DEVELOPMENT AND STANDARDIZATION OF ATTITUDE TOWARDS UTILIZATION OF COMPUTER SCALE (ATUCS)

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ABSTRACT

Computers are the main support as a tool for effective learning process. Computer provides much facilities and supports to students' educational life. Computers are not only for education, the developments in the computer field affect all global, cultural, economical life standards as well. Likewise, the computer is the gateway to obtain the information without boundaries and the facilitator for students. Today, when a major effort is being invested in the revolution of the classroom, the computer is the tool with the potential to help in reaching these goals. So the investigators have decided to develop and standardize a scale to measure the Attitude Towards Utilization of Computer of the higher secondary students and succeeded in it.

Key Words: Computer, Utilization, Attitude.

Introduction

Computer is the main support for the students learning nowadays. In the students-centered instruction, the role, attitudes, utilization, reflections of the students become more important concern to overlook the effectiveness of computer. Computers are the main support as a tool for effective learning process. Computer provides much facilities and supports to students' educational life. Computers are not only for education, the developments in the education field affect all global, cultural, economical life standards as well. The computer as productivity tool has great role in education.

Need and importance

Computer helps to face the effects on education by providing different cultural contexts and different life standards with globalization impact and create programmed environment for students to learn efficiently. Computer is a new revolution by changing learning atmosphere of students in educational systems. Computers provide a key ingredient that was lacking in all the previous tools that raised high expectations when introduced in the educational system. Computers can not only present information with

all the audio-visual expressive prospects of television or film, but also can receive information from the user, and can adjust the presentation to the user needs, likings or desires. Hence the study has the need an importance.

Development of the Scale:

As there is no suitable scale available to study students' attitude towards the utilizationof computer the investigators has decided to construct and standardize a scale to measure the students' attitude towards the utilizationof computer. As the first step the investigators collected varieties of information from various sources like website search, Journals, Books, experts in colleges and in universities. It is of 'Likert type scale' having as many as 50 statements. They were both positively (22) and negatively (28) worded. The statements were categorized with the experts opinion. Each statement is set against a five - point scale of 'Strongly Agree' 'Agree', 'Undecided' 'Disagree', 'Strongly Disagree' and arbitrary weights of 5,4,3,2, and 1 are given in that order for the positively worded statement and the scoring is reversed for the negatively worded statements. The scores in this scale range from 50 to 250.

Pilot Study of the Scale

This scale of 50 statements intended for the pilot study was administered to the sample of as many as 100 higher secondary students studying in the higher secondary schools. Then their responses have been scored carefully and arranged in the descending order from the highest scorer to the lowest scorer. Then they were subjected to item analysis.

Item Analysis

The next step in the standardization of an attitude towards the utilizationof computer scale after pilot study is to find out the '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 a graded response to each statement on a five-point scale ranging from 'Strongly Agree' to 'Strongly Disagree". The individual score for all the 100 students were found out and they were ranked from the highest to the lowest score. Then 25% of the subjects (High) with the highest total scores and 25% of the subjects (low) with the lowest total scores were sorted out for the purpose of item selection. The high and the low groups, thus selected, formed the criterion groups and each group was made up of 25 higher secondary students (Edward.L.Allen., 1957). It may be recalled that each statement is followed by five different responses of 'SA', 'A', 'UD', 'DA', and 'SD' in the attitude towards the utilizationof computer scale. As already indicated weights are given for the response category in respect of each statement. Then each statement was taken individually and the number of students who responded 'SA', 'A', 'UD', "DA', 'SD' was found out in both the high and low groups separately. Thus for all the 50 statements, the number of higher secondary students coming under each category was found out separately for both the high and the low group. The value of 't' is a measure of the extent to which a given statement differentiates between the high and low group. 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 a statement differs significantly, provided there are 25 or more subjects in the high group and also in the low group (Edward.L.Allen., 1957).

TABLE-1

RANK ORDER OF ITEMS IN ATTITUDE TOWARDS THE UTILIZATIONOF COMPUTER SCALE BASED ON 't'VALUES

STATEMENT NUMBER	NATURE OF STATEMENT	"t" VALUE	ITEM SELECTED
1	Positive	2.262	SELECTED
2	Positive	4.527	SELECTED
3	Negative	2.284	SELECTED
4	Negative	1.326	NOT SELECTED
5	Negative	3.307	SELECTED
6	Negative	2.173	SELECTED
7	Negative	1.131	NOT SELECTED
8	Positive	3.829	SELECTED
9	Negative	2.269	SELECTED
10	Negative	3.431	SELECTED
11	Negative	2.995	SELECTED
12	Negative	2.382	SELECTED
13	Negative	2.43	SELECTED
14	Negative	1.984	SELECTED
15	Positive	2.62	SELECTED
16	Negative	2.093	SELECTED
17	Positive	2.606	SELECTED
18	Positive	2.5	SELECTED
19	Positive	0.417	NOT SELECTED
20	Positive	2.814	SELECTED
21	Positive	3.643	SELECTED
22	Positive	0.696	NOT SELECTED
23	Positive	3.707	SELECTED
24	Positive	2.152	SELECTED
25	Negative	2.103	SELECTED
26	Negative	3.184	SELECTED
27	Positive	2.079	SELECTED

28	**Negative**	3.541	SELECTED
29	**Negative**	2.025	SELECTED
30	**Negative**	2.738	SELECTED
31	**Negative**	0.947	**NOT SELECTED**
32	Positive	2.952	SELECTED
33	Positive	3.133	SELECTED
34	Positive	2.108	SELECTED
35	Positive	3.374	SELECTED
36	**Negative**	2.031	SELECTED
37	**Negative**	2.528	SELECTED
38	**Negative**	1.964	SELECTED
39	Positive	1.962	SELECTED
40	Positive	0.5	**NOT SELECTED**
41	Positive	2.408	SELECTED
42	**Negative**	3.735	SELECTED
43	**Negative**	1.996	SELECTED
44	**Negative**	3.679	SELECTED
45	**Negative**	4.762	SELECTED
46	Positive	2.315	SELECTED
47	Positive	0.708	**NOT SELECTED**
48	**Negative**	3.722	SELECTED
49	**Negative**	2.225	SELECTED
50	**Negative**	1.212	**NOT SELECTED**

In the present study there are 25 subjects each in the high and low groups, the total number of subjects involved in the pilot study being 100. As many as 42 statements having the highest 't' value have been chosen in order to form the final scale (Table-1).

Scoring Procedure

The scoring procedure is given in the table furnished below:

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

The score ranges from 42 to 210. The maximum score that one can get in this is 210. The level of the scale was given below.

Level	Range of scores
Unfavourable attitude towards the utilization of computer	Up to 84
Neutral attitude towards the utilization of computer	Above 84 up to 168
Favourable attitude towards the utilization of computer	Above 168

Validity

Attitude towards the utilization of computer scale has construct validity as items were selected having the 't' values equal to or more than 1.75 (Edwards, 1975). Its intrinsic validity was found to be 0.91 which clearly states that the scale is valid.

Reliability

The reliability of this scale found using the test-retest methodwas found to be 0.84 and hence the scale is reliable.

Conclusion

Thus the investigators constructed and validated a Attitude Towards Utilization of Computer Scale (ATUCS) and contributed it to the field of education.

References

Best, John, W., and James Kahn.V., (1999) Research in education, Seventh Edition Prentice Hall of India Private Limited, New Delhi.

Edwards. L. Allen, (1957), "Techniques of attitude scale Construction", Vakils Feiffer and Simons (P) Ltd, Bombay. India.