

Development of Scale to Measure Attitude of Demonstrated Paddy Growers Towards the SRI Technique

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ABSTRACT

Due to non-availability of a proper scale to measure farmers' attitude towards SRI technique of paddy crop, 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 farmers towards SRI technique of paddy crop. technique chosen to develop attitude scale was 'Scale Product Method' which combines the Thurston'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).

Keywords: Attitude, SRI technique, Continuum, Reliability, Validity *Keywords:* Jaljivan, subscribers, gain in knowledge

INTRODUCTION

Attitude has been defined as “the degree of positive or negative feeling, affect, opinion, action and belief associated with some psychological object”, psychological object may be any symbol, institution, person, phrase, slogan, idea or ideal towards which people may differ from each other with respect to positive or negative aspect. The cognitive component of an attitude consists of the beliefs, which involves attributes like favourable or unfavourable, desirable or undesirable, good or bad etc. The feeling component refers to the emotions which give attitude a motivating character or action tendencies. The action tendency component of an attitude includes all behavioural readiness associated with it. These three components of attitude, are, however, consistently related to each other. The psychological object for the present study has been conceptualized as the SRI technique of paddy crop

METHODOLOGY

In this study, an attempt has been made to develop a scale, which can scientifically measure attitude of the farmers towards SRI technique of paddy crop 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. Thus, technique chosen to develop attitude scale was 'Scale Product Method' which combines the Thurston'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).

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 making up an attitude scale are known as statements. A statement may be defined as anything that is said about a psychological object. As a first step in the developing the scale, many statements about SRI technique of paddy crop were collected from the relevant literature, major advisor, extension educationists, KVK experts and agronomists with considerable practical experience in SRI techniques from the Anand Agricultural University.

Editing of Items

The statements, thus selected were edited on the basis of the criteria suggested by Thurstone and Cave (1927), Likert (1932) and Edward and Kilpatrick (1948) and at last,

19 statements were selected as they were found to be non ambiguous.

Judge’s rating of attitude statements

In order to judge the degree of ‘Unfavorableness’ to ‘Favorableness’ of each statement on the five point equal appearing interval continuum a panel of 50 judges was

selected. The judges selected for the study were comprised of teachers of extension education with considerable practical experience in SRI techniques from the Anand Agricultural University and Navsari Agricultural University. The judges were visited personally along with letter of instructions to guide them for rating the statements in desired manner for each set of the statements as seen in Table 1.

Table: 1 Final scale to measure the attitude of demonstrated paddy growers towards SRI technique of paddy crop

No	Statement	SA	A	UD	DA	SDA
1	In my opinion, SRI technique in paddy cultivation gives higher yield. (+)	5	4	3	2	1
2	I think that the application of SRI technique in paddy cultivation is complicated. (-)	1	2	3	4	5
3	In my opinion skills are necessary in SRI technique. (-)	1	2	3	4	5
4	The application of SRI technique is very risky. (-)	1	2	3	4	5
5	It is easy to adopt SRI technique in paddy cultivation. (+)	5	4	3	2	1
6	I think that the yield in SRI technique is more as compared to conventional method. (+)	5	4	3	2	1
7	The use of SRI technique is wastage of money. (-)	1	2	3	4	5
8	SRI technique cannot be adopted by the illiterate paddy grower. (-)	1	2	3	4	5
9	SRI technique is better way for sustainable agriculture. (+)	5	4	3	2	1
10	In my opinion SRI technique are more laboures. (-)	1	2	3	4	5

*SA = Strongly Agree, A = Agree, UD = Undecided, DA = Disagree, SDA = Strongly Disagree

Determination of Scale and Quartile Value

The five points of the rating scale were assigned score ranging from 1 for most unfavorable and 5 for most favorable. The based on judgment, the median value of the distribution and the Q value for the statement concerned was calculated with the help of following formula.

$$S = L + \frac{0.50 - P_b}{P_w} \times i$$

Where,

- S = Median or Scale value of the statement
- L = Lower limit of the interval in which the median falls
- P_b = Sum of the proportion below the interval in which the median falls
- P_w = Proportion within the interval in which the median falls
- i = Width of the interval, which was assumed as equal to 1.0 (one).

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

in the statement.

Reliability of the scale

The split-half technique was used to measure the reliability of the scale. The 10 statements were divided into two equal halves with 5 odd numbered and 5 even numbered statements in other. These were administered to 25 respondents who were not selected for the study. Each of the two sets were treated as separate scales having obtained two score, for each of the 25 respondents. Co-efficient of reliability between the two sets of score was calculated by Rulon’s formula (Guilford 1954), which was 0.86. Thus, scale developed for the purpose was found quite reliable.

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

Where,

- r_{tt} = Co-efficient of reliability
- σ²d = Variance of these differences
- σ²t = Variance of total scores

Administering the scale

The final attitude scale was administered

on the sample of demonstrated paddy growers. They were asked to express their reaction in terms of their agreement or disagreement with each item by selecting one of five response categories. The total attitude score for each respondent was obtained by adding all the scores of their responses of all the statements and on the basis of mean and SD the respondents were grouped into three categories *viz.*, Less favorable (below mean – S.D.), moderately favorable (between mean \pm S.D.) and highly favorable (above mean + S.D.).

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