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CONSTRUCTION AND VALIDATION OF USAGE OF TEACHING LEARNING MATERIAL'S SCALE (UTLMs) OF B.Ed TRAINEES

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Abstract

The paper describes an attempt to construct a scale to measure the Usage of Teaching Learning Materials of B.Ed trainees. Likert's method (four points of scaling was adopted). The researcher constructs the statements, acceptance and rejection of each one would imply a different degree of favorable or unfavorable usage of TLMs of B.Ed trainees. The statement were then screened and edited in accordance with guidelines suggested by Likert's and others. 70 statement were retained under three dimensions such as Non-Projected aids, Projected aids and Activity based aids both positive and negative statement. Eventually, pilot study was conducted on a 100 B.Ed trainees in Chennai district. After a pilot study item analysis (Cronbach's Alpha, Item total correlation) has been done in each items, 36 statements were retained for the usage of TLMs of B.Ed trainees scale based on Cronbach's Alpha, Item total correlation values. The statement finally covered fewer than three dimensions (Non-Projected aids, projected aids and Activity based aids) (with 14,13,9 statements respectively). The scale was tested using split-half and also Cronbach's Alpha method and found to be a reliable tool for measuring the usage of TLMs of B.Ed trainees. The scale was also tested for content validity, face validity and item validity.

Introduction

Teaching Learning Materials to the teachers and the learners aims to provide necessary skills and knowledge along with the inculcation of proper interests and attitudes among them for the effective utilization of the audio-visual aid material and equipment's in the process of teaching and learning.

The need and importance of imparting Teaching Learning material education to the teachers as well as, students actually rest with the multidimensional applicability and purposes that can be served through various types of Teaching Learning Materials. Teaching Learning Materials in Science are helpful in bringing clarity to the difficult and abstract concept and phenomena related to various branches of science. Instead of striving hard with the verbal experiences or explanations. If the teacher makes use of some appropriate aid material, he can make the things more clear and meaningful to his students regarding any subject. A teacher makes use of some appropriate teaching

learning materials in the form of charts, models, photographs he can make the things more clear and meaningful to his students.

Construction of the tool

The researcher construct the statements after referring some available materials of usage of teaching leering material journals, books and theses, acceptance or rejection of each one would imply a different degree of favorable or unfavorable related to tool. Several works have been done with the construct tool. A thorough understanding of usage of teaching learning material of prospective teachers is done by previous studies in order to understand the nature of the construct and prepared the tool for the present study. Constructed statements for the questionnaire and given to the supervisor and the expert in the field based on their point of view, the suggestions 70 items were initially drafted.

Pilot study

A sample of 100 prospective teachers in various B.Ed colleges were taken for the pilot study to establish the reliability and validity of the tool, among the 54 were male prospective teachers and 46 female prospective teachers. I have done the pilot study various Government, Government Aided and Private B.Ed College from Chennai District of Tamil Nadu. The duration of filling up the tool by the prospective teachers was noted and the trial was made.

Item Analysis

Item analysis is a process which examines responses to individual test items (Statement) in order to assess the quality of those items and of the test as a whole. In this present study researcher used for item total correlation method.

Item Total Correlation

An item-total correlation is performed to check if any item in the set of tests is in consistent with the averaged behavior of the others and thus can be discarded. The analysis is performed to purify the measure by eliminating Garbage items prior to determining the factors that represent the construct that is the meaning of the averaged measure. In this is study mainly focused significant levels such as 0.05 and 0.01 levles.

Table – 1

Pilot study, Item Analysis Result (N=100) - Selected Item Only

Item No	Item Total Correlation Values	Remarks	Item No	Item Total Correlation Values	Remarks
1	0.425	Selected	19	0.378	Selected
2	0.409	Selected	20	0.524	Selected
3	0.404	Selected	21	0.642	Selected
4	0.582	Selected	22	0.616	Selected

5	0.524	Selected	23	0.614	Selected
6	0.571	Selected	24	0.621	Selected
7	0.487	Selected	25	0.602	Selected
8	0.360	Selected	26	0.403	Selected
9	0.572	Selected	27	0.524	Selected
10	0.575	Selected	28	0.612	Selected
11	0.486	Selected	29	0.570	Selected
12	0.635	Selected	30	0.576	Selected
13	0.547	Selected	31	0.648	Selected
14	0.359	Selected	32	0.636	Selected
15	0.602	Selected	33	0.574	Selected
16	0.481	Selected	34	0.567	Selected
17	0.634	Selected	35	0.406	Selected
18	0.616	Selected	36	0.568	Selected

Description of the final tool

The usage of teaching learning material scale was constructed and validated by the investigator. Item total correlation value of each item were calculated for a sample of N=100 and the statements. By doing item analysis some statements were deleted. At last the questionnaire finalist 36 statements are selected out of 70 statements.

Table – 2

Name of the tool	Total No of Items	Dimensions	Total No of Items under Dimensions	Positive Items	Negative Items	Range
Usage of Teaching Learning Materials (UTLMs)	36	Non-Projective Aids	14	13	1	36-144
		Projected Aids	13	10	3	
		Activity based Teaching Aids	9	9	Nill	

Dimensions of the tool

Usage of teaching learning material scale consist of three dimensions namely, Projective Aids, Non-Projected Aids, Activity based Teaching Aids. The 70 statement were arranged according to the dimensions such as Projective Aids 13 statements, Non-Projected Aids 14 statements and Activity based teaching Aids 9 statements.

Projective Aids

Here the images are projected or displayed on a screen and thus are nearer reality than visual non-projected ones. It includes – Slide, Filmstrips, Over Head Projector (OHP), Microfilm, Micro card.

Non-Projected Aids

Here the TLM is in form of an image or picture explaining the concept. Examples of such type of TLMs are blackboard writing and drawing Charts, Posters, Maps, Diagrams, Graphs, Photographs, Cartoons, Comic strips.

Activity based teaching Aids

Here the activity induces direct participation of students and teacher to get first-hand knowledge is called activity aids.

Scoring Procedure of the tool

Scoring method given in the table column

Table – 3

Scoring Method			
Positive Items		**Negative Items**	
Description	**Scores**	**Description**	**Scores**
Always	4	Always	1
Some Times	3	Some Times	2
Rarely	2	Rarely	3
Never	1	Never	4

The questionnaire consists of 36 items, all the question both of positive and negative questions. Each item has four point rating scale (Always, Some time, Rarely, Never) is given and scores were calculated with regard to respondent response.

Reliability of the tool

The reliability of the research tools was worked out by using Cronbach's alpha and split-Half method. The calculated reliability Co-efficient values are given table – 4.

Table – 4

Research Tool	Co-Efficient - Reliability	
	Cronbach's Alpha	**Split-Half**
Usage of Teaching Learning Materials ($UTLM_S$)	.934	.833

Validity of the tool

Table – 5

Research Tool	Validity	
	Cronbach's Alpha	**Split-Half**
Usage of Teaching Learning Materials (TLMs)	.966	.912

Validity for the research tool found to be the mentioned which indicates that it has possess high validity.

Conclusion

The investigator is hopeful that this scale would be helpful to measure the level of Usage of Teaching Learning Material among Prospective Teachers. Hence the constructed Usage of teaching learning material tool will be very useful for the investigator to measure the extent level of Usage of teaching learning material of prospective teachers in their future teaching profession.

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