

Factors of Alienation of Children with Visual Impairment: Gender, Type of school and Degree of Impairment

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This paper describes the effect of gender, type of school and degree of impairment on the alienation of children with visual impairment. The data was collected from a sample of 200 children with visual impairment from different schools of Haryana, India by using multi-stage random sampling technique. Alienation level of these students was assessed by using Alienation Scale for Visually Impaired (AS-VI) prepared and standardized by the authors themselves. The two-way ANOVA and multiple regression were employed to analyse the data. ANOVA results interpreted the main effect of degree of visual impairment; however, no interaction effect between the independent variables was established. Further, multiple regression results revealed that gender, type of school and degree of impairment accounts for 21.6 percent of the variation in alienation of children with visual impairment. The findings demonstrate the main effect of degree of impairment on the feeling of alienation. The type of school was found to be largest contributor out of three independent variables entered in regression model as reflected from the value of beta coefficient.

Keywords: Alienation, Visually Impaired, Degree of Impairment, Inclusive School, Special School.

Alienation is a socio-psychological feeling (Jain, 2013), in which an individual would feel like a stranger in the world where he lives. During this phase, a person feels rejected or ostracized by others (Punia and Berwal, 2017b). The word alienation came into existence when Karl Marx worked in this area. Marx defined alienation as an objective experience wherein an individual start living in isolation and give up his desires for self-expression. Seeman explained alienation as an umbrella term which has six dimensions: social-isolation, normlessness, powerlessness, meaninglessness, cultural estrangement and self-estrangement (1959, 1967, 1971, 1975, 1983, as cited in Schmidt 2011). Social isolation refers to isolation from society and no sense of belongingness. Normlessness is the state when norms are eroded and an individual show very low ability to bind to social rules. In case of powerlessness, one perceives that he cannot control the situation and experiences a continuous gap between what he likes to do and his abilities. In terms of meaninglessness, the rationality of an individual becomes meaningless

from functional a point of view and he finds his life meaningless. Self-estrangement refers to a loss of self-identity and detachment, while culture estrangement leads to value isolation and rejection of lifestyles available in the society. Mighty (2016) explained that alienation is influenced by institutional environment and negative institutional environment. A correlation was observed between institutional environment and level of alienation. Results suggest that supporting the environment of an institute facilitates in decreasing the feeling of alienation. Punia and Berwal (2017b) were of the view that disabled person in the society have always faced discrimination and isolation. Agarwal (2010) mentioned that a disabled person lives under the shadow of social prejudices and biases. Punia and Dahiya (2015) asserted that disabled children show behavioural problems more likely because of their disability and experiential feeling they receive from others. This leads to the development of different social and emotional problems among disabled. Mittler and Mittler (2000) gave a social model of disability based on

the notion that repressive, biased, discriminatory and disabling nature of society and institutes may lead to a diverse pattern of alienation. This type of discrimination may result in personality disorders among the discriminated group. Mohan et al. (1999) observed a significant difference in the all dimensions of personality among alienated and non-alienated peers. Alienation has an adverse effect on academic achievement and emotional intelligence (Sharma, 2012). Academic achievement, socio-economic status, and locus of control have a significant and negative effect on alienation (Sahu, 2012). In another study, hearing impaired students were found more alienated in comparison to their normal peers (Alam, 2001). Alienation was found to be negatively associated with emotional intelligence among visually impaired college students (Rambir, 2007).

It is apparent from the literature review that alienation is usually found associated with the feeling of deprivation, low academic achievement, personality disorders and has a negative influence on emotional intelligence etc. Hence, attention should be focused on the elimination of feeling of alienation, especially in case of disabled students. Many studies highlight the importance of alienation as a key factor in the development and normal development of an individual. The approach of inclusion is based on the teaching of disabled students along with their normal peers in the same school by making proper arrangements for them. The basic purpose of this type of reform is to ensure equal access, opportunities and participation in different activities organized by the school. However, there is a dearth of studies in this area which have been conducted to understand the impact of inclusion on different aspects of personalities among disabled students. Somaiah in 2009 also suggested that the Government of India can do more research studies to evaluate the impact of inclusive education. Hence, more studies are required to understand the accomplishments of inclusion of children with special needs. The present study was designed to understand whether educational placement, degree of impairment and gender have any effect on the feeling of alienation. Since, the feeling of alienation is also influenced by their

overall interaction and participation in the school; its understanding will help us in identifying the success of inclusion approach in removing the feeling of segregation among the disabled. Among different types of disabilities, the study was completed on the children with visual impairment as they comprise the second largest section of disabled population in India (Census, 2011). Eventually, studies conducted on children with visual impairment can be generalized. This research was aimed at exploring answers of following research questions:

1. Whether, there is an interactive effect of degree of visual impairment on gender and alienation of children with visual impairment.
2. Whether, there is a contribution of gender, type of school and degree of visual impairment on the alienation of children with visual impairment.

Hypothesis

- H₀₁ Degree of visual impairment and gender do not produce significant, interactive effect on alienation of children with visual impairment.
- H₀₂ Gender, type of school and degree of visual impairment do not have significant contribution on alienation of children with visual impairment.

Method

Sample and Procedure

This study is a part of a larger study conducted to compare children with visual impairment in inclusive and special schools in India. The data was collected using survey method. Gender, degree of impairment and type of school were treated as an independent variable while alienation was considered as a dependent variable.

Participants

A sample of 200 children with visual impairment was taken for the study. Out of these 200 students, hundred were taken from inclusive schools and the other hundred were taken from special schools. Students with multiple disabilities were not included in the study since it could influence the result. Sample

was drawn by the following multi-stage random sampling technique. The reason behind using multistage random sampling lies in the fact that a comprehensive list of all the children with visual impairment who were studying in special and inclusive schools was unavailable. In such case, a more representative sample of large population of children with visual impairment can be obtained through this sampling technique only. Finally, the sample was drawn from fifty-two inclusive schools and five special schools from entire state of Haryana.

Research Instrument

The Alienation Scale for Visually Impaired (AL-VI) was used to assess alienation level of the students. This battery consisted of 45 items belonging to six broad dimensions of the alienation. The six sub-dimensions are social isolation, normlessness, meaninglessness, powerlessness, self-estrangement and cultural estrangement. This tool was prepared and standardized by the authors themselves by following the prescribed procedure. This scale consisted of both positively and negatively keyed items based on five-point Likert scale. Item analysis was done by calculating t-value and discrimination index. The value of split-half reliability and Cronbach's alpha came out to be 0.86 and 0.87 respectively. These two measures of reliability indicated that the scale is reliable, and all the test items are assessing the level of alienation. The investigators validated the tool after determining coefficient of correlation value which came out to be significant i.e. 0.7, hence the construct validity of the tool was determined.

Research Procedure

The headmasters/principals of the selected schools were contacted for seeking permission. Before collecting the data, the investigators introduced themselves to the participants and rapport was established to make the respondents comfortable. After that consent from the subjects was obtained regarding their participation in the study. They were assured that this information will be used for research purpose only and will not be shared with anyone. Thereafter, instructions for filling up of the data were explained by the investigators. Both low vision and blind students were included

in the study. The variance in the degree of impairment was kept in consideration and as per the requirement of the participant the tool was administered differently. As the Braille version of the tool was also developed, so the blind students who knew Braille were asked to give their responses by means of Braille sheets. However, those who did not understand Braille, each item of the tool were explained and the investigators noted their responses. Analysis of data was completed with Statistical package for social sciences (SPSS).

Results

In order to satisfy the preliminary condition of two-way ANOVA, the basic assumptions of applying ANOVA were verified. Levene's Test value ($F(3, 196) = 1.39, p = 0.245$) indicated that variances in the score of alienation do not differ thus the assumption of homogeneity of variances was verified and ensured.

The Two-Way ANOVA results presented in the Table 1 shows that F-ratio value with respect to interaction effect point out that the degree of visual impairment and gender is 3.78 which is insignificant at 0.05 level of significance. As a result, the null hypothesis H1 stating, "Degree of visual impairment and gender do not produce significant, interactive effect on alienation of children with visual impairment", stands accepted. Ordinal interaction is also displayed as it is apparent from the slope of lines shown in Fig. 1, but the interaction was not found significant. Hence, only the main effect of independent variables was established. The F Value ($F_B(1, 196) = 18.245; p = 0.000$) for main effect (the degree of visual impairment) indicated that degree of visual impairment has statistically significant main effect on the level of alienation of children with visual impairment. On the other hand, the F value for main effect of gender ($F_A(1, 196) = 1.299; p = 0.256$) was found statistically insignificant. As a result, it can be interpreted that gender did not have any impact on the level of alienation in case of children with visual impairment, although degree of visual impairment made a significant impact on the scores of alienations.

Table 1. ANOVA Summary of the Effect of Gender and Degree of Visual Impairment on Alienation (N=200)

Source of Variance		Sum of Squares	df	Mean Square	F	Significance Value	Remarks (at 0.05 level)
Gender	A	1053.140	1	1053.140	1.299	0.256	Not Significant
Degree of visual impairment	B	14788.094	1	14788.094	18.245	0.000	Significant
Gender*Degree of Visual Impairment	A*B	3065.851	1	3065.851	3.783	0.053	Not Significant
Error		158862.865	196	810.525			
Total		4083108.000	200				
Corrected Total		187709.280	199				
Levene's Test of Equality of Error Variances			df ₁ = 3 df ₂ = 196		1.397	0.245	Not Significant

R Squared = 0.154 (Adjusted R Squared = 0.141)

Table 2. Summary of Multiple Regression Analysis for Dependent Variable-Alienation (N=200)

Independent Variables	Dependent Variable : Alienation					
	Tolerance	VIF	Part correlation	Standardized Coefficients Beta	Significance Value	Remarks (at 0.05 level)
Gender	0.855	1.16	0.002	0.002	0.97	Not Significant
Degree of Visual Impairment	0.385	2.59	-0.006	-0.009	0.92	Not Significant
Type of School	0.353	2.83	0.281	0.473	0.00	Significant

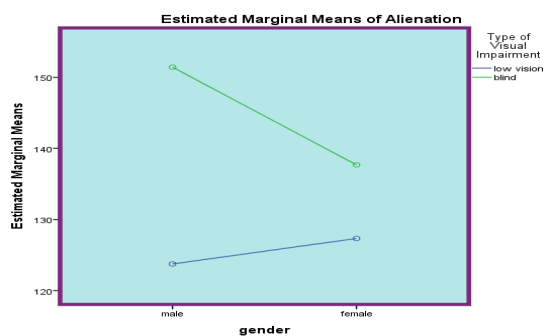


Fig. 1 Effect of Gender and Degree of Visual Impairment on Alienation of Children with visual impairment

The results are in concurrence with Alam's findings (2001) wherein he reported that hearing status had significant contribution in determining the level of alienation among children with hearing impairment. Sheikh in 1994 also found

that there was no association between gender and feeling of alienation. In contradiction to this, Singh and Sahu (2001, and as cited in Sahu, 2012) observed significant effect of gender on the level of alienation.

Multiple regression was carried out after verifying the underlying assumptions of normality and multi-collinearity. Normal probability plot (shown in Fig.2) confirmed that the condition of normality was not violated, as most of the values were lying close to the diagonal line. Further, it is evidenced from Table 2 that tolerance value (larger than 0.1) and VIF (lesser than 10) ruled out the chances of multi-collinearity between independent variables.

It is evident from Table 2, that the beta coefficient value against the type of school is 0.473 which is largest and most significant (0.05 level of significance). Hence, it can be inferred

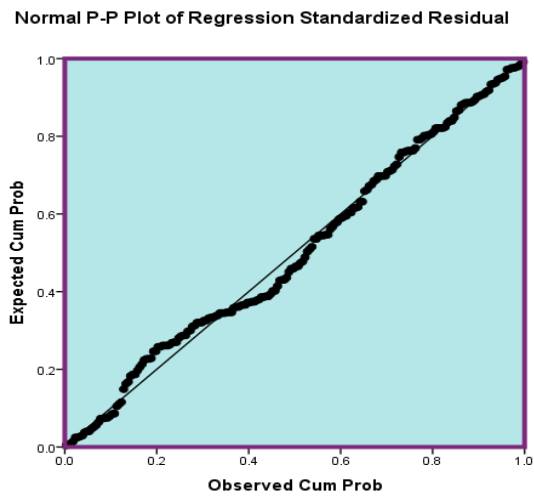


Fig 2: Normal P-P Plot of Regression Standardized Residual for Alienation

that the type of school operated as the most dominant contributor out of three independent variables considered in this regression model. The beta coefficients value against degree of visual impairment and gender came out to be -0.009 and 0.002 respectively and none of the value was statistically significant. This implies that statistically significant contribution was made by the type of school in predicting alienation scores, whereas, the contribution of gender and the degree of alienation was insignificant. Hence, the null hypothesis H2 stating, “Gender, type of school and degree of visual impairment do not have significant contribution on alienation of children with visual impairment”, was retained in regard to the type of school whereas rejected in relation to the degree

of visual impairment and gender at 0.05 level of significance. Model summary for Regression is given in Table 3 that indicates R square value is 0.216 which depicts that this regression model explains 21.6 percent of variance in case of alienation scores.

Further, this regression model was tested for its statistical significance. The F-ratio value (3,196) is 18.04 for this regression model which is statistically significant (0.05 level of significance). As a result, it can be inferred that three predictors: gender, type of school and degree of visual impairment are explaining 21.6 percent of variance in alienation scores in case of children with visual impairment. Regression analysis results indicate that the type of school has shown maximum contribution to the alienation scores while, the contribution of degree of visual impairment and gender is not statistically significant.

Conclusion

The findings of the present research divulge that the type of school is an important factor in deciding the level of alienation among children with visual impairment. The findings revealed that children with visual impairment were feeling more alienated in special schools in comparison to inclusive schools. Therefore, findings provide support to the philosophy of inclusion. Hence, the placement of children with special needs in special schools should be done carefully after considering different aspects of development and severity of disability. Along the same line of thought, Punia & Berwal (2017a) suggested that school authorities, counselors,

Table 3. Regression Model Summary for Dependent Variable-Alienation

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	0.465a	0.216	0.204	27.395

a. Predictors: (Constant), Type of School, Gender, Degree of Visual Impairment

Table 4. ANOVA Summary for Dependent Variable-Alienation

Model	Sum of Squares	Df	Mean Square	F	Significance Value
Regression	40619.280	3	13539.760	18.042	0.000b
Residual	147090.000	196	750.459		
Total	187709.280	199			

b. Predictors: (Constant), Type of School, Gender, Degree of Visual Impairment

special educators and policy makers should take suitable measures for decreasing the feeling of alienation among students with visual impairment. In addition to this, no significant interaction effects between gender and degree of impairment was observed. But degree of impairment is found to have significant main effect on the level of alienation. This suggested that the feeling of alienation increase with the severity of impairment. It is quite apparent from the Regression model summary that only three variables are explaining 21.6 percent of the variation in the scores of alienations. This model can be considered as a very good model in psychology, as just three variables: gender, type of school and degree of impairment can determine 21.6 percent of variation. This helps in understanding the importance of these variables in one's life. Therefore, interventions and remedial measures for removing the feeling of segregation for children with visual impairment should be designed after considering related factors.

Hence, it is obvious from the results stated earlier that the type of school is the most significant and influential contributor in predicting alienation scores of the children with visual impairment. The investigators opined that other than these independent variables, there can be several other factors like mental health, emotional intelligence, socio-economic status etc. which can have major influence on the feeling of alienation in case of children with visual impairment.

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