

Research Paper

Pre-service Teachers' Locus of Control in relation to Gender, Age and Stream of Education

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ABSTRACT

The study aimed to examine the locus of control of pre-service teachers in terms of their gender, age and stream. The study used a quantitative approach. The participant consists of 348 pre-service teachers. Data on locus of control was collected using Rotters' Locus of Control. Data analysis was performed in SPSS-20 programme. Results of Three-Way-Anova revealed the main and interaction effect of gender and age on locus of control. Further, the study found no interaction effect of gender, age and stream of education on locus of control in pre-service teachers. The findings have practical implications in pre-service teacher education.

Keywords: *Locus of Control, Pre-service Teachers, Stream of Education*

Locus of control is considered as a significant personality trait; has its root in social learning theory and attribution theory. The concept was developed by Julian Rotter. Locus of control is an important affective variable (Williams & Burden, 2000; as cited in Balkir & Yavuz, 2017). It is a stable psychological construct (Siddiquah, 2019). The concept suggests that praise or punishment for one's actions can shape one's expectations for future behaviour. It is underlined that "...human motivation includes the concept of traits in the form of psychological constructs that define specific personality in regard to various aspects of personality such as the need to achieve, perceptions of control, curiosity, attributions for success or failure, and anxiety. Also, a distinction is made between traits versus state conditions in regard to virtually all motivational concepts. A trait is presumed to refer to a stable predisposition to behave in a certain way. In contrast, states refer to the disposition to demonstrate a given motive or personality characteristic at a given point in time or in specific types of situations." (Keller, 2010, p. 15). It revealed how the perception of individuals affects the outcome of their behaviour or action.

An individual's locus of control can be "internal" and "external". Individual attribute the consequences of their success and failure to their own hardwork or efforts. Such individuals are said to have internal locus of control. Those who attribute the consequences of an event of their lives to external factors such as luck, fate and chance etc, are said to have external locus of control (Kaur & Singh, 2021). Individuals having high internal LoC are known as

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internalisers, while those in the external LoC are known as externalisers. Table-1 demonstrated the characteristics of internal and external locus of control.

Table-1. Characteristics of internalisers and externalisers

Internalisers	Externalisers
internal locus	external locus
open-minded	dogmatic
high success	low success
directed towards success	avoiding failure
self-confident	insecure and anxious
resilient/determined	low resistance
intellectual	reactive
risk-taker	diffident
Planned, organised	not able to concentrate, disorganised
verbal	visual/kinaesthetic
analytic	general

Source: Yeşilyaprak, 2004, p. 243

REVIEW OF RELATED LITERATURE

In the field of psychology and teacher education, locus of control is considered as a significant personality dimension. Individuals' perceptions of life events can vary with respect to their gender and age. A growing body of research has examined whether locus of control differs significantly by gender, age and stream of study. Study conducted in the field of locus of control noted a significant gender difference in early childhood education pre-service students' locus of control (Bedel, 2015). Similarly, it was reported that the internal locus of control of undergraduate university students differ significantly by gender (Manichander, 2019; Ayesha, & Zamir, 2021). Study conducted on Malaysian college lectures, concluded that there exists a significant difference in locus of control by gender (Yong, Kong & Lee, 2022). However, it has been empirically investigated that gender have no influence on pre-service English teacher' locus of control (Balkır & Yavuz, 2017) and in-service teachers participants (Kiral, 2019; Yong, Kong & Lee, 2022). Study conducted on locus of control suggested that locus of control differ significantly by age (Kiral, 2019). In sales executives aged 20-29 years had the high locus of control, than sale executives aged 40-49 and 30-39 age (Sharma & Singh, 2018). It is reported that the internal locus of control varied significantly among school students studying science, maths, and English. However, in terms of external locus of control and chance locus of control, the study found no significant differences across school subjects. (Kumaravelu, 2018). In terms of study programme, there was no significant difference in the locus of control of trainee teachers enrolled in TESL, Physical Education, Visual Art Education, Mathematics, and Science education programmes (Nordin et al., 2016).

Objective of the Study

The present study aimed to investigate the difference in pre-service teachers' locus of control according to gender, age and stream of study.

METHODOLOGY

Participants

The participants involved in this study were 348 pre-service teachers pursuing two-year Bachelor in Education (B.Ed) program under SCERT, Odisha. Stratified random sampling was employed to select the participant of the study. The sample consisted of 40.22% (140)

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male and 59.77% (208) female participants. There were 49.13% (171) participants from arts stream and 50.86% (177) were from science stream. The participant, aged between 21-32 years. There were 70.11% (244) participants between the 21-24 age, 29.02% (101) between the age 25-28, and 0.86% (3) between the 29 and 32.

Instrument

For the measurement of pre-service teachers' locus of control, Rotter's Locus of Control developed by Dr. Anand Kumar and Dr, S.N. Srinivastava was administered. The measure has split-half reliability values between 0.65-0.79. The measure consists of 29 items, of which six were filler items. The possible score can range between 0 to 23. A score of 13 or higher indicates an individual's external locus of control. Individuals with low scores (less than or equal to 12) indicate their internal locus of control. Prior to the data collection, consent of the participants was taken into consideration. Data on internal-external locus of control was collected in face to face setting.

RESULT

Table-2. Locus of control in relation to gender, age and stream of education

Variables	Level	N	Mean	Std. Deviation
Gender	Male	140	10.028	3.337
	Female	208	10.735	2.789
Age	21-24 Age	244	10.393	2.969
	25-28 Age	101	10.584	3.241
	29-32 Age	3	10.666	1.527
Stream of Education	Arts	171	10.678	2.823
	Science	177	10.231	3.222

The Table-2 depicts the mean and standard deviations on pre-service teachers' locus of control with respect to their gender, age and stream of education. The mean score of locus of control in male pre-service teachers (10.028) was found to be higher than the mean of female pre-service teachers (10.735). While assessing age difference, it was found that the average score of pre-service teachers in 29-32 age (10.666) reported high locus of control, followed by 25-28 (10.584) and 21-24 age (10.393). It indicated the locus of control tends to increase in line with the age. It was observed that the mean score of pre-service teachers enrolled in arts stream (10.678) was higher than science pre-service teachers (10.231). To determine the main and interaction effect of gender, age and stream of education, *Three-Way-Anova* ($2 \times 3 \times 2$) was utilized.

Table-3. Three-way interaction of gender, age and stream of education on locus of control

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	135.731 ^a	9	15.081	1.663	.097
Intercept	3976.342	1	3976.342	438.581	.000
Gender	7.368	1	7.368	.813	.003
Stream	25.024	1	25.024	2.760	.098
Age	.092	2	.046	.005	.000
Gender * Stream	2.607	1	2.607	.288	.592
Gender * Age	21.630	2	10.815	1.193	.034
Stream * Age	40.947	1	40.947	4.516	.035
Gender * Stream * Age	16.798	1	16.798	1.853	.174

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Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Error	3064.438	338	9.066		
Total	41211.000	348			
Corrected Total	3200.170	347			

The result of statistical analysis as illustrated in Table-3 reveals that locus of control differ significantly by gender and age variable ($p < .05$). With regard to the stream of study, the result indicates no significant difference in pre-service teachers' locus of control ($p > .05$). While assessing the relative effects, it was noted that there is no interaction effect of gender and stream; and stream and age on locus of control in pre-service teachers ($p > .05$). However, the p-value i.e. .034 for gender and age was less than chosen significance ($p < .05$), indicating significant differences in pre-service teachers' locus of control. The three-way interaction effect (Gender*Stream*Age) on locus of control was found to be not significant at .05 level of significance ($F(1, 347) = 1.853, P > .05$).

RESULT AND DISCUSSION

The purpose of the study was to investigate the differences in locus of control in pre-service teachers according to gender, age and stream of education. The results underlined that there is no significant three-way interaction of gender, age and stream of education on pre-service teachers' locus of control. Moreover, the study observed that gender and age have significant effect on locus of control. The finding matches the empirical findings of past studies (Bedel, 2015; Manichander, 2019; Kiral, 2019; Ayesha, & Zamir, 2021). The study observed that pre-service teachers in 29-32 age were having high locus of control than 25-28 and 21-24 age. The findings do not aligns with the past researches; determining that 20-29 age sales executives having high locus of control, than 40-49 and 30-39 age (Sharma & Singh, 2018).

CONCLUSION

Findings of the study will be helpful for the teacher educator to consider the effect of demographic factors i.e. age, gender, stream of education on pre-service teachers' locus of control in relation to their academic context. Pre-service teachers' perception about academic success and failure can be related to internal and external locus of control. As the literature underlined the positive influence of internal locus of control on academic performance, future research can investigate the development of internal locus of control. In this regard, determining considerable differences in academic locus of control have practical implications in academic context. The study relied on survey data collected from pre-service teacher education courses. Hence, the result cannot be generalized to other settings. The study was also limited to self-reported quantitative data. Further investigation can be carried out to examine the role of locus of control in predicting academic success in pre-service teacher education.

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Conflict of Interest

The author(s) declared no conflict of interest.

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