Bhargava, 2010). Creative thinking contributes to both decision making and problem solving by enabling to explore the available alternatives and various consequences of actions or non-action. Creative thinking involves adolescents in learning to generate and apply new ideas in specific contexts, seeing existing situations in a new way, identifying alternative explanations and seeing or making new links that generate a positive outcome. Critical thinking is an ability to analyze information and experiences in an objective manner. It helps to recognize and assess the factors that influence attitudes and behaviour. This is an important skill that will help to make crucial life decisions.

Critical thinking is at the core of most intellectual activity that involves adolescents in learning to recognize or develop an argument, use evidence in support of that argument, draw reasoned conclusions, and use information to solve problems. Examples of critical thinking skills are interpreting, analyzing, evaluating, explaining, sequencing, reasoning, comparing, questioning, inferring, hypothesizing, appraising, testing and generalizing. Critical thinking involves both cognitive skills and dispositions. These dispositions, which can be seen as attitudes or habits of mind, include open and fair mindedness, inquisitiveness, flexibility, a propensity to seek reason, a desire to be well-informed, and a respect for and willingness to entertain diverse viewpoints. There are both general- and domain-specific aspects of critical thinking. Critical and creative thinking can be encouraged simultaneously through activities that integrate reason, logic, imagination and innovation. A

critical thinker makes use of information to solve problems and arrive at good conclusions.

Therefore, keeping in view the importance of thinking skills, the present study was undertaken with the specific objective *i.e.* to assess the effect of personal variables on thinking skills of institutionalized adolescents.

## MATERIAL AND METHODS

The present study was conducted in Delhi and Haryana state. From Delhi, SOS (Save our Soul) village of Bawana and from Haryana, SOS village of Faridabad was selected purposively. Separate lists of boys and girls in the age range of 13-19 years were prepared from both the SOS villages. Total of 200 adolescents (100 from SOS village Bawana and 100 from SOS village Faridabad) constituted the sample for the study to assess the existing thinking skills. From SOS village Bawana, 100 adolescents equally representing both the sexes *i.e.* 50 girls and 50 boys were selected on random basis. Same procedure was followed for SOS village Faridabad.

For the present study, the variables have been grouped as dependent and independent variables. In independent variable includes Personal variable and thinking skill was dependent variable for the present study. Personal variable mainly includes age, gender, academic achievement, mass media exposure, relationship with peers and relationship with teachers of the adolescents and self prepared questionnaire was used to assess this variable. Life Skills Assessment Scale (LSAS) was used to assess the thinking skills among the adolescents.

## OBSERVATIONS AND ANALYSIS

The results revealed that most of the adolescents (41.00%) were in the age range of 15<sup>+</sup>-17 years followed by 32.00 per cent adolescents in 13-15 and remaining 27 per cent adolescents were in the age group of 17<sup>+</sup>-19 years in SOS Bawana. Whereas in Faridabad, 30.00 per cent adolescents fall in the age group of 13-15 years and 34 per cent adolescents in the age group of 15<sup>+</sup>-17 years and 36 per cent adolescents were in the age group of 17<sup>+</sup>-19 years. Half of the adolescents were boys and the other half were girls.

It is further remarkable that in SOS Bawana, 39.00 per cent adolescents were found in good category of

academic achievement followed by 36.00 per cent adolescents in poor category and remaining 25.00 per cent adolescents were found in very good category. Similarly, in SOS Faridabad, 38.00 per cent adolescents were found in good category followed by 33.00 per cent adolescents in poor category and remaining 29.00 per cent adolescents were in very good category of academic achievement as per their performance in previous class.

Table 1 further revealed that 50.00-52.00 per cent adolescents had high level of mass media exposure in both the SOS villages followed by 48.00-50.00 per cent adolescents in medium category. Table 1 also highlighted that in SOS Bawana, 35.00 per cent and 33.00 per cent adolescents had very good and good relationship with peers, respectively. Further good percentages (32.00%) of adolescents were also having poor relationship with their peer groups. But in SOS Faridabad, 41.00 per cent adolescents were having very good relationship with peers followed by 30.00 per cent adolescents having poor relationship and remaining 29.00 per cent adolescents were having good relationship with their peer groups.

Regarding relationship with teachers, 37.00 per cent adolescents had good relationship followed by 32.00 per cent having poor relationship and remaining 31.00 per

cent were having very good relationship with their teachers in SOS Bawana. But the distribution in SOS Faridabad was different, 47.00 per cent adolescents were having poor relationship followed by 29.00 per cent adolescents having very good relationship with teachers and remaining 24.00 per cent adolescents were having good relationship with their teachers.

#### Assessment of thinking skills of institutionalized adolescents :

Life skills assessment scale (LSAS) was used to assess the existing thinking skills of adolescents. The four dimensions of thinking skills *i.e.* problem solving, creative thinking, decision making and critical thinking skills were assessed and results were categorized into three categories *i.e.* below average, average and above average using frequency distribution techniques.

Results depicted in Table 2 revealed that more than half adolescents (65.00%) from SOS Bawana had average thinking skills followed by 23.00 per cent adolescents had below average thinking skills and only 12.00 per cent adolescents had above average thinking skills, whereas in SOS Faridabad, majority of adolescents (73.00%) had average thinking skills followed by above

Table 1: Personal profile of adolescents		(n=200)			
Sr. No.	Variables	Area	SOS Bawana (n=100)	SOS Faridabad (n=100)	Total
1.	<b>Age</b>				
	13-15 years		32(32.00)	30(30.00)	62(31.00)
	15 <sup>+</sup> -17 years		41 (41.00)	34(34.00)	75(37.50)
	17 <sup>+</sup> -19 years		27(27.00)	36(36.00)	63(31.50)
2.	<b>Academic achievement</b>				
	Poor		36(36.00)	33(33.00)	69(34.50)
	Good		39(39.00)	38(38.00)	77(38.50)
	Very good		25(25.00)	29(29.00)	54(27.00)
3.	<b>Exposure to mass media</b>				
	Low (only radio or none)		-	-	-
	Medium (only television)		48(48.00)	50(50.00)	98(49.00)
	High (television, magazines or news paper)		52(52.00)	50(50.00)	102(51.00)
4.	<b>Relationship with peers</b>				
	Poor		32(32.00)	30(30.00)	62(31.00)
	Good		33(33.00)	29(29.00)	62(31.00)
	Very good		35(35.00)	41(41.00)	76 (38.00)
5.	<b>Relationship with teachers</b>				
	Poor		32(32.00)	47(47.00)	79(39.50)
	Good		37(37.00)	24(24.00)	61(30.50)
	Very good		31(31.00)	29(29.00)	60(30.00)

Figures in parentheses denote percentage

average (15.00%) and below average (12.00%) thinking skills.

Results further revealed that majority of adolescents belonged to average category of problem solving (68.50%), creative thinking (70.00%), decision making (64.50%) and critical thinking skills (51.50%). Thinking skills of adolescents of SOS Bawana and SOS Faridabad were found in average category in all dimensions of thinking skills followed by below average category.

### Association of personal variables with thinking skills of institutionalized adolescents :

Pearson's chi-square test was used to see the effect of personal variables *viz.*, age, gender, academic achievement, exposure to mass media, relationship with peers and relationship with teachers on thinking skills of adolescents.

Table 3 depicts the association of adolescent's personal variables with thinking skills. Results indicated that the personal variables *i.e.* age ( $\chi^2=14.83^*$ ), gender ( $\chi^2=22.27^*$ ) and relationship with peers ( $\chi^2=10.65^*$ ) were significantly associated with thinking skills while other

personal variables *i.e.* academic achievement ( $\chi^2=2.43$ ), exposure to mass media ( $\chi^2=2.15$ ) and relationship with teachers ( $\chi^2=4.73$ ) were found non-significantly associated with thinking skills of adolescents. Results may be interpreted that adolescents who had good relationship with peer group were having average level of thinking skills.

Results of the present study revealed that most of the adolescents belonged to age group of 15<sup>+</sup>-17 years and achieved good marks in their previous class. Majority of adolescents of the total sample had high to medium access to mass media. Most of the adolescents were having good relationship with peers and poor relationship with teachers. The results are supported from the previous findings of Balda *et al.* (2002) found that peer acceptance was positively correlated with teacher rated popularity among classmate and outgoing social behaviour. Children rated positively were more likely to use positive and less likely to use negative strategies to resolve conflicts with peers.

Thinking skills of adolescents of both SOS villages were measured by Life Skills Assessment Scale. Results

Sr. No.	Area	SOS Bawana (n=100)	SOS Faridabad (n=100)	Total
1.	<b>Overall thinking skills</b>			
	Below average	23(23.00)	12(12.00)	35(17.50)
	Average	65(65.00)	73(73.00)	138(69.00)
	Above average	12(12.00)	15(15.00)	27(13.50)
2.	<b>Dimensions of thinking skills</b>			
	<b>Problem solving</b>			
	Below average	28(28.00)	20(20.00)	48(24.00)
	Average	66(66.00)	71(71.00)	137(68.50)
	Above average	6(6.00)	9(9.00)	15(7.50)
	<b>Creative thinking</b>			
	Below average	25(25.00)	17(17.00)	42(21.00)
	Average	65(65.00)	75(75.00)	140(70.00)
	Above average	10(10.00)	8(8.00)	18(9.00)
	<b>Decision making</b>			
	Below average	32(32.00)	18(18.00)	50(25.00)
	Average	58(58.00)	71(71.00)	129(64.50)
	Above average	10(10.00)	11(11.00)	21(10.50)
	<b>Critical thinking</b>			
	Below average	34(34.00)	27(27.00)	61(30.50)
	Average	50(50.00)	53(53.00)	103(51.50)
	Above average	16(16.00)	20(20.00)	36(18.00)

Figures in parentheses denote percentage

revealed that majority of adolescents fall in average category for all dimensions of thinking skills. These findings are highly similar to those found in previous research of Sharma (2009) conducted study on 347 adolescents in a secondary school of Katmandu and concluded that 1 51 per cent adolescents had life skill scores above the mean, and was termed as having “high level” of life skills and 49 per cent had “low level” of life skills scores. Mother’s education has significant influence on increased level of life skills in adolescents.

Results revealed that age, gender and relationship with peers were significantly associated with thinking skills. Both boys and girls belonged to average category followed by below average category in thinking skills.

The results get support from the previous findings of Tripathi and Swarnkar (2008). Results of the study found that the achievement motivation affects the creative thinking of students significantly. Further, study revealed no significant differences between achievement motivation and creative thinking of boys and girls. M’murithi (2007) investigated whether there were significant differences in the academic achievement of students who were taught by teachers who had received specialized critical thinking skills training and students who were taught by teachers who had not received such training, predicted no significant differences in the academic achievement of the experimental and control groups of sixth-grade students.

Sr. No.	Variables	Thinking skills	Below average	Average	Above average	Total	Chi-square ( $\chi^2$ ) value
1.	<b>Age</b>						14.83*
	13-15 years		13(20.97)	48(77.42)	1(1.61)	62	
	15 <sup>+</sup> -17 years		19(25.33)	52(69.33)	4(5.33)	75	
	17 <sup>+</sup> -19 years		3(4.76)	38(60.32)	22(34.92)	63	
	Total		35(17.50)	138(69.00)	27(13.50)	200	
2.	<b>Gender</b>						22.27*
	Boys		15(15.00)	66(66.00)	19(19.00)	100	
	Girls		20(20.00)	72(72.00)	8(8.00)	100	
	Total		35(17.50)	138(69.00)	27(13.50)	200	
3.	<b>Academic achievement</b>						2.43
	Poor		13(18.84)	45(65.22)	11(15.94)	69	
	Good		11(14.29)	58(75.32)	8(10.39)	77	
	Very good		11(20.37)	35(64.81)	8(14.81)	54	
	Total		35(17.50)	138(69.00)	27(13.50)	200	
4.	<b>Exposure to mass media</b>						2.15
	Low		-	-	-	-	
	Medium		19(19.39)	63(64.29)	16(16.33)	98	
	High		16(15.69)	75(73.53)	11(10.78)	102	
	Total		35(17.50)	138(69.00)	27(13.50)	200	
5.	<b>Relationship with peers</b>						10.65*
	Poor		10(16.13)	37(59.68)	15(24.19)	62	
	Good		9(14.52)	49(79.03)	4(6.45)	62	
	Very good		16(21.05)	52(68.42)	8(10.53)	76	
	Total		35(17.50)	138(69.00)	27(13.50)	200	
6.	<b>Relationship with teachers</b>						4.73
	Poor		13(16.46)	54(68.35)	12(15.19)	79	
	Good		10(16.39)	47(77.05)	4(6.56)	61	
	Very good		12(20.00)	37(61.67)	11(18.33)	60	
	Total		35(17.50)	138(69.00)	27(13.50)	200	

\*indicate significance of value at P=0.05

**Conclusion:**

On the basis of findings it can be concluded that mean scores of boys and girls on four dimensions of thinking skills were found in average category. Adolescents who had good relationship with peer group were having average level of thinking skills. A significant association was found in age, gender and relationship with peers (aspects of personal variable) with thinking skills. Both boys and girls belonged to average category followed by below average category in thinking skills.

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