



Influence Some Independent Factors on Agricultural Extension Training Problems in Kurdistan Region-Iraq from the Employees' Point of View

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Abstract

The aim of this study was to detect and arrange the extension training problems in each aspect, then to determine the differences in average of extension training problems according to some factors. The research involved 148 employees in agricultural extension institutions in all governorates in Kurdistan region. The data was collected through personal interviews; questionnaire was prepared for this purpose. To confirm the validity the questionnaire was reviewed by some experts. The reliability coefficient was evaluated by Cronbach's Alpha coefficient, and its value was (0.93). The results showed that the level of the extension training problem was medium tend to high, and the extension employees' problem occupied the first rank, giving the relative importance of (57.26%). While the planning and evaluation problem occupied the last rank, recording the relative importance (51.59%). There is a significant difference in extension training problems according to (gender, academic achievement, academic specialization, and job satisfaction). While no significant differences according to (age, provenance, location the work, and attitude toward training, problem solving ability). The researcher recommended to reduce the problems which confront of training extension in each aspects, through preparation and provide the possibilities and equipment to extension training courses, work to providing specialists in agricultural extension through appointment, increasing incentives and budget for the implementation of training courses, focus on activating the training efforts according to the scientific principles of planning, execution and evaluation, increasing budget and rewards in suitable timing for execution training activities, create a good socio-economic environment for the work and training activity

Key words: Extension training, Extension training problems

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INTRODUCTION

Agriculture plays a role in the entire life of a given economy, and backbone of the economic system of a given country. In addition to providing food and raw material, agriculture also provides employment opportunities to a very large percentage of the population (www.agriculturegoods.com). Agricultural sector accounts for a large share of gross domestic product (GDP), employs a large proportion of the labor, represents a major source of foreign exchange, supplies the bulk of basic food and provides subsistence and other income to more than half of the LDCs' population (www.FAO.org). 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). It is clear that the extension training for the employees of any extension organization (especially agents whom are working at the local level), because of their 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).

Increasing and improving the performance of agricultural extension agents depends on the amount of the experience and technical knowledge that learned in the training courses and apply in their work in field with farmers, on the other hand 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 sector still suffers from many difficulties and challenges, which constitute major obstacles to progress and develop of agriculture. Therefore, it is necessary to reconsideration of general policies of agricultural extension, and provides suitable administrative conditions to achieve the strategic objectives of the agricultural sector, and reduce these obstacles and problems that determine the effectiveness of agricultural organizations to perform their roles more effectively (FAO 2009). There are many obstacles that hinder the course of the training process and lead to the failure to achieve its objectives and can be classified into administrative, organizational and technical obstacles.

Role of agricultural extension employees in the light of activities and job tasks, including training activities face many problems and constraints, which vary in severity between ease and complexity, but in the end are problems facing extension organization and negatively affect the achievement of its objectives (Tanubi 1998). In a study carried out by (Al-Jarjari, 2005) in his thesis the Problems related to training aspects are in first priority in respect of whole problems confronting agricultural extension work in Iraq, both of (Zger& Abed Al-tief, 2017) indicated ten main problems for training they are arranged as follows: Training drives, residence, trance selection, trainee problems, timing of conducting training courses training content training rooms. The results of (DRAZ & Abd El-Wahed, 2014) study showed that the important problems revealed by agricultural extension agents are as follows: low wage and income of agricultural agent; weakness of extension of necessary facilities and administrative work, The results showed in (Mohammed, 2017) study that the problems size of extension work is medium –big, and lack of material and financial incentives problem ranked first among the problems.

Evaluation is an integral part of the training process, it is a continuous and organized process in training programs to assess the value of this program and make the appropriate decisions to know the success of the program. The effectiveness and efficiency of training programs depends on the impact of the program on the



trainees and increase their knowledge and experience (<https://shodhganga.inflibnet.ac.in/bitstream>). Despite the importance of measuring the agricultural extension training programs to identify main problems are facing for agricultural extension training; however it has not received enough attention from officials or institutions concerned with agricultural extension training (<http://webcache.googleusercontent.com>). So it becomes important to evaluate the training programs 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 to identify the strengths and weaknesses of extension training and then prioritize problems.

From the previous display, the research problem formulated through the following questions:

1. What are the extension training problems volume of the various aspects?
2. What are the differences in extension training problems volume according to some socio-demographic and functional characteristics including (age, gender, academic achievement, and extension service duration, location of the work, attitude towards training, job satisfaction, and problem resolving ability)?

RESEARCH OBJECTIVES:

1. To determine and arrange the main extension training problems volume in various aspects.
2. To determine the differences in extension training problems according to some socio-demographic and functional characteristics including (age, gender, academic achievement, extension service duration, location of the work, attitude towards training, job satisfaction, and problem resolving ability).

MATERIALS AND METHODS:

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

1. Geographical Span: This research conducted in all governorates of the Kurdistan region (Duhok, Hawler, Sulaimani and Garmian administration).
2. Employees distribution: The research population including all employees in agricultural extension organizations, they were (178) employees which spread over 4 departments and (46) centers. After excluding a (30) respondents for the pre-test process, the study sample remained (148) respondents, as shown in table (1) below.



Table (1): The populations and samples of the study

City	Population	Sample	Percentage
Duhok	35	30	20.27%
Hawler	49	40	27.03%
Sulaimani	82	70	47.29%
Garmian ad- ministration	12	8	5.41%
Total	178	148	100%

The data collected through the questionnaire which consisted of two parts:

First part: Included a number of questions related to the personal characteristics of the respondents 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: Identify the main problems of agricultural extension training: This part includes six aspects for the problems (extension training basis, possibilities and equipment, areas and activities of the extension training, extension employees, planning and evaluation of training, training methods and technology transfer), comprising 74 items as follows (10, 14, 14, 14, 11, 11) respectively. These items were arranged and purified depending on the literatures, and views of specialist perspectives in the training subjects and depends on the previous investigations on the entire subjects. To evaluate each aspects giving the total number of 74 items to estimate the extension training problems. Five alternatives were designed to each item as an indicator to determine the level of the items achievement. The alternatives of achievement levels were (N/A, Little, Medium, Big,



Huge) were detected with the values of (0, 1, 2, 3, and 4) respectively. The identification of training problem levels was done by collecting the numbers of evaluation items that determined to be 0- 296.

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 (0.927) degree.

After data collection at the period (Sept. 10th – Nov. 27th, 2018), the data were arranged and classified before analyzing with SPSS software. 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:

To find out the extension training problems in general, the respondents were classified into three levels depending on the range, as described in table (2).

Table (2): Total degree of extension training problems

Extension training problems levels	Number of trainees/employees	Percentage	Mean of the problem
Low (41 - 116)degree	25	16.9%	88.32
Medium (117 - 192)degree	91	61.5%	157.05
High (193 - 268)degree	32	21.6%	221.56
Total	148	100%	

Minimum = 41, Maximum =268, Std. Deviation =46.36, Mean=159.39

It is appears from (Table 2) that the total degree of the extension training problems was nearly 60% which was medium to high. This result is indicate existence the problems in the extension training aspects, maybe referred to the circumstances are experienced in Kurdistan Region of financial crises. This indicates that the training programs not led to a positive impact and not on the required level to the trainees for all aspects of training satisfactory.

1. To determine the total degree of the extension training problems in each aspect for employees, the aspects were arranged according to the level of their achievements. It is appeared that the “extension employees” problems was rated the first rank, giving the relative importance of (57.26%). This result referred to employees’ problems is the main source of other problems, and employees are the main factor for success and failure of training programs or training activities. While the “planning and evaluation” of training was occupied the last



rank, giving the relative importance of (51.59%). This result may be attributed to it have programs and plans for training with a mechanism to evaluate training activate, and they do not see it is a large problem (Table 3).

Table (3): Arranging the degree of extension training problems aspects according to their percentage

No	Areas of training problem	Minimum value	Maximum value	Mean value	Std. Deviation	Standard degree	Important percentage
1	Extension employees	4	54	32.07	10.15	56	57.26%
2	Possibilities and equipment	0	56	30.82	12.44	56	55.03%
3	Methods and technology transfer	1	44	23.60	8.05	44	53.63%
4	Extension training basics	0	38	20.96	8.19	40	52.4%
5	Areas and activities	0	52	29.20	10.15	56	52.14%
6	Planning and evaluation	2	43	22.70	8.83	44	51.59%

2. To find out the differences in extension training problems according to some characteristics of the respondents: (as independent variables), t-test and analysis of variance were used.

1. Age: The table (4) shows that the majority of respondents ((% 70.9) are within the age range of (28-40), (41-53) years. The calculated F-value (1.074) is less than the table value. This means that there is no significant difference in the extension training problems according to the age, and means the majority of respondents have the same suffering regardless of their age.

2. Gender: the results showed that most of respondents are male (77.7%). t- test was used to find the differences in extension training problems, the calculated t-test (2.18), is more than the table value, this mean that there is a significant difference in the extension training problems according to the gender. It means that the males have a greater responsibility, and they prepare and implement the training courses more if compared with females.

3. Provenance: It is appeared from the results that most of the respondents are belong to the urban category. t- test was used to find the differences in extension training problems. The calculated t-test is (0.37), is less than the table value. This means that there is no significant difference according to the provenance. May the reason is that the all workers suffer in the same problem, whether urban or rural.

4. Academic achievement: The results showed that the majority of the respondents trainees (47.3%) in the studied area are university graduates. To find the differences in the extension training problems, the analysis of variance (F) was used. As it is appeared the calculated F-value (3.36) is more than the table value. This means that there is significant difference in the extension training problems according to the Academic achievements of the respondents. May be the reason is that the majority of the respondents those who hold responsibility for extension and administrative organizations are owners of bachelor's degrees, and they face more problems

5. Academic title: The table (4.11) shows that the Majority of the respondents (79.7%) are not Agriculture Extension specialists. T-test is used to find the differences in extension training problems. The calculated t-test (2.12), is more than the table value, This mean that there is a significant differences in extension training problems according to the academic title. May be the reason is that the specialists in the agricultural extension know more about the details of training and its requirements, and they are also more keen on this activity.

6. Extension service duration: Depending on the obtained results, most of the respondents are within



the low category of the extension service duration (1–12) years. To find the differences in extension training problems, analysis of variance (F) was used; the calculated F-value (0.126) is less than the table value. There is no significant difference in extension training problems according to the Extension Service duration.

7. Location of the work: Depending on the results in this study, most of the respondents are working in sub-districts. To find the differences in extension training problems, analysis of variance (F) was used. It is clear that the calculated F-value (0.82) is less than the table value. So there is no significant difference in extension training according to the Location of The work. It means the place of the work not effect on the problems volume.

8. Attitude towards training: The results confirmed that most of the respondents have a high degree of positive attitude. To find the differences in extension training problems, analysis of variance (F-test) was used. Since the calculated F-test (0.93) is less than the table value, so the differences are no significant in extension training problems according to attitude toward training. It means that the positive attitude does not lead to low volume of the extension training problems.

9. Job satisfaction: The results showed that most of the respondents were of the medium category about satisfaction toward jobs. To find the differences in extension training problems, analysis of variance (F-test) was used. It is appeared that the calculated F-value (3.14) is more than the table value, so the differences are significant according to the job satisfaction. It means created a suitable socio-economic environment and provide requirements of training courses led to reduce for the workers of extension training problems.

10. Table (4): Differences in extension training problems according to some variables

Variables	Categories	Frequen- cy	Percentage	Means problems value	t-value F-value	Signifi- cance	Duncan's Coeffi- cient
Age/ years	28 – 40	52	35.1%	166.65	F 1.074	0.34	N.S
	41 – 53	53	35.8%	157.18			
	54 - 66	43	29.1%	153.27			
Gender	Male	115	77.7%	155.89	t 2.18	0.032*	Sig
	Female	33	22.3%	171.51			
Provenance	Urban	118	79.7%	158.65	t 0.37	0.70	N.S
	Rural	30	20.3%	162.23			
Academic achievement	High school	33	22.3%	146.24 ^b	F 3.56	0.008*	Duncan's Coeffi- cient
	Diplo- ma	25	16.9%	141.70 ^b			
	Bache- lor	70	47.3%	166.35 ^{ab}			
	High diplo- ma	15	10.1%	187.20 ^{ab}			
	M.Sc.	5	3.4%	153.60 ^a			



Academic title	Extension	30	20.27%	175.26	t 2.125	0.035*	Sig
	Others	118	79.73%	155.35			
Extension service duration	1-8	81	57.7%	161.02	F 0.126	0.88	N.S
	9-16	47	31.8%	156.74			
	17 & more than	20	13.5%	158.95			
Location of the work	Village	16	10.8%	143.06	F 0.82	0.48	N.S
	Sub-district	57	38.5%	159.35			
	District	47	31.8%	163.93			
	City	28	18.9%	161.10			
Attitude towards training	Negative (19-24)	12	8.1%	141.41	F 0.93	0.37	N.S
	Neutral (25-30)	32	21.6%	160.56			
	Positive (31 - 36)	104	70.3%	161.08			
Job satisfaction	Low (16 - 22)	25	16.9%	176.40 ^a	F 3.14	0.046*	Duncan's Coefficient
	Medium (23-29)	99	66.9%	158.85 ^{ab}			
	High (30 - 36)	24	16.2%	143.79 ^b			
Problem resolving ability	Low (19 - 24)	10	6.8%	146.10	F 0.94	0.39	N.S
	Medium (25-30)	49	33.1%	155.00			
	High (31 - 36)	89	60.1%	159.37			

CONCLUSIONS:

1. The results find out that the volume of extension training problems was nearly (82%) medium tending to high in each aspect. Hence, We conclude that the extension training problems are like all the other problems in the Ministry of Agriculture, which suffer from lack of support in the material and human aspects that negatively affect the agricultural sector, and concluded the financial crisis that occurred in Kurdistan region affected negatively on all areas, such as agricultural sector, especially in the training area and human development, on the other hand poor attention by the responsible authorities to resolving problems and constraints during the training period, as well as weakness in the preparation and preparation of material and human resources for the implementation of training.
2. The results appeared that the problem of the employees occupied the first rank. We conclude that the any training activity carried out by the extension organization the employees take responsibility about success or failure, and they are the most important elements of the training program. While the problem of the planning and evaluation was occupied the last rank, concluding there are plans and programs, but the problem in its implementation due to the lack of material and human resources or not translated into reality by officials of the organization.
3. The results clarify that the academic achievement has effect of the volume of extension training prob-



lem especially from the high diploma and bachelor. We conclude these categories may be execution training activity or they bear a greater responsibility.

4. The results appeared that the academic specialization has effect of the volume of extension training problem. We can conclude who specialize in extension category may be they manage training in the centers and are more familiar with the problems of training technically and scientifically.

5. Job satisfaction has effect in the volume of extension training problems, as shown through results. We conclude whenever creates suitable environment in term of (socio-economic, psychological, justice) for the work lead to decrease the ratio of training problem.

RECOMMENDATIONS:

1. Reconsidering the principles of extension training planning and evaluation by the higher authorities.
2. Provide all requirements and means of training, and increase demonstration fields from agricultural extension departments.
3. Agricultural extension organizations have to working to providing specialists in agricultural extension through appointments, because most of them are not professionals in agricultural extension.
4. Agricultural extension authorities have to working to increasing budget and increasing with rewards in suitable timing for the implementation training activities.



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تأثير بعض المتغيرات المستقلة على مشاكل التدريب الإرشادي الزراعي في اقليم كوردستان العراق من وجهة نظر الموظفين

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الخلاصة

استهدفت هذه الدراسة تحديد مشاكل التدريب الإرشادي في بعض المجالات ، تم ترتيب المجالات حسب أهميتها النسبية ثم ايجاد الفروقات في مشاكل التدريب وفقا لبعض المتغيرات المستقلة التي شملتها الدراسة ، تضمنت الدراسة (١٤٨) موظفا ممن شاركوا في الدورات التدريبية في كافة محافظات اقليم كوردستان العراق. تم جمع البيانات من خلال المقابلة الشخصية و بواسطة استخدام استمارة استبيان التي اعدت لهذا الغرض. للتأكد من الصدق الظاهري تمت عرض الاستمارة الى مجموعة من الخبراء في هذا المجال. استخدمت طريقة (الفا كرونباخ) لإيجاد معامل الثبات وكانت قيمته (٠,٩٣). اظهرت النتائج بان مستوى مشاكل التدريب الإرشادي كانت متوسطة يميل الى الارتفاع، وان مجال مشاكل العاملين احتلت المرتبة الاولى وكانت أهميتها النسبية (٥٧,٢٦%). بينما كانت مجال مشاكل التخطيط والتقويم في التدريب احتلت المرتبة الاخيرة وكانت أهميتها النسبية (٥١,٥٩%). اشارت النتائج بان هناك فروقات معنوية في مشاكل التدريب الإرشادي وفقا للمتغيرات التالية (الجنس ، التحصيل الدراسي ، التخصص الدراسي ، الرضا الوظيفي)، كما اوضحت النتائج عدم وجود فروقات معنوية في مشكل التدريب الإرشادي وفقا للمتغيرات التالية (العمر ، النشأة ، مدة الخدمة الإرشادية ، موقع العمل ، الاتجاه نحو التدريب الإرشادي ، القدرة على حل المشكلات). يوصي الباحث على ضرورة تقليل المشاكل في كل مجالات التدريب من خلال إعداد وتوفير الإمكانيات والمعدات للدورات التدريبية الإرشادية ، والعمل على توفير المتخصصين في الإرشاد الزراعي من خلال التعيين ، وزيادة الحوافز والميزانية لتنفيذ الدورات التدريبية، ومراجعة اسس ومبادئ التدريب الإرشادي من قبل المعنيين بهذا النشاط ، توفير المصادر المادية والبشرية اللازمة لتنفيذ النشاطات التدريبية ، و توفير مناخ ملائم للعمل من الناحية الاقتصادية والاجتماعية والنفسية.

الكلمات الافتتاحية: التدريب ، التدريب الإرشادي ، مشاكل التدريب الإرشادي