

Summated Rating Scale to Measure the Attitude of Trainees towards KVK Training Programmes

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Received: 2.09.2020 | Revised: 18.10.2020 | Accepted: 26.10.2020

ABSTRACT

Attitude was operationally defined as the degree of positive or negative mental disposition associated with the individual towards KVK training programmes. Many past researchers have identified attitude as one of the important psychological variables that influence acceptance and participation in the training programme. Hence, the necessity to develop a scale to measure attitude towards KVK training programmes. The method of summated ratings technique has been utilized on the construction of the scale and the final scale comprising of twelve attitude statements was standardized for administration. The scale was found to be reliable and valid.

Key words: KVK, Scale, Operational skill.

INTRODUCTION

It is an universally accepted fact that attitude of an individual plays an important role in determining his behavior with respect to a particular object. As a corollary to this, the attitude of trainees towards KVK training programme will largely determine their nature of behavior towards it. According to Thurstone (1946) “Attitude is the degree of positive or negative effect associated with psychological object like symbol, phrase, slogan, person, institution, ideal or idea towards which people can differ in varying degree”. Attitude in this study was operationally defined at the trainees degree of favorable or unfavorable views, options, feelings, towards KVK trainings

programmes. Such a favorable attitude helps in better adoption of technology. In this context, it is worthwhile to develop attitude scale to measure the attitude of trainees towards KVK training programmes as one of the specific objectives of the study by using the summated ratings scale method.

MATERIALS AND METHODS CONSTRUCTION AND STANDARDIZATION OF SCALE

1. ITEM COLLECTION

To measure the degree of trainees like or dislike for the KVK training programmes an attitude scale was constructed following the method of summated rating scale.

Cite this article: Ramakrishnan, K., Sakunthalai, A., & Paulpandi, V. K. (2020). Summated Rating Scale to Measure the Attitude of Trainees towards KVK Training Programmes, *Ind. J. Pure App. Biosci.* 8(5), 356-359. doi: <http://dx.doi.org/10.18782/2582-2845.8385>

Fifty attitude statements about Krishi Vigyan Kendra (KVK) in general were collected initially from all possible sources and then edited on the basis of the criteria suggested by Thurstone and Clave (1929), Likert (1932), Bird (1940) and Edwards and Kilpatrick (1948) resulting in rejection of twenty eight attitude statements. The remaining twenty four attitude statements were retained out of which twelve were positive and twelve were negative. Those fifty attitude statements were provided for judges opinion on a five point continuum ranging from strongly agree to strongly disagree and was administered to 60 judges from the field of sociology, psychology extension specialist in the Agricultural Universities and the Extension workers in the KVKs regarding appropriateness of the items with respect to adequate coverage of the universe and changes suggested by judges were effected.

2. ITEM ANALYSIS

The statements were put in the form of summated rating scale (Likert R 1932) with

five-point response categories namely Strongly Agree, Agree, Undecided, Disagree and Strongly Disagree with scores of five, four, three, two and one for positive items.

The scoring was reversed for the negative items. The scale was administered to forty farmers in a non sample area. After obtaining the summated score for total statements (twenty four) the subjects were arranged in descending order based on their total scores.

The twenty five per cent of the subjects with highest total scores and the twenty five percent of the subjects with the lowest scores would provide criterion groups in terms of which to evaluate the individual statements. The middle group was omitted from the analysis.

The 't' value (critical ratio), a measure of the extent to which a given statement differentiates between the high and low groups of subjects for each statement was calculated using the formula given by Edward (1957).

$$t = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\sum (X_H - \bar{X}_H)^2 + \sum (X_L - \bar{X}_L)^2}{n(n-1)}}$$

$$\text{Where, } \sum (X_H - \bar{X}_H)^2 = \sum X_H^2 - (\sum X_H)^2 / n$$

$$\text{and, } \sum (X_L - \bar{X}_L)^2 = \sum X_L^2 - (\sum X_L)^2 / n$$

X_H = The mean scores on a given statement for the high group.

X_L = The mean scores on the same statement for the low group.

$\sum X_H^2$ = Sum of squares of individual score of a given statement for high group.

$\sum X_L^2$ = Sum of squares of individual score on the same statement for low group.

$\sum X_H$ = The summation of the scores on a given statement for high group.

$\sum X_L$ = The summation of the scores on the same statement for low group.

n = the number of respondents in each group.

Σ = Summation of.

Findings and Discussion

The scale with 't' value for each statement is given in the Table (1). Thus, fourteen positive and ten negative statements covering the entire universe of the KVK with highest 't' values i.e., more than 1.98 were selected for the final scale as they differentiate between high and low groups.

Reliability

Reliability of the attitude scale developed by the researcher was determined by split half and test - retest methods as described below.

Split - half method

The twelve statements of the scale were divided into two equal halves with all even number statements in one half and the odd number statements in the other half. The coefficient of correlation between two sets of scores of the scale was computed and found to be significant ($r = 0.828$) at one percent level of probability. The reliability of the attitude scale was thus confirmed.

Test- retest method

In this method, the developed attitude scale was administered to the same 40 respondents after a lapse of fifteen days. The correlation

coefficient between two sets of scores was obtained ($r = 0.83$) and found to be significant at one per cent level of probability. Hence, the attitude scale was highly stable and dependable for measurement of attitude of trainees towards KVK training programmes

Validity

In the present study, the validity of the scale was examined with the help of content validity.

Content validity

Content validity is the representativeness or sampling adequacy of the content, the substance, the matter, the topics of measuring instrument (Kerlinger, 1983). The contents of attitude scale were derived from various literature, expert opinions and feelings, discussions with extension workers, scientists, department officials and progressive farmers. The suggestions and remarks of the judges were given due consideration and incorporated in the scale. Care was taken to include all the statements which represented the universe of content of attitude of trainees towards KVK training programmes and thus content validity was ensured.

Final Format of the scale
Attitude of Trainees towards KVK Training programmes

| Sl. No. | Statement | Response category | | | | |
|---------|---|-------------------|---|----|----|-----|
| | | MF | F | UD | UF | MUF |
| 1) | K.V.K training benefits only elite trainees and not need based. | | | | | |
| 2) | Technologies delivered through K.V.K training are highly impracticable in nature | | | | | |
| 3) | Farmer becomes more progressive after undergoing training in K.V.K | | | | | |
| 4) | All problems of trainees cannot be solved through K.V.K training | | | | | |
| 5) | Skill can be acquired even without undergoing training in K.V.K | | | | | |
| 6) | K.V.K training is considered important in guiding the trainees in the adoption of improved technologies | | | | | |
| 7) | K.V.K training programmes are properly planned and implemented | | | | | |
| 8) | K.V.K training motivates effective learning among trainees | | | | | |
| 9) | K.V.K training is in no way difficult from other training programmes. | | | | | |
| 10) | K.V.K does not offer effective skill oriented training to the trainees | | | | | |
| 11) | Individual participants are given with an opportunity in practicing skill oriented technologies. | | | | | |
| 12) | KVK training syllabus includes every aspect of the subject matter | | | | | |

Table 1: Attitude Scale towards the KVK training with their “t” values – Item selection

| Statement No. | “t” value |
|---------------|--------------|
| 1) | 3.68* |
| 2) | 1.86 |
| 3) | 1.53 |
| 4) | 2.43* |
| 5) | 1.41 |
| 6) | 3.13* |
| 7) | 1.42 |
| 8) | 3.70* |
| 9) | 1.33 |
| 10) | 3.12* |
| 11) | 2.27* |
| 12) | 1.56 |
| 13) | 1.55 |
| 14) | 2.91* |
| 15) | 0.79 |
| 16) | 2.20 |
| 17) | 2.24* |
| 18) | 1.98* |
| 19) | 3.04* |
| 20) | 2.87 |
| 21) | 3.59* |
| 22) | 1.47 |
| 23) | 0.89 |
| 24) | 1.49 |

* indicates the statements whose “t” values was greater than 1.98.

CONCLUSION

Finally it is an attempt to construct the summated rating scale to measure the attitude of trainees towards KVK training programmes following the procedure advocated by Likert (1932). This involved collection of 50 attitude statements by conducting a pilot study and subject them to a thorough and rigorous editing to select twenty four generalised attitude statements. These statements were subjected to item analysis. The responses of the high and low groups to each statement were then analysed by working out the ‘t’ value. Thus twelve attitude statements with largest "t" values were selected.

The scale was also subjected to different reliability and validity tests. The scale possessed a test - retest reliability coefficient of 0.82 at one per cent level of probability indicating the dependability and validity of the scale constructed for measuring the attitude of the trainees towards KVK training programmes. The scale developed is

not location specific and can be used in any geographical area with slight modifications. Other parallel scales could also be derived and standardized from the results of the study.

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