

Development of a Scale to Measure Perception of Farm Youth towards Agriculture

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ABSTRACT

Farm youth are precious human assets who can play an important role in the developmental activities as well as in agriculture. It is important for the rural youth to have clear understanding and correct perception towards agriculture. An attempt is made in the study to construct a scale to measure the perception of farm youth towards agriculture. The method of ratings was followed in the construction of perception scale. The scale developed was found to be reliable and valid.

The perception scale developed was administered to 30 Farm youth of Chickballapura taluk of Chickaballapur district of Karnataka state during 2014. The results revealed that 46.67 per cent of farm youth had high level of perception towards agriculture, whereas 30.00 and 23.33 per cent of farm youth had medium and low levels of perception towards agriculture, respectively.

Key words : Relevancy, Reliability, Validity, Perception, Farm youth.

Youth are the most potent segment of the population of a country. They are the hopes of tomorrow and the backbone of any country. As psychologists said, "Youth possess dynamic energies, creative activities and adventurous spirit. They undergo psychological and physiological changes as they grow". So the development of youth determines the development of the country. There are over one billion youth (aged 15-24 years) in the world today. Eighty per cent of these youth live in the developing world where 99 per cent of population growth is observed. India is a land of youth and constitute a numerically dominant potential, resourceful and also adventurous segment of the population. According to 2011 census, youth population in India with the age group of 15 to 35 years is around 43,02,28,000 (35.36%) of the total population. Out of this, 70 per cent (301 million) are rural youth and the remaining 30 per cent (129 million) are urban youth. As majority of the youth comes from rural areas, they are considered as the nation builders of tomorrow. (Viswanatha et al., 2014)

Farm youth are the precious human assets who can play an important role in the developmental activities as well as in agriculture because of their family and community background in agriculture and allied activities. If the talents and abilities of farm youth are properly nurtured and systematically guided agriculture can attain sustained growth and can bring prosperity to the country. It is very important for the farm youth to have a clear understanding and a correct perception about agriculture. However, this aspect unfortunately has not drawn sufficient research attention which again is due to non-availability of a scale to correctly measure the perception of the farm youth about agriculture. Hence, the present study is taken up with the following specific objectives

1. To develop and standardize a scale to measure the perception of farm youth towards agriculture
2. To know the perception of farm youth towards

agriculture

METHODOLOGY

The study was conducted in Gaviganahally village, Chickaballapura district of Karnataka state during 2014. Thirty farm youth practicing agriculture were personally interviewed using the scale developed to measure their perception towards agriculture. The collected data were scored and analyzed using frequency and percentage.

RESULTS AND DISCUSSION

1. Development of a scale to measure perception of farm youth towards agriculture

Perception is an activity through which an individual becomes aware of objects around him and of events taking place (Ray, 1990). Perception of the same situation may differ from individual to individual due to differences in their experiences and cognitive styles. The expectations, needs and ways of thinking influence how an individual interprets what he/she observes. Perception is selective and one perceives what he/she wants to perceive. Our perceptions are organized and we tend to structure our sensory experiences in ways which make sense to us (Patil and Sundaraswamy, 1998). Perception in the present study is operationally defined as interpretation of farm youth in terms of agriculture based on their prior experience. The method of summated rating suggested by Likert (1932) and Edwards (1969) were followed in the construction of perception scale.

Collection and editing of items : A list of 45 items/statements reflecting the perception about agriculture was prepared through extensive review of literature and discussion with scientists. The items/statements so identified were carefully edited in the light of 16 criteria suggested by Edwards (1969), and Thurstone and Chavue (1929).

Relevancy test : Forty five items/statements were sent to 110 judges in State Agricultural Universities, Central Agricultural Universities, Indian Council of

Agricultural Research institutions and Karnataka State Department of Agriculture with necessary instructions to critically evaluate each item/statement as to its relevancy to measure the perception of farm youth about agriculture and give their response on five point continuum viz., Most relevant (MR), Relevant (R), Somewhat Relevant (SWR), Less Relevant (LR) and Not Relevant (NR) with the score of 5,4,3,2 and 1, respectively. In all, 75 judges could respond in time. The relevancy score for each item/statement was found out by adding the scores on the rating scale for all the 75 judges. From the data so gathered "Relevancy Percentage", "Relevancy Weightage" and "Mean Relevancy Score" were worked out for all the 45 items/statements by using the following formulae:

$$\text{Relevancy Percentage} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Maximum possible score}} \times 100$$

$$\text{Relevancy Weightage} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{\text{Maximum possible score}}$$

$$\text{Mean Relevancy Score} = \frac{(\text{MR} \times 5) + (\text{R} \times 4) + (\text{SWR} \times 3) + (\text{LR} \times 2) + (\text{NR} \times 1)}{(\text{Number of judges responded})}$$

Where,

X_{H} = Individual scores in the high group

X_{L} = Individual scores in the low group

n = Number of respondents

Using these three criteria individual statements were screened for these relevancies. Accordingly, items/statements having relevancy percentage of more than 70 per cent, relevancy weightage of more than 0.70 and Mean Relevancy score of more than 2.0 were considered for the final selection. By this process, 29 statements were isolated in the first stage which were suitably modified and written as per the comments of judges wherever applicable.

Item analysis

To delineate the items/statements based on the extent to which they differentiate the perception items/statements about agriculture as favorable or unfavorable, item analysis was carried out on the items/statements selected in the first stage. A schedule consisting of 29 items/statements was prepared and used for personally interviewing the perception of farm youth on a five point continuum from non-sample area. For item analysis, the respondents were arranged in ascending order based on perception scores. Twenty five per cent of the subjects with the highest total score and 25 per cent with the lowest total scores were selected. These two groups provided the criterion groups in terms of which item analysis was conducted and critical ratio was calculated by using the following formula:

Based on the item analysis ('t' value), eleven items/statements were non-significant, while ten items/statements were significant at five per cent and eight items/statements were significant at one per cent level were finally retained in the scale to measure the perception of farm youth about agriculture. Eighteen

items/statements which were statistically significant at five per cent and one per cent level were retained in the scale to measure perception of farm youth towards agriculture. Eighteen items/statements selected in the final perception scale included seven, six and five items/statements classified under economic dimension, technology dimension and other dimensions respectively.

Reliability

The split-half method was employed to test the reliability of the perception scale. The value of correlation co-efficient was 0.8739 and this was further corrected by using Spearman Brown formula and obtained the reliability co-efficient of whole set. The 'r' value of the scale was 0.9327, which was highly significant at one per cent level indicating the high reliability of the scale. It was concluded that the perception scale constructed was reliable.

Validity

The Validity co-efficient for the scale was 0.9657, which was also statistically significant at one per cent level of probability indicating the higher validity of the developed scale. Hence, the scale is valid.

Thus, the developed scale to measure perception of farm youth about agriculture was feasible and appropriate.

Administration of perception scale and method of scoring

The final scale of 18 items/statements (Table 1) can be administered to the respondents along a five point continuum representing 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with weightage of 5,4,3,2 and 1, respectively. The perception score of a respondent can be calculated by adding up the scores obtained by him/her on all items/statements. The perception score of this scale ranges from a minimum of 18 to a maximum of 90. Higher score on this scale indicates that the respondent has higher level of perception towards agriculture.

The perception scale developed was administered to 30 farm youth practicing agriculture in Gaviganahally village of chickaballapura taluk and district in Karnataka state during 2014. The minimum and maximum scores obtained by farm youth practicing agriculture were 37 and 78, respectively. Based on the mean (56.96) and half standard deviation (4.34) the farm youth were categorized into three perception category viz., low, medium and high.

2. Overall perception level of farm youth towards agriculture

It is found from Table 2 that 46.67 per cent of farm youth had high level of perception, whereas 30.00 and 23.33 per cent of farm youth had medium and low levels of perception towards agriculture respectively. It can be inferred that majority (76.67%) of the farm youth had medium to high levels of perception towards agriculture. Availability of improved agricultural technologies, employment throughout the year in farm

Table 1
Scale to measure the perception of farm youth towards agriculture

Sl No	Statements	SA	A	UD	DA	SDA
I. Economic dimension						
1	Agriculture is a profitable venture					
2	Agriculture sector has more influence on the overall development of community.					
3	There is scope for upgrading livelihood in agriculture					
4	Practising farming facilitate food security					
5	There is no enough opportunity for career development in agriculture					
6	Greater economic prosperity could be achieved in agriculture					
7	Lack of farm youth programs that supports youth to take up agriculture as a career					
II. Technology dimension						
1	Timely Operation and required agricultural inputs usage leads to optimum output					
2	Promoting advanced scientific agriculture do not help for farmers prosperity					
3	Scope for agricultural growth has to be enlarged in terms of agro-based activities					
4	Employment status could be improved by opting modern agriculture practices					
5	Agriculture is not a traditional rather than scientific activity					
6	Appropriate skill training will improve the participation of farm youth in agriculture					
III. Other dimension						
1	Practising agriculture leads to economic upliftment of farmers					
2	Water resource is highly essential for enhancing farm productivity					
3	I am proud of being a member of an agricultural family					
4	Persons with passion towards agriculture can only practice farming					
5	Agriculture guarantees physical health and mental peace					

SA - Strongly agree, A - Agree, UD - Undecided, DA - Disagree, SD - Strongly disagree.

activities, regular and decent income from agriculture, adequate knowledge about improved agriculture technologies, accessibility of gross-root extension functionaries and regular participation in extension

Table 2
Perception of farm youth towards agriculture (n=30)

Sl. No.	Perception categories	Farm Youth	
		Number	Per cent
1	Low (<52.56)	07	23.33
2	Medium (52.56 – 61.24)	09	30.00
3	High (>61.24)	14	46.67
Total		30	100.00

Mean = 56.90, Standard Deviation = 8.68

activities are the reasons for a majority of farm youth having medium to high levels of perception towards agriculture.

CONCLUSION

The perception scale developed is found to be reliable and valid, hence it can be used to measure the perception of farm youth towards agriculture. The developed scale can be measured by researchers to measure perception of farm youth towards agriculture. The perception scale developed was administered to 30 farm youth of chickballapur taluk. It was found as high as 46.67 per cent of farm youth had high level of perception towards agriculture, whereas 30.00 and 23.33 per cent of farm youth had medium to high levels of perception towards agriculture respectively. It can be concluded that the scale developed is useful in explicitly measuring the perception of farm youth towards agriculture.

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