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# Evaluation of The Training Course Carried Out by ICARDA in The Conservation Agriculture for Some Agricultural Employees in The Northern Region- Iraq

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## ABSTRACT

The research aims to evaluate the level of training in general from the point view of the trainees representing some of the agricultural employees working in the northern region. To evaluate the level of training in each of the field of training : Trainees' competence - the subject of conservation agriculture - training methods and aids - the environment of the implementation of training and in each criteria of each field criteria, and then finding the effect of all trainees' characteristics in the evaluation of training level, to determine the differences in the level of training and finding the effect of all trainees' characteristics, as well as identify the problems that facing trainees at the course, and the suggestions made by the trainees. The research included all the trainees in the ICARDA training course on the subject of conservation agriculture, which is 25 trainees data were collected through a questionnaire after verifying its validity and reliability then analyzed by using the Regression, the Mann-Whiteny test, the Kruskall-Wallis test, the results showed that the level of training was high in general and that the field of competence of trainers came in first rank with a percentage of 56%, while the field of conservation agriculture ranked last with 89.5%,and the impact factor for the all trainees characters is 16% .The results showed no significant differences in the evaluation of training level according to the different characteristics of the trainees for each one, and the most important problems encountered by the trainees in the training course: the short period of reporting by the date of the beginning of the course, shortened the number of days of the course. The most important proposals of the trainees: the establishment of training courses in places where the technology is already applied, focus on the participatory approach used in the course and continued use it in the next courses.





## 1- INTRODUCTION AND RESEARCH PROBLEM

The world has witnessed major changes in all fields of life. Scientific and technological development has played a major role in bringing about these changes, The new technology has contributed to the emergence of many techniques, including the technology of conservation agriculture, which affected in many areas, including the field of agricultural extension, the educational staff agreed on the impact of these technologies in education, where it is noted for its significant impact on the roles of trainers and trainees (Muhaisen , 2006 : 1). One of the controversial topics today is how the power of evaluation tends to change behaviors could be affected by care and corroboration. Many evaluators requesting to make an irrational searches for quality and a contemptuous talk about corroboration and advancement, so far it's obvious that evaluators as human beings may extremely think about some matters and dedicate them in their

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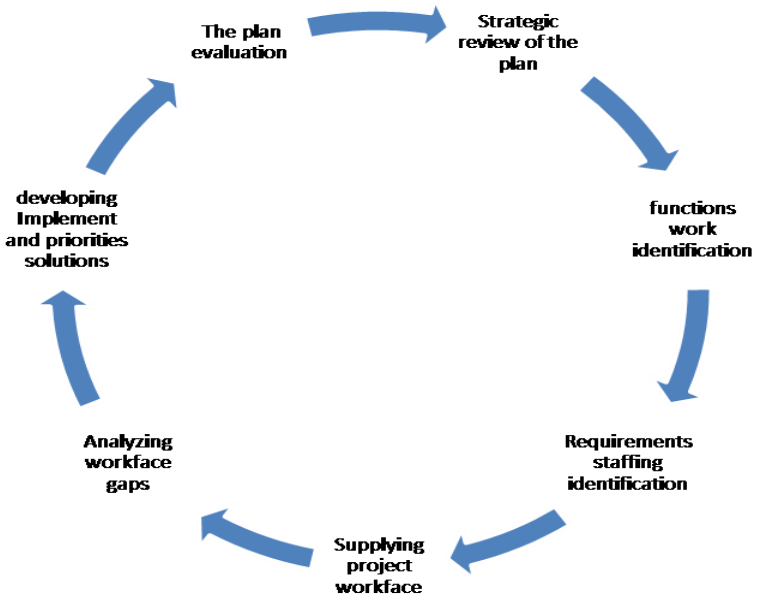
work.(Lundbevg , 2006 :31) Hence, the importance of training in meeting the needs of the vocational personnel and providing them with all the new knowledge and technical skills they need, it always needs to revitalize and renew so that the employee to complete his job to the fullest (AL abdul ghafoor,2005:123)Wise understanding of occasional relations interactive effects and the unsure levels associated with noticed motive or symptoms. This will normally include an understanding of underlying theory and\or a limit of experience that involve many examples of irregularities , interaction effects, and exemption to the criterions and conventional wisdom of an area(King , 2009 :4) We must overcome the weakness of interaction and communication between research institutions and extension, instead of relying on the basis of integrated local standards instead of the rule of random opinions ( Alshaar , 2006:135). Agricultural staff living within families engaged in agricultural activities are often forced or willing to cooperate with their families in agricultural activities. Mostly, agricultural staff have not received adequate training and are not skilled in any profession, so they can not actively be part of agricultural activities and are obliged to stay relatively unproductive(F.A.O, 2003 :1) Among the tasks and basic functions of agricultural extension is to transfer the results of research, recommendations and agricultural techniques to farmers and train them for the adoption and application in their fields in the case of the availability of efficient agricultural extension and media, the process of acceptance and adoption of new ideas and technologies receive speed in their validity and acceptance from one person to another according to the natural distribution curve, agricultural extension officers should study the opportunities and diffusion of technical aids and train their beneficiaries ( Altaraf, 2004:52-53 ). The primacy in this training lacks the evaluation which would be used as a base to make the training stuff grow for agricultural staff, so as to find their prioritized needs and step by step accomplish all the training stuff through the limited budget (Van,3013:7).When evaluating the organizational structure of an organization, the number of employees in the extension organization should be taken into account as well as the size and nature of the work being carried out in the near future to ensure the effectiveness of the extension education ( Safaa Aldin ,1991:79 ). We can explain that within this following shape :




**Shape 1. The steps of evaluation ( Safaa Aldin ,1991:79)**

In the evaluation, a relative weight or a weight value is given to an aspect of the activity in terms of completeness or decrease or in terms of right or wrong. This provision may be qualitative

or quantitative ( Jawamee ,2005:1 ). On the other side, if extension officers focus on technical content rather than the way they deliver messages, there must be additional effort to make them understand that this extension is equally important in agricultural management materials. This effort can come from management including experts in extension management, communication and adult education to provide the image with knowledge and skill needs in delivering the message. So that, it will illustrate the need for other training materials that must be present in the future(Aziza ,2011:147-152).The development of work force and succession planning was a subject which many thought was needed as a training or as part of an direction managers. Key reporter suggested that trainings and directions are focusing on developing broader governing and central leadership skills for managers. They tended to think that work force development and succession planning would take obligation of time , energy and resources not just on the trainer's sake but for the trainees as well(Lozier,2015:11) ,as well as in the assessment of an individual or a group of individuals to know the work carried out by these individuals and include these acts of strengths or weaknesses or factors of failure or success in achieving the desired goals to the fullest possible ( Alsubaie ,2005:4 ) ,through it the adequacy, effectiveness and impact of the activities are systematically and objectively verified in the light of their considered objectives(A.O.F.A.D,2000:145-153 ) ,and also the results of the evaluation in the management of work extension and access to the best decisions and the most appropriate alternatives and the renewal of a new beginning based on the changes that occurred in the behavior of employees ( Saleh and others ,2004:366 ) . the researcher will review the scientific studies that she was able to obtain in this field, including the study of Sadad and Suhaila (Sadad and Abdulqudir,1988:1) showed that the results of the research showed that the training activities of the farmers are low compared to other training activities. The most important obstacles faced by the workers are the problems related to the work environment than those related to the work content and that the criteria that occupied the top rank in the evaluation of workers is the scientific specialization and type of work and efficiency of performance ranked last. And also the study (Radha,2001:1) was carried out in four faculties of countries in Asia, Africa, Latin America and Eastern Europe, in which agricultural training programs were implemented and aimed at describing problems related to the evaluation of extension programs in addition, the importance of evaluating the extension programs from the point of view of the trainees has been identified. But the most important problems have been identified: the existence of several evaluation problems including :

Shortening the evaluation time for the training projects and training programs and the lack of tools used in the evaluation and the adoption of one method of evaluation, which are written tests as for the importance of evaluation, the results of the study showed that 75% of the trainees stressed the need to evaluate the extension programs in all fields. Alnaqaash ( Alnaqaash ,2009:1 ) was also found in his assessment of vocational training at the Nineveh Center for Agricultural Extension and Training more than 80% of the trainees evaluation for training was for the average training tends to rise, and the field of competence of trainers first ranked in the ranking of areas of evaluation with a rate of 82%, while the field of training methods and aids ranked last by 72% the study revealed a difference in the training results according to the specialization of trainees to the subject of the training course, while there were no significant differences according to the academic qualification of the trainees, the extent of their employment, and previous training. In addition to the study (Alabddasi and others ,2010:1), which aims to classify the teachers to levels according to their grades from the perspective of their students , to determine the training practices of the teachers and then to determine the relationship between the grades of the teachers and some independent factors. The results showed that about 77% obtained a good degree and above the result of their evaluation from the point view of their students and {9} paragraphs was the performance of the teachers acceptable and {11} paragraphs where the performance was good and that the teachers are qualified scientifically more than qualifies them from the educational point view and the results showed no correlation between the grades of the teachers and each of the following factors. Scientific Degree - Academic title , scientific Section , university Service , number of published researches , the administrative assignment of the teachers. As well as the study (Abbas ,2011:1) aimed at identifying

the quality of university education in terms of its concept and importance and methods of evaluation and criteria and the delivery of research there are many definitions that the researchers and those interested in the subject of quality to the difference of views and attitudes and concept of them the research also concerned with on the aspects that focused on quality evaluation from the perspective of reputation, objective indicators, inputs, processes, outputs and the full perspective and the satisfaction of the client and showed the results that the most important processes of the quality of the university administration involved in decision-making and investment optimization of human and material resources available and the creation of a good atmosphere for educational processes. In addition, The study (Alabbasi ,2013:1). The most important results were that high level of training and the field of competence of trainers came in first place by achieving 84.77%, while the field of methods and training aids in the last rank achieved 75.96%. The results showed that there were no significant differences in the level of training and the academic qualification of the trainees, the extent of their extension service, their previous training, their professional ambition and their desire for change. The researchers recommended the use of various methods of training and the use of audiovisual aids and carrying out other studies to assess the training of farmers. The study of (Alabbasi and Alchalabi,2014:1). The results showed that 68.8% of the trainees believed that the level of training in ICARDA is medium and that the field of training content scored the first ranking in the evaluation with a percentage weight of 84.2% while the field of competence of trainers in the final dust with a percentage weight of 56.5%. The results also revealed a significant correlation between the evaluation of training and the academic specialization, and previous training while there is no significant correlation with age, academic qualification, type of work - career experience of trainees,but measuring the impact of the program by evaluating its effectiveness on the target groups and the evaluation process takes many forms and ways to be implemented in different time frames, either during implementation or after completion of agricultural extension program .

It is important to evaluate the trainees for their trainers, but many trainers consider that the evaluation of the trainee to them is not important and on the contrary it helps to improve the performance of the trainer through informing the observations of trainees and the administration uses this assessment in the decisions of promotion and installation and adjustment in salaries, the evaluation also benefits the trainees themselves as a result of the feedback of the trainer, which is positively reflected on the trainee .

To check quality in training course which established by ICARDA , should answering the following questions :

1- What is the evaluate the training level in general from the point view of some agricultural employees working in the northern region - Iraq who ICARDA training ?
2- What is the evaluate the training level from the point view of the trainees in each field of training: Trainees' efficiency , the subject of conservation agriculture , training methods and aids , the environment of the implementation of training and in each criteria of each field criteria?
3- What is the effect of all trainee characteristics in the dependent variable( evaluation of training level) which include: Age , academic achievement , specialization , duration of functional experience , period of Previous training in the field of conservation agriculture , duration of actual work in conservation agriculture ,the duration of the training program adecquacy?
4- What are the differences in the evaluation of training level according to each characteristic of the trainees ?
5- What are the problems experienced by trainees in course training?
6- What are the suggestions submitted by trainees to develop future courses training?

**1-1: RESEARCH OBJECTIVES: -**

7- Evaluate the training level in general from the point view of some agricultural employees working in the northern region - Iraq who ICARDA training .

8- Evaluate the training level from the point view of the trainees in each field of training: Trainees' efficiency , the subject of conservation agriculture , training methods and aids , the environment of the implementation of training and in each criteria of each field criteria.
9- Find the effect of all trainee characteristics in the dependent variable( evaluation of training level) which include: Age , academic achievement , specialization , duration of functional experience , period of Previous training in the field of conservation agriculture , duration of actual work in conservation agriculture ,the duration of the training program adecquacy.
10- Identify differences in the evaluation of training level according to each characteristic of the trainees .
11- Recognize the problems experienced by trainees in course training.
12- Recognize the suggestions submitted by trainees to develop future courses training .

**1-2: STATISTICAL HYPOTHESES :**

1. There is no significant differences between training level of the trainees according to their age .
2. There is no significant differences between training level of the trainees according to their academic achievement.
3. There is no significant differences between training level of the trainees according to their specialization.
4. There is no significant differences between training level of the trainees according to their duration of functional experience .
5. There is no significant differences between training level of the trainees according to their period of Previous training in the field of conservation agriculture.
6. There is no significant differences between training level of the trainees according to their duration of actual work in conservation agriculture .
7. There is no significant differences between training level of the trainees according to their the duration of the training program adecquacy.

**1-3**: **PROCEDURAL DEFINITIONS :**

1. Evaluation training level : Is the judgment of the quality of functional performance of the imployees in the Northern region / Iraq according to some criteria .
2. ICARDA : Is the state center to the researchers , its task concentrate on improve agriculture in Northern region in general .

**2- RESEARCH MATERIAL**

**2-1: Search Area :** Selected Northern District / Iraq because the training course of TCARDA was carried out in this area , in which joined the employees in this district

**2-2 : Search Population and design :** The research included all trainees in the ICARDA training course on the subject of conservation agriculture (25) trainees, taken from many government Nineveh ,Arbil , Sulaimania ,Kirkuk and Duhok . The research was conducted for the period (January 2018- August 2018) For the purpose of data collection, a questionnaire was developed consists of four parts : the first part includes some characteristics of the trainees, by coding the categories for each variable . The second part of the questionnaire is the evaluation of training in four fields :each field consisting of a set of criteria. these criteria are: the competence of the trainees (14) evaluation criteria, the subject of conservation agriculture (7) evaluation criteria, the training methods and aids (5) criteria, the environment of implementation of the training (5) criteria, and thus the total of the evaluation criteria for the training is ( 33 ) criteria, the degree of achievement of each of these criteria has been determined through three alternatives placed in front of each criteria, which is highly verifiable, achieved with a medium degree and is achieved to a small degree. It has been assigned grades 3, 2, 1, respectively according to that, the theoretical scope of the training evaluation is limited to 33-99 degrees. The third part was an open question about the problems which faces the trainees in this training course and the forth part was open

question about trainees suggestion to develop future courses . The questionnaire was presented to a group of agricultural extension specialists to survey their views on the validity of the questionnaire's articles to achieve a verifiable validity and accordingly some paragraphs in order to extract the reliability by Cronbach'Alpha it was (0.878) which applied on the primary sample consisted of (20 ) trainees out of the research sample .

After the completion of the questionnaire as final data were collected from the comprehensive trainees in the course of the 25 trainees and after the data collection and classification, the following statistical methods were used to analyze the data: Arithmetic mean , Weighted average , Frequency , Man-Whitney
Test , Kruscal – Wallis test, Regression and Kolmogorov – smirnov

## RESULTS AND DISCUSSION

### First: Evaluate the level of training in general from the point view of trainees

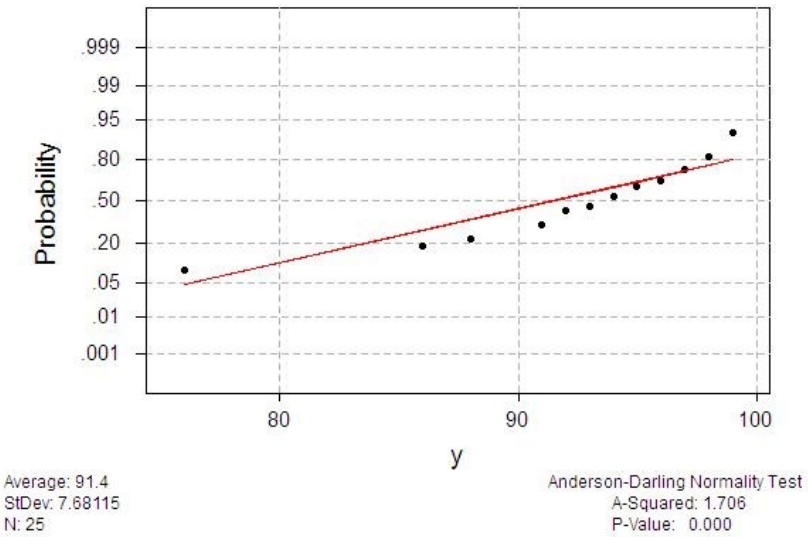
The level of training was classified into three categories using the theoretical range with the lowest score 78 the highest score 99 and the length of the class 22 , categories were divided according to actual range as shown in Table (1).

**Table (1) The level of training from trains point view**

| Evaluating the Level of training | The number | percentage |
|---|---|---|
| Low (78 - 84 ) degree | 4 | 16% |
| Middle (85 - 92) degree | 7 | 28% |
| High (93 - 99 ) degree | 14 | 56% |
| Total | 25 | 100% |

Mean = 91.400 St. = 7.6811

Table (1) shows that the training level in general from the point of view of the trainees is high. The average and high level is 100% . This may be due to the fact that the trainees who established the course are qualified in their work with expertise in their specialization and in transferring the technology to the trainees, this result consistent with study of Al-Naqaash (6), Al-Abbassi and others (2 ), and it differs with what was reached by Sadad and Suhaila (20). To test the probability level Normality test to assess the level of training Kolmogorov - Smirnov was used as it is shown in table ( 1 ) It was found that the distribution is abnormal and tends towards the right and the distribution is significant at the level 1% as shown in shape (2) .




**Shape( 2) Testing probability of evaluation of training level**

**Second : Evaluating the level of training from the point of view of trainees in each field of study In every standard of each field :**

Table (2) shows the rank order of the evaluated field according to their weighted arithmetical mean. As it was found that the field of trainees' competence ranked first with an average 2.84 degree and degree of verification 94% this result differs with the findings of ( Sadad and Abdulqadir,1988:1) and (Alabbasi and Alchalabi,2014:1) and agree with the findings of both (Alnaqaash,2009:1) and (Al-Abbassi and others,2013:1).

**Table (2) Rank-order of Training fields**

| fields of Training | weighted Arithmetical mean | Rank | % |
|---|---|---|---|
| Trainer's Competence | 2.840 | 1 | 94.6% |
| Environmental of training | 2.808 | 2 | 93.6% |
| Training methods and aids | 2.768 | 3 | 92.2% |
| conservation agriculture | 2.685 | 4 | 89.5% |

The results in Table (2) indicate that the percentages of achievement of training fields are generally high, which gives a good impression on the progress of training and the trainees working hardly in this training course .

**Table (3) Shows the ranking of the level of training in each evaluation criteria**

| NO. | Criteria of evaluation | mean | order |
|---|---|---|---|
| **1-** | **trainers competence** | | |
| | Ability to contact the trainees | 2.96 | 1 |
| | Commitment to specific times | 2.92 | 3.5 |
| | Answers to questions and inquiries | 2.92 | 3.5 |
| | Competence of the scientific material | 2.92 | 3.5 |
| | Strength of personality and self-confidence | 2.92 | 3.5 |
| | Ability to simplify the scientific material | 2.88 | 7 |
| | Ability to manage the debate | 2.88 | 7 |
| | Providing training subjects in an interesting way | 2.88 | 7 |
| | Recognizing each trainee in spreading conservation agriculture | 2.85 | 9 |
| | The ability of the trainer to connect the theoretical part to the practical | 2.81 | 10 |
| | Provide training supplies | 2.73 | 11 |
| | Sound clarity | 2.69 | 12 |
| | Motivate questions for trainees | 2.65 | 14 |
| | Use of training methods and aids | 2.65 | 14 |
| | Trainers familiarity with the trainees' characteristics | 2.65 | 14 |
| | Their ability to use an informal approach in training | 2.62 | 16 |
| **2-** | **Training implementation environment** | | |
| | Level of organization of the training course | 2.96 | 1.5 |
| | Training course Management | 2.96 | 1.5 |
| | Appropriate training place | 2.88 | 3.5 |
| | Suitable of the training course duration | 2.88 | 3.5 |
| | Suitable of the trainees residence place | 2.77 | 5 |
| **3-** | **training methods and aids** | | |
| | Efficiency of the methods used in the definition of trainees | 2.81 | 1 |
| | Modernity of methods used | 2.69 | 2 |
| | The relevance of methods used to the ability of the trainees | 2.58 | 3 |

| NO. | Criteria of evaluation | mean | order |
|---|---|---|---|
| | Variety of means used in training | 2.54 | 4.5 |
| | Extent of use of audiovisual aids | 2.54 | 4.5 |
| **4-** | **The subject of conservation agriculture** | | |
| | The importance of the subject to the trainee | 2.88 | 1.5 |
| | Clearly the subject of training for trainees | 2.88 | 1.5 |
| | The sutable of training subject to the ability of the trainee | 2.81 | 3.5 |
| | The modernity of the subject of training | 2.81 | 3.5 |
| | Subject connection to trainee's specialization | 2.58 | 5.5 |
| | Subject relevance to training needs of trainees | 2.58 | 5.5 |
| | The possibility of applying the subject to the current qualifications | 2.50 | 7 |

The max degree =3

Table( 3) shows that the maximum Mean of criteria in general is (2.96 ) and the less is (2.50 ), this indicate that training progress was good within the criteria which established to evaluate the training.

**Third : Find the effect of all the characteristics of the trainees in general on the dependent variable of the "Evaluation of Training Level ":** The regression equation was applied. The following results were found:

The regression equation is

$Y = 2.33 – 0.132\ X_1 + 0.187\ X_2 + 0.0140\ X_3 + 0.060\ X_5 – 0.128\ X_6 + 0.239\ X_4 - 0.180\ X_7$

S = 0.4022 R-sq = 18.1 %

The results of the analysis showed that the effect of the independent variables combined is 18.1% in the dependent variable " evaluation of training level ", this result indicate to that when I try to find the difference in the evaluation training level for each one , there is no any differences but the variables combined indicated to effect but with few ratio

**Fourth: Identify differences in the evaluation level of training according to some characteristics as shown in Table (4)**

**1 - Age:** to determine differences in evaluating the level of training according to the trainees' age, the Kruscal-wallis test was used and the value of calculated H is 0.30, which is less than the tabular value at a significant level 5% which means that there are no moral differences in the evaluation of the level of training according to the age of trainees and this result is consistent with the study (Alabbasi and Alchalabi,2014:1).

**2- Academic achievement :** to determine the differences in the evaluation the level of training according to the educational achievement, the kruscal-Walls test was used. The value of calculated H is 2.10 is less than the tabular value at a significant level of 5% this means that there are no moral differences in the evaluation of the level of training according to the academic achievement of the trainee. This result is consistent with the study of (Alnaqaash,2009:1), (Alabbasi and others,2010:1), (Alabbasi and others,2013:1),(Alabbasi and Alchalabi,2014:1).

**3- Trainee Specialization :** to determine the differences in the evaluation the level of training according to the trainee's specialization, the Krosscal-Walls test was used. The value of calculated H is 4.19 it is less than tabular value at level of 5%. This means that there are no significant differences in the evaluation of the level of training according to trainees' specialization this result is different with (Alnaqaash,2009:1), (Alabbasi and Alchalabi,2014:1).

**4- Duration of functional experience :** to determine the differences in the evaluation of the level of training according to duration of functional experience, the crosscal-walsal test was used. The calculated value of H is 0.79 it is less than tabular value at level 5%. This means that there are no significant differences in the evaluation of the training level according to the Duration of functional experience. This result is consistent with the study of (Alnaqaash,2009:1), (Alabbasi and others,2010:1), (Alabbasi and others,2013:1), (Alabbasi and Alchalabi,2014:1).

**5- Period of Previous training in the field of conservation agriculture :** to determine the differences in the evaluation of the training level according to previous training course period in the field of conservation agriculture, the Krosscal-Wallis test was used the calculated value of H is 0.43 it is less than tabular value at level 5% this means that there are no significant differences in the evaluation of the level of training according to the previous training period this result is consistent with the study of (Alnaqaash,2009:1) and( Alabbasi and others,2013:1) and differs with the study of Alabbasi and Alchalabi,2014:1).

**6 – Duration of functional experience :** to determine the differences in the evaluation of the training level according to duration of functional experience in the field of conservation agriculture, the Krosscal-Wallis test was used the calculated value of H is 0.80 it is less than tabular value at level 5% this means that there are no significant differences in the evaluation of the level of training according to duration of functional experience .

**7 – Previous training period :** to determine the differences in the evaluation of the training level according to previous training period ,Mann-Wittny test was used the calculated value of Z is 0.28 it is less than tabular value at level 5 % this indicates that there are no significant differences in evaluating of training level according to previous training period .

**Table (4): Differences in evaluating the training level according to the characteristics of trainees**

| Categories | Frequency | % | Median | Average rank | Calculated H | Calculated Z | P Value |
|---|---|---|---|---|---|---|---|
| **Age** | | | | | | | |
| ( 25-35 ) years | 13 | 52 | 3 | 13.1 | | | |
| ( 36-46 ) years | 8 | 32 | 3 | 13.4 | 0.30 | | 0.859 N.S |
| ( 47-57 ) years | 4 | 16 | 3 | 11.9 | | | |
| | | | | | | | |
| **Academic achievement** | | | | | | | |
| Institute | 3 | 12 | 2 | 10.8 | | | |
| College | 15 | 60 | 3 | 12.5 | 2.10 | | 0.553 N.S. |
| Master | 6 | 24 | 3 | 15 | | | |
| PhD | 1 | 4 | 3 | 15 | | | |
| **Trainee Specialization** | | | | | | | |
| Agricultural Extension | 7 | 28 | 3 | 13.2 | | | |
| Gardening | 3 | 12 | 3 | 15 | | | |
| Crops | 4 | 16 | 3 | 11.9 | | | |
| Mechanization | 2 | 8 | 3 | 15 | 4.19 | | 0.840 N.S. |
| Economic | 1 | 4 | 3 | 15 | | | |
| Protection | 3 | 12 | 3 | 10.8 | | | |
| Soil | 2 | 8 | 2.5 | 8.8 | | | |
| Agr.assesstance | 1 | 4 | 3 | 15 | | | |
| Plants production | 2 | 8 | 3 | 15 | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **Duration of functional experience** | | | | | | | |
| Little (1-11) Years | 18 | 72 | 3 | 12.7 | | | |
| Medium (12-22)years | 4 | 16 | 3 | 11.9 | 0.79 | | 0.670 N.S. |
| Big(23-33)years | 3 | 12 | 3 | 15.0 | | | |
| **Period of previous training** | | | | | | | |
| (4and less) months | 20 | 80 | 3 | 13.1 | | | |
| (15 -29) months | 4 | 16 | 3 | 11.9 | 0.43 | | 0.67N.S. |
| (46 and less) months | 1 | 4 | 3 | 15.0 | | | |
| **Duration of actual work in conservation agriculture** | | | | | | | |
| (15 and less)days | 13 | 52 | 3 | 13.1 | | | |
| (16 – 31) days | 9 | 36 | 3 | 12.2 | 0.8 | | 0.67N.S. |
| (46 and less) days | 3 | 12 | 3 | 15 | | | |
| Enough | 21 | 84 | 3 | 13.2 | | | |
| Not enough | 4 | 16 | 3 | 11.9 | | 0.28 | 0.600N.S. |

**Fifth : Recognize the problems experienced by trainees in the training course**: which ranked according frequency as shown in table 4

**Table (4) shows the ranking of the trains problems**

| The problem | Frequency | The rank |
|---|---|---|
| The time they were told before traveling was very few | 10 | 1 |
| It was not enough to prepare and arrange for the training course | 8 | 2 |
| Shortened the time of the training course itself, which led to prolong the period of the lecture in the training course | 7 | 3 |

**Sixth: Identify the proposals submitted by the trainees to develop future courses.** which ranked according frequency as shown in table 5

**Table (5) Shows the ranking of trains suggestions**

| The suggestions | Frequency | The rank |
|---|---|---|
| Manufacturing of homemade seeds with international specifications | 16 | 1 |
| Coordinate with the competent official authorities (Ministry of Agriculture) to provide facilities | 15 | 2.5 |
| Establish training courses in places where technology is already in place | 15 | 2.5 |
| Inviting the same people in subsequent sessions to increase their information and thus become efficient extension | 13 | 4 |
| Holding extension courses for conservation agriculture in agricultural departments, universities and villages. | 10 | 6 |
| Holding planting courses for conservation agriculture in Australia for a closer look at the technique. | 10 | 6 |
| View the results of the countries used for this technique, the dates of the session preferably the time of the culture and the time of harvest to cite the technology. | 10 | 6 |
| Print the subjects of the course in Arabic and distribute them to the | 9 | 8 |

| The suggestions | Frequency | The rank |
|---|---|---|
| trainees | | |
| Set up the field day to see the results of the experiments applied to the technology | 7 | 9 |
| Focus on the participatory approach adopted in the course and use it in subsequent courses | 5 | 10 |
| Distribution of posters on agricultural sections to illustrate the results of applied conservation agriculture | 4 | 11 |

## CONCLUSIONS AND RECOMMENDATIONS

1. It is clear from the results of the research that the level of training is high. We conclude that the trainees in the training course are competent and able to deliver information to the trainees and administrative experience in their field, the conduct of training was generally good in all areas and criteria.
2. The most important recommendations are based on research findings : is to conduct scientific surveys to determine the actual training needs of trainees help in planning their training programs according to these needs.
3. Establishment of a special unit in each agricultural directorate and each agricultural college in Iraq under the name of (training and academic development unit) to train the categories of training for all specializations, finally, the study recommends similar studies and other characteristics of the trainees that were not included in the research.

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## تقويم الدورة التدريبية المنفذة من قبل ايكاردا في مجال الزراعة الحافظة لبعض الموظفين الزراعيين العاملين بالمنطقة الشمالية. العراق

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**المستخلص**

يهدف البحث الى تقويم مستوى التدريب بشكل عام من وجهة نظر المتدربين والمتمثلين ببعض الموظفين الزراعيين العاملين بالمنطقة الشمالية كذلك تقويم مستوى التدريب في كل مجال من مجالات التدريب وايجاد تأثير جميع خصائص المتدربين في تقويم المستوى التدريبي وهي: العمر، التحصيل الدراسي، التخصص، الخبرة الوظيفية، مدة التدريب السابق، مدة العمل بالزراعة الحافظة، مدة كفاية البرنامج التدريبي . وتحديد الفروق في مستوى التقويم وفقا لبعض خصائص المتدربين. وكذلك التعرف على المشاكل التي واجهت المتدربين في الدورة والمقترحات التي قدمها المتدربين. وشمل البحث جميع المتدربين في الدورة التدريبية التابعة لايكاردا في موضوع الزراعة الحافظة والبالغ عددهم ( 25 ) متدرب ، جمعت البيانات من خلال استبيان بعد التأكد من صدقه وثباته وتم تحليل البيانات باستخدام معادلة الانحدار واختبار مان وتني واختبار كروسكال – والس ، اوضحت النتائج ان مستوى التدريب كان مرتفع بشكل عام وان مجال كفاءة المدربين جاء بالمرتبة الاولى بنسبة تحقق 94,6 % بينما جاء موضوع الزراعة الحافظة بالمرتبة الاخيرة بنسبة تحقق 89,5 % وان معامل التأثير لجميع خصائص المتدربين هو 18,1 % كما اظهرت عدم وجود فروق معنوية في تقويم مستوى التدريب باختلاف كل خصيصه من خصائص المتدربين واهم المشاكل التي واجهت المتدربين هي قصر مدة التبليغ بموعد بدأ الدورة اما اهم مقترحات المتدربين : اقامة دورات تدريبية في اماكن مطبق فيها التقنية فعلا واستمرار المنهج التشاركي المستخدم بالدورة في الدورات اللاحقة .

**الكلمات المفتاحية : تقويم الدورة التدريبية ، ايكاردا، الزراعة الحافظة ، العراق**