

## **Construction and validation of Teachers self-regulated learning scale (TSRLS)**

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### **Abstract; -**

The teacher plays a vital role in process of teaching and learning and also teacher as a lifelong learner and also need to adjust new challenges and demands in the contemporary world in this paper explores the procedure of developing and validating the scale to measure self-regulated learning among teachers of upgraded school. initially 56 items were formulated. The validity of the scale was established by the experts' opinion and suggestions stick on to 31 items and reliability of the scale was established with the help of Cronbach's alpha statistics as a result of item analysis 09 items were deleted and 22 items were selected to form final teachers self-regulated learning scale (TSRLS).

**KEYWORDS; - Self regulated learning, teachers self-regulated learning, construction of teachers self-regulated learning**

### **Introduction; -**

Self-regulated learning as a researcher variable in major of reviews reveals that depended set of variables, it studied several others variable as its correlates. Some group of researchers studied self-regulated learning as a correlate or predictor of certain other criterion variable – academic achievement, thriving in life and life long learning have been highlighted by researcher (Sitzman & Ely, 2011; Donker et al. 2014. Dent & Koenig, 2016) in fact of self-regulated learning important for all educational practitioners. Self-regulated learners are active agents in their learning process which involves their attempt to monitor & regulate their Cognition, motivational & behaviour with respect to their goals & contextual conditions (Pintrich, 2000) Teacher are life long learner in educational practice, they work in a rapidly changing environment teacher learning occurs through every day learning (Fullan, 2007) it might help teachers to increase their self-knowledge and maintain their motivation as well (Delfino, Dettori & Persico, 2010) if teacher want become effective in teaching, they need to become effective learner first.

### **Significance of the study; -**

Self-regulated teachers are proactive agents previously different authors outlined a profile of 'self-regulated teachers' - literature reviews reveal that self-regulated teachers' distinction between the 'self-regulation of teaching' and 'self-regulation of learning from teaching' (Butler, 2003; Delfino et al. 2010) task oriented and lean oriented volitional strategies. Whereas teachers do not always self-regulated their learning they often do self-regulate their teaching more over teacher self-regulate builds on metacognition process that likes task analysis, self-motivational believes, self-control, self-observation & judgement, self-reaction in spiral way. This instrument was designed to measure the teachers self-regulated learning.

### Step-1; planning the test.

The Investigator made a through consultation of a wide variety of sources both men and material to gather information related to self-regulated learning. Based on this the investigator decided to construct the items for the scale in the following dimensions of study habits Inventory namely; task analysis, self -motivational believes, self-control, self-observation & judgement, self-reaction the construction of teachers self-regulated learning scale is at the primary and high school level teachers.

Further the investigator decided to construct statements of response are given with five modes such as follows:

Nature of Items	Always	Often	Sometimes	Rarely	Never
Positive	5	4	3	2	1
negative	1	2	3	4	5

### Step 2: Preparation of the test items and pooling:

Investigator altogether constructed 56 items on five components of the teachers self-regulated learning as shown in the following:

Table 1: Various dimensions wise teachers self-regulated learning scale preliminary items Constructed

Sl. No	Components	Part	No. of items Constructed
01	Task analysis	C1	14
02	Self-motivational Believes	C2	10
03	Self-control	C3	14
04	Self-observation and judgement	C4	11
05	Self-reaction	C5	07
	<b>Total no of item</b>		<b>56</b>

### Step 3: Preliminary form of the test:

All these items were Pooled in an order and printed in the form of a 5-point response. This inventory was sent to fifteen (15) Research / Educational / Psychological Experts and requesting to opine about each item like its grammatical correctness, Structure of the statements, distracters, appropriateness of students. All the Experts working enough to scrutinize the inventory and returned back. Based on the approval of the Experts and Panels 31 statements were selected and remaining 25 were rejected. thus 31 items considered in pilot study.

Table 2: The components of teachers self-regulated learning items retained

Sl. No	Components	Part	No. of items retained
01	Task analysis	C1	08
02	Self-motivational Believes	C2	07
03	Self-control	C3	07
04	Self-observation and judgement	C4	05
05	Self-reaction	C5	04
	<b>Total no of item</b>		31

### Step – 4: Pilot Study

#### Try out of the scale; -

The purpose of the try-out of the scale was to

1. Determine the value of statements could be selected for the finale scale in order that it may constitute an effective measuring the scale
2. Determine the validity of the items for selection in the finale scale.

Upgraded school 65 teachers were selected from upgraded schools of Shivamogga taluk by adopting stratified random sampling procedure for try-out of the scale the sample included both male and female teachers who were selected for government upgraded schools of Shivamogga taluk.

#### Item Analysis:

Cronbach Alpha is a measure of squared correlation between observed scores and true scores. A good analysis of test items should take the whole test into consideration.

Table 3: Item Analysis using Cronbach's Alpha method of teachers' self-regulated scale

S.N	ITEMS	Item correlation	Remark
01	I set my own personal standards to perform in my profession.	0.456	Accepted
02	I set periodical goals to direct my learning.	0.522	Accepted
03	<i>I practice my profession in planned manner.</i>	0.311	Accepted
04	I don't compromise in the quality of my work because it is a Nobel profession.	-0.011	Not accepted
05	I ask question about myself Before I begin each learning task.	0.376	Accepted
06	I use specific strategies for different types of concept needed to learn.	0.463	Accepted

07	I am not able determine how to solve the problem before its commencement.	0.093	Not accepted
08	I imagine the factors of a problem still have to be complete.	0.522	Accepted
09	I rely on my abilities.	0.062	Not accepted
10	I usually find several solutions when I am confronted with a problem in my profession.	0.512	Accepted
11	I'm not able to handle problems comes on my way.	0.303	Accepted
12	I can solve most of the problems by investing the necessary efforts.	0.319	Accepted
13	My trust is important for me to learn new things in this profession.	0.037	Not accepted
14	I gather information from different sources (for example: people and resources) When I'm learning	0.435	Accepted
15	I try to apply appropriate ideas from my previous experiences to profession.	0.631	Accepted
16	I make an effort to understand the nature of my profession.	0.677	Accepted
17	I determine what to ask before receiving help.	0.141	Not accepted
18	I try to speak face-to-face with my colleagues in relation to the profession if necessary.	-0.018	Not accepted
19	I change my strategies when I don't find progress while learning.	0.308	Accepted
20	I make review of my reading materials and notes to find out the most important points.	0.607	Accepted
21	I prepare my questions before joining in discussion forum.	0.646	Accepted
22	I ask questions about myself on track While doing a task.	0.642	Accepted
23	I check my accuracy as I progress through a work.	0.487	Accepted
24	I know how well to finish a work assigned to me.	0.303	Accepted
25	I think more about what did I learned after finishing the work.	0.553	Accepted
26	I will be proactive in engaging and reviewing progress in the learning path.	0.626	Accepted
27	I am not able to think about my strengths and weaknesses.	0.160	Not accepted
28	I think about, how my noble ideas fit to my profession.	0.382	Accepted
29	I put forth my best effort while performing tasks.	0.315	Accepted
30	I don't give up even if the work is hard.	-0.101	Not accepted
31	I am willing to do extra work in order to learn more.	0.172	Not accepted

### Selection of Items;

Cronbach's Alpha was used to assess the degree of internal consistency among all sets of items, and then the task value was calculated. Items with 'r' values less than 0.30 were rejected. According to De Vaus (2004) anything less than 0.30 is a weak correlation for item analysis. In order to form the final scale, out of 31 statements, as many as 31 statements having 'r' value greater than 0.30 were chosen. Higher the score in this item accepted for statements. As a result of the item analysis carried out for item selection, a total number of 31 items were selected for the final form of the test scale. There orderly sequential components curry c1-6

Table 4: Distribution of Items over five components of teachers self-regulated learning

Sl. No	Components	Part	No. of items retained
01	Task analysis	C1	06
02	Self-motivational Believes	C2	05
03	Self-control	C3	04
04	Self-observation and judgement	C4	05
05	Self-reaction	C5	02
	<b>Total no of item</b>		22

Table 4 shows that, finally 22 items were retained, in that 06 items of Task analysis, self-motivational believes 05 items, self-control 04 items, Self-observation and judgement 05 items, Self-reaction 02 items had taken.

### **Establishing Reliability**

#### **Cronbach's Alpha reliability; -**

Cronbach's alpha is the most common measure of internal consistency (reliability). It is most commonly used when multiple Likert questions in a survey/questionnaire that form a scale and to determine if the scale is reliable. The Reliability test of 'teachers self-regulated learning scale' was found to be 0.799 for the entire 31 items by the use of Cronbach's Alpha reliability formula.

#### **Establishing validity; -**

The statements on the scale are all related to the area of study and each on independently focuses on what it claims to measure, this confirms the face validity of the scale. Generally, content validity is established via expert analysis relevant to the target construct. Identified component of self-regulated learning and defining them operationally, led the researcher to formulate 56 items for the draft. This draft has been given to the 15 experts in the field of education and psychology to obtain authenticity of each statement in its capacity to measures self-regulated learning of upgraded school teachers. Based on the approval of the Experts and Panels 31 statements were selected and remaining 25 were rejected. The selected statements were also improved and validated by the experts. Thus, the content validity of the tool was established. This implies that the is comprehensive teachers self-regulated learning scale is comprehensive and relevant.

#### **Items validity;**

The item to item correlation for that the Cronbach's alpha technique was employed. The item validity was computed to 31 items in each part of the test selected based on Cronbach's alpha Corrected Item-Total Correlation. Corrected Item-Total Correlation was found to be range from 0.308 to 0.677 (If this correlation is weak (de Vaus suggests anything less than .30 is a weak correlation for item-analysis purposes[de Vaus (2004), Surveys in Social Research, Rutledge, p. 184]), then that statements should be removed and not used to form a composite score for the variable in question.

It has already been pointed out previously that the five responses represented namely always, often, sometimes, rarely, never was given the weightage of 5,4,3,2,1 for positive items in the case of negative items for scoring procedure was recrossed like 1,2,3,4,5 the total score of each respondent was the algebraic sum of the scores on the 31 items. Minimum scores 1 maximum scores are 155 The scoring procedure for the positively and negatively keyed Statements is shown in the table

Nature of Items	Always	Often	Sometimes	Rarely	Never
Positive	5	4	3	2	1
negative	1	2	3	4	5

The scale of the total 31 statements, 28 are in positively keyed items and 03 statements are negatively keyed items.

## Conclusion

Validation process of scale was given complete information regarding source of information and construction of statement, self-regulated learning of teachers needs to confine the statements in daily needs of the teachers and enhancing teaching skills as the result of panel observation provide valid suggestion and try out of items confine the determinants with valued co-efficient.

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