

## DEVELOPMENT OF SCALE TO MEASURE ATTITUDE OF AGRICULTURAL STUDENTS TOWARDS AGRICULTURAL JOURNALISM

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### ABSTRACT

*The study was conducted to develop and standardize the reliable and valid scale, to measure attitude of agricultural students towards agricultural journalism. The method suggested by Likert (1932) and Edwards (1969) in developing summated rating scale was followed in the construction of this scale. This scale has been standardized and found to be reliable and valid. In order to know the attitude of students towards agricultural journalism, a comprehensive list of 55 statements were prepared. Statements were edited as per the 14 criteria enunciated by Thurston and Chave (1928), Wang (1932), Likert (1932) and Edward and Kilpatrick (1948) and at last, 24 statements were selected as they were found to be non-ambiguous. These components along with the statements were sent to 50 experts for judge's opinion with (five point continuum). Cent per cent judges were responded in time. Based on the scale (median) and Q values, twelve statements were finally selected to constitute attitude of students towards agricultural journalism. Split half method developed by Brown prophecy was employed to measure the reliability. The reliability co-efficient (0.87) and content validity also worked, indicating higher reliability and validity of the scale.*

**Keywords:** attitude; agricultural journalism; students; scale product method

### INTRODUCTION

In present era of farming, agricultural journalism has been considered as an important tool to carry out the latest information of farming. Starting from information related to sowing of a crop to the harvesting and all the beneficiaries associated with the agriculture. In the field of education, research and development also it has significant potential to straighten effectiveness of academicians, researcher scholars and officeholders. The experts involved in the development of rural and agricultural development have opinion that new generation of graduate agricultural scholars should have positivism in certain mind-set, wisdom, knowledge and skills that facilitate effective and wise use of understanding, experience and formal education. These expected qualities are helpful to be a successful, motivating and productive farm communicators or journalists. However, presently there is no research done to measure such feeling. Looking at this, present investigation was conducted to measure the attitude towards agricultural journalism of graduate students of final year studying in AAU with specific objective

### OBJECTIVE

To develop and standardize the scale to measure the

attitude of students towards agricultural journalism

### METHODOLOGY

In the present study, attitude is operationalized as positive or negative feeling of students towards agricultural journalism. 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) and procedure followed by Vinaya et al. (2018) was used.

### RESULTS AND DISCUSSION

The following procedure was adopted to develop and standardize the scale to measure the attitude of students towards agricultural journalism.

#### Identification and editing of the statements

The items of attitude scale are called as statements. In initial stage, 55 statements reflecting feelings of the farmers towards agricultural journalism were collected from relevant literature and discussion with experts of extension

and economics discipline. The collected statements were edited according to the criteria laid down by Edward (1957) and then 24 statements were selected as they were found to be unambiguous.

**Statement Analysis: Computation of scale values and Q values**

In order to judge the degree of ‘Favourableness’ or ‘Agreement’ to ‘Unfavourableness’ or ‘Disagreement’ of each statement on the five point equal appearing interval continuum, a panel of 50 judges were selected. The judges selected for the study comprised of extension educationist and experts of various subjects of social sciences from Anand Agricultural University and other universities. The judges were visited personally with letter of instructions for rating the statements in desired manner or sent via link of the Google form. Out of these experts, all the experts returned the statements after duly recording their judgments and were considered for the analysis.

**Determination of scale values**

Based on judgment, the median value of the distribution and the S value for the statement concerned were calculated with the help of the inter-quartile range (Q = Q3 - Q1) for each statement was also worked out. Only those statements were selected whose median values were greater than Q value. When a few statements had the same scale values, the statements having lowest Q Values were selected. Thurstone and Chave (Edwards, 1957) described another criteria in addition to Q as a basis for rejecting statement in scales constructed by the method of the equal appearing interval. Accordingly when a few items had the same scale values, the item having lowest Q Values were selected. The final selected statement showing attitudes are given in Table

**Formula to find out Median or S value**

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

Where,

S = Scale value

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

$\sum Pb$  = The sum of the proportion below the interval in which the median falls

$P_w$  = 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).

Substituting the values in the above formula to find out the scale value

**Formula to find out C25 or (Q1)**

$$C_{25} = L + \frac{0.25 - \sum Pb}{Pw} \times i$$

$C_{25}$

Where,

$C_{25}$  = 25<sup>th</sup> centile value of the statement

L = The Lower limit of the interval in which the 25<sup>th</sup> centile falls

$\sum Pb$  = The sum of the proportion below the interval in which the 25<sup>th</sup> centile falls

$P_w$  = The proportion within the interval in which the 25<sup>th</sup> centile falls

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

**Formula to find out C75 or (Q3)**

$$C_{75} = L + \frac{0.75 - \sum Pb}{Pw} \times i$$

$C_{75}$

Where,

$C_{75}$  = 75<sup>th</sup> centile value of the statement

L = The Lower limit of the interval in which the 75<sup>th</sup> centile falls

$\sum Pb$  = The sum of the proportion below the interval in which the 75<sup>th</sup> centile falls

$P_w$  = The proportion within the interval in which the 75<sup>th</sup> centile falls

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

**Table 1 : Final selected statements to measure attitude of students towards agricultural journalism**

Sr. No.	Statements	Scale value	Q value
1	Agril. Journalism is a noble profession to bring social change for me. (+)	1.919	0.806
2	I think to be a farm journalist is beyond my capacity. (-)	3.708	1.779
3	I like to be an agril. Journalist seeing India's growth through farming. (+)	2.015	0.758
4	I prefer to adopt another profession than agril. Journalism. (-)	3.188	1.631
5	Agril. Journalism is always my dream profession. (+)	3.500	0.967
6	In my view, accepting an agril. Journalism is unexciting job. (-)	2.500	1.438
7	I like vocation of farm journalist to develop rural India. (+)	1.758	0.926
8	I think adopting career in farm journalism is unsafe decision. (-)	1.660	1.065
9	I like to accept job of farm journalist to reach unreached farmers. (+)	1.577	1.014
10	I like to be a part of an agril. Journalism to empower rural people. (+)	1.660	1.065
11	Even I don't get government aid; I like to serve as agril. Journalist. (+)	1.944	0.946
12	I feel a strong sense of achievement adopting farm journalism as career. (+)	1.894	0.758

**Standardization of the scale**

A scale is reliable when it gives consistently the same results when applied to the same sample. The designed scale for the study was pre-tested for its reliability by using the split half method. Pilot study was conducted among 20 respondents in non-sample area comprising 12 statements.

**(i) 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 12 attitudinal statements were divided into two halves with 6 (Six) odd and 6 (Six) 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 the two sets of score was calculated by Rulon's formula (Guilford 1954), which was 0.87.

**Rulon's Formula:**

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

Where,

$$\sigma^2d = \frac{\sum d^2 - \frac{(\sum d)^2}{20}}{20}$$

$$\sigma^2t = \frac{\sum t^2 - \frac{(\sum t)^2}{20}}{20}$$

Where,

Rtt = Coefficient of reliability

$\sigma^2d$  = Variances of differences

$\sigma^2t$  = Variance of total score

The correction factor is calculated by using Spearman Brown formula.

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

rtt =

Where,

rtt = Coefficient of the reliability of original test

roe = reliability of coefficient of odd and even score

**(ii) Validity of the scale**

The validity of content of scale was examined by discussing with specialists of the extension and statistics. Specialists examined and realized appropriateness of the each statement to measure the feeling of students towards agricultural journalism.

**Administering the scale**

The final scale consists of 12 statements to measure the attitude of students towards agricultural journalism, the researcher can collect information against each 12 statements 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.

**CONCLUSION**

From the various methods available for constructing the attitude scale, scale product method' which combines

the Thurstone's technique of equal appearing interval scale, for selection of items and Likert's technique of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown was used to measure the attitude of students towards agricultural journalism.

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