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DEVELOPMENT OF SCALE TO MEASURE ATTITUDE OF TRIBAL FARMWOMEN TOWARDS DIFFERENT DEVELOPMENT PROGRAMMES

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ABSTRACT
Due to non-availability of a proper scale to measure tribal farmwomen's attitude towards different development programmes, it was thought necessary to construct a scale for the purpose. Keeping this in view, an attempt has been made to develop a scale for measuring the attitude of tribal farmwomen towards different development programmes. Among the techniques available for the development of scale, technique chosen to develop attitude scale was 'Scale Product Method' which combines the Thurstion's technique of equal appearing interval scale for selection of the items and Likert's techniques of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown (1949).

INTRODUCTION
Attitude refers to the "degree of positive or negative affect associated with some psychological object'' (Thurstone, 1946). In the present study attitude is conceptualized as positive or negative reaction of tribal farmwomen towards different development programmes taken up in the area of integrated tribal development project, Dahod. To fulfill this purpose researcher has developed and standardised the attitude scale.

METHODOLOGY
In this study, an attempt has been made to develop a scale, which can scientifically measure attitude of tribal farmwomen towards different development programmes Among the techniques available for the development of scale, the Thurston's equal appearing interval scale (1928) and the Likert's summated rating scale (1932) are quite well known. However, both the methods suffer from the limitations, the first one in getting discriminating response and second one in selection of items. So, author has selected, 'Scale product method' which combines the Thurstone's technique of equal appearing interval scale (1929) for selection of items and Likert's technique of summated rating (1932) for ascertaining the response on the scale as proposed by Eysenck and Crown (1949).

Steps in development of attitude scale
Steps in development of the attitude scale are presented in Figure 2 and discussed as below.

Item collection
The items of attitude scale were called as statements. In initial stage of developing the scale large number of statements about different development programmes taken up in Integrated Tribal Development Project Dahod were collected from relevant literature and discussion with technical staff working under ITDP Dahod, extension faculties working at Extension Education Institute, A.A.U., Anand and Department of Extension, B. A. College of Agriculture, A.A.U., Anand as well as extension experts working at Directorate of Agriculture, Gandhinagar and Directorate of Extension Education, A.A.U., Anand, Training Organizer and his faculties of Tribal Research-cum-Training Centre, Gujarat Vidhyapith, Ahmedabad and other Extension workers of the area.

Editing of Items
The statements, thus selected were edited according to the criteria laid down by Edward (1957) from the 65 statements, 32 statements were selected as they were found to be non-ambiguous.

Item Analysis
Eighty slips of the selected statements were handed over to the professors and extension educationists of State Agricultural Universities of Gujarat and technical staff working under ITDP Dahod as well as extension experts working at Directorate of Agriculture, Gandhinagar, faculties of Tribal Research-cum-Training Centre, Gujarat

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Vidhyapith, Ahmedabad and other Extension workers of the area. The judges were requested to give their responses as to what extent an individual statement reflects to the degree of unfavourableness or favourableness on the five point equal appearing interval continuum. Out of these experts, only 50 experts had returned the statements after dully recording their judgments and were considered for the analysis.

Determination of scale and 'Q' values

The five points of the rating scale were assigned scores ranging from 1 score (for strongly disagree) to 5 score (for strongly agree). For positive statement, 5, 4, 3, 2 and 1 score was given to strongly agree, agree, undecided, disagree and strongly disagree response respectively, while for negative statements scoring system was reversed. Frequency distribution of the scores of judges was than prepared. Based on the judgment, scale (median) value and 'Q' value for each of 32 statements were calculated by using following formula:

$$(a) \qquad S = L + \frac{0.50 - \Sigma pb}{Pw} \times i$$

Where,

S = The median or scale value of the statement

L = Lower limit of the interval in which the median falls

Σpb = The sum of the proportion below the interval in which the median falls

Pw = The proportion within the interval in which the median falls

i = The width of the interval and is assumed to be equal to 1.0 (one).

$$(b) \qquad Q_1 = L + \frac{0.25 - \Sigma pb}{Pw} \times i$$

Where,

Q1 = The 25th centile

L = Lower limit of the interval in which the 25th centile falls

Σpb = The sum of the proportion below the interval in which the 25th centile falls

Pw = The proportion within the interval in which the 25th centile falls

i = The width of the interval and is assumed to be equal to 1.0 (one).

$$(c) \qquad Q_3 = L + \frac{0.75 - \Sigma pb}{Pw} \times i$$

Where,

Q3 = The 75th centile

L = Lower limit of the interval in which the 75th centile falls

ΣPb = The sum of the proportion below the interval in which the 75th centile falls

Pw = The proportion within the interval in which the 75th centile falls

i = The width of the interval and is assumed to be equal to 1.0 (one).

The inter-quartile range (Q = Q3 - Q1) for each statement was also worked out for determination of ambiguity involve in the statement.

When there was a good agreement among the judges, in judging the degree of agreement or disagreement of a statement, Q was small compared to the value obtained, when there was relatively little agreement among the judges. Only those items were selected whose median (scale) value were greater than Q values. However, when a few items had the same scale values, items having lowest Q value were selected. Based on the median and Q values 18 statements were finally selected to constitute attitude scale.

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The selected 18 statements for final format of the attitude scale were randomly arranged to avoid response bias. Against each of 18 statements there were five columns representing a five point continuum of agreement or disagreement to the statements as followed by Likert (1932). The points on continuum were strongly agree, agree, undecided, disagree and strongly disagree with weight of 5, 4, 3, 2 and 1, respectively for favourable (positive) statement and with weight 1, 2, 3, 4 and 5, respectively for unfavourable (negative) statement. The final format of the scale is presented in Appendix - I.

Reliability of the scale

To know the reliability of the scale split half method was used. The scale was administrated to 20 tribal farmwomen who were neither previously used as respondents nor had chance to come in the final sample. The scores for the alternate items were separated and two sets were prepared. The coefficient of correlation between the two sets of scores was calculated which was found to be highly significant (r = + 0.915). The reliability co-efficient thus obtained indicated that internal consistency of the attitude scale constructed for the study was quite high. It also significantly indicated the stability of the scale.

$$rtt = 1 - \frac{\sigma^2 d}{\sigma^2 t}$$

Where,

rtt = Co-efficient of reliability

$\sigma^2 d$ = Variance of those differences

$\sigma^2 t$ = Variance of the total scores

Administering the scale

The final attitude scale was administered on the sample tribal farmwomen who were asked to express their reaction in terms of their agreement or disagreement with each item by selecting any one of five response categories. The total attitude score for each respondent was obtained by adding the weightage of his responses made to the individual item.

Table 1: Final format of the scale to measure Attitude of tribal farm women towards different development programmes taken up in integrated tribal development project area of Dahod of Gujarat state

Kindly put only one tick mark (✓) for each statement in the appropriate column to indicate your response.

Sr. No.	**Statements**	SA	**A**	**UD**	**DA**	**SD**	**Scale value**
1	There is significant change in the out-look amongst all tribals of ITDP Dahod due to different development programmes.	5	4	3	2	1	3.56
2	Money spent on different development programmes in ITDP Dahod is just wastage.	1	2	3	4	5	2.50
3	Objectives of different development programmes organised in ITDP Dahod are related to my interest.	5	4	3	2	1	2.61
4	Development works of Jawahar Rojgar Yojana give me great deal of pleasure.	5	4	3	2	1	3.77
5	Different development schemes/ programmes taken up to help only big farmers.	1	2	3	4	5	2.21
6	The benefits given to tribals under different development programmes by Govt. help in meeting expenditure for running home and farming.	5	4	3	2	1	3.62
7	Organisation of different development programmes is not the solution to remove tribals' poverty in ITDP Dahod.	1	2	3	4	5	2.80
8	Activities of different cooperative societies save tribal farmers from malpractices of money lenders.	5	4	3	2	1	3.70

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9	Inputs are not supplied at right time and they are not of superior quality.	1	2	3	4	5	3.54
10	Terms and conditions for getting benefits of different development schemes are very complicated in ITDP Dahod.	1	2	3	4	5	3.50
11	Different schemes launched for development of animal husbandry help to provide supplementary but substantial income to tribal people.	5	4	3	2	1	3.65
12	Organisation of fisheries societies helps to increase the area of culture fishing in ITDP Dahod.	5	4	3	2	1	3.64
13	Forestry programmes fail to generate employment for tribal people in ITDP Dahod.	1	2	3	4	5	3.63
14	Concessions sanctioned in regards to rural electrification could not attract the tribal farmers to avail the facility of electric connection of their wells in ITDP Dahod.	1	2	3	4	5	3.58
15	Educational facilities availed under schedule tribal welfare programme to students are not enough to improve their qualitative level of education in ITDP Dahod.	1	2	3	4	5	2.52
16	There is no significant role of different health programme to improve heath and sanitation in ITDP Dahod.	1	2	3	4	5	2.56
17	Additional incentive provided under family planning programme is needed for popularising family planning programme in ITDP Dahod.	5	4	3	2	1	3.73
18	In fact, family oriented economic programmes help to raise living standard of tribal families in ITDP Dahod.	5	4	3	2	1	3.10

SA = Strongly agree, A = Agree, UD = Undecided, DA = Disagree, SDA = Strongly disagree

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