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Impact of TANWA training on knowledge gain of trainees about padd cultivation

K. RAMAKRISHNAN, D. RAMACHANDRA REDDY AND S. MAHENDRAN
Agricultural Research Station, Ramanathapuram - 623 501, Tamil Nadu.

Abstract: The impact of TANWA training on knowledge gain of trainees revealed the significant coefficient of determination 'R²' value of 0.6502 which indicated that all the selected 11 independent variables put together explained about 65.00 per cent variation in knowledge gain of trainees about paddy cultivation practices. Further regression revealed that education, family size, mass media exposure, extension contact, innovativeness and training received had positively and significantly contributed to most of the variation in the knowledge gain of trainees.

Key Words: Knowledge gain, Paddy cultivation, Trainees and Survey.

Introduction

Attempting to develop human resources in the rural areas, the Tamil Nadu State was pioneering in implementing the training programmes especially for farm women and youths during the year 1986 with the financial assistance of Government of Denmark in the banner of Tamil Nadu Women in Agriculture (TANWA) with a view to strengthen the position of farm women in the society. This was done through providing the upto date knowledge of relevant agricultural technology and developing appropriate skills through practical training to farm women. Success of trained farm women would act as a catalyst to spread their experience to other fellow farm women to participate in future training programmes. Unless the knowledge gain of the trainees is positive and relevant to them, the future participation in the training programmes will be futile. Keeping this inview, a study was conducted with an intention to study the knowledge gain of the trainees about paddy cultivation practices with the following specific objectives.

1. To study the knowledge gained by the trainees through TANWA project.
2. To study the relationship between the selected personal, socio-economic and psychological characteristics of the trainees and their knowledge gain.
3. To predict the important variable contributing for the knowledge gain of trainees.

Materials and Methods

Ex-post-facto research design was followed in the present investigation. Madurai district of Tamil Nadu state was purposively selecte for the study. Two agricultural divisions v Melur and Tirumangalam were selected ra domly. There are two blocks in Melur Agricultur division and three blocks in Tirumangala agricultural division. Out of that one bloc from each agricultural division was selecte randomly and 4 AAO (Assistant Agricultur Officer) groups from each block and 15 traine from each AAO group were selected random making a total of 120 sample trainees. Eleve independent variables and knowledge gain w one of the dependent variables. A well structure interview schedule was developed and used i data collection through personal interview metho

To study the knowledge gain, 29 knowledg items in paddy cultivation practices were selecte to prepare the schedule in consultation wit the agricultural officer (TANWA), staff membe of Department of Agronomy and Departme of Extension Education, S.V.Agricultural Colleg Tirupati and progressive farmers. Twenty nin knowledge items were included in the intervie schedule and administered to the respondent The response of the trainees were obtaine as correct and incorrect assigning weightag of 1 and 0 respectively. Thus the knowledg score of respondents was the summation c correctly answered items out of the total 2 knowledge test items. The knowledge level c trainees was measured at two stages of pr and post training sessions by using the schedul for the study. The difference between the pr and post training was taken as the knowledg gain of an individual trainee. The possible rang of knowledge gain score was 0 to 29.

ble 1. Distribution of respondents based on their knowledge gain

No.	Level of knowledge gain	Frequency	Percentage
	Low	24	20.00
	Medium	69	57.50
	High	27	22.50
	Total	120	100.00

ean : 18.942 SD : 5.267

ble 2. Relationship between the selected personal, socio-economic and psychological characteristics of the trainees and their knowledge gain

No.	Independent variables	Correlation coefficient (v)
1.	Age	-0.410**
2.	Education	0.543**
3.	Family size	0.241**
4.	Mass media exposure	0.365**
5.	Extension contact	0.417**
6.	Economic motivation	0.651**
7.	Achievement motivation	0.790**
8.	Scientific orientation	0.524**
9.	Innovativeness	0.145**
10.	Training received	0.330**
11.	Facilities provided	0.873**

Significant at 0.01 level of probability

Based on total score, the trainees were grouped into low, medium and high knowledge gain categories taking mean and standard deviation as a check. Percentage analysis was done to make simple comparisons. Correlation coefficient was calculated to find out each degree of relationship between the selected 11 independent variables and knowledge gain of trainees. To predict the important variables contributing for knowledge gain of trainees, the multiple regression analysis was carried out.

Results and Discussion

This result is in compliance with the results of Rao (1969), Verma and Verma (1985) and Verma (1986). The respondents were categorised into low, medium and high knowledge gain categories based on mean and standard deviation (Table 1).

It is evident from Table 1 that majority of the trainees (57.50 per cent) had medium knowledge gain about paddy cultivation practices followed by high knowledge gain (22.50 per cent) and low knowledge gain (20.0 per cent) respectively. There was considerable gain in knowledge of trainees.

Relationship between the selected personal, socio-economic and psychological characteristics of the trainees and their knowledge gain

In order to study the nature of relationship between the selected personal, socio-economic and psychological characteristics of the trainees and their knowledge gain, correlation coefficient (r) were computed and the values are presented in Table 2.

A persual of Table 2 indicates that age was negatively significant, while the remaining

Table 3. Multiple linear regression analysis of the selected independent variables and their knowledg gain of trainees

Sl.No.	Independent variables	Partial regression coefficient values (b)	Computed 't' values
1.	Age	-0.1201	-1.5859
2.	Education	0.5405	3.1426**
3.	Family size	0.9463	2.1715*
4.	Mass media exposure	0.3599	4.8953**
5.	Extension contact	1.2298	2.2379**
6.	Economic motivation	-0.6791	-1.0639
7.	Achievement motivation	-0.7486	-4.5547
8.	Scientific orientation	-0.8941	-2.9570
9.	Innovativeness	-0.2223	1.0622*
10.	Training received	0.8678	2.7248**
11.	Facilities provided	-0.4734	-3.0309

* Significant at 0.05 level of probability ** Significant at 0.01 level of probability

't' value 1% = 2.58 R^2 = 0.6502 ; 5% = 1.96 F = 16.772**

variables were positively significant with knowledge gain at 0.01 level of probability. It reveals that age has a negative relationship with knowledge gain of trainees, which indicates that as the age of the trainees advances, the gain in knowledge decreases. The possible reason for this negative significance of age might be that most of the middle and old aged farm women were less educated and they were not able to learn and acquire knowledge unlike young farmers who were dynamic and energetic.

Combined effect of all selected independent variables and their knowledge gain of trainees

To determine the combined effect of all the selected independent variables in explaining variation in knowledge gain of trainees, multiple linear regression analysis was carried out and the values are presented in Table 3.

The R^2 value of 0.6502 indicates that all the selected 11 independent variables put together explained about 65 per cent variation in knowledge gain of trainees. The partial regression coefficient values further revealed that the independent variables like family size and innovativeness were found positively significant at 0.05 levels of probability and education, mass media exposure, extension contact and training received were found positively significant at 0.01 level of probability which implies that all these independent variable have contributed to most of the variation in knowledge gain of trainees about paddy cultivation practices.

As the findings of the study indicated that majority of the respondents had medium levels of knowledge gain, it is desirable to develop high knowledge by educating the farmers through conduct of more numbers of pre-seasonal training programmes, field trips, group discussions, demonstrations, supply of sufficient literature on the subject and necessary follow up activities after the training programmes.

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