LOCUS OF CONTROL IN SCHOOL STUDENTS AND ITS RELATIONSHIP WITH ACADEMIC ACHIEVEMENT

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ABSTRACT

This study aims to find out whether there is any positive relationship among locus of control and academic achievement of High school students in Puducherry region from a study on 380 school students. Locus of control scale developed by Levenson (1973) was used to collect the data. Results revealed significant difference was not observed in internal, external, and chance locus of control among male and female students, where female students received higher mean scores for the internal, external, and chance locus of control than the male students. The students on the subjects of English, Mathematics, and Science showed significant difference on the internal locus of control with ($F=6.358$, $P<0.05$) and significant difference was not observed on the external and chance locus of control. Chance locus of control with $r = 0.138$ on the meaningful level of $P<0.01$ and internal locus of control with $r = 0.112$ on the meaningful level of $P<0.05$ had a significant and positive relationship with the academic achievement of school students.

Keywords: Locus of Control, Internal Locus of Control, Chance Locus of Control, External Locus of Control, School Students, Academic Achievement.

INTRODUCTION

Locus of control is an important dimension of personality, an important idea advocated by Rotter (1966). He strongly believed that individual behaviors are due to reinforcement and every action is done by the individual due to this reinforcement. Locus of control is the individuals' impression of the reasons of happenings in their life (Krejcie and Morgan, 1970). In short, individuals' belief of whether his actions are controlled by himself or by somebody else or due to fate (Kay, 1990).

Since 1957, measuring of locus of control has begun in scales and the principle of locus of control has been favored by plentiful scholars in recent years. The principle obtained from Router Social theory and from the individual interpretation have made on their control point over happenings of life (Serin et al., 2010). This study with a clear attention on studying the locus of control for the school students has assessed three kinds of locus of control, namely: Internal, External, and Chances. Persons with internal locus of control think that they themselves are accountable for their own living and activities while having their output depending upon their own individual achievement (Flouri, 2006). People vary in the way they see random life from those who are having faith in power and inference of individuals or other locus in life (Levenson, 1974). With effect on such difference, the principle of external locus of control is extended to two types of external locus of control and chance locus of control (Wilkinson, 2007). Serin et al. (2010) have said that having a external locus of control, or the vision that breakdown or accomplishment is negatively correlated to educational achievement (Coovert and Goldstein, 1980). Therefore looking into the importance of Internal locus of control of the school students in the Indian system of education, meaning that the place taken paves way to knowledge of capability of thinking, self-belief, scientific problem and research, and also educational achievement in the nation; therefore it is important to have a long step to find out this place taken

for locus of control and steps for internalization of such psychological constituent (Kirkpatrick et al., 2008). While studying and examining the locus of control among the high school students of class IX in the subjects of English, Mathematics, and Sciences, the researcher focuses to deliberate the following questions: Is there a inconsistency between locus of control (internal, external, and chance) of male and female students? Is there a significant difference between locus of control (internal, external, and chance) of different subjects? Is there a significant relationship between locus of control (internal, external, and chance) and academic achievement of school students?

1. Objectives of the Study

- To study the locus of control and academic achievement of High school students in Puducherry region.
- To check whether there exists any significant difference in the dimensions of locus of control with regard to gender.
- To check whether there exists any significant difference in the dimensions of locus of control with regard to different school subjects.
- To check whether there exists significant relationship in the dimensions of locus of control and academic achievement.
- To predict the contribution of the dimensions of locus of control towards academic achievements.

2. Method of Study

Normative survey method was employed for this study.

2.1 Sample

The total sample consists of 380 high school students from Puducherry region which consists of 132 boys and 248 girls.

2.2 Tools Used

Locus of control scale developed by Levenson (1973) was used to collect the data. There are 24 statements; the tool consists of three dimensions, such as external locus of control, internal locus of control, and chance locus of control. The averages of the half yearly examination from the office have been used for analyzing as the index of the students achievement. A personal data sheet was prepared by the investigator. A pilot study was conducted with a random sample of 100 high school students in order to establish the reliability and validity of the tool.

2.2.1 Reliability and Validity of the Tool

Reliability of locus of control was established by test-retest method and it was found to be 0.78. The validity of the tool was 0.77.

2.3 Statistical Techniques used

Pearson's product moment correlation, 't' test, one-way analysis of variance (ANOVA), Post-Hoc (Tukey test), and step wise multiple regression analysis are used. For the analysis of the data, SPSS 16 pack was used.

3. Data Analysis

On comparing, Mean Locus of Control scores, significant differences are not observed in any of the dimensions with regard to gender as calculated 't' values are not significant. Therefore, there does not exist any significant difference in locus of control with respect to gender (Table 1).

The variable internal locus of control has found significant mean difference at 0.05 level on different subjects for the respective F-value 6.358 (df: 3, 376) as in Table 2. Hence, it is concluded that internal locus of control differ significantly with respect to different subjects.

With regard to the above discrepancy being specified, a meaningful discrepancy is seen when comparing the average scores of English with those of Maths subject at the level of $P<0.05$. This analysis is done in order to show the discrepancy rank through Post-Hoc Analysis Tukey test

Variable	Gender	N	Mean	SD	df	t value	P value
Internal LOC	Boys	132	26.83	4.77	378	.043	.966
	Girls	248	26.85	4.49			
External LOC	Boys	132	32.6	4.05	378	1.463	.144
	Girls	248	33.2	3.63			
Chance LOC	Boys	132	26.93	5.04	378	.367	.713
	Girls	248	27.11	4.47			

Table 1. Significant Difference of Locus of Control (Internal, External, and Chance) with respect to Gender

Variable	Educational Qualification	Sum of Squares	df	Mean Square	F value	P value
Internal Locus of Control	Between Groups	177.05	2	88.527	6.358	.002
	Within Groups	5248.935	377	13.923		
	Total	5425.989	379			

Table 2. One-way Variance Analysis of Differential between the Internal Locus of Control in different Subjects

Variable	(I) Educational Qualification	(J) Educational Qualification	Mean Difference (I-J)	Std. Error	P value
Internal Locus of Control	English	Maths	1.5*	.55399	.019
		Science	.212	.57961	.929
	Maths	Science	1.29*	.42280	.007

*The Mean Difference is Significant at the 0.05 Level

Table 3. Post-Hoc Analysis of the Dimensions of Internal Locus of Control with respect to the different School Subjects

and Table 3 data. Average scores of English and Maths subject students stood at 1.5 higher than those of Maths subject students. Averages of English have a meaningful difference when compared with the Science subject students. The students of Science gained higher average of 1.29 than those of the latter case.

The variable external locus of control has not found significant mean difference at 0.05 level on different subjects for the respective F-value .266 (df: 3, 376) as shown in Table 4. Hence, it is concluded that external locus of control does not differ significantly with respect to different subjects.

Variable	Educational Qualification	Sum of Squares	df	Mean Square	F value	P value
External Locus of Control	Between Groups	11.645	2	5.822	.266	.767
	Within Groups	8255.302	377	21.897		
	Total	8266.947	379			

Table 4. One-way Variance Analysis of Differential between the External Locus of Control in different Subjects

Variable	Educational Qualification	Sum of Squares	df	Mean Square	F value	P value
Chance Locus of Control	Between Groups	20.795	2	10.397	.494	.611
	Within Groups	7938.413	377	21.097		
	Total	7959.208	379			

Table 5. One-way Variance Analysis of Differential between the Chance Locus of Control in different Subjects

The variable chance locus of control has not found significant mean difference at 0.05 level on different subjects for the respective F-value .494 (df: 3, 376) as shown in Table 5. Hence, it is concluded that chance locus of control does not differ significantly with respect to different subjects.

The results of the categorical regression analysis given in Table 6 shows that the effect of dimensions of independent variables on academic achievement reveals significant t-ratios for chance ($t = 2.013$, $P < 0.05$) alone and not significant in the case of other dimensions, which implies the dimensions of locus of control contribute independently towards academic achievement. From Table 7, it is seen that about 23 percentage of the dependent variable is accounted for the variance in the independent variable. However, significant F value (2.985) from Table 8 indicates a linear combination of all the components of variables taken together contribute towards academic achievement and significantly predicts academic achievement in high school students.

Variable	N	Correlation Cofficient	Sig.
Internal LOC	380	.117*	S
External LOC	380	.008	NS
Chance LOC	380	.138**	S

*Correlation is significant at 0.05 level
**Correlation is significant at 0.01 level

Table 6. Pearson Correlation Coefficient among Locus of Control (Internal, External, and Chance) and Academic Achievement

Model	Multiple R	R Square	Apparent Prediction Error
1	.153	.023	.015

Table 7. Stepwise Multiple Regression to Predict Academic Achievement in Locus of Control Model showing of Regression Analysis for the Contribution of Dimensions of Locus of Control towards Academic Achievement

Model	Sum of Squares	df	Mean Square	F value	P value
Regression	638.191	3	212.730	2.985	.031°
Residual	26796.596	376	71.268		
Total	27434.787	379			

Table 8. Mean Difference of the Regression Co-efficient of Dimensions of Locus of Control on Academic Achievement

Variable	Unstandardised Coefficient (β)	Standard Error of β	Standardised Coefficient (β)	t value	P value
Chance	-.210	.104	.113	2.013	.045
Internal	.058	.115	.026	.505	.614
Powerful	-.122	.102	.067	1.193	.234
Constant	28.584	4.610		6.201	.000**

R Value = 0.153, R Square Value = 0.023, F Value = 2.985, P = 0.000**

Table 9. Regression Co-efficient to show the Effect of Dimensions of Locus of Control towards Academic Achievement

3.1 Regression Equation for Academic Achievement in Mathematics

Using the categorical β coefficients (standardized coefficients) given in Table 9, the following regression equation is obtained to predict the contribution of independent variables (chance, internal, and external) over the dependent variable (academic achievement).

$$Y = .113X_1 + 0.026X_2 + 0.067X_3$$

where, Y is the predicted academic achievement and X_1, X_2 are the independent variables.

Thus, it is inferred that a linear combination of the selected independent variables significantly predicts academic achievement. The dimensions of Locus of Control are the good predictors of academic achievement in Mathematics.

Thus, it is concluded that there was a significant contribution of locus of control towards academic achievement.

4. Discussion

The study revealed significant differences in the locus of control with regard to different subjects, which may be due to the fact that the students are able to receive awareness and insight knowledge with regard to dealing with various problems of life. Further, significant difference was not observed in the dimensions of locus of control with regard to gender, and mean scores revealed girls have performed better than that of the boys. This clearly deliberate that girl students performed better than boys. Similarly Young (1992) reported that girls have higher internal locus of control than that of boys. These results also goes along with Hsia et al. (2012), who found that girl students are more internalized than boy students as to the external locus of control is concerned. Results of the present study agree with what has been found in the above-mentioned cases.

Significant relationships were observed in internal and chance locus of control with regard to educational achievement of students. This reveals that higher the internal locus of control and chance locus of control, higher will be the growth and development towards their academic enhancement (Skinner, 1996). The reason is that improved level of internal locus of control, chance locus of control, and inner talents, especially with regard to academic achievement can be attained and all of which are possible by inculcating in them the habit of control in them over their own lives by giving importance on their skills and abilities (Spector, 1982). This result goes along with Dhandapani (2015), who found that locus of control has a significant relationship with the academic growth of boys and girls and that academic growth can be projected with the improved internal locus of control, meaning that students having internal locus of control and chance locus of control take pleasure in achieving high growth in education; conversely, those having external locus of control achieve less growth in education and their growth is inferior than that of the students having internal locus of control and chance locus of control.

Conclusions

The present study shows that the dimensions of locus of control significantly contribute towards the academic achievement of High school students. It is evident from the data analysis that there is significant relationship among the variables - Locus of control and academic achievement. The present study clearly emphasized the various aspects regarding the academic achievement. Locus of control has a significant role in the development of academic achievement. Teachers' role is considered as important to develop these skills. As a teacher we have to inculcate these skills to build the level of academic achievement among the students. One can say that the child's aptitude determines his ability to learn. Students in school have gone on to greater heights in their professional careers with the incorporation of Locus of Control in school

education.

Hence, it is imperative that schools need to promote locus of control components in the curriculum to produce successful students, not only academically, but also socially. For children to have a life-long learning, this is very important to deal with school curriculum, where competition, stress, and individualism attempt on account of academics bound. We need to mould and prepare them in a competent way to take risks in facing tight situations in their life and build up a modern outlook and with a high aptitude. This will help them to enable a competent future society.

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