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A Study on the Attitude of Deputy Agricultural Officers Towards Adaptive Research Programme

By

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ABSTRACT

The findings revealed that the Deputy Agricultural Officers had quite favourable attitude towards Adaptive Research (A. R.). This is a very favourable situation which can be taken advantage of in extending this programme to other areas. The functional analysis carried out with seven independent variables of the Deputy Agricultural Officers, i. e., age, total experience, experience as Deputy Agricultural Officers. number of trials conducted, expariance in IADP, inservice trainings undergone and distance from native place to work spot revealed that only age, total experience, exparience as Deputy Agricultural Officer and experience in IADP were statistically confirmed as contributory variables on attitudes. The multiple regression analysis showed that these four variables accounted for about 60 per cent of the variation in attitudes. Age and experience of Deputy Agricultural Officer acted on the attitude in a retragade direction whereas total experience and experience in iADP influenced attitude positively.

INTRODUCTION

The programme of A. R. was introduced for the first time in India in 1969 in the district of Thanjavur (Tamil Nadu) with reference to the recommendation of the high-yielding variety of rice 'Karuna' for adoption in that district. Later, AR on many Innovations like introduction of the other high-yielding varieties and fertilizer recommendations was conducted in the same district. Sherif and Cantril (1947) stated that most attitudes have the characteristics of being past of 'Me'. They are towards 'my parents', 'my country's enemy and so on. Singh and Singh (1968) revealed that by knowing the attitude of farmers, a lot can be done towards the prediction and control of their behaviour with reference to fertilizer use. Krantz and Hills (1969) said that the system of AR provides information dissemination problem recognition and feed back from the farm to laboratory. Sarkar (1970) stated that the progressive farmers had favourable attitude towards high yielding varie-

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ties. Easter (1970) stated that closely related to the development of new technology was AR, the step of taking new technology and determining its suitability to various areas or regions. Venkatraman and Aiyasamy (1971) defined AR as a process of putting scientific findings to field test by the extension agency to assess its applicability under different agro climatic situations. Hence an attempt has been made through this investigation to study the attitude of Deputy Agricultural Officers towards AR.

MATERIALS AND METHODS

Thanjavur district was purposively selected as it is the only district in Tamil Nadu where AR programme has been in operation since 1969. An evaluatory type of design with an ex-post fact approach was employed in this study. As this study was concerned with the Dy. A. Os, all the Dy. A. Os. in the districts, who had conducted one or more AR trials, were included as the respondents. The total number of respondents was 100. The required data were collected from the respondents by administering a questionnaire to them during monthly staff meetings. The questionnaire consisted of an attitude scale constructed exclusively for this study based on 'Likert Method of Summated Ratings'. The final attitude scale consisted of 20 statements of 10 favourable and 10 unfavourable. The scale was administered on a 5 point continuum, *viz.*, 'strongly agree', 'agree' 'undecided' 'disagree' and strongly disagree' with weightages 5, 4, 3, 2 and 1 respectively for favourable statement. The scoring was just reversed for unfavourable items. The minimum scale value could be 20 and the maximum 100. The scale was also tested for its validity and reliability. Seven independent variables concerned with Dy. AOs, like Age (X_1), total experience (X_2), number of trials conducted (X_3), experience as Dy. AO (X_4), experience in IADP (X_5), inservice trainings undergone (X_6), and distance from native place to work spot (X_7) were correlated with the dependent variable 'y' the attitude. In order to work out partial and multiple regression co-efficients, 'Abbreviated Doolittle solution' technique was employed which gave the Gauss multipliers. From the Gauss multipliers 'C' matrix was worked out. The 'b' prime values were computed which are the standard partial regression co-efficients. They were tested for their significance by calculating the 't' values. The standard values were destandardised in order to fit them in the function. The function was tested with 'F' test. The R^2 value, the co-efficient of determination was calculated. The multiple linear regression co-efficients obtained were fitted in the form of an equation.

RESULTS AND DISCUSSION

The attitude of Dy. AOs is furnished in the following table.

TABLE 1. Mean attitude score of the Agricultural Extension Officers.

Neutral score of scale	Mean score of the repondents	Attitude
60.00	86.17	Favourable

The mean attitude score of the Dy. AOs towards AR was 86.17 which was much above the neutral score of 60. The range of variation was from 61–100.

Though their general attitude toward AR was favourable, the intensity of favourableness of different Dy. AOs varied considerably as shown in Table 2.

TABLE 2. Frequeucy distribution of Agricultural Extension officers by attitude

Class (Attitude scores)	Mid Point	Frequency (Respondents)
68-65	63	2
66-70	69	1
71-75	73	8
76-80	78	9
81-85	83	25
86-90	88	24
91-95	93	18
96-100	98	13
		100

The attitude of an individual towards any object is influenced by many factors. So a multiple regression indicating the relative contribution of these factors in shaping the overall attitude seemed to be the most appropriate way of elucidating the relationship. The correlation co-efficients between the attitude score and the variables–personal situational factors of Dy. AOs, as well as between variables were worked out.

The same is presented in the correlation matrix Table 3. With this correlation matrix, multiple regression coefficient variables x_1, x_2, x_3, x_4. x_5, x_6, x_7 their corresponding 't' values and the coefficient of determination (R^2) were calculated and are presented in the Table 4.

It can be inferred from the co-efficient of determination (R^2value = 0.6032) that the seven independent variables (x_1 to x_7) studied jointly accounted for 60.32 per cent of the variation in attitudes of the Dy. AOs towards AR. Through analysis of variance, the 'F' value was worked out. The 'F' value ($F = 19.98^{**}$) obtained was found to be significant at 0.01 probability level indicating the discriminating capacity of the function as a whole. The regreession of each variable (x_1 to x_7) on attitude was found out and a linear function was obtained as given below.

$$y = 90.2715 - 0.3856\ x_1 + 0.8486\ x_2 - 0.4824\ x_3 - 1.6048\ x_4 + 3.1493\ x_5 + 0.1516\ x_6 - 0.0119\ x_7$$

TABLE 3. Correlation matrix

	X_1	X_2	X_3	X_4	X_5	X_6	X_7
Y	0.2558*	0.4779**	0.3722**	0.2668**	0.6534**	0.3691**	- 0.2665**
X_1		0.6838**	0.2100**	0.7284**	0.7094**	0.3061**	- 0.0158 NS
X_2			0.4306**	0.8621**	0.7751**	0.5537**	- 0.1342 NS
X_3				0.4114**	0.4795**	0.3000**	- 0.6054 **
X_4					0.8199**	0.3735**	- 0.1017 NS
X_5						0.4224**	- 0.1677 NS
X_6							- 0.2021 *

**=Significant at 1 per cent level. NS=Not significant

*=Significant at 5 per cent level.

TABLE 4. Coefficients of multiple regression for the seven independent variables (x_1 to x_7).

Variable	Coefficient of multiple regression	Standard error	Calculated value of 't' for each coefficient	Coefficient of determination
X_1	-0.3856	0.1238	3.1147**	
X_2	+0.8486	0.3304	2.5684**	
X_3	-0.4824	0.5938	0.8124 NS	$R^2=0.6032$
X_4	-1.6048	0.4068	3.9449**	
X_5	-3.1493	0.3699	8.5139**	
X_6	+0.1516	0.8003	0.1894 NS	
X_7	-0.0119	0.0061	1.7500 NS	

The equation suggests that out of the seven probable contributory factors, only four factors, *viz.*, age, total experience, experience as Dy. AO and experience in IADP, were found to be significant in influencing general strength of attitude while the factors, *viz.*, number of trials conducted, inservice training undergone, and distance from native place to work spot had no considerable bearing on the attitude.

This study reveals that one's interest in this programme got gradually loosened as the age advanced. But by and large, as the total experience and experience in IADP increased the degree of attitude strengthened towards positive direction, while the experience as Dy. AO seemed to confer a dilution in their attitude towards AR.

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