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Behavioural Changes in Agricultural Extension Officers due to Adaptive Research

The programme of adaptive research was introduced for the first time in the year 1969 with reference to the adoption of high yielding varieties of rice 'Karuna' in Thanjavur district of Tamil Nadu. Adaptive research refers to the field testing of a scientific finding by the extension agency before deciding whether or not to recommend it for mass adoption.

The adaptive research trials were conducted by the extension personnel and as such it is presumed that the involvement of Agricultural Extension Officers (AEO) in such research activities would have brought about some behavioural changes in them. In order to find out the correctness of the above presumption the present study was conducted among 106 AEOs of Thanjavur district who are involved in adaptive research programme. A carefully developed pre-tested questionnaire was administered to all the respondents during the staff meetings and only 100 completed responses were taken into account.

Measurement of behavioural changes: Changes as perceived by AEOs in knowledge of the varieties tried, technical skill gained in conducting trials, self confidence in doing extension work, relationship with farmers, ability in solving problems and understanding of research and its importance due to their involvement in adaptive research were measured by administering a scale of self-images developed for the purpose.

The responses for each of the above said factors were obtained on a 4 point continuum *viz.*, definitely, somewhat, about same and no change. Scores were assigned as 3, 2, 1 and 0, to these four points respectively for the quantification of data. The scoress for each respondent due to the changes brought about by adaptive research were obtained by summating the score for all the six items. The maximum score one can get is 18, while, the minimum is 0. The actual scores obtained by the respondents were taken for the statistical analysis.

Changes in the behaviour of the AEOs: The percentage of respondents reporting different degrees of changes as rated against a four point continuum are presented below:

A larger proportion of AEOs felt a definite change in all the behavioural characters due to their involvement in adaptive research programme (Table 1).

Behavioural changes as influenced by independent variables: The changes in behaviour in terms of scores obtained for all the six items were summated and total scores were obtained for each individual. These total scores were obtained for each individual. These total scores were correlated with three variables of the

Table 1. Percentage of respondents to different degrees of changes

Item	Percentage of respondents reporting the degree of changes (n=100)			
	Definitely	Somewhat	About some	No change
Knowledge	93	7	—	—
Skill	91	8	1	—
Self confidence	84	6	—	—
Relationship	81	15	3	1
Ability	59	36	3	2
Understanding	87	9	4	—

respondents *viz.*, age, total experience in years and number of trials conducted. The results are presented below:

Influence of age: Age seems to influence positively the changes in behaviour of AEOs due to adaptive research as the correlation coefficient +0.2087 was found significant. A regression analysis was carried out and the following equation was fitted.

$$\hat{Y} = 15.325 + 0.05X$$

From the equation, it can be perceived that when the age of the AEO advanced by one per cent there will be an increase in the score of behavioural change by 0.05 per cent.

Influence of experience: The correlation coefficient obtained was +0.2030, which was significant at 5 per cent level, indicating a positive correlation between these two factors. The regression analysis showed non-significant relationship.

Influence of number of trials conducted: The corelation coefficient +0.4588 obtained was significant at 1 per cent level. A regression analysis was carried out and the following prediction equation was fitted.

$$\hat{Y} = 15.7 + 0.46X$$

From the above equation it is possible to know that for every one per cent increase in the number of trials conducted there will be a corresponding increase in the behavioural change by 0.46 per cent.

Out of the three independent variables examined for their effect on the behavioural changes due to adaptive research it was seen that only one variable i. e., the 'total number of trials conducted' gave a remarkable relationship. The relationship between age and behavioural charge of Agricultural Extension Officers due to adaptive research was significant only at 5 per cent level. The total experience of the AEO did not contribute significanly to his behavioural change due to adaptive research.

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