DEVELOPMENT AND STANDARDISATION OF RESPONSIBLE ENVIRONMENT BEHAVIOUR (REB) SCALE

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INTRODUCTION
Ultimate aim of environmental education is to develop responsible environmental behaviour. It is believed that environmental education is linked to environmental behaviour (Palmer 1998; and Wilson 1996). It is believed that education leads to greater awareness and attitude change that ultimately improves environmental behaviour. Thus, these researchers believe that the primary goal of EE should be to encourage people to engage in environmental issues. Responsible environmental behaviour is willingness of a person to take an active part in environmental issues. To a large extent it is a reflection of a person's understanding of environmental issues and his or her views towards them. Basically, environmentally responsible behaviour involves both individual actions and group actions Individual actions include use of biodegradable, recycle glass bottles or jars or aluminum cans. Group actions include joining in community cleanup efforts and car pooling etc. According to the researchers (Disinger1982; Marcinkowski 1987; Zelezny 1999), programmes that target adolescents and are longer in duration tend to be more effective in changing environmental behaviour of the participants. Hence, the researchers felt the need to develop and standardise the scale of Responsible Environmental Behaviour.

PURPOSE OF THE SCALE
Purpose of the scale was to measure the responsible environmental behaviour of Indian adolescents.This scale is meant for Indian adolescent ranging between the age group of 14-18 years of age and studying in the classes IX to XII

CONSTRUCTION AND STANDARDISATION
Type of test items
Present 'Responsible environmental behaviour' scale is a five point scale. Every item is in the statement form. Positive and negative statements are included in the scale to add variety and reduce the students' tendency to respond perfunctorily. Five response categories are provided for responding to every item. These response categories are: 'Always', 'Mostly', 'Sometimes', 'Rarely', and 'Never'. In these response categories the subject is required to select the most appropriate response category indicating his/her behaviour.

Preliminary Draft of the scale
In the Preliminary draft, 89 items on different dimensions were written and edited. Out of 89 items, 57 were positive items and 32 were negative items.

Pre-Try out of scale
The first draft containing 89 items was given to ten experts for their valuable opinion. As the scale is to measure responsible environmental behaviour of adolescents, it was pertinent to choose judges from related field such as teachers from schools, and faculty members of different departments of universities. Scales along with its objectives were given to all the judges. The judges were told that they were free to add the relevant items and change or delete any item, which they considered irrelevant and vague or not measuring the dimension under which they have been put. The judges rendered their valuable suggestions very frankly. On the basis of opinion of the judges, fifteen items were dropped, six new items were added

and language of four items was rectified. So, the second draft consisted of 61 items, distributed into six dimensions.

Procedure for Scoring
The weightage to be given to responded statements was also planned to be ranging from 4 to 0. For positive statements, 4 marks were given to response, 'Always', 3 marks to 'Mostly', 2 marks to 'Sometimes', 1 marks to 'Rarely' and 0 marks to 'Never'. In case of negative statements, the order was reversed. There were 32 positive statements and 29 negative statements.

Try Out of the Scale
Before undertaking the work of item analysis, the scale was administered to a sample of ten students to remove the language difficulty, if any, reported by them in understanding clearly the different items.

Item Analysis of the Scale
The second draft of Responsible Environmental behaviour (REB) scale containing 61 items was administered to 152 adolescents for item validity.

Item Validity
To find out item validity Biserial co-efficient of correlation was calculated for each item with the scores of sub scales and scores of the whole scale. Items with negative coefficient of correlation and insignificant correlation were dropped. One item had insignificant coefficient of correlation and 10 items had negative coefficient of correlation and these items were dropped.

Discrimination Index / Power
To ascertain whether the item differentiate between high and low group, t-ratios were worked out between high and low group item wise. High and low groups were formed by employing Kelley's method. On the basis of total scores, 27% top scores formed the high group and 27% bottom scores formed the low group. t-ratios were computed between two groups item-wise. Items with significant t-ratio are retained but items with insignificant t-ratio are rejected. Four items had insignificant t-ratio and these items were dropped.

Reliability
The test-retest reliability was calculated for the present scale by calculating the coefficient of correlation between two sets of scores of same individual on REB Scale at different time intervals on a sample of 100 adolescents. The test-retest reliability after one-month interval was calculated. The correlation between the two administrations of the REB Scale was found to be 0.75. This reliability coefficient was found to be significant at 0.01 level of significance. So, it can be inferred on the basis of reliability coefficient that scale is reliable. Split-half method was employed for estimating internal consistency. The scale was divided into two equal halves by adopting odd-even procedure. Items with odd numbers formed one half test and items with even numbers formed second half test. The scale was given to 100 students. The correlation was found by Product Moment Method between two halves. It came out to be 0.72. The reliability co-efficient by Spearman Brown Prophecy formula came out to be 0.78 which is significant at 0.1 level.

Validity
In the present scale, content validity was ensured. Pearson's Product Moment co-efficient of correlation was computed between scores of various subscales and also with the total REB scores. The test was administered to 100 adolescents. The co-efficients of correlation ranged from 0.38 to 0.67 which are significant at .01 level . For determining content validity, the test items were given to the panel consisting of 10 judges. The experts were requested to give +1 if the items were related to the trait and –1 if items

are not related to the trait and 0 in case of uncertainty. On the basis of their responses, Index of suitability (IOS) was worked out. The value of IOS ranged from 0.88 to 1, which clearly shows that, content of the test measures the same objectives for which they were written. This establishes the content validity of the test. So final version of Responsible environmental behaviour scale has been prepared with the 46 valid items. The maximum possible score will be 184 and the minimum will be zero.

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