



## Teacher's Locus of Control Scale: Development & Validation (TLOCS)

### KEYWORDS

Locus of control, Item Analysis, Reliability, Validity

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**ABSTRACT** *The aim of this paper was to develop and validate Teacher's Locus of control scale by following Likert technique. The steps followed for the development and validation this scale were planning, try-out, scoring, item analysis and interpretation of raw scores. Initially, 75 likert-type items were written in both the languages i.e. Hindi and English for the first draft covering two areas i.e. Teacher's Internal Locus of Control and teacher's external locus of control. These items were presented to 20 experts of Psychology, Education, Sociology and Language and on the basis of their unanimity, 44 items were retained in the second draft. The retained items were administered to 400 teachers from schools and colleges of Haryana selected by using simple random method. Finally, 't' test was applied to find out the item discriminating value between 27% lower and 27% upper group and also inter-correlations were calculated among them. The items having significant 't' values were selected whereas others were rejected. Only 25 items in both the languages i.e. Hindi and English were retained in the final draft. Split-half method and test-retest method were used to calculate its reliability and found .834 and .742 respectively that indicated the scale highly reliable. The scale was validated against the face, content and construct validity. Percentile norms were prepared for classifying the teachers as internally, externally and moderately controlled.*

### Introduction

The scale was standardized by the investigators themselves for the sake of modification as there found a need to improve the scales developed earlier and make this scale valid. Rotter (1966) [12] who was the first to develop this concept in his model social-learning theory of personality defined locus of control as a well-known cognitive-behavioural psychological attribute describing a person's characteristic way of perceiving the world and indicating the extent of control individual perceive. Myers (1999) [9] defined locus of control as the extent to which one perceives that one's action has little influence on the life conditions that one faces and the extent to which one believes that one's circumstances and rewards are influenced by fate, luck, and chance, instead of believing that one's circumstances and rewards are influenced by one's own actions. People with an internal locus of control believe that they can influence their environment, and that their actions affect what happens to them; but people with an external locus of control believe that they have little influence over the environment and what happens to them is due to external factors such as luck or the actions of others (Licata, Strawser, & Welker, 1986 [6]; Carpenter, & Golden, 1997 [3]; Martin et al., 2005 [8]).

When individuals believe that they have very little control over what happens to them, they are considered to have an external locus of control; on the other hand individuals with internal locus of control believe that they have control over what happens to them (Adeyemi-Bello, 2005) [1]. Teacher's locus of control refers to teacher's perception of personal control or responsibility for students' achievement. Previous researches have consistently demonstrated that teaching effectiveness is positively linked to teachers' internal tendencies. Teachers with a belief in internal control tend to have a more positive job attitude in terms of organizational commitment, intrinsic satisfaction, extrinsic satisfaction, social satisfaction, role clarity, and feeling of job challenge (Bulus, 2011) [2]. They also tend to have

more positive perceptions towards the school organization in terms of principal's leadership, organizational structure, teachers' social norms, and organizational culture and effectiveness (Lorenz, 2000) [7].

### Planning the Scale

In this stage, it is tried to answer the content area to be covered by the scale, the type of items to be included in the scale and the objectives that were going to be measured through the scale. The construction of locus of control scale was planned with the objective of determining the degree of locus of control among teachers at school or college level. The nature of the scale was planned to be likert-type i.e. five point scale, verbal and paper-pencil test. It was planned that the scale would be self-administering and it could be administered either individually or in group. Scoring procedure of the Teacher's Locus of Control Scale would be easy, objective and based on pre-determined scoring key.

### First Draft

The present scale draws motivation from the works of forced-choice scale of Rotter's 23-item scale and his student, James who used Likert-type scale while framing the scale; the Nowicki-Strickland Scale (1973) [10]; Multidimensional Health Locus of Control Scale MHLC-form A by Wallston et al. (1978) [14]; Rose and Medway's (1981) [11] Teacher Locus of Control (TLC) scale; Duttweiler's (1984) [4] Internal Control Index (ICI); Spector's (1988) [13] 16-item Work Locus of Control Scale (WLCS); and Lachman & Weaver's (1998) [5] Sense of Control Scale. The tool was developed with the purpose of assessing teacher's internal and external locus of control as rare tools were developed for teachers. The teacher's locus of control scale provides two dimensions of locus of control viz. teacher's internal locus of control and teacher's external locus of control. It also gives total locus of control score. The operational definitions of teacher's locus of control dimensions measured by the scale:

**Teacher's Internal Locus of Control:** Teacher believes that his/her behaviour is guided by his/her own personal decisions and efforts.

**Teacher's External Locus of Control:** Teacher believes that his/ her behaviour is guided by fate, luck, or other external circumstances.

Table 1 shows number of items included in teacher's internal and external locus of control:

**Table 1**  
**Dimensions of TLOC**

Dimensions of TLOC	Total Items
Teacher's Internal Locus of Control	40
Teacher's External Locus of Control	35
Total	75

All items were framed in a very simple and clear way. The items were written in both languages i.e. English and Hindi. The responses of the items were expressed in terms of the following five categories: Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

**Second Draft**

The first draft of 75 items was given to the 20 experts belonging to the field of Psychology, Sociology, Education and Language to assess the relevancy of these items for teacher's locus of control scale. In the light of comments received from them, 44 items having 80% unanimity among the experts were selected and some of them were modified or changed keeping in view the suggestions received from them as shown in table 2:

**Table 2**  
**Dimensions of Teacher's Locus of control and No. of items in the First and Second Draft listed**

Dimensions of TLOC	Number of items in First Draft	Number of items in Second Draft
Teacher's Internal Locus of Control	40	27
Teacher's External Locus of Control	35	17
Total number of items	75	44

**Scoring**

To score the scale, responses in the statements showing Teacher's Internal Locus of Control were credited as 1,2,3,4 and 5 from Strongly Agree to Strongly Disagree and responses in the statements showing Teacher's External Locus of Control were credited as 5,4,3,2 and 1 from Strongly Agree to Strongly Disagree.

Locus of Control	Scoring from Strongly Agree to Strongly Disagree
Teacher's External Locus of Control	5,4,3,2,1
Teacher's Internal Locus of Control	1,2,3,4,5

**Item Analysis**

For data collection, 400 teachers of schools and colleges of Haryana were selected by using simple random sam-

pling method. On the basis of the total scores of the sub-jings, the two groups were selected- 27% high score group and 27% low score group. These high and low groups were arranged in descending order and subjected to t-test computation to find out item discriminating value and further by obtaining inter-correlations among items of the scale. Only those items which were found significant either at 0.05 level or 0.01 level of significance were retained. Thus out of 44 items, 19 items were rejected and 25 items were retained after rating for final form of the scale. The obtained t-values and r-values are given in the following table:

**Table 3**  
**Item Analysis and Coefficients of Correlation between Items and Total Scores of TLOCs**

Item	t-values	r	Item	t-values	r	Item	t-values	r
1	8.93**	.610*	16	1.31	.554*	31	1.21	.195
2	3.89**	.359*	17	3.65**	.534*	32	1.78	.419*
3	1.08	.376*	18	7.37**	.634*	33	4.72**	.767*
4	5.99**	.847*	19	1.95	.419*	34	2.20*	.368*
5	5.66**	.671*	20	3.34**	.428*	35	3.09**	.405*
6	1.68	.342*	21	3.05**	.767*	36	.08	.068
7	.88	.014	22	1.65	.126	37	4.24**	.372*
8	1.65	.347*	23	6.11**	.607*	38	1.29	.112
9	4.19**	.581*	24	1.21	.380*	39	.29	.024
10	.929	.045	25	4.30**	.837*	40	7.57**	.373*
11	3.80**	.378*	26	1.14	.153	41	.11	.044
12	1.96	.360*	27	.02	.213	42	2.23*	.493*
13	2.86**	.377*	28	2.95**	.109	43	4.64**	.602*
14	3.51**	.414*	29	6.28**	.351*	44	1.36	.156
15	8.74**	.482*	30	2.91**	.392*			

\*Significant at 0.05 level

\*\*Significant at 0.01 level

\*Coefficient of Correlation is significant at 0.01 level

**Final Draft**

In the final version of the scale, the items having significant t-values at 0.05 level and 0.01 level were retained. The total number of significant items was 25. So, the final draft of the scale consisted 25 items in both the languages i.e. Hindi and English. The scoring pattern was the same as mentioned earlier.

**Table 4**  
**Teacher's Locus of Control Dimensions alongwith their Item Numbers**

Dimensions of TLOC	Item No.	Total Items
Teacher's Internal Locus of Control	2,5,6,7,8,13,16,17,18,21,23,24	12
Teacher's External Locus of Control	1,3,4,9,10,11,12,14,15,19,20,22,25	13

The scale contains 25 items using Likert-type. Teacher's internal locus of control contains 12 items and teacher's external locus of control contains 13 items. Responses are obtained on the test booklet itself. There is no time limit

but normally 20-30 minutes have been found sufficient for responding all the items. Instructions at the time of administration of the test are also given on the booklet. The items responses are expressed in terms of the following five categories: Strongly Agree, Agree, Neutral, Disagree and Strongly Disagree.

### Reliability

The final form of the scale was administered to 100 teachers working in schools and colleges of Haryana. The reliability of the scale was calculated using split-half method and test-retest method. The result revealed satisfactory using split-half method (i.e.  $r = .834$ ) and test-retest method (i.e.  $.742$ ) as shown in table 5:

**Table 5**  
Reliability using Test-Retest Method and Split-half Method

	Test-Retest Method	Split-Half Method
Locus of Control	.742	.834

### Validity

The statements were given to 20 experts in Psychology, Education, Sociology and Language to judge the relevancy of items with particular sub-scale. The unanimity of experts about the items was taken as an indicator of face validity of the scale. It was found by administering the scale to twenty experts to assess the relevance of items to the content being measured by the scale. Only those items having 80% or more unanimity were selected. The construct validity of the scale was worked out by calculating the correlation coefficient of different sub-scales scores with the total teacher's locus of control scale scores. The results of the computation of the correlation coefficients have been presented in the Table 6:

**Table 6**  
Validity of TLOC Scale

Dimensions	Teacher's Internal LOC	Teacher's External LOC
r	.762	.921

### Interpretation of Raw Scores

Percentile norms were computed for the two areas (internal and external) of locus of control. The subjects can be categorised in accordance with the raw scores. Those who scored low in the scale were indicated high internal locus of control and high score indicated high external locus of control. In between, there found moderate locus of control as shown below in the table 7:

**Table 7**  
Interpretation of Raw Score

Range	Interpretation (Category)
53 and below	High Internal Locus of Control
54-73	Moderate Locus of Control
74 and Above	High External Locus of Control

### Conclusion

In this paper, the procedure for the development and validation of Teacher's Locus of Control Scale has been briefly described as it has been found an important area for the researchers, educationalists and counsellors. Locus of control, being one of the big five personality variables, influences teacher's performance that shows its impact on the behaviour and achievement of his students. This paper helps in understanding to follow the steps for writing items by keeping objective and planning in mind. Item analysis which is an important phase for selecting the items for the final form of the scale has also been discussed.

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