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A SCALE TO MEASURE SELF-CONFIDENCE OF RURAL YOUTH ABOUT VEGETABLES FARMING

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ABSTRACT

Vegetables farming has immense scope in India to increase the income and employment for the population and helps in sustaining a large number of industries. Vegetables crops play a unique role in the Indian economy by improving the income of the farmers. For understanding the vegetables farming adopting self-confidence of rural youth, the scale to measure the vegetables farming adopting self-confidence of rural youth was developed. In initial stage, 35 statements reflecting self-confidence of rural youth about vegetables farming were collected from relevant literature and discussion with experts of extension and horticulture disciplines. The collected statements were edited according to the criteria laid down by Edward (1957) and then 24 statements reflecting self-confidence of rural youth about vegetables farming were selected as they were found to be unambiguous. Based on the median and Q values, 10 statements reflecting self-confidence of rural youth about vegetables farming were finally selected to constitute self-confidence scale. The test was found to be reliable (0.77) and valid.

Keywords : *vegetables farming, self-confidence, rural youth, horticulture. scale, cultivators*

INTRODUCTION

Cultivators are said to be very important citizens on this earth because they feed the world. They are the most independent, vigorous and virtuous individuals. India accounts for 17 per cent of the world's population and 2.4 per cent of the world's area. Horticulture sector encompasses a wide range of crops such as fruit crops, vegetable crops, ornamental crops, spices, medicinal and aromatic crops etc. Vegetables farming is the fastest growing sector in India and contributes immensely to poverty eradication and nutritional security. This sector has immense scope in India to increase the income and employment for the population and helps in sustaining a large number of industries. Vegetables crops play a unique role in the Indian economy by improving the income of the farmers. Keeping in view the above facts, the research study on 'Development and standardization of a scale to measure the self-confidence of rural youth about vegetables farming is undertaken with the following objective.

OBJECTIVE

To develop scale to measure the self-confidence of rural youth about vegetables farming

METHODOLOGY

In this study self-confidence is conceptualized as the abilities and belief on oneself to be a part of vegetables farming independently. Among the techniques available, 'Scale product method' which combines the Thurstone's technique (1928) of equal appearing interval scale for selection of items and Likert's technique (1932) of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown (1949) was used. The steps followed to develop the scale in sequence were item collection, item analysis, determination of scale and 'Q' values, finding reliability of the scale and validity of the scale. The methods are followed as suggested by Vinaya et al. (2018), Jagadeeswari, et al. (2019), and Yeragorla et al. (2021).

Item collection

The items of self-confidence scale are called as statements. In initial stage, 35 statements reflecting self-confidence of rural youth about vegetables farming were collected from relevant literature and discussion with experts of extension and horticulture disciplines. The collected statements were edited according to the criteria laid down by Edward (1957) and then 24 statements reflecting self-confidence of rural youth about vegetables farming were selected as they were found to be unambiguous.

Item analysis

In order to judge the degree of 'Unfavorableness' to 'Favorableness' of each statement on the five point

equal appearing interval continuum, a panel of judges was selected. Fifty slips of the selected statements were handed over to the experts connected with extension educational and vegetables farming work. The judges were requested to judge each statement in terms of their most agreement to most disagreement with the statements with the five equal appearing interval continuums. All 50 experts returned the statements after duly recording their judgments and were considered for the analysis.

Determination of scale and 'Q' values

Frequency distribution of the judges based on responses in five continuums was prepared. On the bases of judgment, the median value of the distribution and the Quartile (Q) value for for each of 35 statements was calculated with the help of following formula.

$$S = L + \frac{0.50 - \sum Pb}{Pw} \times i$$

Where,

S = Scale value

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

∑Pb = 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).

Thurstone and Chave (Edwards, 1957) used the inter-quartile range Q as a means of the variation of the distribution of the judgments for a given statement. To determine value of Q, two other point were measured, the 75th centile and 25th centile.

The 25th centile was obtained by the formula.

$$C25 = L + \frac{0.25 - \sum Pb}{Pw} \times i$$

Where,

C25 = The median or scale value of the statement

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

∑Pb = The sum of the proportion below the interval in which the 25thcentile 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).

The 75th centile was obtained by the following formula.

$$C75 = L + \frac{0.75 - \sum Pb}{Pw} \times i$$

Where,

C75 = The median or scale value of the statement

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

∑Pb = 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).

Then the interquartile range would be given by taking the difference between C75 and C25, thus,

$$Q = C75 - C25$$

The inter-quartile range (Q = Q3 - Q1) for each statement was worked out for determination of ambiguity involve in the statement. Only those items were selected whose median (scale) values were greater than Q values. However, when a few items had the same scale values, items having lowest Q value were selected. Based on this,10 statements reflecting self-confidence of rural youth about vegetables farming were finally selected to constitute self-confidence scale. The selected 10 statements reflecting self-confidence of rural youth about vegetables farming for final format of the self-confidence scale were randomly arranged to avoid response bias. The final format of the scale is presented in Table 1.

Reliability of the scale

To know the consistency of the scale, reliability was worked out. The split-half technique was used to measure the reliability of the scale. Selected 10 statements reflecting self-confidence of rural youth about vegetables farming were divided into two equal halves with 5 odd and 5 even numbered statements. Each of the two sets was treated as separate scales having obtained two score, for each of the 20 respondents. Co-efficient of reliability between two sets of score was recalculated by Rulon's formula (Guilford 1954),

which was found 0.77.

Validity of the scale

The validity of content of scale was examined by discussing with specialists of the extension, horticulture and statistics. Specialists examined and realized appropriateness of the each statement to measure the vegetables farming adopting self-confidence of rural youth.

Administration of the scale (Scoring technique)

For application of the scale, the researcher can collect information against each statement in five point continuum viz. 'Strongly agree', 'Agree', 'Undecided', 'Disagree' and 'Strongly disagree' with weighted score of 5,4,3,2 and 1 for positive and reverse to negative statements.

Table 1: Final format of selected statements to measure the self-confidence of rural youth for adopting vegetables farming

Sr. No.	Statement	SA	A	UD	DA	SDA
1	I have enough confidence to establish a vegetable farm on my own.					
2	I am confident to choose appropriate varieties of vegetable crops for my farm.					
3	I am self-confident in doing transplanting vegetable crops.					
4	I am confident to handle plant protection measures in vegetable crops.					
5	I feel independent in adopting vegetable farming permanently.					
6	I have skill to handle Integrated Nutrients Management in vegetable cultivations.					
7	I have enough confidence to handle risks involved in the cultivation of vegetables.					
8	I am confident in handling post-harvest management in vegetables to reduce losses.					
9	I am confident to sell vegetables in the market successfully.					
10	I am confident to guide other farmers about vegetable crop production.					

SA = Strongly Agree, A = Agree, UD = Undecided, D = Disagree, SDA = Strongly Disagree

CONCLUSION

Looking to the value of reliability and validity of the scale it is advised to use/apply this scale for further research.

CONFLICT OF INTEREST

No conflict of interest among researchers.

REFERENCES

Eysenck, H. J.& Crown, S. (1949). An Experimental study in opinion attitude methodology, *International J. of Attitude Research*.3:47-86

Guilford, J. P. (1954). Psychometric Methods. Tata McGraw Hill Publication Co. Ltd., Bombay: 378-382.

Jagadeeswari, B., Vinaya Kumar H. M., & Patel, J. B. (2019). Attitude of postgraduate students towards research, *Guj. J. Ext. Edu.*, 30(1), 87-89.

Likert, R. A. (1932). A Technique for the measurement of attitude.Archives of Psychology, New York,140.

Thurston, L. L. &Chave, E. G. (1928).The measurement of attitude, Chicago University Press, USA.,39- 40.

Vinaya Kumar H. M., Patel J. B. and Chauhan, N. B. (2018). Attitude of farmers towards Agricultural Produce Market Committee. *Guj. J. Ext. Edu.*, 29(2): 224-226.

Yeragorla, Venkata Harikrishna, Patel, J. B. and Vinaya Kumar, H. M. (2021) Development of a scale to measure the attitude of extension personnel towards e-extension. *Guj. J. Ext. Edu.* 32(1): 34-37.

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