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Creativity and Impulsivity among Deaf and Dumb Children: A Correlational Study

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ABSTRACT

The present article tries to investigate the relationship between creativity and impulsivity among deaf and dumb students. Participants were deaf and dumb students of standard V to X of Bilaspur district, Chattishgarh. Random sampling were used to select 100 participants from two randomly selected special school. Impulsiveness scale (IS) developed and standardized by Dr. S.N. Rai and Divergent production abilities (DPA) scale developed and standardized by Dr. K.N. Sharama were used for present study. The survey method has been adopted for the present study. Random sampling technique has been used in the study. The result indicates negative relationship between creativity and impulsivity.

Keywords: Creativity, Impulsiveness, Deaf & Dumb children, t test

Impulsivity is defined as the inability to avoid behaviors and acts according to situations (Milich & Kramer, 1982) or incitation to act without any plan or thinking with the tendency of impulse (Eysenck & Eysenck, 1977; Schalling, 1978; Gordon, 1979; Martin et al., 1994; Hinslie & Shatzky, 1940). It is an attribution of personality that a person shows unpredictable behavior by the urgency of the moment. Accordingly, it refers to individuals who rush into quick decisions (Nederkoorn et al., 2006). It has also been shown to reveal many fundamental cognitive, emotional and neurological problems among children (Barratt, 1965; Evenden, 1999; Moeller, Barratt, Dougherty, Schmitz, & Swann, 2001; Rogers et al., 2010) that have led to behavioral problems and later problems in adulthood including substance abuse (Verdejo-Garcia, Lawerence, & Clark, 2008;), pathological gambling (Blanco, Potenza, Kim, Ibanez, Zaninelli, Saiz-Ruiz, & Grant, 2009) and violent behavior (Komarovskaya, Loper, & Warren, 2007; Amabile, 1996;

Johnson *et al.*, 2013). According to Robinson, Smith, Miller, and Brownell (1999), those individuals who showed behavioral problems at an early age were more likely to suffer from low self control, hyperactivity, hostility, inattentiveness, disrespect toward authority, and impulsivity.

The common characteristic of creativity is to generate ideas, alternatives or possibilities to the problems to be solved and to develop new ideas and convert the new and imaginative concept into reality. Creativity skills usually have been thought to not be governed by any rules (Mumford *et al.*, 1996).

People of society assumed that if someone can't speak at all, they can't think well which is *completely* inaccurate, and does a great disservice to those with speech and communication problems, causing them to be ignored, bullied, and discriminated against, in schools and in the community. The deaf and dumb children are as much

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the citizen of the country as an abled person. Sometimes disability in one part of body may stimulate the activity of other organs and senses. The constitution of India has assured equality of opportunity of all with special assistance to the weaker section. This dream can only be translated into reality if proper attention is paid to the neglected group like deaf and dumb children. They can overcome their disabilities, if proper education and environment is provided.

Hearing impaired children are one of the most diverse group of exceptional children. Due to impairment in the auditory mechanism they have hearing loss in one or both ears. Population census 2011 revealed that the number of people with hearing and speech disabilities estimated also about 50.71 lakhs and 19.98 lakhs with a total disability about 2.68 crores (Census Report, 2011). Although India is rapidly developing, there is still plenty of poverty, and a high rate of deafness and hence proper education for those people is essential as they may give contribution to human resource.

LITERATURE REVIEW

An interesting area of psychologists is the understanding of psychopathology of everyday life in relation to mental illness and creativity. There are so many anecdotes of the creative person and their relationship with mental illness. Claridge (1998) suggested that schizo element is most closely related to creativity, rather than the affective element. According to Eysenck (1993) neuroticism is positively related with creativity for arts students and negatively sciences students, may be due to the emotional involvement in art and the explicit rejection of emotion in science students.

Interestingly, Carlsson, Wendt and Risberg (2000) found that highly creative individuals scored higher in trait anxiety than a low creative group and that the high creative demonstrated a higher level of blood flow. They concluded that their results agreed with the view that creative people may generally be more anxious than non-creative and experience higher levels of arousal on physiological measures. Bala (1985) found that the deaf and orthopedically handicapped children differed from normal children in personality traits. Acar (2013) studied the relation between creativity and schizotypy and

found that relationship is not uniform and that positive symptoms represent the intersection of creativity and schizotypy. Haplin, haplin and Torrence (1974) found that blind children are more verbally fluent, flexible and original in compare to sighted children. Sharma I.P. (2002) found that creativity for physically impaired children did not dependent on residence. Stanzione (2013) compared the divergent thinking abilities between deaf and hearing adolescents.

From above literature review, it has observed that not much many studies are available on the impulsiveness and creativity on deaf and dumb children and the relation between these two variables. Now considering the importance of Impulsiveness and creativity of Deaf and dumb children, the present study will show the level of creativity and impulsiveness of deaf and dumb children.

Objectives of the study

The objectives of the study are as follows:

- To study the extent of creativity and impulsiveness among deaf and dumb children.
- To study the relationship between creativity and impulsiveness among deaf and dumb students

Hypotheses of the study

In order to conduct the study smoothly, following hypotheses has been framed :

- ^oH₁: Deaf and dumb students have no creative abilities
- °H₂: There is no significant relationship exist between creativity and impulsivity for deaf and dumb students
- °H₃: There is no significant difference in impulsivity between high and moderate creative deaf and dumb students
- °H₄: There is no significant difference in impulsivity between high and low creative deaf and dumb students
- °H₅: There is no significance difference in impulsivity between moderate and low creative deaf and dumb students

Population and sample

All deaf and dumb students (V to X) of Bilaspur district, Chattishgarh are the population of this research. Random sampling technique has been used to select one Govt. school and one private school as samples from the population. The sample consists of 100 deaf and dumb students from two randomly selected schools of Bilaspur District (Table 1).

Table 1: Sample profile

Sl. No.	Name of the school Govt./ Private	Sample size
1	Govt. Deaf & Dumb Higher Government Secondary School, Tifra (Bilaspur)	77
2	Justice Tankha Rotary Memorial Private High School, Vinobhanagar (Bilaspur)	23

Tools used for the study

Suitable tools pave the way for successful accomplishment of the objectives of a study and the collection of pertinent data. For this study Impulsiveness scale (IS) developed and standardized by Dr. S.N. Rai, Department of psychology, Institute of Advanced Studies, Meerut University and Divergent production abilities (DPA) scale developed and standardized by Dr. K.N. Sharama, Department of psychology, University of Rajasthan, Jaipur has been used. The norm of the DPA scale is shown in Table 2.

Table 2: Norms of the Divergent production ability scale

Sl. No.	Score range	Status
1	71-80	High creative
2	61-70	Moderate creative
3	51-60	Low creative

The students are tested individually with the various parameters as mention in the above tools. After the responses, data has been scored, presented in tabular form and analyzed by appropriate statistical tests.

Analysis and interpretation of data

Testing of ^oH₁

It is observed from Table 3 that 64% of deaf and dumb students possesses high level of creativity whereas only 12% have low level of creativity. In view of the above ${}^{\rm o}{\rm H}_{\rm 1}$ is rejected. Hence it may be concluded that deaf and dumb students possess high level of creativity. The result is consistent with the findings of Silver (1977) and (Kaltsounis, 1971).

Table 3: Percentage of students with level of creativity

1 71-80 High Creative 64 2 61-70 Moderate creative 24 3 51.60 Low creative 12	Sl. No.	Score range	Status	% of students
_	1	71-80	High Creative	64
2 51.60 Low creative 12	2	61-70	Moderate creative	24
5 51-00 Low creative 12	3	51-60	Low creative	12

Testing of ^oH,

Pearson co-efficient correlation between creativity and impulsivity is found to be -0.41 which is negative and significant at 0.01 level. Thus, ${}^{\rm o}{\rm H_2}$ is rejected. Hence we can say that creativity and impulsivity are inversely correlated. If creativity increases, impulsivity decreases and vice versa. The result corroborates the findings of Ward (1969) and Kipper *et al.* (2010) but not with the findings of Klein *et al.* (1976) who established no relationship between creativity and impulsiveness.

Testing of °H,

The 't' value for high and moderate creative deaf and dumb students is found to be 1.05 (df = 86) which is not significant neither in 0.01 level nor in 0.05 level. Hence, $^{\circ}$ H₃ is accepted. Thus, it may be concluded that high and moderate creative deaf and dumb students did not differ significantly in impulsive behavior.

Testing of ${}^{o}H_{4}$

The 't' value for high and low creative deaf and dumb students is found to be 5.40 (df = 74) which is significant at 0.01 level. Hence, ${}^{\circ}H_{4}$ is rejected. Or in other words it can be said that high and low creative deaf and dumb students differs significantly in impulsivity.

Testing of °H,

The 't' value for moderate and low creative deaf and dumb students is found to be 4.11 (df = 33) which is also significant at 0.01 level. Hence, °H₅ is rejected. Or in other words it can be concluded that moderate and low creative deaf and dumb students differs significantly in impulsive behavior.

RESULTS AND DISCUSSION

This study offers a contribution to the field of inclusive education by empirically investigating the interrelationship between creativity and impulsivity. Inferential statistical analysis clearly illustrated differences between various groups in various areas, confirming previous research. It is observed that 64% of deaf and dumb students possess creative behavior. Negative correlations were confirmed between creativity and impulsivity. Both high and moderate creative groups exhibited significantly lower level of impulsivity. Moreover, they also found that high creative-low creative and average creative-low creative pair has significant different in impulsive behavior. The results may be explained by the fact that impulsive actions are typically poorly conceived, prematurely expressed, unduly risky, or inappropriate to the situation that often result in undesirable consequences as a result of which creative thinking ability suppressed.

Conclusion

This study gives an insight about creativity and impulsiveness of deaf and dumb children. It is true that deaf and dumb children in India may not get fair opportunities to foster better growth in contrast to their normal counter-part. As a result the cognitive development of the disadvantages group particularly creativity may not reach to their best level. The findings established a basis for furthering Impulsivity and creativity research for deaf and dumb students. In particular examining whether impulsivity levels result in individuals' creative involvement; or conversely, whether it is their extent of creative involvement that determines their levels of impulsivity. In conclusion, we can say that deaf and dumb students should encourage by peer, teacher, parents as well as by the other members

of the society because they may contribute to the society like normal citizen.

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