

# Construction And Validation Of Teacher Effectiveness Scale For Teacher Educators

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## ABSTRACT

Teacher Educators with their effective and lively teaching actions can leave behind good memories in their student teachers' minds. The goodness shown by the teacher Educators, their inspiring teaching, encouragement showered, support given at difficult times and the enthusiasm for educational ideas will frames of memories in the minds of the student teachers'. Hence the Teacher Educators work for the betterment of the student teachers to the level that makes persons to be remembered with pride let more and more dedicated Effective good Guru/Teacher Educators come into the teaching scenario, more than that, let more and better disciples be formed, and above all, let best society be established in future endowment. Consequently the measurement of the effectiveness of Teacher Educators is vital for that psycho metric scale will be needed after gone through reviews the investigator decided to Construct a tool for Teacher Educators with Subject Matter Expertise (SME), Professional Competency (PC), Classroom Management and Interaction (CMI), Profession Growth Interest (PGI) and Relationship Aptitude (RAp). Hence the present study is.

**Key Words:** Teacher Effectiveness, Teacher Educators, Best Society, Criterion Validity and Reliability, SME, PC, CMI, PGI and RAp.

## Introduction:

“Until and unless we have dedicated and committed teachers who can take teaching as a mission in their lives, we can't have a good educational system. The teacher should be the best minds of the country” said by Dr.Radhakrishnan, Further he said that the teachers wisdom should not be stagnant, it should be flow like a pure water and the teacher work hard, be a broadminded and innovative. From the above states of Dr.Radhakrishnan it conclude itself rundown of the qualities to be obsessed by teachers to sincerely promote the great mission of teaching and reinforce the authority of our educational system. Commitment is consider as a winning formula, this formula upheld determination of teachers too. Due to this the teacher should be more effective in performing their duties. From where the teachers will get such

effectiveness, definitely from their teacher educators. Hence the teacher educators should act as a Catalyst to acquire leadership skills and qualities thereby improving their overall efficiency, so that future teachers easily get these qualities from their teacher educators.

## Rationale for constructing the Tool

Teacher effectiveness may be measured by both observational and survey method. Since majority of the teachers are reluctant to observation method, it is decided to undertake survey method. At the same time the investigator surfed various related literature in this area. Most of the researchers used the following tools wise teacher effectiveness scale by Naresh Kumar and Sukhpreet Kaur (2017), Teacher Effectiveness Scale by Thirumalavalavan (2015). Teacher Effectiveness scale –Puri and Gakar (2011), Kauts and Saroj

(2010), Kalpana Bhargava (2010) Kulsum Teacher Effectiveness Scale, Arokiados (2005), Kaur (2004) Teacher Educators Teaching in Colleges of Education in Haryana state. Paul and Kumarvel (2003), PremKumarSingh (2002). Teacher Educators Teacher Effectiveness Scale by P. Kumar and Mutha were also used for few researchers. After analysing all the investigator could identify the need for developing a new tool in order to fulfil the current scenario in the field of teacher education an also fulfil the gap in this area of research. Hence, the investigator decided to construct a Teacher Effectiveness Scale for the Teacher Educators.

### Operational definitions of terms

This study focus two special terms, Teacher Effectiveness and Teacher Educators.

### Teacher Effectiveness:

How gleam the Teacher Educators focus to understand the subject matter expertise by their

self and delivered to their student teachers with clear manner, be loyalty to the profession, way of handling class with interaction, have the interest of their professional growth and aptitude of relationship with their students and colleagues.

### Teacher Educators:

In this study consider, the teacher educators means those who serving as the training arm of the teaching profession of B.Ed., M.Ed., courses.

### Objective of the study:

- To develop a Teacher Effectiveness Scale for Teacher Educators to measure the impact of teacher effectiveness of the present day teacher educators.

### Process of Construction of the tool:

The following flow chart explains the steps of Construction of the tool for this present study.



### Items writing, editing and arrangement:

Investigator decided to write the items of Effectiveness of Teacher Educators in the form of rating scale because the rating scale involves qualitative descriptions of a limited number of aspects of thing or of traits of a person. The rating in such a forms as like Always, Often, Sometimes, Rarely and Never. Items written on the basis of the following Five Dimensions wise,

1. Subject Matter Expertise (SME), SMC means how much they have the familiarity, expertise, explaining interesting back ground of lesson taught, show the influences, contributing to understand the concepts, capable of answer the doubts raised by the learner and updating knowledge of the subject matter.
2. Professional Competency (PC) is show the loyalty of the profession in the manner of dress code, reports on time, follows the norms, ethics of profession and accepted the appraisals and also comments from administration and students.
3. Classroom Management and Interaction (CMI) is Interact, Motivation, Rewards, Permit to express the feelings, Guidance pessimistic behaviour of the students and make ensure the Classroom climate, Utilisation of Resources and Treat the students with well behave manner.
4. Profession Growth Interest (PGI) means that prominence of profession growth like, participating and presenting papers in National and International Seminars, willing to attend and member of various programmes regarding academic development and Organising the programmes like Conferences and

Research Project it may be mini or major.

5. Relationship Aptitude (RAp) means magnitude of how to maintained relationship with their students to shape and making them comfortable through cheer and hope their potential, colleagues and other members of the surrounding: The statement of each dimension is minimum 10 and the PGI dimension has maximum 13.

### Scrutiny and evaluate through expert opinion, Final tries out / Draft tool:

After preparing the statement, they were scrutinised and evaluated through subject experts based on their opinion few statements are rearranged or shuffled to get the final shape of the tool which is ready to pilot study.

### Conduct the Pilot Study

Quantitative study method was adopted for this Pilot study. This study conducted for the try-out of item analysis' using cluster sampling technique and the data were collected from 100 Teacher Educators of 13 institutions.

### Scoring:

Scaling has been clear as a "procedure for the assignment of numbers to a property of objects in order to impart some of the characteristics of numbers to the properties in question". This study has Five Point Scale like Always, Often, Sometimes, Rarely and Never. The scoring for Positive ward is 5,4,3,2,1 and Negative ward is 1,2,3,4 and 5.

### Item Analysis:

After finishing the scoring procedure, the next step is item analysis done in SPSS-23 version using Cronbach Alpha method. Those items have below  $r = 0.5$  value that item deleted reaming items retained it (above value of  $r = 0.5$ ). The following table will explain detailed manner.

**Table – 1 Item wise -Total Statistics**

Sl.No.	Item No.	Old Item No.	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation “r” value (0.5 and above accepted)	Cronbach's Alpha if Item Deleted	Numbers of deleted items
1	TE1	TE1	205.4848	825.987	.553	.932	
2	TE2	TE6	205.6566	825.595	.580	.931	
3	TE3	TE11	205.4646	834.925	.590	.932	
4	TE4	TE16	205.6970	821.744	.603	.931	
5	TE5	TE21	205.6970	827.417	.506	.932	
6	TE6	TE26	205.5051	829.763	.613	.931	
7	TE7	TE31	205.6869	826.666	.551	.931	
8	TE8	TE36	206.5051	831.048	.395	.933	Deleted– 1
9	TE9	TE41	206.5051	846.987	.430	.934	Deleted – 2
10	TE10	TE46	206.1111	860.957	.047	.935	Deleted – 3
11	TE11	TE51	205.7778	836.277	.506	.932	
12	TE12	TE2	205.7374	834.604	.514	.932	
13	TE13	TE7	206.1010	844.031	.278	.933	Deleted – 4
14	TE14	TE12	205.5758	829.349	.569	.931	
15	TE15	TE17	205.5253	830.170	.549	.931	
16	TE16	TE22	205.2222	828.848	.719	.931	
17	TE17	TE27	205.5556	825.862	.588	.932	
18	TE18	TE32	206.4646	836.782	.359	.933	Deleted – 5
19	TE19	TE37	206.6869	843.238	.446	.934	Deleted – 6
20	TE20	TE42	206.4545	823.148	.534	.932	
21	TE21	TE47	205.7172	840.021	.374	.933	Deleted -7
22	TE22	TE52	205.6869	839.421	.426	.932	
23	TE23	TE3	205.8182	826.885	.537	.931	
24	TE24	TE8	206.0202	818.000	.514	.932	
25	TE25	TE13	205.7677	824.241	.623	.931	
26	TE26	TE18	205.4141	833.837	.505	.932	
27	TE27	TE23	205.5051	826.967	.595	.932	
28	TE28	TE28	205.4949	822.375	.680	.931	
29	TE29	TE33	205.9192	824.606	.537	.931	
30	TE30	TE38	206.0202	823.571	.573	.932	
31	TE31	TE43	206.7273	835.384	.376	.933	Deleted – 8
32	TE32	TE48	205.4242	820.941	.549	.932	

33	TE33	TE53	205.8586	842.000	.296	.933	Deleted – 9
34	TE34	TE4	207.0707	896.740	-.378	.939	Deleted – 10
35	TE35	TE9	205.5051	826.681	.628	.931	
36	TE36	TE14	206.0808	818.667	.509	.932	
37	TE37	TE19	205.7071	823.168	.531	.931	
38	TE38	TE24	206.0404	821.427	.524	.932	
39	TE39	TE29	205.6869	826.666	.551	.931	
40	TE40	TE34	205.9192	824.606	.537	.931	
41	TE41	TE39	206.6869	850.360	.144	.935	Deleted – 11
42	TE42	TE44	205.4747	830.476	.617	.931	
43	TE43	TE49	205.6162	830.892	.560	.931	
44	TE44	TE5	205.5859	825.449	.565	.932	
45	TE45	TE10	205.6465	834.496	.550	.932	
46	TE46	TE15	205.5253	825.048	.572	.931	
47	TE47	TE20	205.7071	824.577	.632	.931	
48	TE48	TE25	205.8283	827.205	.570	.931	
49	TE49	TE30	205.6869	826.666	.551	.931	
50	TE50	TE35	205.8485	824.905	.587	.931	
51	TE51	TE40	206.5051	846.987	.230	.934	Deleted – 12
52	TE52	TE45	205.7778	836.175	.381	.933	Deleted – 13
53	TE53	TE50	205.5960	828.855	.556	.932	

The total number of item is 53 in that 13 items deleted remaining 40 items considered for final study.

### Validity of the Tool:

Validity this word derived from the Latin word of Validus it refers to strong. This concept was formulated by Kelly and he stated that a test is valid if it is measures what it claims to measure. For this study have done the following Validity like, The Constructed tool given to experts in the field of education and psychology and they given their opinion of that the items in the scale has provided the adequate intended to measure the Concept and Content of the tool also appropriate to measure the concept, Thus Face validity is established. Criterion Validity also found by using Bi-variate Correlation in SPSS – 23 version, because it evaluates how well a

test can be forecast a concurrent outcome it correlated with how fit the results of test approximate the results of a further test. Further it gives a well indication that the test is measuring what it proposes to measure. Validity range is 0.413 to 0.702.

### Reliability of the Tool:

Reliability is the one of the important test of sound measurement. Measuring instrument is reliable if it provides consistent results. The reliability test done in SPSS – 23 versions in Cronbach Alpha method. This Cronbach's alpha,  $\alpha$  (or coefficient alpha), developed by Lee Cronbach in 1951, measures reliability, or internal consistency. "Reliability" is another name for consistency. It is to observe if multiple-question Likert scale surveys are

reliable. These questions measure latent variables—hidden or unobservable variables.

TEACHER EFFECTIVENESS COMPONENTS		SME FI	PC FII	CMI FIII	PGI FIV	Rap FV	TOTAL
Mean		32.9800	43.2368	42.1700	22.5849	25.2600	163.5600
Std. Deviation		5.73132	6.05575	7.23216	3.98282	4.20827	26.70048
Percentiles	10	25.0000 <sup>b</sup>	33.7333 <sup>b</sup>	29.6000 <sup>b</sup>	16.7667 <sup>b</sup>	18.7143 <sup>b</sup>	121.0000 <sup>b</sup>
	20	27.4286	40.0667	36.8333	18.6400	22.1250	145.5000
	25	29.1429	41.3333	39.7500	19.8750	23.1875	153.0000
	30	30.3333	42.3000	41.0000	20.9600	23.8125	154.8000
	40	31.9231	43.4250	42.6364	21.8667	25.0000	164.0000
	50	34.0588	44.6000	44.2500	22.6000	26.2105	167.7500
	60	35.3077	45.9333	45.5000	23.4600	27.2083	175.3750
	70	37.1000	46.9000	46.7500	24.8667	28.0476	181.3333
	75	38.0714	47.3750	47.3750	25.6429	28.5238	184.5000
	80	38.7857	47.8500	48.0000	26.3500	29.0000	188.2500
90	39.7391	49.0800	49.6250	28.0800	29.8696	192.5000	

The formula of Cronbach's alpha:

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

#### Analysis Results:

According to the rule of thumb of Cronbach alpha is more than 0.9 is Excellent hence it concludes that this Teacher Effectiveness Scale for Teacher Educators is more reliable because it has a 0.945 value.

#### Norms:

To obtain the norms, the percentiles have been computed for the raw scores of the Teacher Effectiveness Scale for Teacher Educators are given in the following table.

**Table 6 (a) PERCENTILE NORMS OF TEACHER EFFECTIVENESS SCALE**

**Table 6 (b) NORMS OF TEACHER EFFECTIVENESS SCALE SCORE**

Percentiles	Score-Range	Frequency (N)	Interpretation
Below P <sub>25</sub>	153 and below	26	In Effective
P <sub>25</sub> to P <sub>75</sub>	154 to 184.50	49	Effective
Above P <sub>75</sub>	Above 184.50	25	Highly Effective

### Conclusion:

The aim of the study was fulfilled with Construction, Validity is Bi-variate Correlation with the range of 0.413 to 0.702 and Reliability of the tool is 0.945 it is excellent value according to the thumb rule of Cronbach alpha method. Hence this construction tool has more valid and reliable it can be utilise to measure the effectiveness of Teacher Effectiveness of Teacher Educators. Hence, the Investigator expected that this scale would be helpful to measure the level of Teacher Effectiveness of Teacher Educators.

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