AGRICULTURAL EXTENSION TRAINING EFFICIENCY IN KURDISTAN REGION/IRAQ DURING THE PERIOD OF (2013 –2017) FROM THE TRAINEES’ POINT OF VIEW

SAKINA. MOHAMMED OMER MOHAMMED* and ALDOSKY. ABID ALI HASSAN**

*Dept. of Agribusiness and Rural Development, College of Agricultural Sciences Engineering, University of Sulaimani, Kurdistan Region-Iraq
**Dept. of Agricultural Extension and Rural Development, College of Agricultural Engineering Sciences, University of Duhok, Kurdistan Region-Iraq

(Accepted for Publication: October 21, 2019)

ABSTRACT

The aim of this study was to determine the efficiency of agricultural extension training in many aspects, then to find the differences between the total estimation of training efficiency and some variables. The research involved 148 employees who participated in training courses in all governorates of Kurdistan region during five years (2013-2017). The data were collected through personal interviews. A questionnaire was prepared for this purpose. To confirm the validity, the questionnaire was reviewed by some experts. The reliability coefficient was calculated by Cronbach’s Alpha coefficient, and its value was (0.92). The results showed that the estimation level of the extension training efficiency by respondents was medium tending to low, and the trainer’s ability estimation occupied the first rank, giving the interesting percent of (56.37%). While the methods of selecting the trainees occupied the last rank recording the interesting percent (53.18%). The results indicated significant differences among (location of the work, number of training courses, period of training, extent of training benefit, attitude towards training, job satisfaction, and problem solving ability). While no significant differences were found among (age, gender, academic achievement, and extension service duration). The researcher recommended activating the training efforts adopted on the principles of planning, execution, and evaluation, and also recommended the adoption of suitable and logical mechanisms of selection of the trainees for training courses according to their needs and problems during the work, increasing the numbers of training courses with increasing the period of training. The researcher encourages the trainees to participate in training programs and formulating the objectives and training topics. Also concerns about all employees especially those who work in cities and districts, and attempting to raise the attitude of trainees and making a good environment of the work.

KEY WORDS: Training, Extension training, Efficiency, Extension training efficiency.
https://doi.org/10.26682/cajuod.2020.22.2.12

INTRODUCTION

Human development represents the main issue for the overall growth of developing and developed countries (Al-Abbassi, 1998). It has been agreed that the agricultural development focusing basically on the human ability (Arshidat, 2002). Training is a process aimed at bringing positive change in the knowledge, skills and attitudes of the trainees (Maher, 2008). Training is an attempt to improve the current and future performance of employees by increasing their ability to achievement (Evan, 1995). It is clear that the extension training for the employees of any extension organization (especially agents whom are working at the local level) is important as it has the role in agricultural development events, also as the trainers are responsible for the transfer of all kinds of agricultural technologies and modern information based on the results of scientific research to the farmers and encourage them to apply these technologies (Al-Radi, 2003). This situation requires to train workers academically, technically and professionally, and continuously by providing them with modern knowledge and skills for new technologies and innovations, qualifying the training process of agricultural developments in the agricultural sector.
staff represents the main factor of succeeding the extension structure (Al-Samawi, 2004).

Raising and improving the level of performance of agricultural extension agents depends on what they have learned in the training courses, specialized technical knowledge, skills and attitudes in their work in field with farmers, as training courses are one of the most important activities for the extension centers to improve their professional levels and to achieve positive development (Al-Mashhadani, 2006). Agricultural Extension depends a lot on research centers as a source of new information and agricultural innovations which are changing from time to time.

In light of this result, it will be necessary to evaluate and follow these changes, also extension workers need continuous training to keep pace with the changes and development which are occurring, and therefore workers should get in agricultural extension on a substantial share of training sessions in order to increase organizational effectiveness in the agricultural extension for the agricultural staff of different disciplines (Taqi et al., 1997).

Importance of training for the workers in the agricultural extension sector is being in the point of their ability to join the information centers of the local areas and the rural groups those benefiting from agricultural extension services. This can be achieved by raising their knowledge abilities, activating and renewing their professional experiences, although the training programs for agricultural extension workers efforts aimed to make or bring a change, which seeks the agricultural extension organization to achieve its goals and objectives. It is necessary to monitor and evaluate overall discretion compatibility or satisfying the needs of the trainees and educational paybacks which is to improve the ability of these personnel to perform training activities aimed at changing cognitive behavior, skill and attitude (Al-Saidi, 2006).

Efficiency is a situation in which a person, company, factory, etc. uses resources such as time, materials, or labor well, without wasting any efforts; efficiency in performance or accomplishment of, or ability to accomplish a job with a minimum expenditure of time and effort (dictionary.cambridge.org). Efficiency is the amount of the resources that achieve the goal of the organization (Daft, 2000). Despite the training being is an active way to achieve efficient functions, its effect will not be accurate if there is no progress to evaluate the outcome. It has been mentioned that there is no possibility to judge the range of the training program benefit and its action without a reasonable evaluation. This evaluation cannot be investigated in the absence of clear principles and evaluation standards (Swailim, 1998).

Efficiency of the training is the degree of experience gained by the trainees from the exercise of training activity with significant gains, measured by comparing the output of the activity cost in terms of human resources (Raab et al., 1991). Despite the importance of measuring the efficiency of agricultural extension training programs for agricultural extension workers, however it has not received enough attention from officials or institutions concerned with agricultural extension training. So it becomes important to evaluate the efficiency of training programs for agricultural extension workers through training them in their workplaces in advance in order to evaluate the validity of various aspects of the process of training for the needs and the factual circumstances of the trainees and determine the extent of their abilities to perform outreach activities of the training after their return to their fields. The extension organization has increased the training investment from its budget practicing several efforts and experiences in the program preparation and implementation. The money spent in the training investments considered as an input of the extension organization. Hence, the benefit, and outcomes of this project and the performance of production development levels have to be evaluated to determine the effect of inputs on the incomes achievement (Al-Mashhadani, 2006).

From the previous display, the research problem formulated through the following questions:
1. What is the estimate degree of the extension training efficiency from the employee's point of views in the various aspects of training in general?
2. What is the estimate degree of the extension training efficiency from the employee's point of views in the various aspects of the training programs in terms of (training objectives, method of selecting of the trainees, time and period of training, trainer's capabilities, training
content, methods and means of training, facilities and capabilities for training?
3. What are the differences in extension training efficiency according to some characteristics of the trainees such as (age, gender, academic achievement, extension service duration, location of the work, number of the training courses, duration of the training courses, training benefits, attitude towards training, job satisfaction, and problem resolving ability)?

**RESEARCH OBJECTIVES**

This research aimed at estimating the efficiency of extension training in governorates of (Duhok, Erbil, Sulaymaniyah and Garman) in Kurdistan region of Iraq through the following sub-objectives:

1. To estimate the degree of efficiency of extension training from the worker trainees’ point of views in general.
2. To estimate the degree of efficiency of extension training from the worker trainees’ point at views in each aspect in terms of (training objectives, method of selecting the trainees, time and period of training, capabilities of the trainers, scientific content of the training, methods and means of training, facilities and capabilities available for training).
3. To determine the differences in efficiency of extension training according to some characteristics of the trainees such as (age, gender, academic achievement, extension service duration, location of the work, number of the training courses, duration of the training courses, training benefits, attitude towards training, job satisfaction, problem resolving ability).

**MATERIALS AND METHODS**

A descriptive approach was used to conduct this study, taking in consideration the following spans:

1. Geographical Span: This research conducted in all governorates of Kurdistan region-Iraq (Duhok, Erbil, Sulaymaniyah and Garman).
2. Human Span: The research population included all the workers in agricultural extension organizations whom participated in the training courses during (2013–2017), they were (178) workers which spread over 4 departments and (46) centers. After excluding a (30) respondents for the pretest, the study sample remained (148) respondents, as shown in table (1) below.

| City          | Population | Sample | Percentage |
|---------------|------------|--------|------------|
| Duhok         | 35         | 30     | 20.27%     |
| Erbil         | 49         | 40     | 27.03%     |
| Sulaymaniyah  | 82         | 70     | 47.29%     |
| Garman        | 12         | 8      | 5.41%      |
| **Total**     | **178**    | **148**| **100%**   |

The data were collected through a questionnaire consisted of two parts:

First part: Included a number of questions related to the independent variables such as age, gender, academic achievement, extension service duration, location of the work, number of the training courses, duration of the training courses, training benefits, attitude towards training, job satisfaction, problem solving ability. These factors were determined and fixed after reviewing the literatures and some studies related to the study subject, in addition to the comments and the perspectives of some specialists in the agricultural extension filed. These variables were measured as follows: Age was measured according to the number of years, gender was measured according to male and female by giving the digital codes of (1 and 2) for male and female, respectively, academic achievements was measured by giving the codes of 1, 2, 3, 4, 5 and 6 according to the degree level obtained (high school, diploma, bachelor, high diploma, MSc and PhD.), respectively, extension service duration was measured by the years had spent in extension, location the work was measured by giving the digital codes (1, 2, 3 and 4) according to the location work (city, district, sub-district, and village), previous training was measured by the number of training courses participated by the trainee during the
period of Jan. 1st, 2013 – Dec. 31st, 2017, period of the training courses was measured by the number of training days participated by trainee, training benefits was measured by giving the digital numbers (0, 1, 2, 3) respectively, according to the total numbers were obtained (no, few, neutral, a lot). attitude towards training was measured through (12) items half of them were positive and the other half were negative by giving the digital numbers (3, 2, 1) for positive and (1, 2, 3) for negative, respectively, job satisfaction was measured through (12) items half of them were positive and the other half were negative by giving the digital numbers (3, 2, 1) for positive and (1, 2, 3) for negative, respectively, problem solving ability was measured through (10) items by giving the digital numbers (3, 2, 1).

Second part: Estimating of extension training efficiency: This part included eight aspects for the estimation (objectives, time and duration of training, selection of trainees, trainers, contents, methods and means of training, facilities and equipment, results), comprising of 81 items as follows (10, 10, 10, 14, 12, 9, 9 and 7), respectively. These items were arranged and purified depending on the literatures, and views of specialist perspectives in the training subjects depending on the previous investigations on the entire subjects. To evaluate each aspect giving the total number of (81) items for estimate the training course. Five alternatives were designed to each item as an indicator to determine the level of the items achievement. The alternatives of achievement levels (weak, fair, good, very good and excellent) were detected with the values of 1, 2, 3, 4 and 5, respectively. The determination of training evaluation level was done by collecting the digital values of evaluation items that determined to be (81- 405).

The first draft of questionnaire was shown to a group of specialists in the fields of agricultural extension, psychology, measuring and evaluation. Depending on their views, the items were reformatted. The content validity was measured by comparing the standards with the evaluation items according to the results of related studies. It also measured by the determination of relative significant of all evaluation training courses depending on the hypothesis of some experts.

Reliability was measured through the exploratory sample of 30 respondents during the period (Aug. 13-25th, 2018) using Cronbach’s Alpha method. This method gives the minimum value of the estimated coefficient of reliability (Al-Abbassi, 2018), the reliability coefficient was (0.922) degree.

After data collection at the period (Sept. 10th – Nov. 27th, 2018), the data were arranged and classified before analyzing with SPSS application. The statistical methods used in the analysis were frequency, percentage, arithmetic means, standard deviation, simple correlation coefficient (Pearson), t-test and F test.

RESULTS AND DISCUSSIONS

1. To determine the total estimate degree of the extension training efficiency in general, the respondents were classified into three levels depending on the range, as described in table (2).

| Table (2): Total estimate of extension training efficiency |
|----------------------------------------------------------|
| Levels of total estimate | Frequency | Percentage | Mean of estimate |
|----------------------------|-----------|------------|-----------------|
| Low (118 - 195) degree    | 65        | 43.49%     | 169.00          |
| Medium (196 - 273) degree | 74        | 50%        | 224.78          |
| High (274 - 351) degree   | 9         | 6.1%       | 293.33          |
| Total                      | 148       | 100%       |                 |

Minimum = 118, Maximum =351, Standard Deviation =40.96, Mean=204.453

It is appearing from (Table 2) that the total estimate was nearly 50% of the training efficiency which was medium toward low. This result is indicating the need to comprehensive plan and a good performance of the efforts that had been put forth by the staffs of training departments at the agricultural extension in Kurdistan region during their organizing of the training courses. This indicates that the training programs not led to a positive impact and not on
the requirement level for the trainees for all aspects of training satisfactory.

2. To determine the degree of the extension training efficiency in each aspect, the aspects were arranged according to the level of their achieving. It is appeared that the "ability of trainers" estimation was rated the first rank with percentage of 56.37%. This result referred to the scientific and practical ability of trainers in delivering the target subject as most of them were in academic degrees at the university and they have training experiences and previous teaching. While the trainees selection was occupied the lowest ranking with percentage of 43.18%. This result may be attributed to that the trainees are not satisfied with the mechanism of their candidacy for the courses, or there could be biases by officials and staff, or there might be no justice for the candidate to the training courses, as described in Table (3).

3. To determine the differences in extension training efficiency according to the different characteristics of the trainees: t-test and analysis of variance were used to determine the differences of means among the total estimate of extension training efficiency (as a dependent variable), and some independent variables.

3.1 Age: The results indicated to the range of 26-66 years for the ages, divided into three categories according to the real range. F-test was used to find the differences between age and total estimate. Since the calculated F-value was (0.004), and it was less than the table value, so the differences are not significant between the age and the total estimate. Meaning that the age is not related to the estimation of extension training efficiency and most of the trainees are in agreement to train either young or old. This result is consistent with the findings of (Mohamed, 2012; Al-Abbassi and Al-Chalabi, 2014 and Sakina, 2017) (Table 4).

3.2 Gender: The results showed that most of the trainees were male compared to females. T-test was used to find the differences between the gender and total estimate. Since the calculated t-test was (0.476), and it was less than the table value, so the differences are not significant. Meaning that the gender is not related to the estimate of extension training efficiency and both of them have the same participation opportunity to training courses without difference or bias. This result is consistent with the finding of (Abul-Ros et al., 2012).

3.3 Academic achievement: The results showed that most of the trainees were qualified the university degree. To find the differences between the academic achievement and the total estimate, the analyses of variance (F) was used. As it is appeared in (Table 4), the calculated F-value was (0.77), which was less than the table value. So the differences are not significant between the academic achievement and the total estimate. This is confirming that the academic levels are not related to the estimate of extension training efficiency. Although the estimation of high diploma category was higher because most of them are specialized in agricultural extension, since 13 of 15 respondents were high diplomas. This result is consistent with the findings of (Al-Abbassi and Al-Naqqash, 2010; Al-Abbassi et al., 2013 and Al-Abbassi and Al-Chalabi, 2014).

3.4 Extension service duration: Depending on the obtained results, most of the respondents were within the first category (1–12) years of

### Table (3): Arranging the estimation of extension training aspects according to their efficiency percentage

| No. | Estimation of Extension Training Aspects | Minimum Value | Maximum Value | Mean Value | Standard Deviation | Efficiency Percentage | Rank |
|-----|------------------------------------------|---------------|---------------|------------|--------------------|-----------------------|------|
| 1   | Ability of trainers                      | 22            | 63            | 39.46      | 8.88               | 56.37%                | 1    |
| 2   | Training results                         | 10            | 33            | 18.93      | 4.11               | 54.08%                | 2    |
| 3   | Facilities and possibilities             | 9             | 44            | 23.17      | 6.30               | 51.48%                | 3    |
| 4   | Training content                        | 16            | 53            | 30.68      | 7.34               | 51.13%                | 4    |
| 5   | Training objectives                      | 10            | 48            | 24.94      | 6.13               | 49.88%                | 5    |
| 6   | Methods and means                       | 10            | 37            | 22.14      | 5.46               | 49.20%                | 6    |
| 7   | Timing and duration                      | 10            | 41            | 23.49      | 6.30               | 46.98%                | 7    |
| 8   | Method to select the trainees            | 10            | 40            | 21.59      | 6.38               | 43.18%                | 8    |

The 3rd International Agricultural Conference, 2nd -3rd October 2019, Duhok

Journal of University of Duhok., Vol. 22, No.2(Agri. and Vet. Sciences), Pp103-113, 2019(Special Issue)
extension service duration. To find the differences between extension service duration and total estimate, analyses of variance (F) test was used. As shown in (Table 4), the calculated F-value was (0.673), and since this is less than the table value, so the differences are not significant between them, although the large duration of extension service obtained the high value of total estimate. This result will affirm that the extension service variation has no relation with the total estimate, and training sessions were suitable for all workers even if their services are different. This result is consistent with the findings of many researchers (Al-Abbassi and Al-Naqqash, 2010; Al-Abbassi and Al-Naqqash, 2013; Al-Abbassi et al., 2013 and Al-Abbassi and Al-Chalabi, 2014).

3.5 Location of the work: Depending on the results obtained in this study, most of the respondents were worked in sub-districts. To detect the differences between locations of the work and total estimate, analyses of variance (F) was used. It is clear from (Table 4), that the calculated F-value was (4.78); which is more than the table value. So the differences are significant between them. This result is confirming that the location of the work relates to the estimate of respondents, meaning that they work at the village level and they have direct contact with the farmers and apply what they have learned in training sessions. This result is consistent with the results found by (Al-Ajeeli, 2013).

3.6 Number of training courses: The results indicated that most of the respondents were participated in the training category (1–3) courses. To determine the differences between the number of training courses and total estimate, analyses of variance (F) was used. As it is appeared from (Table 4), the calculated F-value was (4.80) which is more than the table value. So the differences are significant. It is clear from this result that the number of training courses is important to come out with the good estimation to the efficiency of training. It means that the number of training courses gave the best information and experience to compare the results and making decision about training program. This result is consistent with the findings of each (Al-Abbassi and Al-Naqqash, 2013; Al-Ajeeli, 2013 and Al-Abbassi and Al-Chalabi, 2014).

3.7 Duration of the training courses: It is appeared from the results that most of the respondents had 3-21 days of training courses. Analyses of variance were used to find the differences between the duration of training courses and total estimate. Since the calculated F-test was (6.29), is more than the table value, so the differences are significant. The best explanation for this relation is that those participated in the longer periods of training courses were able to collect a good adequate information on the courses subjects, as they were investigated all subject sides and they have a reasonable time for the practical and field works during the training courses. This result is consistent with the findings of each (Al-Abbassi and Al-Naqqash, 2010; Al-Abbassi et al., 2013; Al-Ajeeli, 2013; Al-Abbassi and Al-Chalabi, 2014 and Sakina, 2017).

3.8 Benefit of training: The results in (Table 4) show that most of the respondents were of the high category about extent of training benefit, analyses of variance were used to find the differences between extent of training benefit and total estimate. Since the calculated F-test was (4.64), and it is more than the table value, so the differences are significant. These results explain who were benefited from training activities have given a good assessment of training programs, this result is consistent with the finding of (Mohamed, 2012).

3.9 Attitude towards training: The results confirmed that most of the respondents were had a high degree of positive attitude. To find the differences between attitude and total estimate, analyses of variance (F-test) was used. Since the calculated F-test value was (4.96), is more than the table value, so the differences are significant. This might be refer to the reason that the respondents with positive attitude were benefited of training programs, and the training programs were related to these respondents, therefore they had well estimated the training courses and this result is consistent with the findings of both (Al-Abbassi and Al-Naqqash, 2013 and Oreibi, 2011).

3.10 Job satisfaction: The results showed that most of the respondents were of the medium category about satisfaction toward jobs. To find the differences between job satisfaction and total estimate, analyses of variance (F-test) was used. It is appeared from (Table 4) that the calculated F-value was (8.72); is more than the table value,
so the differences are significant. It means that the training program was related to trainees and the training was created an appropriate atmosphere to work.

3.11 Problem resolving ability: The results showed that most of the respondents were of the high category about ability of resolving problems. To find the differences between problem solving ability and total estimate, analyses of variance (F-test) was used. It is appeared from (Table 4) that the calculated F-value was (3.6); more than the table value, so the differences are significant. It means that the training program was related to trainees and the training was created an appropriate atmosphere to work. This result is confirming that the training session affected on the respondents, led to increased self-confidence, raised the morale of respondents to face difficulties and work problems. This result is consistent with the finding of (Al-Abassi and Al-Naqquash, 2013)

| Variables                  | Categories          | Frequency (Freq) | Percent (%) | Means estimate | t-value | F-value | Significance | Duncan’s Coefficient |
|----------------------------|---------------------|------------------|-------------|----------------|---------|---------|--------------|----------------------|
| Age/ years                 | 28 – 40             | 52               | 35.1%       | 204.09         | F (0.004) | (0.995) | NS           |                      |
|                            | 41 – 53             | 53               | 35.8%       | 204.45         |         |         |              |                      |
|                            | 54 – 66             | 43               | 29.1%       | 204.88         |         |         |              |                      |
| Gender                     | Male                | 115              | 77.7%       | 203.59         | T (0.476) | (0.63)  | NS           |                      |
|                            | Female              | 33               | 22.3%       | 207.45         |         |         |              |                      |
| Academic achievement       | High school         | 33               | 22.3%       | 209.18         | F (0.771) | (0.546) | NS           |                      |
|                            | Diploma             | 25               | 16.9%       | 197.68         |         |         |              |                      |
|                            | Bachelor            | 70               | 47.3%       | 202.32         |         |         |              |                      |
|                            | High diploma        | 15               | 10.1%       | 217.86         |         |         |              |                      |
|                            | M.Sc.               | 5                | 3.4%        | 196.60         |         |         |              |                      |
| Extension service years    | 1–12                | 115              | 77.7%       | 206.13         | F (0.673) | (0.512) | NS           |                      |
|                            | 13–24               | 30               | 20.3%       | 197.03         |         |         |              |                      |
|                            | 25–36               | 3                | 2.0%        | 214.33         |         |         |              |                      |
| Location of the work       | Sub-district        | 57               | 38.5%       | 194.94         | F (4.786) | (0.003)** | Duncan’s Coefficient |                      |
|                            | District            | 47               | 31.8%       | 201.10         |         |         |              |                      |
|                            | City                | 28               | 18.9%       | 211.82         |         |         |              |                      |
|                            | Village             | 16               | 10.8%       | 235.25         |         |         |              |                      |
| Number of training         | 1–3                 | 92               | 62.2%       | 196.52         | F (4.803) | (0.010)** | Duncan’s Coefficient |                      |
|                            | 4–6                 | 38               | 25.7%       | 216.92         |         |         |              |                      |
|                            | 7–9                 | 18               | 12.2%       | 218.66         |         |         |              |                      |
| Duration of training       | 3–21                | 108              | 73%         | 198.13         | F (6.295) | (0.002)** | Duncan’s Coefficient |                      |
|                            | 22–40               | 29               | 19.6%       | 214.37         |         |         |              |                      |
|                            | 41–59               | 11               | 7.4%        | 238.54         |         |         |              |                      |
| Extent of training benefit | 1–10                | 109              | 73.6%       | 199.05         | F (4.640) | (0.013)*  | Duncan’s Coefficient |                      |
|                            | 11–20               | 35               | 23.6%       | 216.97         |         |         |              |                      |
|                            | 21–30               | 4                | 2.8%        | 242.00         |         |         |              |                      |
| Attitude towards training  | Low (19–24)         | 12               | 8.1%        | 188.41         | F (4.960) | (0.008)** | Duncan’s Coefficient |                      |
|                            | Medium (25–30)      | 32               | 21.6%       | 188.62         |         |         |              |                      |
|                            | High (31–36)        | 104              | 70.3%       | 211.17         |         |         |              |                      |
| Job satisfaction           | Low (16 – 22)       | 25               | 16.9%       | 189.28         | F (8.728) | (0.000)** | Duncan’s Coefficient |                      |
|                            | Medium (23–29)      | 99               | 66.9%       | 201.32         |         |         |              |                      |
|                            | High (30 – 36)      | 24               | 16.2%       | 233.167        |         |         |              |                      |
| Problem resolving          | Low (19 – 24)       | 10               | 6.8%        | 197.30         | F (3.063) | (0.050)*  | Duncan’s Coefficient |                      |
|                            | Medium (25–30)      | 49               | 33.1%       | 193.81         |         |         |              |                      |
|                            | High (31–36)        | 89               | 60.1%       | 211.11         |         |         |              |                      |
CONCLUSIONS

1. The study results estimated that (93%) of the respondents were described as having a medium tending to low to the training courses aspects of the agricultural extension training in all directorates of Kurdistan region-Iraq. Hence, we concluded that the efforts of training centers in all agricultural extension departments need to work with safe planning and performance in holding the training courses.

2. The aspect of trainers’ estimation occupied the first rank. We can conclude that the agricultural extension training organizations were able to select the suitable staff and specialists in the training activities precisely, then those who had an experience (lecturers and other academic staff) at the universities had their logical and scientific way. While the method to select the trainees was occupied the last rank, concluding that the selection might be not knowing whom need training or there is no scientific method to analyses of the training needs of the trainees.

3. The age was not related to extension training estimation; we can conclude that the training programs took into consideration the individual differences of the trainees such as age. Also academic achievement is not related to estimation, this concludes that the training subjects may be new to the trainees, as well the gender is not relating to estimation, therefore there is a consideration for both gender, to participate in the training courses, as well as the choice of subjects for them. Location of the work related to the estimation, concluding that those who work at the village level and applying the subjects of the course, the estimates were more accurate for them. As the number and period of training courses were related in estimation; we conclude that increasing the number of training courses as well as extending their duration may possibly lead to increased utilization of training activities, the positive attitude towards training increases the conviction of training, and any increase in job satisfaction creates a suitable economic and social environment for trainees in training courses, also the increased ability to solve problems may be due to the application of the content of training programs.

ECOMMENDATIONS

1. Depending on the results, the training programs of the agricultural extension departments have to focus on activating the training efforts according to the scientific principles of planning, execution and evaluation.

2. Creating the reasonable mechanism for selection process of trainees by extension organizations for the training courses and taking in to consideration the training needs and the problem they are facing during the work.

3. Increasing contribution of the trainees in formulating and setting training objectives and content convenient and parallel to their personal and scientific abilities.

4. More attention should be paid by the extension departments to the workers regardless of their age, gender, academic achievement and/or years of service.

5. Focusing on the participation of the workers who are working in sub-districts and districts in the training courses by agricultural extension organization.

6. Focusing on the practical sides of the training more than theoretical, holding the training courses outside the department and in the site of problems by agricultural extension organization.

7. Focusing on increasing the training courses and the appropriate duration of each course to encourage the contribution of the workers of their work by extension training centers.

8. Concentration of the increasing employee attitudes and satisfaction, as well creating appropriate environment of work by agricultural extension organizations.

REFERENCES

Abu-Alros, S. A. and Al-Qoqa, I. A. (2011). Impact of training on the growth and profitability of small enterprises in Palestine: A field study on small projects in Gaza strip. Journal of Al-Azhar University in Gaza, Human Sciences Series, 13 (1): 615-652.

Al-Abbassi, A. F. (1998). Study of The Needs of Staff in Nineveh Governorate for some Knowledge and Competencies of Extension, Unpublished Doctoral Thesis, Faculty of Agriculture and Forestry, University of Mosul, Iraq (In Arabic).

Al-Abbassi, A. F. K. and Al-Naqqash, B. H. A. (2010). Evaluation of vocational Training in...
Ninevah Center for Extension and Agricultural in the Trainees Point of Views, *Journal of Mesopotamia*, 38 (2): 90-97.

Al-Abbassi, A. F. K.; Al-Douski, A. A. and Al-Busso, Z. M. (2013). Evaluating Training Courses of Agricultural Extension Workers in Duhok Governorate and its Relation with some Variables, *Journal of Mesopotamia*, 41 (1): 1-8.

Al-Abbassi, A. F. K. and Al-Naqqash, B. H. A. (2013). Trainers Efficiency Evaluation according to Trainees Perceptions in Nineveh Center for Agricultural Extension and Training and its Relation with Certain Trainers Personal and Vocational Characteristics. *Tikrit University Journal of Agricultural Sciences*, 13 (4): 96-102.

Al-Abbassi, A. F. K. and Al-Chalabi, R. M. (2014). Evaluation of vocational Training in the International Center of Agricultural Research in Dry Areas (ICARDA) in the trainees’ Point of Views. *Journal of Alexandria for Scientific Exchange*, 35 (2): 119-132.

Al-Abbassi, A. F. (2018). *Methods of Scientific Research and Statistical Analysis in Behavioral Sciences*, First Edition, Alnoon For Printing & Press, Mosul, Iraq (Arabic).

Al-Ajeeli, S. A. (2013). Motives of the Workers in Agricultural Extension toward Occupational Training. *Journal of Kirkuk University for Agricultural Sciences*, 4 (1): 1-15.

Arshidat, Q. M. (2002). *Determine the Training Needs in the Field of Agriculture in Arab Countries*, Paper Presented at the Workshop of the Arab Organization for Agricultural Development, The Arab League, Oman, P. 3 (In Arabic).

Al-Samawi, A. A. (2004). The Effect of Post-harvest Processes at Agricultural Extension Training on the Extension Agents’ Knowledge in Wady Zabied , Yemen, *Damascus University of Agricultural Sciences Journal*, 20 (2). 211-222 (In Arabic).

Al-Mashhadani, M. A. (2006). *Building a Model for the Mechanism of In-Service Training Evaluation for Extension Workers in Iraq Technicians*, Ph.D Thesis, Coolege Of Agriculture, University of Baghdad, Iraq (In Arabic).

Al-Saidi, A. (2006). *Building a Model for the Training of New Agricultural Extension Workers in the Central Region*, Unpublished PhD Thesis, College of Agriculture, University of Baghdad, P. 3. (In Arabic).

Daft, R. L. (2000). *Management*. 5th Ed. Houghton Mifflin Co Boston USA.

Ivan, C. J. M. (1995). *Human Resources Management*, Irwin, Inc.

Maher, A. (2001). *Human Resources Management*, Fifth Edition, Egypt, Alexandria.

ohamed, Y. A. H. (2012). Variables Associated with Benefits Trainees Egyptian Participants in the Extension Training Program to Prepare an Agricultural Specialist in Farm Irrigation which Hold at the University of California – Davis, *J. Agric. Econom. and Social Sci., Mansoura Univ.*, 3 (9): 1299 – 1317.

Oreibi, S. M. (2011). Agricultural Guides Attitudes towards training courses in the province of Babylon, *Euphrates Journal of Agriculture Science*, 3 (1): 180-194.

Raab, R. T., Freeman, H. E. and Wright, S. R. (1991) “Improving Training Quality – A Trainer’s Guide To Evaluation” FAO, Rome, Italy.

Radi, A. M. M. (2003). The Extension Training Efficiency of Agricultural Extension in Egypt, PhD thesis Unpublished, Egypt, Ain Shams University.

Sakina, M. O. M. (2017). Evaluation of some training courses in Agricultural Extension Department-general Directorate of Agriculture in Sulaimani governorate during the period of 1st January 2014 – 1st February 2015 from the trainees point of views. *Journal of Kirkuk University for Agricultural Sciences*, 8(3): 1-13.

Swailim, M. N. A. (1998). *Agricultural Extension*. Egypt For Scientific Services, Cairo.

aqi, A. A., Abdul-Hussein, A. and Hilmi, M. M. (1997). *Training-Planning, Design, Implementation 1*, Kuwait, the Public Authority for Applied Education and Training, System (In Arabic).

*Www.Dictionary.Com/Browse/Efficiency*
پوخته

نامنی هیچ جامعیتی که توانایی ویژه بروز دیاربکر کننده به توافته اپارتمانی راهنما
کشتوکالی که هنگام بوژادا، هر یک دیاربکری خیلی زیادی که نیاز متوالیان گشته بی
توافته اپارتمانی به پنی هنگامی فاکتور. توافته ویژه هم‌هو از مواردی راهنمایی که
دوگانه که زمانهی (148) کارهایی که کشتوکالی که هو از مواردی پژوهشگاهی هنگامی کودستان که
به دهاداریان گردوده به خواهانی راهنما هنگامی کودستان به میوه (2013 – 2017).

دانشگاه کودستان، به رهگیری قانونی ویژه راهنما، به بکارگیری فرمیکی
راپوردی که نامه کارایو به نوی نمی‌باشد. بر این اساس، به راهنما، ژیادی شده
بگردند گزارشی یکی خودکاری فرمیکی (ح (2012). پژوهشگاهی یکی چونی‌سازی‌ی
شیکاری دانان که توانایی ویژه ویژه کرده‌شده که از خصوصیاتی قرار دادن به
راهنما، به راهنما، به فرمیکی (سپس، 2019) صادریکاری کرده، که در
بی‌طرفی ویژه به فرمیکی (شیکاری ژیادی شده)
راهنما، به ویژه به صورتی که گزارشی
یکی خودکاری فرمیکی (ح (2012). پژوهشگاهی یکی چونی‌سازی‌ی
شیکاری دانان که توانایی ویژه ویژه کرده‌شده که در
بی‌طرفی ویژه به فرمیکی (سپس، 2019) صادریکاری کرده، که در
بی‌طرفی ویژه به صورتی که گزارشی
یکی خودکاری فرمیکی (ح (2012). پژوهشگاهی یکی چونی‌سازی‌ی
شیکاری دانان که توانایی ویژه ویژه کرده‌شده که در
استهدفت هذه الدراسة تحديد كفاءة التدريب الارشادي الزراعي في بعض المجالات، ثم إيجاد الفروقات بين التقدير الكلي لكفاءة التدريب وفقاً لبعض المتغيرات. تضمنت الدراسة (148) موظفاً من شاركوا في الدورات التدريبية في كافة محافظات اقليم كوردستان العراق للفترة ما بين (2013–2017). تم جمع البيانات من خلال المقابلة الشخصية و بواسطة استخدام استمارة استمارة استبيان التي أعدت لهذا الغرض. لتفادي بعض الصدوق الظاهرة تم عرض الاستمارة على مجموعة من الخبراء في هذا المجال. استخدام طريقة (الفا كرونباخ) لإيجاد معامل الثبات والثقة في الاستبان. اظهرت النتائج بان مستوى تقدير كفاءة التدريب الارشادي كانت متوسطة تميل الى الانخفاض، وان مجال تقدير قدرة المدربين سجلت المرتبة الأولى وتبت الاهميتها النسبية (0.92). اظهرت النتائج فروقات معنوية في كل من موقع العمل، عدد الدورات التدريبية، مدى الاستفادة من التدريب، الاتجاه نحو التدريب الارشادي، القدرة الوظيفية، القدرة على حل المشكلات، وعدم وجود فروقات معنوية في كل من العمر، الجنس، التحصيل الدراسي، مدة الخدمة الارشادية. اوصي البحث بالعمل على تنشيط الجهود التدريبية الإرشادية مبني على اساس التخطيط والتنفيذ والتقييم، وبناء آلية علمية ملائمة لاختيار المدربين على ضوء حاجاتهم ومشاكلهم اثناء العمل، وزيادة عدد الدورات التدريبية وموتها، كذلك تشجيع مشاركة المدربين في رسم اهداف برامج التدريب ومواضيع الدورة. اهتمام بكل الموظفين خصوصاً الذين يعملون في المدينة والاقصية، ومحاولة رفع الاتجاهات الإيجابية للمدربين، وبناء مناخ ملائم للعمل.

الكلمات الاقتدائية: التدريب، التدريب الارشادي، كفاءة، كفاءة التدريب الارشادي