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## DEVELOPMENT AND STANDARDIZATION OF AN ENVIRONMENTAL BEHAVIOUR SCALE (EBS)



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**Abs tract:** -Environment has been defined as the sum total of all conditions and influences that affect the development and life of organisms. Environment is interwoven in day-to-day life of human beings and as such man plays a great role in preserving and improving the environment for the sake of development and a better future. The study of environmental behaviour is a significant one and for which the investigator has decided to develop and standardize a scale to measure it.

**Keyw ords:** physical environments ,Environmental Behaviour Scale ,Standardization.

### INTRODUCTION:

The natural and the physical environments are so kind to all living creatures as to provide the essential facilities such as food, shelter for survival and protection from some kind of dangerous physical events. Since the natural environment is kind to humans and patronizing them, humans also should be kind to the natural environment. But humans are hostile toward the environment while making use of its patronage all the times. The ancient man did not harm so much to the environment. Only in the case when the environment was not flexible for his comforts, he was changing his environment or he adjusted to live according to the situation. Hence, the investigator decided to construct a scale to assess environmental behaviour among B.Ed. student teachers. In order to construct the scale the investigator collected a variety of information regarding environment form the experts in Environment, Teacher Educators, Books, Journals, Internet and so on.

### PILOT STUDY

This scale with 50 items has been administered to the sample of 200 B.Ed. student teachers studying in different B.Ed. Colleges, Tamil Nadu, India, in order to carry out the pilot study. Then their responses have been scored carefully and their marks secured by all the samples have been 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 environmental behaviour scale after pilot study is to find out the t-value of each item, which forms the basis for item selection in order to build up the final scale. The scale calls for a graded response to each item on a two-point scale for positive statements "yes" response gets a 1 mark and "No" response gets a 0 mark. For negative statements "yes" response gets a 0 mark and "No" response gets a 1 mark. The

individual score for all the 200 B.Ed. student teachers were ranked from the highest to the lowest score. Then 25% of the subjects with the highest total scores and 25% of the subjects with the lowest total scores were sorted out for the purpose of item selection. The high and low groups, were selected, formed the criterion groups and each group was made up of 50 students (Edward. L. Allen, 1957).

Thus for all the 50 items, the number of students coming under each category was found out separately for both the high and low groups and the t-values for all the 50 items have been calculated with the formula suggested by Allen Edwards(1957). As many as 45 items having the t-value greater than or equal to 1.75 (Edward. L. Allen, 1957) have been chosen in order to form the final scale (vide: Table-I). Then this final scale has been administered to 200 students studying in different B.Ed. Colleges, Tamil Nadu, India, in order to establish the scoring procedure, validity and reliability of this scale.

**TABLE – I**  
**ITEM SELECTED FOR EBS**

Item Number	't' Value	Item selected
1	6.24	S
2	6.08	S
3	5.94	S
4	5.06	S
5	4.94	S
6	4.02	S
7	3.98	S
8	1.24	NS
9	5.60	S

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10	4.32	S
11	5.94	S
12	4.82	S
13	4.62	S
14	3.96	S
15	3.08	S
16	0.96	NS
17	6.02	S
18	5.26	S
19	2.86	S
20	6.55	S
21	7.08	S
22	1.32	NS
23	6.93	S
24	6.08	S
25	5.52	S
26	6.52	S
27	5.82	S
28	6.29	S
29	5.62	S
30	5.46	S
31	5.94	S
32	4.82	S
33	4.62	S
34	3.96	S
35	3.08	S
36	0.96	NS
37	6.02	S
38	5.26	S
39	2.86	S
40	4.24	S
41	6.42	S

42	5.98	S
43	5.42	S
44	5.32	S
45	4.86	S
46	6.52	S
47	5.82	S
48	1.29	NS
49	5.62	S
50	5.46	S

S – Selected                      NS – Not selected

**SCORING PROCEDURE**

The environmental behaviour scale has 45 items, out of which 31 items are positively worded and the remaining 14 items are negatively worded. An individual score is the sum of the scores of all the 45 items. For positive statements “yes” response gets a 1 mark and “No” response gets a 0 mark. For negative statements “yes” response gets a 0 mark and “No” response gets a 1 mark. The scores range from 0 to 45. Higher score indicates the high environmental behavior and the details of scoring are given in the following table.

The scoring to the response given by the respondents should be like the following

**TABLE – II**

Response	Positive	Negative
Yes	1	0
No	0	1

**RELIABILITY:**

Reliability refers to the consistency with which a test measures, whatever it measures. The concept of reliability suggests both stability and consistency of measurement. The investigator calculated the reliability analysis and it was given in the following table.

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**TABLE – III**  
**TABLE SHOWING THE RELIABILITY METHOD**  
**AND CO-EFFICIENT VALUES**

<b>METHOD OF RELIABILITY ANALYSIS</b>	<b>RELIABILITY CO-EFFICIENTS</b>
Correlation between forms	0.742
Equal-length Spearman-Brown	0.867
Guttman Split-half	0.847
Unequal-length Spearman-Brown	0.825

**VALIDITY:**

Validity reveals the merits of our measurement. This environmental behaviour scale was given to the experts (20 members) in order to find out its content validity. The experts agreed that the items in the scale provided adequate coverage of the concept. This environmental behaviour scale also has construct validity.

**CONCLUSION**

The investigator believe that this scale would be a contribution to the field of environmental behaviour in Environment and those who want to measure the environmental behaviour anywhere in this country will find this scale very useful.

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