

AN ASSESSMENT OF FFS APPROACH THROUGH ADULT EDUCATION: A SPECIAL CASE OF LEARNING GROUP OF FARMING COMMUNITY (LGFC) IN PUNJAB-PAKISTAN

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ABSTRACT

Introduction:

Education is an essential tool of economic growth and human development. Farmers' education leads to the promotion of agriculture, including their personality development. The farmer field school (FFS) is a non-formal and participatory method of learning, technology dissemination and adaptation based on principles of adult learning like experimental learning.

Methods:

This study was conducted in Faisalabad district of Punjab, Pakistan on a fruit and vegetable development project (F&VDP). There were 12 Farmer Field Schools (FFSs) working under F&VDP out of which 6 FFSs were selected randomly. Interview schedule was developed for collecting of data. From every selected FFS, 20 respondents were selected randomly making samples of 120 LGFC (learning group of farming community). All of the respondents were vegetable growers and were getting training from F&VDP for off-season vegetable production (tunnel farming).

Results:

Data were analyzed through SPSS (statistical Package for Social Sciences) and it was concluded that the majority of the farmers were literate and they learn more through practical work. With the increase in education level farmers learn more about new technologies which will enhance their cost benefit ratio and education also helps farmers to identify their problem and solve these problems by utilizing their own resources. With a high cost benefit ratio the living standard of the farmers also improved and farmers will expend more money on the education of their children which will lead to development of harmonized nation.

Keywords: Adult Education, FFS, LGFC, Punjab, Pakistan

INTRODUCTION

Education is the continuing learning process in which one learns knowledge, habits and skills and these all can be transferred from one to others through teaching, research or training. Education can take place autodidactic or under the guidance of others. There are three forms of learning 1) formal education, 2) informal education and 3) non-formal education. Formal education, usually within the four walls and offered at a school or university. Non-formal education involves sharing of information, skills and knowledge without hierarchy and the institutional environment of formal schooling. Students may be children, adults, or both. Informal education is a lifelong learning process based on our own daily experiences; it is recreational Education which can be physical, mental, or both [1].

In agriculture sector advisory services of Agriculture Extension department and projects like F&VDP in Pakistan are major sources to address rural poverty, because these institutions aims to enhance learning, helps farmers in solving their problems, technology transfer, and facilitate farmers to more actively gain information's and agricultural knowledge [2]. With decreasing productivity of crops and increasing poverty in rural areas, it is serious challenge to select an extension service which actively addresses these major issues. One worldwide popular extension and education program is the farmer field schools (FFS) approach working at least in 78 countries [3]. The farmer field school is a non-formal and participatory method of learning, technology dissemination and adaptation [4] based on principles of adult

learning like experimental learning [5]. In this approach farmers conduct their own research, test and diagnose problems, and find solutions. It also helps farmers to develop critical thinking, analytical skills and creativity, and how to make better decisions [6,7]. This approach reflects a paradigm shift in extension in which trainer is a facilitator instead of instructor [8,9]. Through working in groups, farmers sharpen their leadership, management and communication skills as well as decision making abilities. In FFS three major learning tools include group experiments, discovery-based learning exercises and agro ecosystem analysis [10]. These tools facilitate participants to reflect experience and make decisions. Due to the great number of implementers and widespread of farmer field schools in different locations, practitioners defined the elements of FFS as: empowerment, ownership, a systems approach, group discovery learning, self-help, lifelong learning, and self-pulsion [11]. FFS had a significant impact on all aspects of social wellbeing of farming community as a result of various project activities and helps farmer in decision making, confidence building and spirit of self-help [12].

This approach, firstly started in Indonesia in 1989 and has expanded through many parts of Sub-Saharan Africa. The FAO started the East African Sub-regional Project of Farmer Field Schools in 1999 in Uganda, Kenya and Tanzania in eight pilot districts. A second extension phase of the project started in 2005 and ran for 3 years in Bungoma, Busia and Kakamega districts in Kenya; Muleba, Bukoba and Missenyi

districts in Tanzania, and Busia, Soroti, and Kabermaido districts in Uganda [13].

Similarly, in Pakistan Fruit and Vegetable Development Project (F&VDP) launched by the Govt. of Punjab in July, 2005 in 12 districts of Punjab to facilitate the vegetables and fruit growers for enhancing their production by using FFS approach, this project successfully completed its phase-I in June, 2010. Since its successful completion the Govt. of Punjab has extended Fruit and Vegetable Development Project phase-II from August, 2010 to June, 2013 and expanded to 20 districts. In the second phase the districts of Rahim Yar Khan, Muzaffar Garh, Khaniwal and Multan are selected for mango production, Layyah, Mandi Bahawal Din, Toba Taik Singh and Sargodha for citrus production and Shiekhpura, Okara, Kasur, Sialkot, Attock, Rawalpindi, Hafiz Abad, Pakpattan, Sahiwal, Gujranwala, Faisalabad and Lahore for off season vegetable production [14].

Under F&VDP, Farmer Field School (FFS) approach is being used to impart training to the farmers by the field staff. In this approach training of facilitator's is conducted and FFSs are started over the whole crop season. The Agriculture Officers (AOs) which are training facilitator attend meetings with the Center for Applied Biosciences International (CABI) in office of District Implementation Unit (DIU) on the first day of the week and in other days of the week every AO carry out four FFS in consecutive days. Each FFS has 25 farmers, which were called Learner Group of Farming Community (LGFC), they select a field area and observe it by doing Agro-Eco System Analysis (AESAs) and discussions are held on what they have observed in the field, on the basis of this discussion further actions are decided. Due to this approach LGFC become a confident and organized to work in the community. LGFC get knowledge about crop production and solve their problems by themselves. To ensure the LGFC participation in the FFS, incentives have been paid to them by the project [15]. The main objective of this study was,

a) to assess LGFC learning through FFS approach, b) education level of the LGFC and c) information sources used by the LGFC.

METHODOLOGY

This study was conducted in Faisalabad district of Punjab, Pakistan. There were 12 Farmer Field Schools (FFSs) working under F&VDP out of which 6 FFSs were selected randomly. Interview schedule was developed for collecting data. From every selected FFS, 20 numbers of respondents were selected randomly making samples of 120 LGFC. All of the respondents were vegetable growers and were getting training from F&VDP for off-season vegetable production, information regarding education, age, increase in the area under vegetable and an increase in the income of the respondents were collected. The collected data were transferred on an excel sheet to facilitate tabulation. The analysis of the data was done through the computer software Statistical Package for Social Sciences (SPSS). Chi-square was applied to draw the conclusions. Whereas, the qualitative data were also discussed and interpreted to manipulate the results.

RESULTS AND DISCUSSION

The data shown in Fig. 1 indicate that the majority (65%) of the LGFCs got education up to matriculation and one fourth (25%) of the LGFCs were above matriculation. Similarly, one tenth (10.8%) were illiterate.

These results more or less matched to that of equation [16] who reported that the majority (67%) of the respondents were up to matriculation whereas, more than one fourth (26.3%) of the respondents were above matric while about one tenth (12.5%) of the respondents were illiterate. It can be deduced from the above results that most of the respondents were educated which interprete their interest in getting training and high participation in training sessions.

The results given in the Table 1 depicts that according to the LGFCs response practical work was placed at 1st position with a mean value of 2.79 among all other training methodologies use by FFS staff because respondents learn more through practical work. Method demonstration, brain storming and field trips were given 2nd, 3rd and 4th position with a mean value of 2.77, 2.71 and 2.67 respectively, while 5th position was given to charts and group discussion with same mean value 2.59. Similarly flip charts, white board, farm visit and lectures were ranked 6th, 7th, 8th and 9th position with mean value 2.49, 2.37, 2.29 and 2.19 respectively.

Similar results were presented by equation [17] that an overwhelming majority (80%) of the respondent used method demonstration, result demonstration and group discussion.

Ranking of the LGFCs according to their response about the delivery of training is given in the Table 2 which shows that suitable training place, training contents were easily understandable and mode of language was ranked 1st, 2nd and 3rd with mean value 2.88, 2.77 and 2.73 respectively. As project field staff carefully selected the training place and contents which fulfill the convenience, demands, needs and interest of the LGFCs. Attitude and behavior of FFS trainer and communication skills of FFS trainer were ranked 4th with same mean value 2.67. Similarly, knowledge level of FFS trainer, timing of training was suitable, training was according to the needs of the farmers, training was practical oriented, facilities provided during training, the training content technically latest and updated, training contents match with training objectives and appropriate training methodology were ranked from 5th to 12th respectively.

The data provided in the Table 3 represents the level of satisfaction of the LGFC about the sources of information. According to the Table F&VDP field staff was placed at the 1st position with the mean value of 2.86. Fellow farmers, progressive farmers, agriculture department, private sector, printed material, radio and television were ranked from 2nd to 8th with mean value of 2.36, 2.27, 2.25, 2.02, 1.73, 1.19 and 1.18 respectively.

These results are more or less similar to that of [18] he mentioned that a large majority of the respondents were getting very less information through TV followed by radio. As the LGFC had less interest and time to watch and listen the agricultural programs on TV and Radio due to

Table1: Ranking of training methodologies based upon the response of the LGFCs

| Training Methods | Mean | SD | WS | Rank order |
|----------------------|------|------|-----|------------|
| Practical work | 2.79 | .037 | 335 | 1 |
| Method demonstration | 2.77 | .039 | 327 | 2 |
| Brain storming | 2.71 | .043 | 325 | 3 |
| Field trips | 2.67 | .043 | 320 | 4 |
| Charts | 2.59 | .048 | 311 | 5 |
| Group discussions | 2.59 | .048 | 311 | 5 |
| Flip chart | 2.49 | .065 | 299 | 6 |
| White board | 2.37 | .065 | 284 | 7 |
| Farm visit | 2.29 | .066 | 275 | 8 |
| Lectures | 2.19 | .061 | 263 | 9 |

| | | | | |
|---|------|------|-----|----|
| Training content technically latest and | 2.44 | .065 | 293 | 10 |
| Training contents match with training | 2.43 | .064 | 291 | 11 |
| Appropriate training methodology | 2.35 | .045 | 282 | 12 |

Table 3: Ranking of information sources based upon the level of satisfaction of the LGFC

| Information | Mean | SD | WS | Rank |
|---------------------|------|------|-----|------|
| F&VDP field staff | 2.86 | .032 | 343 | 1 |
| Fellow farmers | 2.36 | .064 | 283 | 2 |
| Progressive farmers | 2.27 | .074 | 272 | 3 |
| Agriculture | 2.25 | .083 | 268 | 4 |
| Private sector | 2.02 | .043 | 238 | 5 |
| Printed material | 1.73 | .062 | 138 | 6 |
| Radio | 1.19 | .065 | 44 | 7 |
| Television | 1.18 | .066 | 40 | 8 |

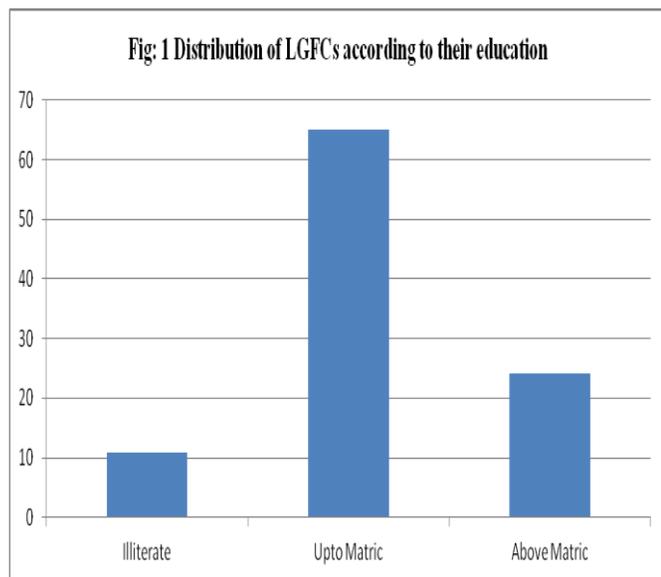


Table 2: Ranking of delivery of training based upon the perception of the respondents

| Delivery of Training | Mean | SD | WS | Rank order |
|--|------|------|-----|------------|
| Place of training was suitable | 2.88 | .030 | 345 | 1 |
| Training contents were easily understandable | 2.77 | .039 | 332 | 2 |
| Mode of language | 2.73 | .041 | 328 | 3 |
| Communication skills of FFS trainer | 2.67 | .043 | 320 | 4 |
| Attitude and behavior of FFS trainer | 2.67 | .043 | 320 | 4 |
| Knowledge level of FFS trainer | 2.66 | .043 | 319 | 5 |
| Timing of training was suitable | 2.57 | .066 | 308 | 6 |
| Training was according to the needs of the | 2.55 | .065 | 306 | 7 |
| Training was practical oriented | 2.49 | .065 | 299 | 8 |
| Facilities provided during training | 2.47 | .046 | 296 | 9 |

Table 4: Relationship between education and training methodologies

| Training methodologies | With 4 d.f | | With 8 d.f | |
|------------------------|------------|----------|------------|----------|
| | χ^2 | σ | χ^2 | σ |
| Method | 10.00 | .040* | --- | --- |
| Practical work | 1.61 | .080 | --- | --- |
| Group discussion | --- | --- | 6.73 | .566 |
| Lectures | --- | --- | 7.08 | .528 |
| Field trips | 4.55 | .337* | --- | --- |
| Farm visit | --- | --- | 7.92 | .411* |
| Brain storming | --- | --- | 15.91 | .044* |
| Charts | --- | --- | 6.85 | .552 |
| White board | --- | --- | 15.60 | .048* |
| Flip charts | --- | --- | 5.313 | .724 |

their tough activities on their farm and also the timing of these agricultural programs did not suits to the LGFC. Table 4 shows the relationship between education and training methodologies used by the F&VDP project staff. According to the data given in the table there is a significant relationship between education and training methodologies like a method demonstration, field trips, farm visit, brain storming and use of white board. As with the increase in te level of education the effectiveness of these methodologies also increased and LGFC learns more. Literate farmers learn more from these training methodologies because their exposure is high as compare to other farmers and their intellectual power to observe things is also very high which aid them in understanding the new technologies which ultimately increase the adoption rate [19].

CONCLUSION

It is observed that the majority of the farmers were literate and they learn more through practical work. Because learning process increased by doing things practically and high education level also facilitates learning. With the increase in

educational level, farmers learn more about new technologies which will enhance their cost benefit ratio and education also helps farmers to identify their problem and solve these problems by utilizing their own resources. With a high cost benefit ratio the living standard of the farmers was also improved and farmers can spend more money on the education of their children that will lead to the development of a harmonized nation.

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