

CONSTRUCTION AND VALIDATION OF ATTITUDE TOWARDS USING SMART CLASSROOM IN TEACHING SCALE (ATUSCRITS)

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ABSTRACT

Now a day, Smart Classroom teaching is seen as a great solution for modern education. It uses technology and electronic devices to change how lessons are taught in classrooms. Making this program successful depends on many things, like having the right devices, trained teachers using them well, and the attitudes of both teacher and students. With the rapid integration of technology in education, smart classrooms have become an essential component of modern teaching-learning processes. Teachers' attitudes towards using smart classroom technologies significantly influence their adoption and effective utilization. Therefore, it is necessary to develop a standardized tool to measure teachers' attitudes towards using smart classroom in teaching scale. Hence the investigator has decided to construct and validate a scale to measure the attitude of the higher secondary school teachers towards using smart classroom in teaching and succeeded in it.

Keywords: *Attitude, Smart Classroom and Higher secondary school teachers.*

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INTRODUCTION:

Education no longer has to be limited by time or place, and technological advancements may make it possible for those with special needs to get the educational opportunities they need (Alharthi, 2020). The utilization of new technology in the classroom makes education more beneficial for the digital native generation (Alkhudaydi, 2018). In today's 21st-century classrooms, students find relief from the burdens of crowded classes and packed syllabi, thanks to the integration of modern technology. This shift has been significantly highlighted during challenging times like the recent COVID-19 pandemic. While administrative hurdles once hindered the adoption of technology in education, it has now become essential for meaningful and progressive learning. However, despite the removal of traditional blackboards and chalk, many students still feel pressured. Yet, within the classroom, the use of audio-visual aids and integrated software and hardware has transformed education, making it more engaging and fruitful than before. It's evident that no technology can substitute a student's presence for quality education. The key lies in effective teaching driven by students who possess excellent communication skills, extensive knowledge, and adeptness with modern teaching devices. Teaching now involves interactive sessions with PowerPoint presentations, internet resources, and web-based applications. It's the amalgamation of these tools with a student's expertise that paves the way for effective and purposeful learning experiences.

OBJECTIVE:

To construct and validate a new scale namely, attitude towards using smart classroom in teaching scale (ATUSCRITS) to measure the attitude of higher secondary school teachers towards using smart classroom in teaching.

SAMPLE:

Random sampling technique has been used in the process of data collection from the sample, the higher secondary school teachers.

METHOD OF THE STUDY:

Normative survey method has been used in the present study.

TOOL:

As there is no suitable tool available to measure the attitude towards using smart classroom in teaching of the higher secondary school teachers the investigators decided to construct and validate a one. The first step in the construction of the likert-type scale is the collection of a large number of statements both positive and negative statements to the object under study. As many as “50” statements revealing the attitude towards using smart classroom in teaching of the higher secondary school teachers were collected from the following sources:

- (i) As many as thirty (30) teacher educators
- (ii) As many as 15 professors from the faculty of education
- (iii) Related books and
- (iv) Web sources

This scale has 35 positive statements and 15 negative statements in respect of attitude towards using smart classroom in teaching. This scale of (50) statements intended for the pilot study was administered to the sample of as many as 100 higher secondary school teachers in the higher secondary schools of Thanjavur district of Tamilnadu, India. The next step in the construction and validation of attitude towards using smart classroom in teaching scale after pilot study is to find out 't' value of each statement which forms the basis for item selection in order to build up the final scale.

The likert- type scale calls for graded response to each statement on a five-point scale ranging from "strongly agree" to "strongly disagree". The points are usually denoted by "Strongly Agree (SA)", "Agree (A)", "Undecided (UD)", "Disagree (DA)" and "strongly Disagree (SDA)". The different points on the scale are assigned different arbitrary weights. For example, 5, 4, 3, 2 and 1 in the order of "Strongly Agree" response to "Strongly Disagree" response for the positive statements. Here the "Strongly Agree" response bears a weight of 5. The total scores for an individual can be obtained by adding his / her scores for all the individual items.

The individual attitude towards using smart classroom in teaching scale scores for all the 100 higher secondary school teachers were found out. They were ranked from the highest to the lowest score.

Then 25% of the subjects (high) with the highest total scores and 25% of subjects (low) with the lowest total scores were sorted out for the purpose of item selection. The high and low groups thus selected formed the criterion groups and each group was made up of 25 higher secondary school teachers.

It may be recalled that each statement is followed by five different responses of "SA", "A", "UA", "DA" and "SDA", in the attitude towards using smart classroom in teaching

scale. As already indicated weightages are given for the response category in respect of each statement was taken individually and the number of teachers who responded “SA”, “A”, “UD”, “DA”, and “SDA” was found out in both the high and low groups separately. This for all the 50 statements the number of responses coming under each category was found out and the ‘t’ values for all 50 statements were calculated (vide: Table 1).

TABLE 1
RANK ORDER OF ITEMS IN THE ATTITUDE TOWARDS USING SMART
CLASSROOM IN TEACHING SCALE BASED ON ‘t’ VALUES

STATEMENT NUMBER	NATURE OF STATEMENT	“t” VALUE	ITEM SELECTED
1	Positive	2.52	Selected
2	Positive	3.46	Selected
3	Positive	2.94	Selected
4	Positive	1.67	Not Selected
5	Positive	1.72	Not Selected
6	Positive	2.61	Selected
7	Positive	2.97	Selected
8	Positive	3.26	Selected
9	Positive	1.19	Not Selected
10	Positive	2.67	Selected
11	Negative	3.28	Selected
12	Negative	4.13	Selected
13	Negative	1.91	Not Selected
14	Negative	1.56	Not Selected
15	Negative	4.13	Selected
16	Positive	2.69	Selected
17	Positive	2.42	Selected
18	Positive	1.54	Not Selected
19	Positive	2.83	Selected

20	Positive	3.16	Selected
21	Positive	2.89	Selected
22	Positive	1.12	Not Selected
23	Positive	1.16	Not Selected
24	Positive	2.87	Selected
25	Positive	1.24	Not Selected
26	Negative	1.14	Not Selected
27	Negative	1.65	Not Selected
28	Negative	3.16	Selected
29	Negative	4.28	Selected
30	Negative	6.56	Selected
31	Positive	1.73	Not Selected
32	Positive	5.06	Selected
33	Positive	3.15	Selected
34	Positive	1.73	Not Selected
35	Positive	1.09	Not Selected
36	Positive	2.83	Selected
37	Positive	4.11	Selected
38	Positive	1.06	Not Selected
39	Positive	1.24	Not Selected
40	Positive	3.51	Selected
41	Negative	2.24	Selected
42	Negative	1.53	Not Selected
43	Negative	3.13	Selected
44	Negative	1.62	Not Selected
45	Negative	3.08	Selected
46	Positive	2.91	Selected
47	Positive	2.68	Selected
48	Positive	1.14	Not Selected
49	Positive	3.22	Selected
50	Positive	1.31	Not Selected

The value of 't' is a measure of the extent to which a given statement differentiates between the high and low groups. If the 't' value is equal to or greater than 1.75 it indicates that the average response of the high and low groups to statement differs significantly, provided there are 21 (or) more subjects in the high group and also in the low group (Edwards,1957). In the present study, there are 20 subjects each in the high and low groups. The total number of subjects involved in the pilot study being 100. As many as 30 statements, having the highest 't' value were chosen in order to form the final scale. The scale consists of 30 questions out of which 21 items are positive and 9 items are negative.

SCORING PROCEDURE:

The scoring procedure is given in the table furnished below:

Nature of the Statement	Strongly disagree	Disagree	Undecided	Agree	Strongly agree
Positively Worded	5	4	3	2	1
Negatively Worded	1	2	3	4	5

The score ranges from 30 to 150. The maximum score that one can get in this is 150.

The level of the scale was given below.

Level	Range of scores
Unfavorable attitude towards using smart classroom in teaching	Upto 60
Neutral attitude towards using smart classroom in teaching	Above 60 up to 120
Favorable attitude towards using smart classroom in teaching	Above 120

CONCLUSION:

The ability to utilize technology effectively in the teaching and learning process is a 21st-century teacher skill, and the mind-set of the teacher is crucial. The current research aids in determining how teacher candidates feel about digital technologies, which encourages their implementation in actual classroom settings. Thus the investigators constructed and validated

an Attitude Towards Using Smart Classroom in Teaching Scale (ATUSCRITS) and it has been contributed to the field of education by the investigators.

REFERENCES:

- Alharthi, M., (2020). Students' Attitudes toward the Use of Technology in Online Courses. International Journal of Technology in Education, 3(1), 14.
- Alkhudaydi, M.D., (2018). School Teachers' Attitude toward the Use of Web 2.0 Tools in Teaching in Saudi Arabia Manal. Multi-Knowledge Electronic Comprehensive Journal for Education and Science Publications (MECSJ), 9(12), 1–13.
- Allen, L. Edward., (1957), "Techniques of attitude scale construction", Appleton-century Crafts, Inc., Newyork.
- Allport, G.W., (1937). Attitudes. In C. Murchison (Ed.), Psychological monographs: General and applied (Vol. 1, pp. 3-29). Worcester, MA: Clark University Press.
- Best, John. W., (1963), "Research in Education", Prentice hall of India (P) Ltd, New Delhi.
- Bloom B.S, (1975), "Taxonomy of Educational Objectives", Book 1, Cognitive Domain, Longman Publishing.
- Garrett, H.E., (1973), "Statistics in psychology and education", Vakils, Feffer and simons (P) Ltd., Bombay, India.