COGNITIVE TRAINING NEEDS FOR EMPLOYEES IN AGRICULTURAL EXTENSION IN SULAIMANI PROVINCE IN THE FIELD OF EXTENSION PLANNING PROGRAMS

A Thesis

Submitted to the Council of the Faculty of Agricultural Sciences at the University of Sulaimani in Partial Fulfillment of the Requirements for the Degree of Master in

Agribusiness and Rural Development

(Planning and Training)

By

Khansa Hameed Hamafaraj

B.Sc. in Field Crop (2012), Faculty of Agricultural Sciences,
University of Sulaimani

Supervisor

Dr.Sahab Aied Al-Aajeeli

Professor

2715 K. **2016 A.D**

بسم الله الرحمن الرحيم

﴿اقرأ باسم ربك الذي خلق ۞ خلق الإنسان من

علق ۞ اقرأ وربك الأكرم ۞ الذي علم بالقلم ۞

علم الإنسان ما لم يعلم ۞ ﴾

صدق الله العظيم

سورة العلق الآية (1-5)

Supervisor Certification

I certify that this thesis was prepared under my supervision at the University of Sulaimani, Faculty of Agricultural Sciences, as partial fulfillment of the requirements for the degree of Master of Science in **Agribusiness and Rural Development**, **Planning and Training**.

Dr. Sahab Aied Al-Aajeeli

Supervisor

Professor

/ / 2015

In view of the available recommendation, I forward this thesis for debate by the examining committee.

Dr. Rezhen Mohammed Harun

Lecturer

Head of Agribusiness and Rural Development

Faculty of Agricultural Sciences

/ / 2015

Linguistic Evaluation Certification

I hereby certify that this thesis prepared by **Khansa Hameed Hamafaraj**, has been read and checked. The grammatical, spelling mistakes and writing structuring were indicated to be corrected by the candidate to make the adequate corrections. After the second reading, I found that the candidate has amended all the indicated mistakes. Therefore, I certify that this thesis is free from mistakes**.**

Dr. Rezhen Mohammed Harun

Lecturer

Agribusiness and Rural Development, Faculty of Agricultural Sciences, University of Sulaimani

/ / 2016

Examining Committee Certification

We certify that we have read this thesis and discussed with the Student **(Khansa Hameed Hamafaraj)** in the content and its relevant, and in our opinion it deserved to be accepted for granting the Degree of Master of Science in **Agribusiness and Rural Development**, **Planning and Training**.

Dr. Najm Al-Din Abdullah Salim
Professor
College of Agriculture/
University of Mosul
/ / 2016
(Chairman)

Dr. Tahir Mohammed Laeq
Assistant Professor
Agriculture Technical College/
Sulaimani Polytechnic University
/ / 2016
(Member)

Dr. Rezhen Mohammed Harun
Lecturer
Faculty of Agricultural Science/
University of Sulaimani
/ / 2016
(Member)

Dr. Sahab Aied Al-Aajeeli
Professor
College of Agriculture/
University of Tikrit
/ / 2016
(Supervisor-Member)

Approved by the Council of the Faculty of Agricultural Sciences.

Dr. Karzan Tofiq Mahmood

Assistant Professor
/ / 2016
(The Dean)

Dedication

To the Nobel branch, and the Grace branch, and the Brilliant Jewel, and the Thriving Pearl, and the intermediary of the proud pledge, the last Strain of all the prophets, and their master, and the pride of the sons of Adam and their pioneer .... The **Prophet Muhammad** (peace be upon him)

To my Professor who is the owner of the credit for the completion of my studies .... **Prof**. **Dr. Sahab Aied Al-Aajeeli**

To those who lit the way for the sake of what I wished for and extended a helping hand to me **.... My father**

For the one who perished her youth and stayed for the nights and she is still supporter of my life and the apple of my eye and that by her consent, pleased my Lord .... **My mother**

To my beloved friend and companion who was there always in sick and happiness in the course of life. My lovely one who shared life with me with good and bad moment patiently.... **My adored husband**

A candle that illuminates my life .... my beloved daughter (**Kavy)**

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Khansa Hameed Hamafaraj

SUMMARY

This study aimed to determine cognitive training needs for the employees in the agricultural extension in the governorate of Sulaimani in the field of agricultural extension planning programs and to determine the correlation between the degree of these needs and some of functional and personal variables.

The population of the study consisted all the extension agents in the Sulaimani Governorate that included (137) employees, while the number of the employees under study has become (110) employees. And the study was conducted fully. Data were collected by a questionnaire consisted from two parts; the first: includes number of questions to obtain information on personal and, function, while the second part consisted (80) items to measure the cognitive training needs in the field of extension planning program, face validity was achieved through presentation of the questionnaire to a number of specialists in the field of agricultural extension, administration, psychology. The reliability had been calculated by using (Alpha-Cronbach Method) and the coefficients were (0.983, 0.80, 0.70) in the following aspects (the areas of extension planning programs in general, organizational climate and desire to renewal). The data of study has been analyzed by statistical methods used.

The results revealed that the majority of extension employees reported high training needs in fields of planning process of agricultural extension programs in general. The areas of planning extension programs according to their relative importance are following (the general framework of the planning process, organization and formation of planning committees, the actual planning of the extension program, writing an action plan program, evaluation of the planning procedures and the need for planning), four variables participated in explaining the variance in the cognitive training needs which are (previous extensional training, educational level, the service duration in agricultural extension and employment center). It becomes clear that there is significant correlation among the cognitive training needs and (the service duration in agricultural extension, employment center and previous

extensional training), while there is no significant correlation with the (age, educational level, academic specialization, desire to renewal, exposure to the sources of information and organizational climate).

The most important conclusions of the study are that agricultural extension employees in the governorate of Sulaimani have large deficiency in their cognitive in areas of the different extension planning programs, especially in the field of the general framework of the planning process and in the organizations and formation of the planning committees, The study also showed that the four variables studied and explained only (34.8%) of the need therefore we come to see the existence of other factors which is not covered by this study that affects the cognitive training needs of the respondents.

The research recommends that, the extension centers should set up intensive training courses that concentrate increasing information and cognitive in the areas of the extension planning programs for the employees in the agricultural extensions in the governorate of Sulaimani, and the work should be done to meet the training needs in the areas in which there is cognitive defect and the great need, especially in the area of the developing the planning process for the general framework through the preparation and implementation of specialized training programs which is the responsibility of the Ministry of Agriculture and the Directorate of Agricultural Extension Research and in the coordination with the Agricultural colleges and institutes in the Region.

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List of Abbreviations

FAO	Food and Agriculture Organization
NIOSH	National Institute for Occupational Safety and Health
AOAD	Arab Organization for Agricultural Development
SPSS	Statistical Package for Social Sciences

CHAPTER ONE

INTRODUCTION

1.1 Introduction and Research Problem

The agricultural extension, agricultural researches and the process of education and training are considered the three axes which integrate the process the development of knowledge and information and technology systems in the extension area and conveying it to the farmers, which is considered the main purpose of this process. It represents their educational needs and the problems of productivity and constraints that they encounter in all the field of the agricultural activities and the fundamental content of the planning in the agricultural extension and research (Al-Aajeeli, 2002). Without consideration and a great attention to this issue, it causes a desired positive change and also, the development of all its kinds won't be possible at all. Therefore, planning is a process of previous determination for what must be done in the future (Al-Samarrai, 1992). It an important area and a necessary way to achieve development in the various communities, with an emphasis on developing communities where they are in the urgent need of the planning, as planning for the developing communities represents one of main the necessities of life in those communities that undergo problems and under development in the various areas of socio-economic, cultural and political aspects. Developing the level of the agricultural and extension services was one of the most important recommendations of the World Food Conference in 2002, as it will contribute to fight the food-deficit in the present and the future (Coldevin, 2010).

The success of all the development processes depends on the efforts of many governmental and non-governmental agencies. As the most effective tool is the rural community development that can be done through the efforts that based on the study of the facts and identifying the problems and then draw the plans and programs are changeable in the light of the necessary changes of the individuals and institutions to achieve the desired goals by the agricultural extension tool (Safa Al-Din, 1991).

The study of the farmers' needs and the application of the public participation principle is the real guarantee for the success of the effective extension planning programs, and all they need require to be stated (Mari, 2001). The developmental institutions and agencies are in need of the increased attention by adopting plan, programs, activity and policies to develop the level of the services to segments of the rural community completely (Al-Tnobi, 1998). The diagnosis of the problems and determining the needs is considered one of the most important pillars of the success to develop the extension programs, especially in the actual planning stage for the programs, in this stage is considered as being the key major that increases the chances of success when it is been the applied (Mharmh, 2006).

Hence, it provides great opportunities for the success of the extension planning programs process, and guarantees the achievement of the established goals in the best ways possible and potential targets, which strengthens the trust between the agricultural extension agents and farmers because they feel that the activities and extension programs have come responsive to their interest and needs (Safa Al-Din, 1991).

The proper extension planning programs provides the evidence of the success of the extension organizations and efficiency of their staffs, as it contributes to the optimum utilization of its resource and potentials. Meanwhile, it avoids random waste of the time and the potentials of the not-considered decisions. A successful planning should include filling, coordinating and directing all resources and energies whether it would be human or material or significant availabilities at the present time and in the future to achieve the extension objectives of the organization in a minimum period of time and with the lowest possible cost (Al-Tnobi and Emran, 1997). It can be said that the success of the entire extension work depends on the success of the planning process which is carried out by participating employees in those organizations, that should be able to accommodate developments of the planning and implementation of a high degree of the skill and

competence and those people, in fact, can be the key element in the extension planning success (Al-Taii, 2012). Hence, the importance of the development of these individuals and increasing the aspects of their knowledge and skills should to be done through education and trainings (Al-Abassi, 1998).

So, the training is necessary to achieve the humanitarian needs and solving various problems that faces individuals in their works (Al-Saadi, 2006). Particularly, the employees in the agricultural extension have a specialty because of the characteristics of the rural communities in practicing activity and functions in them. Studied solutions can be reached as treatment in the extension training via planned educational process to be away from lacking in work performance. Meanwhile, the effect and result of this training will not accrue just the trainees but the organization they work for. Thorough training new ways can be introduced to boost the spirit of cooperation between the employees and lead to change in their attitudes towards their work positively (Mohammed, 2009).

The success of the training process for the agricultural extension agents in achieving their goals optimally requires an accurate identification of the needs for training and extension (Al-Saadi, 2006). Which is defined as a lack of efficiency of the individual that requires a change or add to his/her information or skills or trends or all of them to overcome the performance problems or regulatory, technological and human changes currently or in the future (Al-Shdaidah, 1999). Considering what represents the process of determining the extension and training needs in a precise scientific study, in which identifies deficiencies in knowledge and skills of the employees and the problems, which they face and ways of determining the required educational materials in the extension and put them in the extension programs or trainings to meet those needs (Al-Aajeeli, 2015). If the requirements of the training won't be identified properly and the programs won't put on its basis, this leads to the program's failure, and the training becomes some formal or

symbolic activity with a propagated goal, therefore, this causes to waste of time, effort and resources (Barnoti, 2001).

Many studies have been conducted in Iraq to determine the extension and training needs in the different areas of the agriculture and extension. One of them was (Al-Fariji, 2010) who have done a research to determine the level of the cognitive training need for the managers in the agricultural extension in the field of unit management which they were responsible for management and he found that they were in a great need for the cognitive training need in the Governorates of the central parts of Iraq, in the all areas which he studied. But (Al-Twajiri, 2014) found that the level of the training need for the agricultural employees in silos of Salahaddin and Diyala Governorates were average and tended to rise.

*But, in the Kurdistan Region, in spite of the establishing agricultural extension system recently, and in the Governorate of Sulaimani as one of the Governorates of the Region, where the agricultural organizational extension have started working since 1970 and they have held many successful training ,extension activities and events and the best of them were those that have been held in the nineties of the last century, and this was because of the logistical and significant support obtained by the employees in agricultural extension system in the Governorate by an international organization FAO (Food and Agriculture Organization) which have impacted on this area obviously. But the system is no longer works well because of the structural changes that took place on the extension system in the Kurdistan Region in 2008. This structural change implemented by the Ministry of Agriculture, this change caused deterioration in the system. Because of those changes agricultural linked to the Administrative and Accounting Department which belongs the General Directorate of Agricultural Research and Extension in Erbil and but technically to the General Directorate of Agriculture in Sulaimani.

* The researcher has made several visits to the Agricultural Directorate and Agricultural Extension in the Governorate of Sulaimani and held meetings with officials in the months of November and December 2014.

And the study of (Al-Abassi *et al.,* 2009) can be a proof for that weaknesses that agricultural extensions undergoing it currently, Al-Abassi mentioned his study that the measurements for the training needs of extension employees in some Governorates of the northern Iraq in the field of agricultural extension programs appeared that the most important needs are in the extension planning programs, particularly in the ways of developing an action plan, and ways to plan extension program in general and also in the collection of data from the local rural community. This could be an indicative of having defect in the extension planning programs process, despite of the importance of this process for the creation of an effective extension programs in the Region, as (Jaff, 2010) found in his study, in the organizational and executive problems of the agricultural extension system in the region. And based on the foregoing and in light of the importance of the extension planning programs processes that are became a reality randomly in the region through the absence of any organizational form of a planning process, where there is no department or a special organizational unit for planning, according to the of the survey and experience of the researcher in the directorates and what she has noted from the weakness in the extension planning programs processes in Sulaimani Governorate. And they should be determined through a careful identification of the training needs based on the use of accurate and valid scientific basis.

Hence, the lack of the previous studies on the identification of the training needs of the employees' knowledge in the agricultural extension in the Governorate of Sulaimani in the field of the extension planning programs. On the other hand, this study was conducted as an attempt to answer the following questions:

1. What is the level of the cognitive training needs for the employees in the agricultural extension in Sulaimani Governorate in the field of the agricultural extension planning programs in general?

2. What is the level of the cognitive training needs of the employees in agricultural extension in Sulaimani Governorate in each of the following areas of the extension planning programs: (the general framework of the planning process, the need for planning, organization and formation of planning committees, the actual planning of the extension program, writing an action plan program and evaluation of the planning procedures)?

3. What is the importance of the cognitive training needs for the employees in the agricultural extension in Sulaimani Governorate in every areas of extension planning programs?

4. What it is the relationship between the level of the cognitive training needs and some personal and functional characteristics of the respondents?

1.2 The Research Objectives

The research aims to achieve the following objectives:

1. Identifying the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in the field of the agricultural extension planning programs in general.

2. Determining the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in every areas of the agricultural extension planning programs as following: (the general framework of the planning process, the need for planning, organization and formation of planning committees, the actual planning of the extension program, writing an action plan program and evaluation of the planning procedures).

3. Identifying the importance of the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in every areas of the extension planning programs.

4. Determining the correlation relationship between the cognitive training needs of the agricultural extension employees in Sulaimani Governorate and each of the personal and functional variables as the following: (age, educational level, academic specialization, the service duration in agricultural extension, employment center, previous extensional training, desire to renewal, exposure to the sources of information and organizational climate).

5. Determining the correlation relationship between the cognitive training needs of the agricultural extension employees in Sulaimani Governorate in the area of the extension planning programs and as personal and functional variables combined together.

1.3 Justification of the Study

The training is an integrated scientific perspective in a long-term investment and it's not only a material cost, which is wasted despite alternative arguments. However, training is one of the most essential ways to create suitable manpower, at the term of the quantity and quality to provide individuals with the information and technical skills which are necessary for their present work performances and also in the future. Training can cause would lead to an adjustment in the behavior and attitudes of the agricultural workers by qualifying and allowing them to carry out future tasks that promote their career growth, which is reflected positively on the level of the overall performance (Al-Khalidi, 1997).

Its importance to conduct research on training, because it is the features of the contemporary organizations that are keen on to keep up with every change in the technological and administrative areas, and the organization will not be able to achieve its objectives without a developed manpower that is not being able to accommodate with change (Al-Salm and Salih, 2002).

It is possible to know the importance of the extension planning programs via the process of decision-making by the planning or the planners. This is related to the

identification of the status quo in the area that to be planned about, and identifying problems and needs that underwent and stayed in them, and arranging them according of the priorities, and setting goals to be achieved, and which represents the essence of placing the size of the educational efforts that will be made by the agricultural extension, and the direction of these efforts (Al-Samarrai, 1992).

So the importance of this study can be pointed out in the following points:

1. The use of an accurate scientific method to determine the training needs of the employees in the agricultural extension in the Governorate of Sulaimani.

2. It gives an accurate idea to the system administrator about the training process in the Kurdistan Region about the most important aspects the planning that is to be emphasized in the organization of the training courses.

3. The study provides the possibility to develop extension programs in the Kurdistan Region by raising the capacity of planning for the employees in the agricultural extension in the Region and thus, their contribution in the selecting of the realistic and thoughtful programs will serve the development of the agriculture in the Region.

4. The strengths and weaknesses of the employment training courses can be found via this study in the extension training centers in the Governorate of Sulaimani.

1.4 Hypotheses of the Study

To achieve the fifth objective of the study, following hypotheses will be tested:

1. There is no significant correlation relationship between the cognitive training needs for the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and age.

2. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and educational level.

3. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and academic specialization.

4. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and service duration in agricultural extension.

5. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and employment center.

6. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and previous extensional training.

7. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and the desire to renewal.

8. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and exposure to the sources of information.

9. There is no significant correlation relationship between the cognitive training needs of the extension employees in the Governorate of Sulaimani in the areas of the extension planning programs and organizational climate.

1.5 Procedural Definitions

1. The training needs: The required amount of the agricultural worker in the agricultural extension in the Governorate of Sulaimani for training in the extension planning programs specified in the questionnaire.

2. The employees of the agricultural extension in the Governorate of Sulaimani: All of the agricultural employees in the agricultural extension in the Governorate work officially or those who provide the extension and educational services to the farmers.

CHAPTER TWO

LITERATURE REVIEW

The First Part: The Theoretical Framework

2.1 Training Concept

Training is a systematic development of the knowledge, skills and behavior required by employees to do adequately on confirmed task or job (Shaheen *et al.*, 2013). Training is equipping individual for fruitful work and keep it on the level of desired service (Bashat, 1978). (Laing, 2009) defines training as an indicator to enhance superior skills, knowledge, capabilities and outlook of the employees that results in effective performance of the employees. ("NIOSH", 1999) defined training as communication directed at a defined population for the purpose of developing skills, modifying behavior, and increasing competence. Training can be regarded as an age long concept which performs the therapeutic function of shaping knowledge, skill and attitude that are required for effective performance of duties or assignment (Adisa and Okunade, 2005). (Cole, 2002) defines training as a learning activity directed towards the acquisition of specific knowledge and skills for the purpose of an occupation or task. (Al-Youssef, 2004) defines training as an organized effort aimed at developing the capacity of individuals and changing their behavior in order to advance specific goals. Training is an organized increase from the know-how skills and sensations needed for staff members to execute efficiently in the offered process, as well as, to operate in underling situation (Saleem *et al.*, 2011).

In view of the preceding definitions, the researcher can pin down the training as the process of acquiring specific skills to change attitudes, improving knowledge and developing skills needed for staff members to carry out their work effectively in order to optimize the relationship between the characteristics and expectations of the employee and the objectives of the organization and to become qualified and proficient in doing some jobs.

2.2 The Concept of Extension Training

The training of extension personnel contributes directly to the development of human resources within extension organizations. Training programs are directed towards maintaining and improving current job performance, while development programs seek to develop skills for future jobs (Stoner and Freeman, 1992). Training in the field of the agricultural extension does not differ from the general concept of the training but, the difference may be in its specificity and the position of the employees in the field of the agricultural extension, which aims to raise their competence in their work (Al-Saadi, 2006). (Sanders, 1966) have defined it as the education and pedagogical experience which is designed, via an agricultural extension to make employees ready for the extension service. Therefore, it is fully competent to meet the extension work needs which are determined in accordance with the needs of the leadership individual variables. (Al-Samarrai, 1988) has defined it as the process that is conducted by the extension organization through which helps the professionals in the field of the agricultural extension to be more efficient and capable of performing their current and future task through the development of a set of skills, information and trends through an integrated training program. (Kamath, 1961) has defined it as the familiarity of the employees of the agricultural extension with the philosophy of the development of society and the meaning of the content of the agricultural extension and knowing the expected results through the proper use of the extension and full knowledge of using extension methods and evaluating its effectiveness.

In view of the preceding definitions, the researcher can pin down the extension training as the process of educating and educational experiments carried out by the employees in the extension organizations in the field of the agricultural extension in order to acquire skills and knowledge and improve employees' knowledge and to make them more efficient and able in their work performance currently and the

future and also to change the negative attitudes and overall knowledge of using the extension methods and evaluating its effectiveness.

2.3 Benefits of Training

The training plays an important role among the administrative activities aimed at raising production efficiency and improving working methods, and perhaps the reason for this position at vary at the administrative levels, the effective role played by training in the development of human resources, which helps to accomplish the goals of the organization efficiently, as well as achieving a high level of personal satisfaction for individuals (Al-Zahabi and Al-Azzawi, 2005). According to (Palmer, 2002), (Al-Salm and Salih, 2002), (Abbas, 2006), (Noe *et al*, 2003), (Al-Aajeeli, 2015), (Mohammed, 2008) and (Al-Ghamidi, 2013) the importance of training in organizations includes:

1. Training the engineers provides an opportunity to cope with wrenching changes occurring around.
2. The training is a modern characteristic of the organizations that are keen to keep up with every change in the technological and administrative areas, and without developed manpower and capable to accommodate change, the organization would not be able to achieve its objectives.

3. The workers with different experiences and services in the organization are need in training and it is not limited to an employee or a position without the others. The mastery of new civil employee is needed to be made sure ensure for the new job that he/she would be in charge of it, and the old employee needs to increase his/her skills and management to work better.

4. Training stands out in self-capacity of director and well-being of employees' development, and works to create opportunities for growth and helps to solve their problems.

5. Training contributes to the rationalization of administrative decisions and raises the level of performance efficiently and effectively and also contributes to making self-management and the development of well-being among workers.

6. Development of individual and collective energies of the trainees through brainstorming or role-playing and other designed methods for development.

7. Training helps in the renewal and updating of information in accordance with the different variables in the environment.

8. Through training employees will perform their duties with a high degree of quality, speed and thoroughness which leads to ease of increasing the amount of production and improve its quality.

2.4 Training Objectives

The aim behind training employees is achieving cost effective high performance and good performance brings quality, higher quality implies lower costs and increased productivity, which in turn provides the firm with a greater market share and enhanced competitiveness levels (Deming, 1982). The main objectives of training according to (Mortaki, 2012), (Nuri and Kortell, 2011), (Al-Zahabi and Al-Azzawi, 2005), (Hammoud and Al-Kharsha, 2007) and (Al-Ghamidi, 2013) are considered the following:

1. To evaluate the participants' educational level, in order for them to become competitive professionals in the future.
2. The exchange of information and experiences among the participants in the training programs, benefiting from other programs, and how to apply modern management concepts.
3. The development of the positive trends for the trainee, including the development of a sense of the importance of success and excellence in work.
4. Reducing the supervision and the ongoing follow-up.

5. The preparation of the new employees, and preparing them to do their new work to the fullest extent.

6. Training reduces the expenditure, the training programs lead to a more return of its costs, if the employees are trained on how to use the machines, according to their assets and according to proper methods leads to a good deal of the reducing in the expenditure, materials and the lack of risk.

7. Training contributes to reducing accidents and work-related injuries and achieving industrial security organization generally.

8. Training increases and strengthens the performance of their skills, abilities and knowledge of the trainees.

9. Training helps to increase the capacity of employees to detect performance problems, obstacles and attempt to solve them.

2.5 Principles of Training

The training is based on some bases that are essential to guarantee the success of the process of training. These bases should be taken into consideration in the preparation of the various training programs. According to (Tawfiq, 2004), (Abu-Sheikha, 2010), (Maher, 2004) and (Al-Ghamidi, 2013) the principles of training include:

1. Purposeful: The training should target to achieve specific objectives. And the training objectives should be set by trainers and trainees.

2. Inclusive: The training should be inclusive for all categories of the employees of the different functional levels.

3. Continuity: This principle is achieved when the training starts at the beginning of one's career, and continues with them gradually to promote and develop in line with the career development of individual‘s requirements.

4. Realistic: This means that the training should meet the actual needs of the trainees and fit their levels.

5. Gradual: Gradual the training that is commensurate with what practiced by the trainee of the responsibilities, occupations and serviceability.

6. Timing: By considering implementation period times that is appropriate with period times of the trainees and their own personal and occupational circumstances so as not to contradict with the work requirements.

7. Sophisticated and Modern: And this is for the purpose that the training might function as a source for all individuals to receive what is new and up-to-date in the various areas of work via the latest methods and technologies of training.

8. Individualization and Personalization: The principle of (individualization) (individual differences among trainees) must be taken into account and the principle of (personalization) involving the individual in training to assess his/her constant needs Self-learning ... etc.

2.6 Types of Training

Most of the developing countries do not have effective extension services due to the fact that training of extension staff is usually inadequate and outdated. For instance, observed that most training efforts are concentrated on pre-service training, agricultural extension services aimed at assisting families to improve their living standard through increase agricultural production (Benor and Harrison, 1977). Two types of training, pre-service and in-service training are essential for producing capable extension employees (Chang, 1986).

2.6.1 Pre-Service Training

Pre-service training provides the initial job training, continuous upgrading of staff through in-service training is also necessary to ensure coping with the job changes and the varied needs of the clients (Raborokgwe, 1995). Pre-service training and the candidate is trained to work on local government before being allowed to attend

the service (Ezza Al-Din, 2001). Pre-service training, is preparation of individuals scientifically and practically so that they are qualified to do the assigned work to them when they join their jobs, such as the on field training for graduates of medical schools and educational colleges (AL-Ghamidi, 2013).

2.6.2 In-Service Training

In-service training may be described as any planned program of learning opportunities afforded staff members…for purposes of improving the performance of the individual in already assigned positions (Harris, 1980). In-service training may broadly be categorized into five different types (Halim and Ali, 1998). The five types are:

1. Induction Training: Which involves training new employees that are affiliated to the institution to perform the tasks aimed at helping the organization achieve its goals, and its purpose is to introduce new working methods and procedures applied in the organization (AOAD, 1997).

2. Foundation Training: This training is given to the employees to improve their overall skills like communication skills, coordination skills, leadership skills and also to understand their profession well and to gain knowledge regarding the administration (Van Dersal, 1962).

3. Refresher Training: This type of training does not generally benefit only individuals who have settled in their jobs for a period of a certain period of time. Knowledge and skills renovates usually resulting from the change in the means and methods of work, or changes in the areas that require adapting to new data. And therefore, it arranges training of personnel in order to develop their knowledge and skills and modify their attitudes to suit the new work requirements (Maher, 2004).

4. On-the-job Training: This kind of training is mostly provided to the employees by their superiors. The superiors do give formal instructions, presentations and involve the subordinated in discussions. By this way the employee gets an

opportunity to gain more knowledge regarding their work and develop new skills (Malone, 1984). On the job training helps employees to get the knowledge of their job in a better way (Deming, 1982). It is better for the organizations give their employees on the job training because it is cost effective and time saving (Taylor and Davies, 2004).

5. Career Training:

With the occurrence of promotion or , assigning for another post, there is a high probability in different skills and current knowledge of the employee to that knowledge and skills are required in the job that would be promoted to it, and this variation or distinctions requires the training process in order to fill that gap (Amin, 1998 and Maher, 2006).

2.7 Stages of Training

In order to make training active and fruitful, it must be based on accurate and effective study of the training needs of the organizations, which have been translated into programs and strategies that will achieve the goals and also meets the targeted needs, and training steps includes the following stages: (Guest and Kenny, 1983).

2.7.1 Planning Stage

The planning stage encompasses several activities, two of which-training needs identification and curriculum developments are very important (Halim and Ali, 1998).

2.7.1.1 Training Needs Identification

(Tylor, 1971) defined a need as a difference between a present condition and an acceptable norm, Any difference between desired status of learners and current status of learners equals a training need. In general, the identifying training needs step is recognized as one of the most important steps in training. This first step in

training process is primarily conducted to determine where training is needed, what needs to be taught, and who needs to be trained. Thus, without this step, there can be no solid prognosis to diagnose if the whole training process was correctly designed (Anderson, 1994, Bowman and Wilson, 2008). Training needs as a process of gathering, assessing and analyzing data to determine the training needs for an organization (Reed and Vokala, 2006). Training needs assessment process helps determine the priority of changes in knowledge, skill, attitude and behavior that will provide the greatest impact on achieving organizational or individual goal (Worku, 2010). McGehe and Thayer introduced the tripartite level of the training needs model and this model has been a great influence to other subsequent models of training needs (Arshad *et al.,* 2015). The three levels are:

1. Organizational Analysis

Organizational analysis determines where training emphasis should be placed within the organization and is based on the objectives of an organization. Concerning what one should do in analyzing an organization (Ling *et al.*, 2014). This level of training means analysis and focus on training in the organization and the steps to analyze the organization:

1. Identifying organized goals.
2. Analysis human element.
3. Analysis of efficiency indicators.
4. Analysis of the work environment.

The results of these analyzes are compared with the goals of the organization, these comparisons will highlight the gaps and where training helps and what are the necessary conditions for that (AOAD, 2007).

2. Individual Analysis

Individual analysis targets individual employees and how they perform in their jobs. Using information or data from an employee's performance review in determining training program needs is the most common method. If an employee's review reveals deficiencies, training can be designed to help the employee meet the performance standard. Employees can also be surveyed, interviewed or tested to determine their training needs. They can indicate problems they have or provide recommendations to solve problems. These interviews can be conducted on an individual basis or in a group setting (Brown, 2002). The researcher used this method in current researched.

3. Operational Analysis

Operation analysis involves the process of determining the contents of training should be in for an employee to perform a task or job in an effective and efficient way (Ferreira *et al*., 2015).

2.7.1.2 Curriculum Development

Training and its contents program are been identified, in the light of determining its goals, any topics that will train the employee on them, taking the logical sequence into account the logical sequence of these topics and the interrelationship between them that should be consistent with the sequence and coherence of information, ideas and knowledge that are meant be given to the trainee (Al-Haiti, 2003).

1. Job Analysis

Job analysis refers to the process of obtaining detailed information on jobs (Al-Mola, 2006). Job analysis is a process by which the collection of data and realistic virtual occupations about the nature and functions of the organization, and analyzing, summarizing and presenting it in the form of written lists showing tasks, responsibilities, competence and physical, psychological and social climate

that lead to it, and the potential risks and occupational diseases that accompany the performance, and then finding out and identifying the skills and human capacity that is needed for their performance (Aqili, 2005).

2. Task Analysis

Task analysis begins with job requirements and compares employee knowledge and skills to determine training needs. Examining job descriptions and specifications provide necessary information on expected performance and the skills employees need to accomplish their work. Any gaps between performance and job requirements indicate a need for task training (Brown, 2002).

3. Skills Analysis

The objective of a skills analysis is to identify and isolate the characteristics of a professional performing their work at an excellent level of proficiency. Training based on such characteristics will upgrade the average performance level of professionals to a higher level. Briefly, the skill-based approach aims to raise the performance of professional staff to a maximum level, rather than simply correct their shortcomings. Therefore, this level of analysis transcends simple knowledge elements and abilities. Instead it refers to bodies of knowledge, skills and attitudes. However, skills analysis also has a major drawback, it is expensive and time consuming (Labesse, 2008).

2.7.2 Implementation Stage

Implementation of the training program is the application to the trainees by using technology, methods, means and training various human, materialistic services that are designed (Hamdan, 1990). Transfer training program from the theoretical into the practical reality (Al-Haiti 2003). (Al-Ta'ani, 2002) Points out that there is a process that does training administration and it a series of events aimed mainly to the provision of supplies and necessary possibilities to create the appropriate

training and the environment in which they can achieve the objectives. Which includes the important activities such as determining the operational schedule of the program (in terms of dates of meetings, rest and their durations) as it includes training venue (and arranging it, and the preparation of its equipment), and daily monitoring of procedures of implementing the program step by step (Maher, 2006).

2.7.3 Evaluation Stage

Training evaluation is the last stage of the training process, which constitutes a coherent and integrated system of each phase, depends on its predecessor (Al-Nawijm, 2005). Evaluation of training as a process which attempts to determine as systematically and objectively as possible the relevance, effectiveness and impact of training activities in the light of their objectives set forth (FAO, 1991). (Abu Soud, 2001) said that the training evaluation is a systematic process of data collection that contribute to evaluate the success of the training program in achieving its objectives and the success of all procedures in achieving the goals. Hence the importance of training can be seen in the Assessment to identify shortcomings in training before they become difficult problems to resolve later on (Al-Shaqaoui, 1989). But (Talaba, 1988) defined evaluation of training program as: estimation of the nature of the changes that were brought about by training. The process of training evaluation is an important part mainly in the training process, as it determines the extent of the programs and efforts of training and the degree to achieve the planned objectives and the reasons that prevented the achievement of training programs for those targets and the exclusion of low-impact and identifying weaknesses in the programs efficiency and its treatment (Byars, 2004).

2.8 The Concept of Planning

Planning is a formalized procedure to produce an articulated result, in the form of an integrated system of decisions (Mintzberg, 1993). (Boyle, 1981) emphasizes that the process of planning is dynamic and constantly being adapted to the actual

situation. Planning as determining what shall be done (Newman, 1963). For (Myerson and Banfield, 1965) concluded planning is a course of action to achieve ends. Planning is a positive, dynamic, useful and effective term when the concepts involved are understood and applied (Vanderberg, 1965). Planning refers to the process of determining the end to be pursued and the means employed to achieve them (Sork and Caffarella, 1989). Planning means all things to all people (Bruton, 1984). According to (Forester, 1989) Planning is the guidance of future action in a world of intensively conflicting interests and great inequalities of status and resource. (Sork, 1991) has provided us with another way of viewing planning and the consequences of planning efforts: focus on failure-learn from the failures of others and from our own failures as well. Planning is conceptualized in the following ways: as a complex of interacting elements (Houle, 1974); as administration (Kowalski, 1988). Planning is ultimately a prescriptive, and not a descriptive activity (Catanese and Synder, 1979).

In view of the preceding definitions, the researcher can pin down the Planning as the process of decision-making and selection of the best alternatives to get to the goals of a particular during a specific period of time, a successful way to control the future and control it using the scientific method to mobilize and coordinate the efforts of human and material resources in the shortest possible time, and with minimal effort and cost.

2.9 Characteristics of Planning

The planning process is characterized by a set of general logical properties (Inskeep, 1991). According to (Ghanim, 2008) and (Kumar and Sharma, 2000) that can be identified as follows:

1. Interim Organized Approach: This means that it consists of a set of steps and activities of successive and sequential and interlinked.

2. Scientific and Practical Method: Planning is a scientific and practical approach and not an academic activity. Thus, planning is an activity to organize a thoughtful community to develop an optimal strategy to achieve the desired package and recognized goals.

3. Comprehensive: In the sense that it includes all the problems in its various aspects and deals with the same importance.

4. Primary: As the primary function of management planning precedes all other function. Without setting the goals to be achieved and line of action to be followed, there is no meaning of organizing, directing or controlling the activities of an enterprise.

5. A continuous Process: Planning is a continuous and never ending activity of a manager in an enterprise based upon some assumptions which may not come true in the future.

6. Based on Objectives and Policies: Planning involves setting of objectives to be achieved and determining the techniques for achieving those objectives i.e. policies, programs and procedures.

7. Selective Process: There are a number of alternatives which are available to a firm to achieve a particular objective or set objectives.

8. Flexibility: Planning leads to the adoption of specific course of action and rejection of all other possibilities.

9. Based on Facts. Planning is not guess work: It is conscious determination of and projecting a course of action for the future, and is based on facts, objectives and considered forecasts.

2.10 Advantage of Planning

There are many advantages of planning, few of such as advantages According to (Al-Karkhi, 2013), (Al-Tnobi *et al.*, 1995), (Ghanim, 2008) and (Bebarta, 2002) are summarized below:

1. Substituting indiscriminate methods of organization work and programming.
2. Encourages administration and its various branches to coordinate its actions and prevent this phenomenon of inconsistency and the intersection between different activities.
3. Ensures planning to mobilize all human, physical, and natural and administrative, political, spiritual resources, and ensures their good use to achieve goals, because of planning we can achieve the goals of the project, even though, any change happens in the departments that work will continue even if the managers and organizers who implement the project would be changed.
4. Contributing to develop appropriate solutions to objective economic, social, demographic and environmental problems.... etc.
5. Carrying out proper planning to achieve effective control at all stages of implementation, so as to ensure the achievement of the desired goals.
6. It provides opportunities to adapt to unpredictable changes in the environment.
7. It helps in cementing and synergizing the organization towards achieving the common goal.
8. It facilitates the process of decision-making in the organization.
9. It helps in improving the performance at each level of the organization.

2.11 Planning Principles

Good planning requires a methodical process that clearly defines the steps that lead to optimal solutions (Litman, 2013). According to (Al-Samarrai and Al-Jadiri, 1990), (Litman, 2013) and (Al-Samarrai, 1992) this process should reflect the following principles:

1. Comprehensive: All significant options and impacts are considered. Means taking into account the planning process for all activities in the community whether agricultural, industrial or educational.

2. Integrated: Individual, short-term decisions should support strategic, long-term goals. Not to any planning inconsistent or conflicting plans and programs on any two or more levels of planning, as if a local plan at odds with the general plan of the country, leading to damage or failure.

3. Flexibility: The planning must be flexible enough to be able to cope with it during the emergency conditions and developments which could not be planned as it may be placed while dealing with the real facts and data.

4. Cooperation and Coordination: Means unifying cooperated efforts unofficially to work towards a particular goal, as in is the case of unifying the efforts of citizens among themselves, or between officials and the people to accomplish a specific work.

5. Realism: In order to do planning process properly, its goals should be achievable within a specific time with the available possibilities, and planning should be stood on the basis of a strong facts and data which represent the reality of the region or the community which are willing to solve their problems and change it.

6. Timing: This means to determine the required time to implement each of the overall objectives and which without it, it won't possible to imagine, the period of the time that is needy to achieve the developing goals, and the major goals of the community.

7. Continuity and Renewal: Inasmuch for the continuity and the renewal of human needs and its meaning from the need to be satisfied constantly to maintain the survival and poise the behavior, so the actual planning which is consistent with that is to deal with this principle, and the plans and programs will not end with the

implementation of one of them and achieve the goals, but restarts again with other objectives and goals, and so on.

2.12 Types of Planning

Despite the contrast definitions of the researchers and writers of plan as a humanitarian activity held as an individual or integrated social system effort intentionally or unintentionally, the types of planning arise from the variation in the perception of planning activity itself, that is due to the multiplicity of bases that can be depended upon when dividing the plan into parts. Each group of learners may depend on one set of bases that provides the necessities for their studies, types of planning according to their standards for each shall be reviewed (Safa Al-Din, 1991).

2.12.1 The Dimension of Time

This is necessary to fulfill the objectives, can be either;

1. Short-term Planning: This is the planning that is usually up to one year. In other words, the outcome of this type of planning or program requires its goals and objectives to be achieved in a period of that time which is similar to the period of this type of planning, the goals of plans at this level represent interim objectives for the medium-term plans (Al-Samarrai, 1992). This means the annual development plans (investment programs) with clear objectives (Ghanim, 2008).

2. Medium-term Planning: This type of planning is often one for an average time period of (5) years. It is also possible that it may take (3-7) years. The goals for this type of planning represent goals for the details of long-term planning. This type of planning usually shows the transitions and changes that occur in the lives of individuals and communities and in the cases and the prevailing conditions as a result of the impact caused by the implementation planning of this type of plans (Al-Samarrai, 1992).

3. Long-term Planning: Long-term planning is vitally important in that it focuses attention on crucial future issues which are vitally important to the organization. It involves studying societal trends and issues, surveying current and anticipated learners' needs, and being aware of long-term research directions and changes in technology (Waldron *et al.,* 1998). The period of time for this type of planning ranges mostly between (10-25 years). Such a planning usually outlines the trends of development in the economic and social aspects of the country (Al-Samarrai, 1992).

2.12.2 The Geographical Scope

1. National: That is, it must include the country or the state and all its territories and regions for the purpose of including all areas that needed to be developed.

2. Regional: Includes an area or territory or group of regions within the same country, which vary with each other in terms of economic or social development which requires planning for each of them individually, to cancel this disparity and create a state of balance between them. This planning might be a separate, or a part of the National Planning (Al-Samarrai, 1992).

2.12.3 Inclusiveness:

1. Comprehensive Planning: This type of planning is represented by formulating an integrated plan at the community level and all its activities and sectors. This planning includes productive goals of the national economy and ways of creating necessary resources for it. It also requires studies that are based on identifying available resources, and knowing the linkages between aspects of the economy for the country (Al-Samarrai, 1992).

2. Partial Planning: This indicates the planning for a particular aspect of economic activity such as the agricultural production, industrial production, etc. This type of planning is sometimes depended upon when the data and information is insufficient or cannot be obtained, or when the technical competencies are unavailable to access

the inclusive planning. This may leads to negative consequences of neglecting one sector, or giving priority to a sector at the expense of others (Al-Samarrai, 1992).

2.13 The Concept of Extension Planning

In the extension literature, planning is one topic in which much information has been written. Extension writers have offered different opinions about the planning process. Most authors are more descriptive than analytical in nature, but practically all of them present planning as the basis on which extension programs are built, extension planning program involves several key concepts which are related to the effectiveness of the programs. These concepts are: people, needs, interests, priorities, resources, objectives and decision making (Torres, 1980). For (Sanders, 1966) the extension planning program is the process of making decisions about the direction and intensity of the educational effort of the Cooperative Extension Service. (Jans, 1952) pointed out: planning is the process whereby the local people and county extension staff cooperatively arrive at an understanding of: (1) the situation in which the people are located, (2) the real problems in the local situation, (3) the objectives of the local people in relation to the problems and (4) recommendations for reaching the objectives.

Omer has defined it as the process of studying the past and the present so that the prediction of future can be possible. in the light of this prediction, the human and non-human goals, needs, and possibilities are determined to take all possible procedures to meet these goals and needs, and determining both the method and the place to implement those measures in a timely manner (Omer *et al.*, 1971). (Al-Adli, 1973) has defined it as the process of identifying the problems and determining the goals and objectives that will be worked on to achieve through the efforts of educational guidance, it is also a continuous process in which the extension agents and their local leaders cooperate. (Al-Obeidi, 1984) has defined the extension planning as the process in which employees share the extension and the concerned residents share the extension services and the local leaders and

individuals. (Al-Farhan, 1973) has defined the process of the extension planning programs as a process that includes the participation of agricultural agents and the representatives of farmers, individuals, staffs and departments that are relevant to the extension work in the processes of collecting information and facts and studying them, and identify problems according to their importance and developing solutions and recommendations to address them, and assess the results of the implementation to continue the planning process.

(Muhalhil, 1972) has defined the extension planning as a means to the goal. This is characterized as a means that is organized and continuous in which community resources, whether material or human, are kept, and methods of its packaging and exploiting or its operating, directing and distributing are determined in a way that helps to achieve the desired goals of the programs in the shortest possible time and with minimal effort and cost, or with minimal loss in these resources. (Al-Tnobi, 1989) has defined it as a complex, systematic, continuous socio-economic process, political and a technological process that keeps up with the general climate in the community in which multiple entities involve to for the purpose of reducing the gap between what is existing and what is desired in the field of agriculture as a step to achieve rural development in a specific period of time using the available or the shall-be available resources.

In view of the preceding definitions, the researcher may define the extension planning as a complex socio-economic, political and technological process, a systematic means, and an on-going activity in which the residents and the agricultural agents, the extension individuals, and their local leaders participate to identify and define the villagers' problems and arrange them according to their priority and then formulate extensions goals and actions to be taken to achieve those goals.

2.14 The Principles of Extension Planning

According to (Boyle, 1965) there are eleven principles which were selected and suggested as guideposts for program planning groups in the Cooperative Extension Service They are:

1. Over-all objectives of the agency should be considered.
2. Educational needs of the potential program participants should be considered.
3. Interests of the entire community should be considered.
4. A wide range of resources should be given consideration.
5. The planning group should include local citizens who are potential participants in the program.
6. Democratic processes should be used wherever possible in planning the program.
7. Various methods which might be used in reaching the objectives should be explored in the planning.
8. The program planning process should be continuous.
9. The program planning process should allow for flexibility.
10. Provisions should be made for appraisal and evaluation of the program.
11. The planning group should coordinate its planned activities with those of other adult education agencies.

2.15 Planning Objectives

(Heady, 1952) pointed out about the extension objectives: The end here is not one as many extension employees suppose, of establishing goals for farm people but of providing more complete information so that families can better formulate their own scale of values. (Beavers, 1962) believe that program planning is a means for achieving four overall objectives:

1. Developing an extension program based on the problems identified cooperatively by the people and by the extension staff members.

2. Providing a favorable climate for action in regard to the problems identified.
3. Developing leadership abilities among those involved in program planning.
4. Providing a basis for the evaluation of the accomplishments.

2.16 Stages of the Extension Planning Programs

The stages of the extension planning programs indicates a series of the actions and events in which extension employees and whoever of the specialists concerned with the agricultural extension is involved and those for whom does the agricultural extension functions in the following steps: (Al-Liyla and Osman,1987).

2.16.1. The General Framework of the Planning Process

This indicates the process of setting up (the philosophy, objectives, policy and approaches of planning). Generally, the higher management of the agricultural extension is responsible for the final wording of its general framework, its components, and description as required. The first phase represents the basic premise for the subsequent action planning. It is not possible to guarantee a successful planning process unless it is made sure that the extension employees have participated in developing the four components of the general framework, and received a final form of the framework, and understood the general framework clearly and sufficiently. It is also necessary to take into account the views of the local people (or their representatives) in setting up these components, and the need to understand them, even to the minimum extent, especially for the participants of the planning process (Al-Samarrai, 1992).

2.16.1.1 The Philosophy of the Extension Planning Programs

Philosophy in general means humans' attempt to clear thinking (Omer, 1977). According to (Kelsey and Hearne, 1963) the basic philosophy of extension education is to teach people how to think, not what to think. Extension's specific job is furnishing the inspiration, supplying specific advice the technical help, and

counseling to see that the people as individuals, families, groups and communities work together as a unit in blueprinting their own problems, charting their own courses, and that they launch forth to achieve their objectives. Sound extension philosophy is always looking ahead**.**

The philosophy of the extension planning programs in the extension work traces its roots back to the variables and the values that laid the rules of the extension education programs. This is because it is clear that the purpose of the extension education services is to provide opportunities for continuing education to all the extension members (Safa Al-Din, 1991). The extension planning philosophy is parallel to the philosophy of extension service, which depends mainly on the philosophy of education, and the philosophy of upbringing and educating humans which is based on orientating the individual, and modifying or changing their behaviors via a systematic educational process based on respecting their dignity, freedom, intellectual capabilities, and intelligence, and providing equal opportunity for everyone to show their ability to manage their own affairs and the affairs of the society where they live in. Usually, the philosophy of planning is set up by the central supreme authorities in the extension service (Al-Samarrai, 1992).

2.16.1.2 Objectives of the Extension Planning Programs

(Legans, 1967) defined objective as a direction of movement. Objective is the criteria by which content is outlined, materials selected, teaching procedures and learning experience developed and progress toward accomplishment and accomplishments are evaluated (Sharshar, 1988). The goals need to be formulated precisely, specifically and clearly, as they will prepare educational goals. At the same time, the outcomes for these goals should be possible to measure. That is, it must be possible to determine the type of the behavioral changes that will occur in the behavior of the learners (Safa Al-Din, 1991). It is assumed that the objectives are consistent with the reality of the individuals, and with the available resources. It is also expected that these goals are in line with the general objectives of

development and the plans that are depended on by the State (Al-Samarrai and Al-Jadiri, 1990). The objectives of the agricultural extension are divided into the following key levels;

1. Fundamental Objectives

These are all the inclusive objectives of society. Some examples of this type of objectives are better life, better citizenship, democracy, development of the individual, etc.., the fundamental objectives of extension is to teach people to determine accurately their own problems, to help them to acquire knowledge and to inspire them to action out of their knowledge and conditions (Al-Doski, 2014).

2. General Objectives

These objectives share a general description as compared to the following level of goals, and more specifically and accurately to the previous levels. This level of goals are directly associated with the activities and efforts of the extension service. These goals are more general and upon which the goals for extension programs are set up for the purpose of improving the quality of life of the community, raising the level of rural families, and the development of the spirit of leadership, rural communities and services in those communities (Al-Samarrai, 1992).

3. Working Objectives

These are the specific and accurate objectives. When these objectives are achieved, that means some other goals are achieved. These objectives aim at the agricultural extension in terms of raising the production proficiency for any plant products or farm animals through the use of one or more than one technical style, and by teaching those styles to the local individuals and cooperating with them locally (Al-Samarrai, 1992).

2.16.1.3 The Policy of the Extension Planning Programs

(Kincaid, 1962) has defined the policy as the mean through that can be transitioned to the general act stage in which the subjective goals are achieved. Policy is the

means by which the pedagogical extension goals are set up by the extension organization so as to be achieved. It is an approach which planners take as a model, and directs the behavior and conducts of the employees in the implementation of the program. It is certain that extension organizations are unable to achieve their goals the in specified period time, unless of having clear policy to be followed the path towards the goals set (Al-Samarrai, 1992). The general policy of the extension planning can be represented through the public participation and in which the participants get a chance, freely and democratically to work, share opinions, cooperate, and appreciate the efforts of each other (Al-Samarrai and Al-Jadiri, 1990).

2.16.1.4 Approaches in the Extension Planning Programs

(Kincaid, 1962) has defined the approach as an organization of work in the processes of the planning programs through participation in planning committees. When the policy is represented by the public, the approaches then means the ways of implementing the participation, whether implemented formally or informally, and ways that be carried out by them, and the timetable in which the approaches will be implemented (Al-Samarrai and Al-Jadiri,1990).

2.16.2 The Need for Planning

This Includes confirmation, publishing and justifying the importance of the planning process and giving it legitimacy among the concerned groups, entities and individuals involved in the educational extension programs. This phase could also be considered as an entrance and a transitional step to the efforts of planning to local levels (Al-Samarrai and Al-Jadiri, 1990). But in order to complete this phase and ensure its success it is supposed to introduce two main areas. Namely, the knowledge of the previous planning activities to ensure all attempts that are made in the field of planning, as well as to identify the success and the progress that has been accomplished, and weaknesses or failures that have occurred and the reasons that have led to each of these two cases, and the methods and procedures followed

in the work, with a full estimation of the current situation, in order to get started from that spot toward improvement and change. The second area is to determine the scope and extent of the planning activities for the future. This requires what it takes within the knowledge of the planning activities of other development agencies and the related organizations. At this stage, it is necessary to take into consideration the need that may appear in the future, in order to visualize the responsibility and the duty of each of the extension organization and other organizations and entities, and the quality of the required coordination for the development work and ways of working it out (Al-Samarrai, 1992).

2.16.3 Organization and Formation of the Planning Committees

This refers to the human and logistic resources that are at hand to be allocated for the planning process and this could be done by organizing human resources that consists of employees and concerned individuals who work in the agricultural extension. Classifying and qualifying employees and dividing them according their levels are necessary. Planning committees are been formed through contribution of local people, when the principle of public participation applied on them raise their ability and competence (the official version of public participation). While, the logistic resources can be determined through studying their qualities and quantities to accomplish desired goals during planning or future implementation (Al-Samarrai and Al-Jadiri, 1990). The committee means a group of the concerned or elected individuals. And their responsibilities are to do a particular job. There are many types of the committees divided according to the nature of the duties and tasks assigned to them, or on the basis of career: one may be a single function or multifunction, and according to the time (period) whether they are permanent and temporary committees, and in the light of its formation on official and non-official committees (Al-Samarrai, 1992). (Vanderberg, 1965) thinks that the quality and quantity of contributions from planning committee members increase when special orientation is provided to them and provisions are made for various members to probe, study and analyze specific program areas. One critical aspect in the

effectiveness of the county planning committee is the characteristics and qualities of its members. In that respect, (Richert, 1966) contends that the mere representation of people and interest in program planning committees is not enough. The representatives should be individuals who exhibit leadership traits, whose perspective goes beyond their own group boundaries and who are interested in the work of the program planning committee. For (Pesson, 1966) the selection of the committee members is not a critical issue since they may be educated for their functions and duties. The greatest responsibility in building extension program goes for the agricultural agent: Their responsibilities are to collect general information and facts about the area which are helpful in the processes of identifying problems, selecting members of the planning committees, training them if necessary, keeping in touch with the members of the committees, planning for and attending periodic meetings of committees, consulting with the representatives of other entities, forming necessary committees and subcommittees, giving continuous awareness of the needs and problems of the farmers, and cooperation with the specialists in showing the conditions surrounding the problems until they will be prioritized on a scientific basis. Boone confirms the role of the local leaders in the construction of the extension programs that they have an impact and influence on their followers from the farmers, as they made up the values and the beliefs and sentiments of their followers. The nature of their leading can be formal or informal as these leaders usually have the power, or force to grants or forbid (Al-Tnobi and Emran, 1997).

2.16.4 The Actual Planning of the Extension Program

After setting up policies, methods, goals and philosophy of the planning, and the reviewing of the sources and organizing the planning groups, the actual planning of the extension program starts (Al-Obeidi, 1984). The decisions related to the existing reality, its needs and problems are taken to get rid of the problems and overcome them. The stage includes all the efforts and activities through which the needs and problems that the locals suffer from are identified. Also, all appropriate

ways and methods are used to collect facts and data and to analyze them, and to take necessary decisions to sort out the problems in accordance with their priorities in influencing people's lives and the society, and to arrange the problems priority basis. Then, the objectives to reach are set. The planners need to follow the following steps:

1. Data-collection.
2. Analysis and interpretation.
3. Determining of the problems.
4. Establishment of the objectives.
5. Coordination with other agencies (Al-Samarrai, 1992).

2.16.4.1 Data-Collection

The process of collecting facts or data related to the status quo in the area, the situation and circumstances of the population is considered as an important piece of information upon which a good extension program is built. The more collected facts concerning with a specific issue which needs to be solved are provided, the better it is, on the condition that provided facts will be irrelevant because these fats becomes an obstacle for the planners. The reality-knowledge process includes a complete study of the natural and human resources, and individuals' behaviors and activities which were failure in the previous extension program. The most important facts that need to be collected are the ones related to soil and water resources, irrigation methods, methods of transportation between the region and other towns and villages, agricultural exploitation system, and land ownership ...etc. The information is collected from various sources as the primary sources. It is collected from individuals directly through the individual interviews and questionnaires...etc. Or, the information is collected from secondary sources through official reports, studies, and agricultural extensions' reports...etc. (Al-Samarrai and Al-Jadiri, 1990).

2.16.4.2 Analysis and Interpretation

The process of the collected data analysis is not less important than the process of collecting the data itself. Without an accurate analysis, the collected data becomes only facts-having no sense or content. The ability to obtain the data and to analyze them in a way that make them easier to use and make a use of the data to recognize the actuality of a situation and a nature of problem, and this is important in the process of planning an extension program (Al-Adli, 1973). This includes a complete study of the natural and human sources, and people's thinking, conscious or executive behaviors to use their resources, possessions, and dealings. The extent of people's competence in this also means a study of de facto potentials which can be used to carry out an extension program successfully (Omer *et al*., 1971).

2.16.4.3 Determining of the Problems

After the completion of the data analysis and interpretation related to the present situation process, it is compared to the results of the data of the desirable situation. This is to show the extent of the disparity and variation between both situations and it is called a gap. The gaps represent problems or needs of people and accordingly people's problems and needs are identified (Al-Adli, 1973). Because of the big number or problems and needs that the rural communities suffer from, the planning committee should think of them as priority and deal with the most urgent and affecting problem on individuals or community. These problems can be overcome and resolved through the available resources in accordance with the efficiency and capacity of the employees of extension, and the economic, social, and educational capacity. On the other hand, problems are considered as extension opportunities, for which actions should be taken by the extension employees (Al-Samarrai, 1992).

2.16.4.4 The Establishment of the Objectives

After identifying the problems, the focus would be on the intended extension objective and on the flexible means that lead to the objective. Through the setting

goal, it would be clear the mentors what they trying to reach. While setting goals, they need to be put in order according their importance and primacy, and because goals are means, while one of them would be achieved, another would be reached relatively. In order for the objectives to be correct, they should be agreed upon by the extension employees and mentors; they should also be specifically based on locals' needs, desires, and intended behavior change, and should be formulated with precise and obvious expressions (Al Samarrai and Al-Jadiri, 1990).

2.16.4.5 Coordination with other Agencies

The rural areas were paid a great attention by many groups and organizations working in the field of development as well as the agricultural extension system. In which have their own programs that serve all of the areas in which developments can be responsive to all long and short term goals and that depend on the available human and logistic resources locally. So it became necessary for the planners to show interest in the agricultural extension programs in coordination with other relevant sides, and make sure to complete the case of coordination prior to the completion of the actual planning procedures and before concluding with written document (Al-Samarrai, 1992).

2.16.5 Writing an Action Plan Program

Kelsey and Hearne describe a plan of work as an outline of activities so arranged as to enable efficient execution of the entire program (Kelsey and Hearne, 1963). This means the drafting of the program document which returned has already taken decisions in the previous phase. It includes a complete description of reality of social and economic aspects in the geographical area, with the main concerns of the populations' obstacles and their needs. Furthermore, it involves the available opportunities for the development with representing solutions to the problems, objectives and their alternatives. The preparation and writing program document is the responsibility of the extension employees in coordination with the rest of the

members of the planning committee. The document must be formulated accurately and written in a comprehensible language by the extension agents (Al-Samarrai, 1992).

And when the document program got readied, it creates the content bases of the extension the action work of the agricultural extension employees who were employed at the local level (Al Samarrai and Al-Jadiri, 1990). It means to recommend what should be done in accordance with the extension to develop the action plan based on the study that we conducted on the status quo and it demanded extension planning program with determining the implementation process of the extension action plan with working procedures that includes the educational objectives to be achieved and educational tasks to be done in order to bring change to the extension agents and the public extension agents that needed to be instructed and educated and show them to the people who implement the extension process, and with collaborators, and others who contribute with them and to identify ways and means and extension aids that will be used during the operating extension and identifying places where extension process will be implemented in them as well as a schedule of the educational activities intended to be done and in the end the work evaluation and the results (Al-Samarrai, 1992).

2.16.6 Evaluation of the Planning Procedures

Evaluation may be thought of as a process by which the values of an enterprise are ascertained or an analysis by which one is able to understand and appreciate the relative merits or deficiencies of persons, groups, programs, situations, methods and processes (Kelsey and Hearne, 1963). Evaluation is the systematic application of scientific methods to assess the design, implementation, improvement or outcomes of a program (Rossi and Freeman, 1993). Program evaluation is the determination of the extent to which the desired objectives have been attained or the amount of movement that has been made in the desired direction (Boyle and Johns, 1970).

Evaluation is a continuous process that starts from the first stage of the planning and continues until the achievement and the implementation of the planning process. That is, there are two types of the evaluation: Periodical evaluation that shows the extent of the completion of each event or activity and its strengths and weaknesses or deficiencies in order to be avoided in time, And final evaluation shows the achieved goals, and the effectiveness of the program in reaching the desired goals, upon the results which we direct towards the planning of the future extension programs (Al-Obeidi, 1984).

Purpose of Program Evaluation

1. Demonstrate program effectiveness to funders.
2. Improve the implementation and effectiveness of programs.
3. Better manage limited resources.
4. Document program accomplishments.
5. Justify current program funding.
6. Support the need for increased levels of funding.
7. Satisfy ethical responsibility to clients to demonstrate positive and negative, effects of program participation (Short *et al.*, 1996).

2.17 Models of the Extension Planning Programs

Several researchers have applied a variety of models for the extension planning process according to their expectations of the process, for example Matthews model, Pesson model, Boyle model and others. It should be clear in advance that all of these models are consistent in the actual planning stage of the extension program, even though they basically differ from each other in the number of steps of each of those models. A model is a theoretical concept that determines or explains the basic components of the planning process and the relationship between those components. Below is a summary of some of those models (Al-Adli, 1973).

2.17.1 Pesson Model

Consists of the following three stages;

1. Extension Planning Program Stage: This stage includes the following processes which are a series of tasks, activities, events, and activities in which the extension agricultural agents, specialists and all the involved employees;

a. Collection of facts about the status quo.
b. Specifying the situation.
c. Specifying the goals and the problems.
d. Specifying the objectives.

2. The Implementation of the Program and this Includes;

a. Establishing action plan.
b. Implementing the work plan.
c. Reporting the progress in the implementation of the program.
d. Reconsidering the program.

3. Evaluation. It is a continuous process that starts from the first step of extension planning program until the end of the process of planning and the implementation of the program (Pesson, 1966).

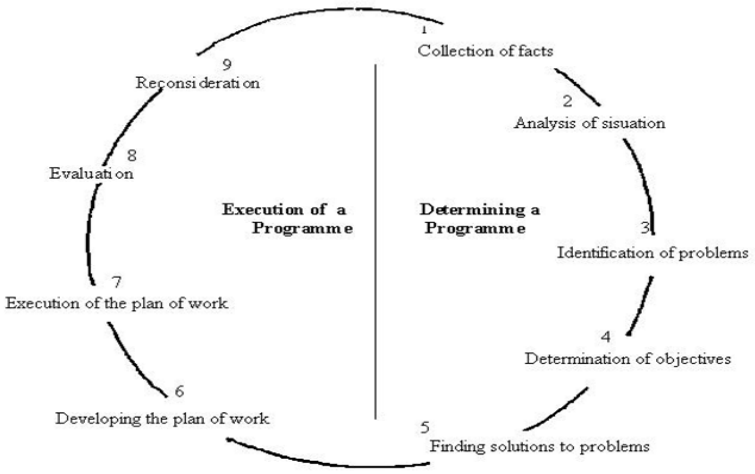


Figure 2.1: Pesson Model for Extension Planning Program (Pesson, 1966).

2.17.2 Leagans Model

Leagans confirms that the process of program development consists of the following five stages;

1. The situation.
2. The objectives.
3. The teaching and action plan.
4. The evaluation of the educational activity.
5. Reconsideration (Leagans, 1962).

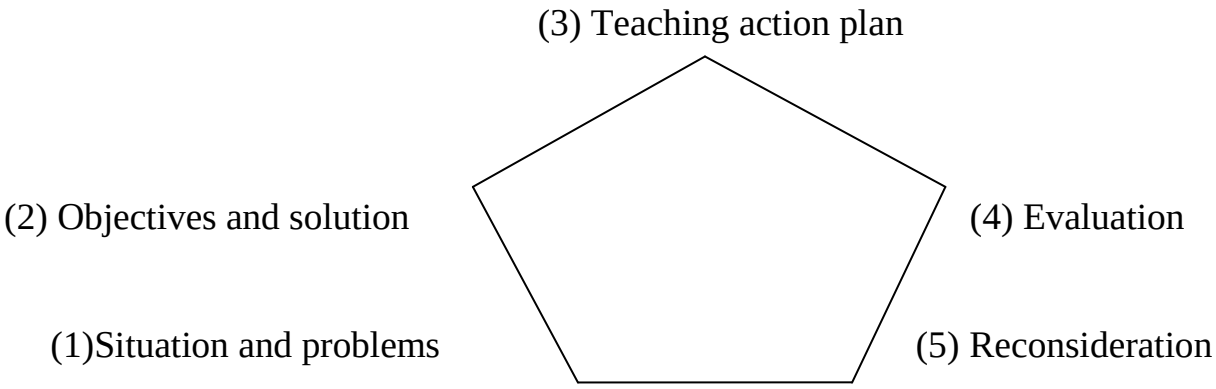


Figure 2.2: Leagans Model for Extension Planning Program (Leagans, 1962).

2.17.3 Mathews Model

Mathew's model consists of the following seven basic steps:

1. Analyzing the reality.
2. Organizing the human and material resources for planning.
3. Extension planning program process.
4. Planned program.
5. Preparing extension work plan.
6. Implementing the Extension plan.
7. Estimating the achievement through assessment (Al-Tnobi and Emran, 1997).

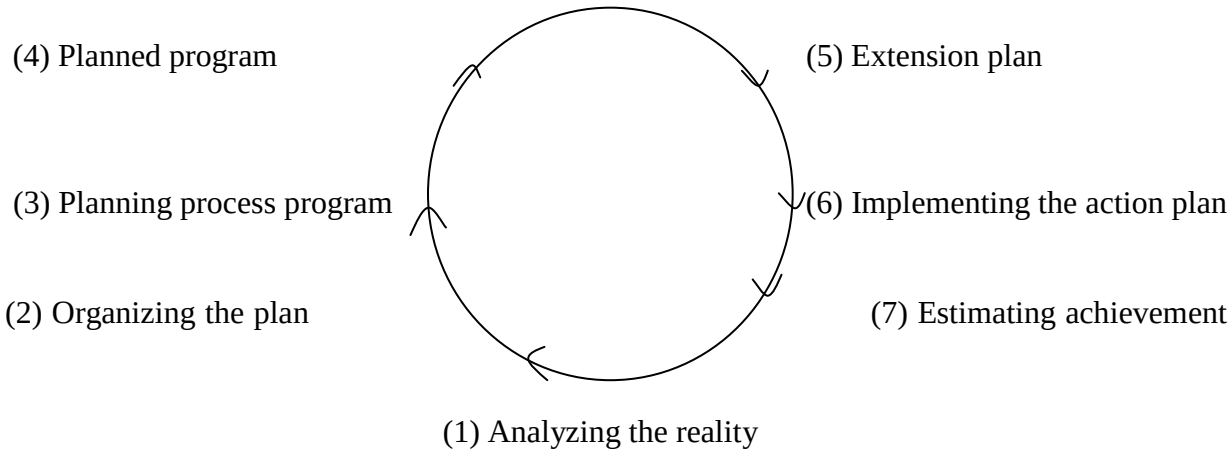


Figure 2.3: Mathews Model for Extension Planning Program (Al-Tnobi and Emran, 1997).

2.18 Barriers of Planning Programs

The planning process often faces a set of problems or obstacles which lead to weakening the effectiveness of the planning or its failure and inability of achieving its objectives. The most important problems can be summarized as; (Darweesh, 1978)

1. Predictability Limitations and Shortages: It is well known that the planning happens in the present, but it is directed towards the future. Sometimes, taken into consideration the limited ability of human beings to predict or weaken tools used in forecasting, or inaccuracy of data and information and the deterioration of their quality, or some other reasons, the planning stage will not achieve its proper prediction. The prediction will be inaccurate to a degree that planning flexibility cannot overcome. This will lead to an unexpected problems and obstacles which will make it impossible for the plan to have proper solutions for it in a way that will make the plan implantation out of reach. Or these problems will be temporary for a period of time, which the planner will adjust the plan and put things on the right track again later.

2. Contradiction and Discrepancy in the Content and Procedure: This happens between objectives themselves or objectives and policies, or other tools. Sometimes, multiple planning authorities that are involved in the implementation, and their overlapping jurisdictions and powers lead to the failure of planning process and losing its effectiveness. The lack of horizontal and vertical coordination among the planning agencies will also have the failure results.

3. The Absence of Participation and the Rejection of Change: The planning is a procedure which aims to transfer the society from a situation to a new one that is supposed to be better than the previous one. This means that planning does aim to bring a change. This change could be rejected by the people or the targeted groups. Rejection to accept the change has many reasons but the most important one is the lack or absence of the public participation in the planning and changing process. On one hand, the planning is taken into consideration the real needs of the people. On the other hand, it prepares people psychologically to accept the change, makes them feel responsible, and pushes them to assist and support this change with all their abilities, especially if they feel that this change is for their benefit (Ghanim, 2008).

CHAPTER THREE

MATERIALS AND METHODS

3.1 Brief Description of the Study Area

Sulaimani Governorate which is located in southern Kurdistan (northeastern Iraq), is the largest Governorate in Iraqi Kurdistan. The Governorate consists of ten districts, including: Rania, Pshdar, Dukan, Sharbazher, Sulaimani, Penjwin, Chamchamal, Halabja, Darbandikhan and Kalar. The geographic coordinates (latitude and longitude) of Sulaimani city, the capital of Sulaimani Governorate, are 35°33′40″N and 45°26′14″E, and elevation is about (830) m above sea level. The Governorate features the fertile plains of Sharazur (Halabja) and Bitwen (Rania), which give way to hills and the Zagros Mountain range in the northeast (Ahmed, 2016). The climate of Sulaimani Governorate is semi-arid, and is mainly influenced by its inland position and prevalence of continental air during most of the years (Rauf *et al*., 2015).

3.2 Research Methodology

This research comes as the framework of the diagnostic research within the descriptive approach. It is an appropriate approach to reach a detailed data and facts about the needs of the individuals at a certain time (Al-Asadi, 2008).

3.3 Sample and Population in Research

The target population of this study consists of all the employees in the agricultural extension in the Agricultural Districts which belongs to the Directorate of Agriculture of Sulaimani, and they were (137)* employees which were spread over (17) Agricultural Districts. The questionnaire, distributed to all members of the populationtotaling (117) employees after (20) employees of them were excluded as they were subjected to the measurement of the reliability which is specialized to this research questionnaire, and also other (7) respondents later were excluded as

* The information get from the Agricultural Extension Directorate of Sulaimani.

they did not fill out the research questionnaire properly and the lack of the required information were lacked in them, in this regard, the final number became (110) respondents which were representing (80%) of the research population and table (3.1) explains and the distribution of the respondents according to their agricultural districts which they worked for.

Table3.1: The distribution of the respondents based on agricultural extension districts.

S	Agricultural District	The total number	Number of respondents	%
1.	Agricultural Extension District of Bakrajo (Center)	52	39	35.5
2.	Agricultural Extension District of Halabja	4	4	3.6
3.	Agricultural Extension District of Sirwan	5	5	4.5
4.	Agricultural Extension District of Shahrazour	6	4	3.6
5.	Agricultural Extension District of Saidsadeq	5	3	2.7
6.	Agricultural Extension District of Qaraly	2	2	1.8
7.	Agricultural Extension District of Tanjaro	10	9	8.2
8.	Agricultural Extension District of Darbandikhan	4	4	3.6
9.	Agricultural Extension District of Dukan	10	9	8.2
10.	Agricultural Extension District of Chwarqwrna	6	5	4.5
11.	Agricultural Extension District of Sangasar	3	3	2.7
12.	Agricultural Extension District of Qaradagh	2	2	1.8
13.	Agricultural Extension District of Chwarta	7	6	5.5
14.	Agricultural Extension District of Qaladze	4	4	3.6
15.	Agricultural Extension District of Chamchamal	9	6	5.5
16.	Agricultural Extension District of Qarahanjir*	7	5	4.5

* Qarahanjir is administratively part of the Kirkuk Governorate; however, from a technical perspective, it is under the Directorate of Sulaimani Agriculture.

S	Agricultural District	The total number	Number of respondents	%
17.	Agricultural Extension District of Penjwen	1	0	0
Total		137	110	100

3.4 The Preparation of the Questionnaire

The questionnaire was prepared as a tool to collect data on the subject of the research, inasmuch for making it appropriate to the research methodology that follows, as the questionnaire is considered as a convenient tool to get the information, data and facts, as they give more objective data than other data collection methods to achieve the objectives of the research (Malham, 2010). The questionnaire consists of two parts and was prepared as follows:

Part I: Includes a set of questions to recognize personal and functional Characteristics of the respondents (age, educational level, academic specialization, the service duration in agricultural extension, employment center, previous extensional training, desire to renewal, exposure to the sources of information and organizational climate). Independent factors has been identified after briefing the researcher on the literature and previous studies on the training needs, as well as consulting with the specialists in the field of the management sciences, psychological and agricultural extension.

Part II: Includes of creating scale (measurement) of the cognitive training needs for the agricultural employees in the field of the agricultural extension planning programs and this process has gone through a series of stages, as shown in Figure (3.1), as follows:

First: The preparation of the measure in the preliminary basis (preparation areas and paragraphs) the preparation of the scale.

In the light of the literature and previous studies on the subject of the research and opinions of the experts and specialists in this field, a measure was prepared to scale the cognitive training needs of the agricultural employees in the field of agricultural

extension planning programs initially and it includes six areas as follow (the general framework of the planning process, the need for planning, organization and formation of planning committees, the actual planning of the extension program, writing an action plan program and evaluation of the planning procedures) and the sections has reached (80) paragraphs and distributed on these (6) stages (21,9,17,14,10,9), respectively, as shown in the table (3.2):

Table3.2: Distribution of the proposed areas to measure the cognitive training needs of the agricultural employees in the field of the agricultural extension programs planning.

S	Areas	Number of sections	%
1.	The General Framework of the Planning Process.	21	26.25
2.	The Need for Planning.	9	11.25
3.	Organization and Formation of Planning Committees.	17	21.25
4.	The Actual Planning of the Extension Program.	14	17.5
5.	Writing an Action Plan Program.	10	12.5
6.	Evaluation of the Planning Procedures.	9	11.25
Total		80	100

Second: Developing measurement stage (displaying the areas and paragraphs on the experts).

The areas and paragraphs were displayed initially on a group of the experts and specialists in the field of the agricultural extension, management and psychological sciences, which they were (21) experts to demonstrate the degree of their approval for the areas and paragraphs of each axis in the light of the measure of agreement which would be of three levels: (agree, agree with the amendment and disagree).

Third: Stage of the average calculation approval scores of the experts on the measurement contents.

The weight (numeric value) has been identified for each phrase in the measures of approval of the experts on areas and paragraphs, and as follows: (agree = 2), (agree with the amendment = 1), (disagree = 0) and average calculation in the total scores which were obtained on the numbers of experts.

Fourth: The stage of determining of the approval standard (panes cut) of the remaining any of the proposed measurement content conclusively.

Panes cut has been identified as (75%) of the degree of the experts' approval on the paragraphs and sections according to the remaining of the fields and paragraphs in the measurement if it gets (75%) of panescut or more and that is equal to (1.5) degrees or more from the top step of the approval measure which consists of (2) degrees, and if the agreement was between (75%) of the arbitrators or more that that indicates the sincerity of the performance, and you can feel comfortable about its righteousness (Malham, 2010). And, the panes cut reachs at meassurs of (91%) of the need for training, by professional arbitrators.

Fifth: The stage of preparing the measure conclusively (the stay of areas and paragraphs conclusively).

By the application of the standard (panes cut) for the remaining areas and paragraphs. The training need scale was prepared finally. As some of the paragraphs were altered because of having similar variables and paragraph scales became (80) paragraph distributed on (6) areas, as shown in table (3.2):

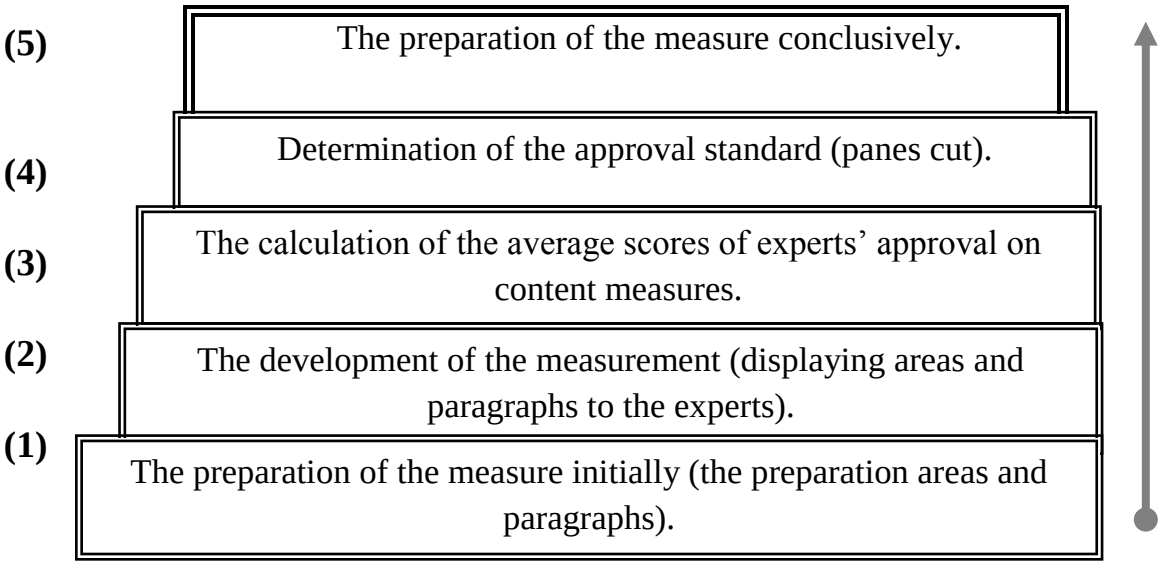


Figure3.1: Stages of creating a cognitive training need measure for the employees in the field of agricultural extension planning programs.

3.5 Validity

The validity of the measurement is intended genuinely to meet the measures of the purposes and special uses which is designed for (Mikhail, 2006). And the validity is considered as the most important standard features in terms of degree of the importance compared to other features because of the correlation of the validity with the purpose or achieving expected goals of the measurement performance as well as the extent of its relationship with the type and the importance of the decision that will be taken accordingly (Al-Nabhan, 2004). That performance has been presented to the group of the experts in agricultural extension, management and psychology while (Eble) indicates that the best way to achieve the virtual truth is that a group of specialists evaluate the validity of the measure sections which doesn't include measure it again (Eble, 1972). To identify their views and comments relating to the type of questions and the safety of their formulation and the clarity and appropriateness of the respondents and after taking their observations and suggestions, I have done some amendments on the questions which contained in the questionnaire which counted as virtual truth supposedly of

the questionnaire, which is one of the means to identify the validity of the performance (Al-Zubaie, 1981).

3.6 Reliability and Correction Factor

The reliability is known as the research tool that gives the same results if it re-applied to the individuals themselves and under the same conditions (Abu-Hoij *et al*., 2002), and the scale in this sense means consistency and accuracy in the measurement (Allam, 2000). To find reliability in this study a random exploratory sample was selected about (20) respondents which distributed on the Directorate of the Extension in Sulaimani and extension centers of ((Bakrajo (center), Chamchamal, Qarahanger, Saidsadeq and Shahrazour)), the exploratory sample data were collected through the questionnaire and to find the coefficient of reliability (Alpha-Chronbach) method has been used because this method used to estimate the reliability of the trends and polls, this method gives the minimum value of the estimated coefficient of reliability (Al-Nabhan, 2004). And then extracted correction factor of the scales by using the (Spearman Brown) equation and the results were as shown in table 3.3:

Table3.3: Reliability and Correction Factor of the scales.

S	Scale Type	Reliability Coefficient (Alpha-Chronbach)	Correction Factor
1.	The areas of the extension planning programs in general.	0.983	0.99
2.	Organizational climate.	0.80	0.89
3.	Desire to renewal.	0.70	0.84

3.7 Data Collection

The data for this research was collected through a questionnaire interview with the respondents during the period from (10. 5. 2015 - 3. 6. 2015) of the samples which were about (110) respondents.

3.8 Tabulation and Data Analysis

After the completion of the data collection process, the information was taken from the questionnaire forms and then the data were organized in the tables to view and interpret the results and then extracting the conclusions and recommendations to highlight the most important findings of the research and the tabulation process and the analysis of data as was followed:

First: The Dependent Variable

To measure the level of training need a four-scale assessment have been prepared, as follows (excessive need, average need, slight need, no need) and it had given those values from (4,3,2,1) respectively and the sum of grades for all of the sections represents the degree of the cognitive training need, and the measure would be in (6) areas and (80) paragraphs, and so the highest score obtained by the respondent was (320) degrees and the lowest score is (80) as described in the Appendix (1), after obtaining the degree of the need for training for each respondents in the field of the agricultural extension planning programs, and the degrees have been classified according to the need for training in order to describe the respondents into three levels: little need, average need, many need, and the number of respondents and the percentage rate and the training need for each category have been calculated.

Second: The Independent Variables

The First Part of the Questionnaire: Includes the data related to some personal and functional variables about agricultural employees had been measured it as follows:

1. Age: It is an age of the respondent which is estimated to a number of years of the data collection time.

2. Educational Level: This variable measurement was, according to the following levels: (agricultural high school, agricultural institute, college of agriculture, higher degrees) has been allocated the following numeric values: (1,2,3, 4) respectively.

3. Academic Specialization: Measured by asking the respondents for being an (agricultural extension or non-agricultural extension) and they have given the digital codes as: (1, 2) respectively.

4. The Service Duration in Agricultural Extension: Measured by asking the respondent for the number of years he/she has spent in the extension work, and it has been given a numeric value for each year of service.

5. Employment Center: This variable was measured by asking the respondent about the work that he/she has occupied, according to the following order: (agricultural agent, agronomist, head of agronomists, head of the agricultural agents, senior agricultural managers, senior agricultural agents) have given digital codes: (1,2,3,4,5, 6) respectively.

6. Previous Extensional Training: This variable measured by classifying respondents according to their participation in the training sessions to the (participants or non-participants) and have given symbols of (1, 0) to them, respectively.

7. Desire to Renewal: This variable measured through (18) paragraphs, half of them were positive and other half was negative, they were given features including levels (agree, neutral, disagree) and have given digital codes as following: (3,2, 1) respectively, to the both positive and negative paragraphs was: (1,2, 3) respectively, and the total scores shows the desire to renew of the respondents.

8. Exposure to the Sources of Information: this variable has been measured through the number of sources that the respondent has got them on the extension information which were (16) and alternatives responses were (always, sometimes, I don't look) have been given digital values: (3,2, 1) respectively.

9. Organizational Climate: This variable was measured through the question to the respondents about their work circumstance and needs, which were (22) paragraphs, half were positive and other half were negative, and they were put in the incorporate feature levels: (agree, neutral, disagree) and have been given the following codes: (3,2, 1) respectively for the positive sections and (1,2, 3) respectively for the negative paragraphs.

3.9 Statistical Techniques

After the completion of the data collection and then the date was audited and the information was extracted from it and then data were tabulated in the organized tables according to the research objectives, and analyzed by using statistical analysis program (SPSS), which used the statistical means as following:

1. The Range

For dividing some independent variables into categories according to following:

Range = higher value - lower value

2. The Percentages

To describe the respondents of according to the distribution their groups in some of the variables were included by studying.

3. Mean

It is used to describe the numerical values of the variables under study by using the law: (Al-Rawi, 1980).

$$\bar{x} = \frac{\sum xi}{n}$$

Where:

$\bar{x}$ = Mean.

$\sum xi$ =total numeric values.

n=number of respondents.

4. Standard Deviation

It is used to describe deviations from the averages calculation values of the variables included in the study and its law is the following: (Al-Quraishi, 2007).

Where:

$$S.d = \sqrt{\frac{\sum xi^2 - \frac{(\sum xi)^2}{n}}{n-1}}$$

S.d=standard deviation.

$\sum xi^2$ =total square values.

$(\sum xi)^2$ = square sum of the numeric values.

n = the number of values or the number of the respondents.

5. Persons' Correlation Coefficient

It is used to find the correlation between the degrees of the cognitive needs of the agricultural employees in the areas of the extension planning programs, and among all variables of the independent variables as following (age, the service duration in agricultural extension, the desire to renewal, exposure to the sources of information and organizational climate), according to the following law: (Al-Quraishi, 2007).

$$r = \frac{\sum xy - \frac{(\sum x)(\sum y)}{n}}{\sqrt{(\sum x^2 - \frac{(\sum x)^2}{n})(\sum y^2 - \frac{(\sum y)^2}{n})}}$$

Where:

r = Person correlation coefficient.

X = independent factor values.

Y = the following factor values.

n = the number of respondents.

$\sum xy$ = the total multiplication of two variables values (x, y).

$\sum x$ =the sum of the values in the variable x.

$\sum y$ =the sum of the values in the variable y.

$\sum x^2$ =the sum of the squared values in the variable x.

$(\sum x)^2$ =the total square variable values of x.

$(\sum y)^2$ =the total square values of variable y.

$\sum y^2$ = the sum of the squared values in the variable y.

6**. Spearman Rank Correlation**

It is used to find the correlation between the degree of the cognitive training needs for the extension employees in areas of the extension planning programs, and between each of the (educational level, academic specialization, employment center and previous extensional training) as the following law: (Al-Badlawi, 2004).

$$rs = 1 - \frac{6 \times \sum d^2}{n(n^2 - 1)}$$

Where:

rs = the correlation coefficient for spearman rank.

Σdi= the sum of the square differences between the ranks.

n = the number of vocabularies.

7. Multistage Regression Model

It is used to determine the most independent factors that significantly influence the cognitive needs of staffs in the areas of the agricultural extension planning programs and choosing the best equations that explain these factors according to the following law: (Al-Safawi, 2008)

$$\mathbf{Y = B_o + B_1 X_1 + B_2 X_2 + ... + B_n X_n + E}$$

Where:

Y = the expected values of the cognitive training needs of the employees in the areas of agricultural extension planning programs.

Bo= the fixed value of regression coefficient.

B_n= the partial value of regression coefficient of the independent factor.

X_n= the independent factor value.

E = random error.

8. Alpha-Chronbach Coefficient Method

It is used to find reliability tool of the research in accordance with the following law: (Murad and Suleiman, 2002).

$$\alpha = \frac{n}{n-1}\left[1 - \frac{\Sigma Si^2}{S_x^2}\right]$$

Where:

n = the number of section tools of the search.

Si^2= the variation in per section.

S_x^2= the total variation (total) of the sections of the tool search.

CHAPTER FOUR

RESULT AND DISCUSSIONS

This chapter shows the results that have been reached after a statistical analysis as well as discussed below:

4.1 The First Objective: Identifying the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in the field of the agricultural extension planning programs in general.

The results of the study showed that, the highest numeric value to the degree of cognitive training needs to the respondents in the field of the extension planning programs was (320), and the lowest numeric value was (160) on a scale needed training (quad) amounted a degree between (1-4) degrees of the distributed (80) items, and at the rate of the training need of (279.53) degree was and the respondents were distributed on three categories of training needs as (low, medium, high) according to the level of their training needs and as it is shown in the following table:

Table4.1: The Distribution of the respondents according to the levels of cognitive training needs for the whole areas of the extension planning programs.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	160-213	4	3.636	179.75	279.53	35.754	110
2.	Medium	214-267	30	27.272	249.033			
3.	High	268-321	76	69.092	296.815			
		Total	110	100%				

As it is seen in Figure (4.1) that the highest percentage of the respondents were (69.092%) were within a (high) category, and the rate of training need was (296.815) numeric value. And the lowest percentage of the respondents were among the (low) category (3.636%) and the rate of training need were (179.75)

numeric value, which means that; a most of the respondents described the level of their cognitive training needs as (high) in the field of the agricultural extension planning programs. According to this result, there is a lack of the knowledge of the agricultural extension employees in the Governorate of Sulaimani in the areas of the extension planning programs, this may be due to the poor academic preparation and rehabilitation of the agricultural extension employees in the field of the extension planning programs and lack of interest in the field of the extension planning process, and an inadequate efforts by the extension organization in Sulaimani in the development of the specialized training in the field of the extension planning programs, and this result corresponds with the study of Al-Abassi (2011), but the result was inconsistent with the study of Al-Talb (2013).

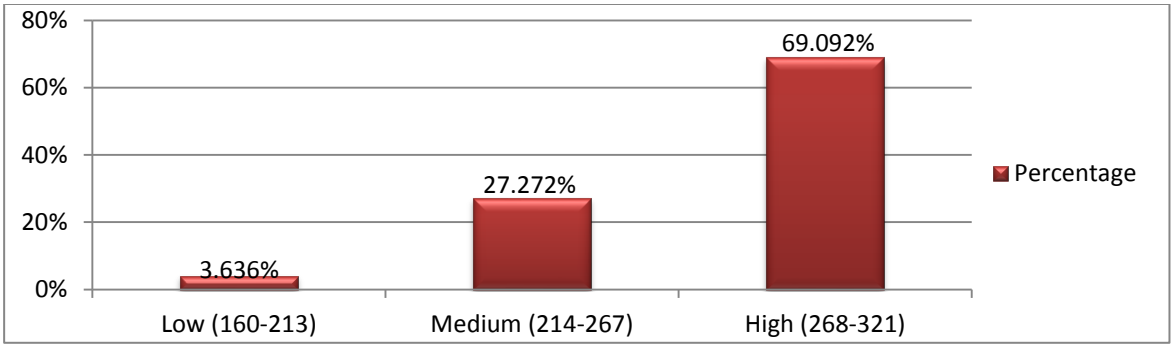


Figure4.1: The distribution of the respondents according to the categories of cognitive training needs for the whole areas of the extension planning programs.

4.2 The second objective: Determining the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in every areas of the agricultural extension planning programs as following:

4.2.1 The General Framework of the Planning Process

The results showed that, the highest numeric value acquired by the respondents to answer the items aspects were (92), and the lowest numeric value was (46) and the rate of training need were (80.672) degrees, the respondents were distributed on three categories of the training need rates which were (low, medium, high)

according to the level of the cognitive training needs as shown in the following table:

Table4.2: Distribution of the respondents according to the levels of their cognitive training in the field of the general framework of the planning process.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(46-61)	4	3.636	54.25	80.672	9.258	110
2.	Medium	(62-77)	34	30.909	72.5			
3.	High	(78-93)	72	65.455	86			
		Total	110	100%				

As it is seen in Figure (4.2) the highest percentage of the respondents were (65.455%) were within a (high) category, and the rate of training need was (86) numeric value, and the lowest percentage of the respondents were among the (low) category (3.636%) and the rate of training need were (54.25) numeric value, which means that, most of the respondents described the level of their cognitive training needs as (high) in the field of the general framework of the planning process. This result was due to the several reasons; the most notable ones were weakness of the role of the agricultural extension employees in the area of the research or lack of the participation in the extension planning program processes. And this result may be because of the difficulty of the concepts that contained in the planning process at this stage like (the philosophy, objectives, policies and methods.....). Another reason; for the lack of the knowledge were their need increased for the training in this area, especially as the majority of the respondents were non-agricultural extension specialists, therefore; this result is corresponded with the result of the Ismail's study (2014).

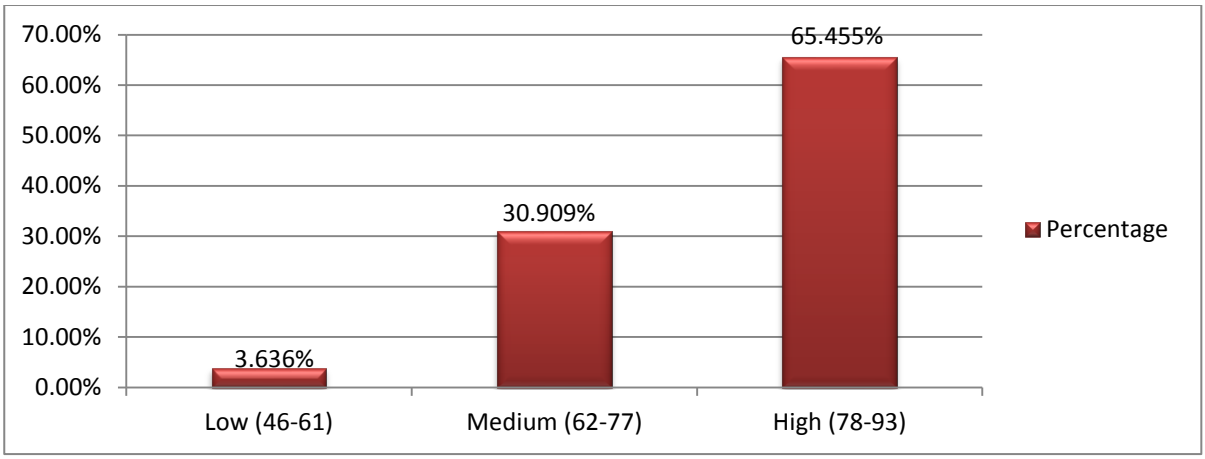


Figure4.2: Distribution of the respondents according to the categories of their cognitive training needs in the field of the general framework of the planning process.

4.2.2 The Need for Planning

The results showed that; the highest numeric value acquired by the respondents to answer, the items aspects were (36), and the lowest numeric value was (18) and at the rate of the training need was (31.372) degree. The respondents were distributed into three categories of the training needs which were (low, medium, high) and according to the level of the training needs, as it described in the following table:

Table4.3: Distribution of the respondents according to the levels of cognitive training needs in the field of the need for planning.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(18-24)	6	5.455	20	31.372	4.248	110
2.	Medium	(25-31)	40	36.363	28.4			
3.	High	(32-38)	64	58.182	34.281			
		Total	110	100%				

In Figure (4.3) seen that; the highest percentage of the respondents were (58.182%) within a (high) category and the rate of training need was (34.281) numeric value. The lowest percentage of the respondents were among the (low) category (5.455%)

also, the rate for the training need was (20) numeric value. This means that; the most of the respondents described their level of the cognitive training needs as (high) in the field the need for planning. This due to the respondents that; they do not have sufficient knowledge for the importance of the need for planning stage, also the weakness of their information and justifying for the planning process. The need for giving legitimized feature between groups and parties with the relationship of the planning. This result can be interpreted visits of the researcher on-field, to close the absence of the process for extension planning on the local level, although the weakness of the training sessions of the respondents in the field of the extension planning programs.

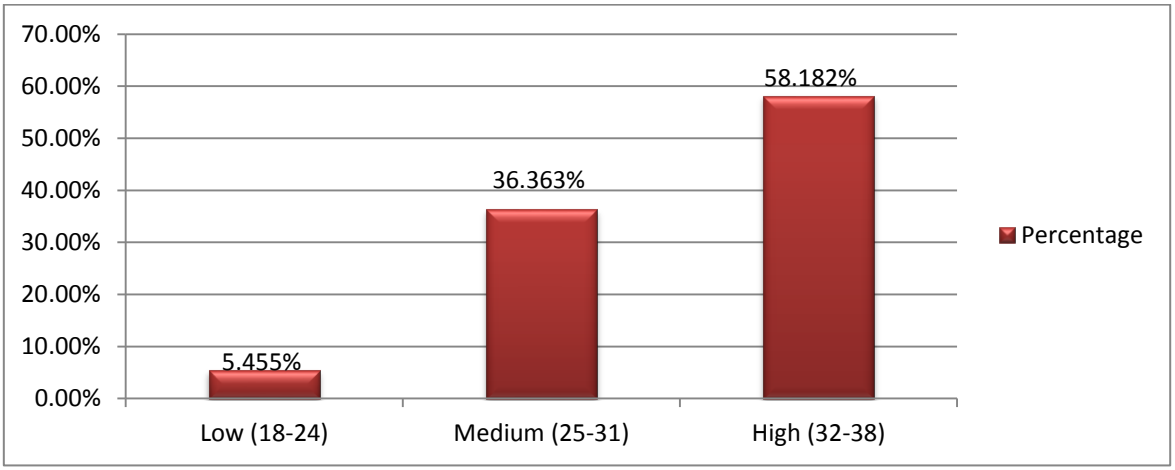


Figure4.3: Distribution of the respondents according to the categories of the cognitive training needs in the field of the need for planning.

4.2.3 Organization and Formation of Planning Committees

The results showed that the highest numeric value attained by the respondents on the items aspects was (68), and the lowest numeric value was (34) and the rate for the training need was (59.845) degree, the respondents were distributed into three categories of the training needs as (low, medium, high) and according to the level of training needs, as it described the following table:

Table4.4: Distribution of the respondents according to the levels of their cognitive training needs in the field of organization and formation of the planning committees.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(34-45)	1	0.909	34	59.845	6.584	110
2.	Medium	(46-57)	34	30.909	52.470			
3.	High	(58-69)	75	68.182	63.533			
		Total	110	100%				

As it is seen in Figure (4.4) that the highest percentage of the respondents (68.182%) were within a (high) category and the rate of training need was (63.533) numeric value, and the lowest percentage of the respondents were among the (low) category (0.909%), and the rate of the training need was (34) numeric value, which means that most of the respondents described the level of their cognitive training needs as (high) in the field of the organization and formation planning committees. Its due to the respondents' lack of knowledge how to organize the human and material resources which are necessary for the planning processes. Additionally, the weakness of their information to set up committees to plan and carry out the required tasks, In particular, these concepts and procedures require the possession of the respondents bending of knowledge and information in management science and regulation but respondents had not obtained it during their academic studies.

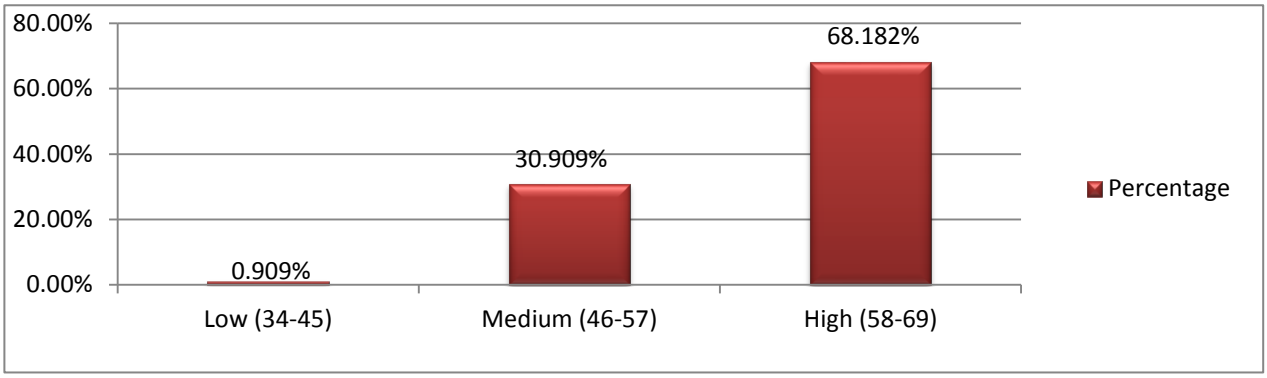


Figure4.4: Distribution of the respondents according to the categories of cognitive training needs in the field of organization and formation of planning committees.

4.2.4 The Actual Planning of the Extension Program

The results showed that the highest numeric value attained by the respondents on the items aspects was (56), and the lowest numeric value was (28) and the rate for the training need was (49.254) degree, the respondents were distributed into three categories of training needs as (low, medium, high) and according to the level of training needs, as it described in the following table:

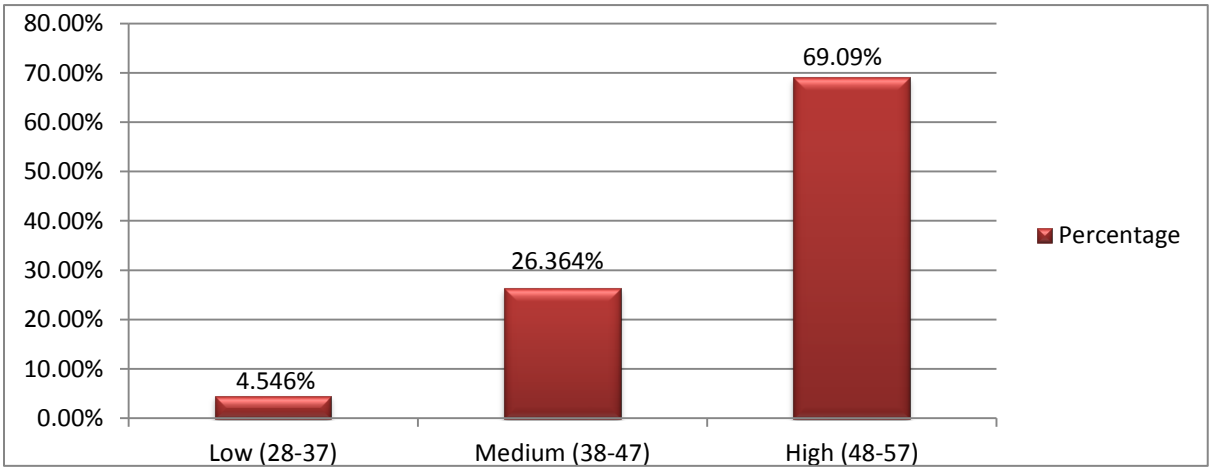
Table4.5: Distribution of the respondents according to the levels of their cognitive training needs in the field of the actual planning of the extension program.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(28-37)	5	4.546	32.4	49.254	6.165	110
2.	Medium	(38-47)	29	26.364	43.310			
3.	High	(48-57)	76	69.090	52.631			
		Total	110	100%				

As it is seen in Figure (4.5) that the highest percentage of the respondents (%69.090) were within a (high) category and the rate of the training need was (52.631) numeric value, and the lowest percentage of the respondents was among the (low) category (4.546%) and the rate of the training need was (32.4) numeric value, which means that most of the respondents described the level of their

cognitive training needs as (high) in the field of the actual planning of the extension program. This may be due to the respondents; who were deficient in their knowledge, the familiarity of making-decisions concerning the reality-based on their situations. The identification of their needs and problems are having undergone. Also their weakness in information in the way to use the appropriate methods means to collect facts and data, analyzing, then decision-making to the kind of problems according to their importance particularly. These processes require the actual implementation, so as to learn it by individuals. According to the principle of education, learning by doing which is the best kind of learning is.

Figure4.5: Distribution of the respondents according to the categories of cognitive training needs in the field of the actual planning of the extension program.



4.2.5 Writing an Action Plan Program

The results showed that, the highest numeric value attained by the respondents on the items aspects were (40), the lowest numeric value was (20) and the rate of the need for training was (35.454) degree, the respondents were distributed into three categories of the need for training as (low, medium, high) and according to the level of training needs as it described in the following table:

Table4.6: Distribution of the respondents according to the levels of cognitive training needs in the field of writing an action plan program.

S	Categories	Degrees of cognitive training need	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(20-26)	4	3.636	21.25	35.454	4.252	110
2.	Medium	(27-33)	26	23.636	31.307			
3.	High	(34-40)	80	72.728	37.512			
		Total	110	%100				

As it is seen from Figure (4.6) that the highest percentage of the respondents (72.728%) were within a (high) category and the rate of the training need was (37.512) numeric value, and the lowest percentage of the respondents were among the (low) category (3.636%) and the rate of the training need was (21.25) numeric value, which means that most of the respondents described the level of their cognitive training needs as (high) in the field of the writing an action plan Program. This is due to the lack of knowledge of the respondents regarding the ways to prepare and formulate the action plan for the extension program and the weakness of their information about the specification and content and types of the action plan because of the poor field planning and the lack of the effective training programs for the employees in the agricultural extension in the Governorate of Sulaimani for its improvement and development.

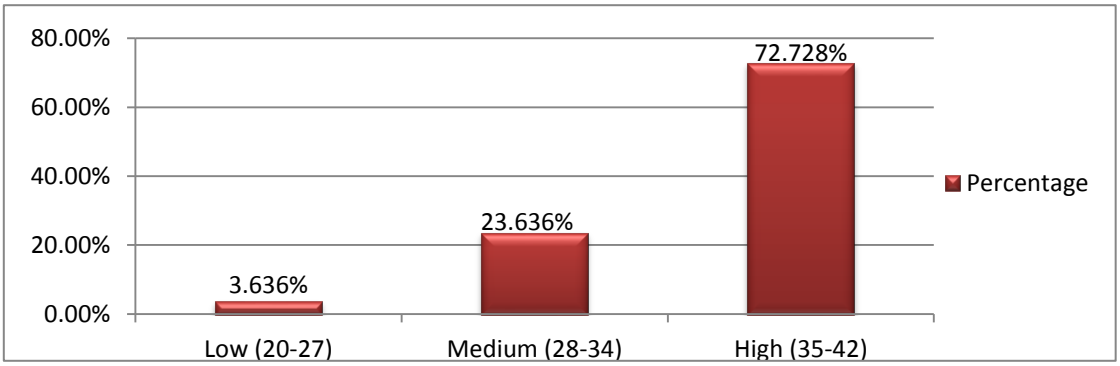


Figure4.6: Distribution of the respondents according to the categories of cognitive training needs in the field of writing an action plan program.

4.2.6 Evaluation of the Planning Procedures

The results showed that the highest numeric value acquired by the respondents to answer the items aspects were (36), the lowest numeric value was (18) and the rate of the need for training was (31.654) degree, the respondents were distributed into three categories of the need for training as (low, medium, high) and according to the level of training needs as it described in the following table:

Table4.7: Distribution of the respondents according to the levels of the cognitive training needs in the area of the evaluation of the planning procedures.

S	Categories	Degrees of cognitive need training	Frequency	%	Average cognitive need	$\bar{X}$	S.D	N
1.	Low	(18-24)	6	5.455	20.166	31.654	3.950	110
2.	Medium	(25-31)	39	35.455	31.722			
3.	High	(32-38)	65	59.090	34.138			
	Total	Total	110	100%				

As it is seen from Figure (4.7) that the highest percentage of the respondents (59.090%) were within a (high) category and the rate of the training need was (34.138) numeric value, and the lowest percentage of the respondents were among the (low) category (5.455%) and the rate of the training need was (20.166) numeric value, which means that most of the respondents described the level of their cognitive training needs as (high) in the field of the evaluation of the planning procedures. And this is due to the lack of the knowledge of the respondents regarding to the evaluation procedures planning, and the weakness of their information on the types and levels of the evaluation and ways to monitor and follow up the results of the evaluation and ways to write an evaluation report and convey it to those who are responsible. The reason could be the difficulty of evaluation process itself or fear of them and the lack of awareness of its importance by the agricultural employees.

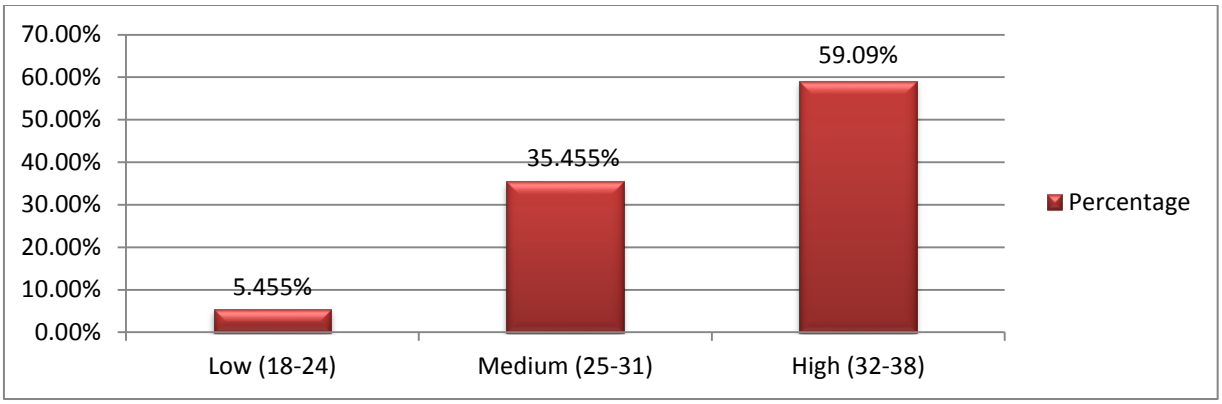


Figure4.7: Distribution of the respondents according to the categories of the cognitive training needs in the field of evaluation of the planning procedures.

4.3 The Third Objective: Identifying the importance of the cognitive training needs for the employees in agricultural extension in Sulaimani Governorate in every areas of the extension planning programs.

For the purpose of identifying the importance of the cognitive training needs for employees in the agricultural extension in the Governorate of Sulaimani and comparison between the areas of the cognitive training needs in the areas of extension planning programs and arrange them according to their importance and the results were shown in the following table:

Table4.8: Arranging training needs in the areas of planning extension programs in accordance with the value of Mean.

S	The areas of the extension planning programs	Mean	Standard deviation	Rankings
1.	The general framework of the planning process.	80.672	9.258	1
2.	Organization and formation of planning committees.	59.845	6.584	2
3.	The actual planning of the extension program.	49.254	6.165	3
4.	Writing an action plan program.	35.454	4.252	4
5.	Evaluation of the planning procedures.	31.654	3.950	5
6.	The need for planning.	31.372	4.248	6

As it is seen from table (4.8) that the field which occupies the first place in the need for training is the area of the general framework of the planning process with the average calculations as (80.672) degrees and this means that the respondents have a humble information about this area. But the field of the need for planning came only as the last rank with the average calculations as (31.372) degree and this indicates that the respondents have more information and knowledge on this area compared to other areas of the extension planning programs.

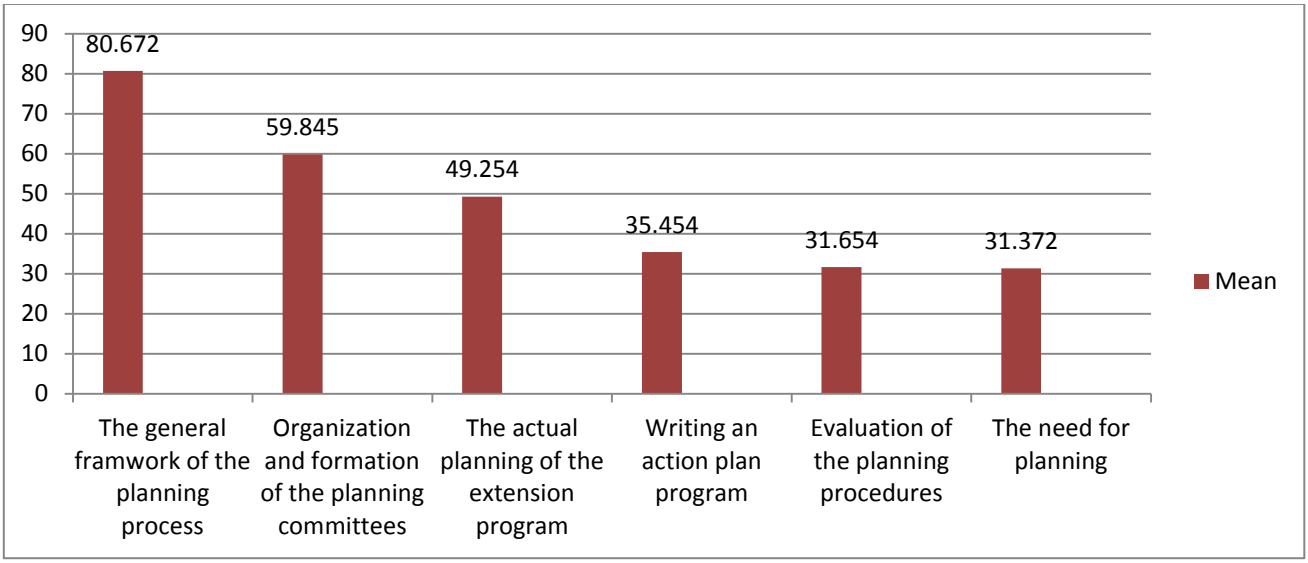


Figure4.8: Arrangement of the areas of the extension planning programs, according to the value of the Mean.

4.4 The Fourth Objective: Determining the correlation relationship between the cognitive training needs of the agricultural extension employees in Sulaimani Governorate and each of the personal and functional variables as the following:

4.4.1 Age

Age is an important functional factor that influences individual working ability.The results of the study shows the highest age of the respondents was (62) years and the least was (25) year, with an average rate of the training need which was (43.39) degree, the ages of the respondents were divided on the three age groups by using

of (the Law of Range), and the highest rate of the respondents were (37.272%) from the category of (25-37) years as the average calculation for the training need which was (284.658) degree and the category of (38-50) years as the average calculation for the training need which was (283) degrees, and the lowest rate of the respondents was (25.456%) from category of (51-63) years as the average calculation for the training need was (275.392) degree, and this refers to a decrease in the percentage of the old respondents compared to the percentage of the respondents from the rest of other groups, as it is shown in the following table:

Table 4.9: Distribution of the respondents according to the age groups and its relationship with the cognitive training needs.

S	Age categories	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	(25-37) years	41	37.272	284.658	$0.106^{N.S}$	43.39	10.445
2.	(38-50) years	41	37.272	283			
3.	(51-63) years	28	25.456	275.392			
	Total	110	100%				

To find the correlation relationship between the degree of the training needsage, Simple Correlation Coefficient (Person) has been used, and its value reached at (0.106) which is less than the tabular value at the level of (0.05), and this indicates that there was no significant correlation between the two variables and thus, it refuses Null Hypothesis which states that there were significant correlation between the level of the cognitive training needs of the respondent in the field of the extension planning programs and age, and it accepts the Alternative Hypothesis, The reason for this finding may be due to the respondents, whether they were few or many ages as they did not get to prepare enough in the field of the extension planning programs, whether it was academic or training preparation. And this result corresponds with Al-Obeidi (1984), Al-Abassi (2011) studies and the study of

Al-Abassi *et al.,* (2009) but the result inconsistent with the Al-Talb's study (2013) and the study of Al-Said (2005).

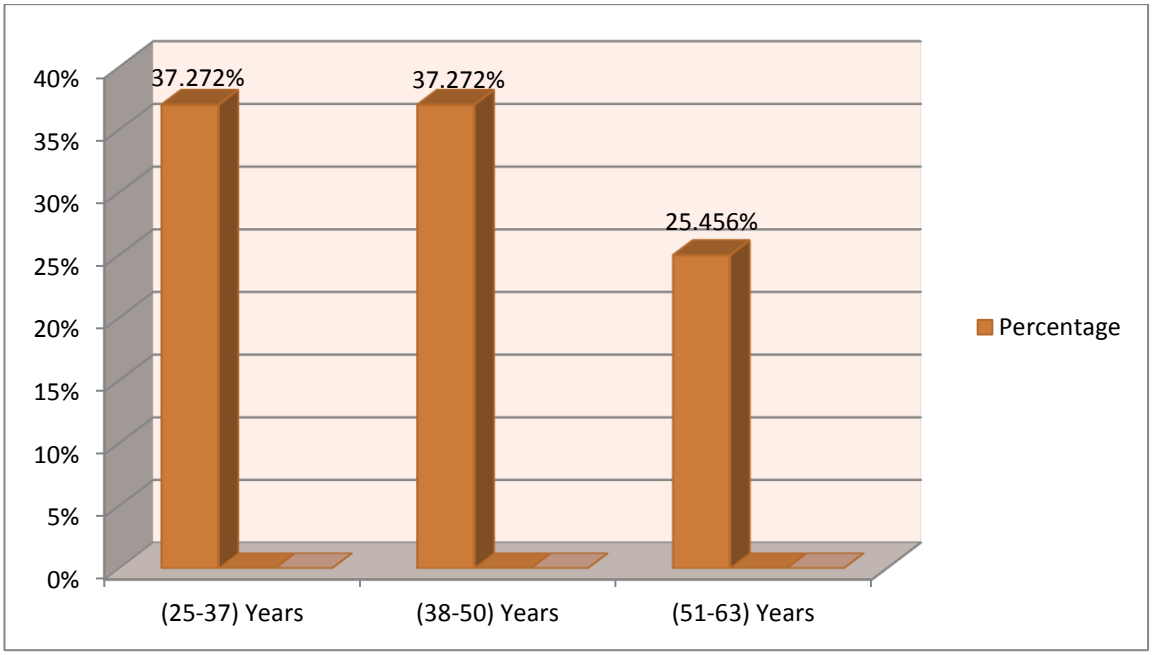


Figure4.9: Distribution of the respondents according to the age.

4.4.2 Educational Level

Education has been identified as a major component of employee's empowerment and a means of enhancing human capital of employee's folk for effective and efficient production and productivity. The results of the study illustrates that the graduates of the agricultural colleges have formed the highest rate of the respondents which was (41.818%) with the average calculation for the training need which was (279.913) degree, then the graduates of the agricultural high schools which was (31.818%) with the average calculation for the training need was (282.057) degree, while the rate of the respondents of the graduates from the agricultural institutes was (22.728%) with the average calculation for the training need which was (280.96) degree, While the rate of the respondents with higher degrees were (3.636%) with the average calculation for the training need which was (303.25) degree and that is the lowest rate and as described in the following table:

Table4.10: Distribution of respondents according to the categories of educational level and its relationship to the training needs.

S	Categories of educational level	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	Agricultural high school	35	31.818	282.057	$0.085^{N.S}$	31.00	6.411
2.	Agricultural institute	25	22.728	280.96			
3.	College of agriculture	46	41.818	279.913			
4.	Higher degrees	4	3.636	303.25			
	Total	110	100%				

To find the correlation relationship between the degree of the training needs and educational level, a coefficient correlation ranking (Spearman Brown) has been used, and its value reached at (0.085) which is a less than tabular value at the level of (0.05), and this indicates that there was no significant correlation between the two variables, and thus, it refuses the Null Hypothesis which states that there were significant correlation between the level of the cognitive training needs of the respondents in the area of the extension planning programs and educational level, and it accepts the Alternative Hypothesis, the reason for this maybe the respondents were having non-extension specification, and the information which is obtained by a respondent is a little on the side of the extension planning programs compared to their peer specialists in the agricultural extension as the agricultural employee gets the information and knowledge on the extension planning programs process from outside the academic curriculum. In spite of this shows, there is an obvious need for training of the agricultural employees who hold high school degree and that for the importance of the subjects that related to planning and their extension work, and this result corresponds with Al-Talb (2013), Al-Abassi

(2011) studies and the study of Al-Abassi *et al.*, (2009) and this result inconsistent with Al-Said's study (2005).

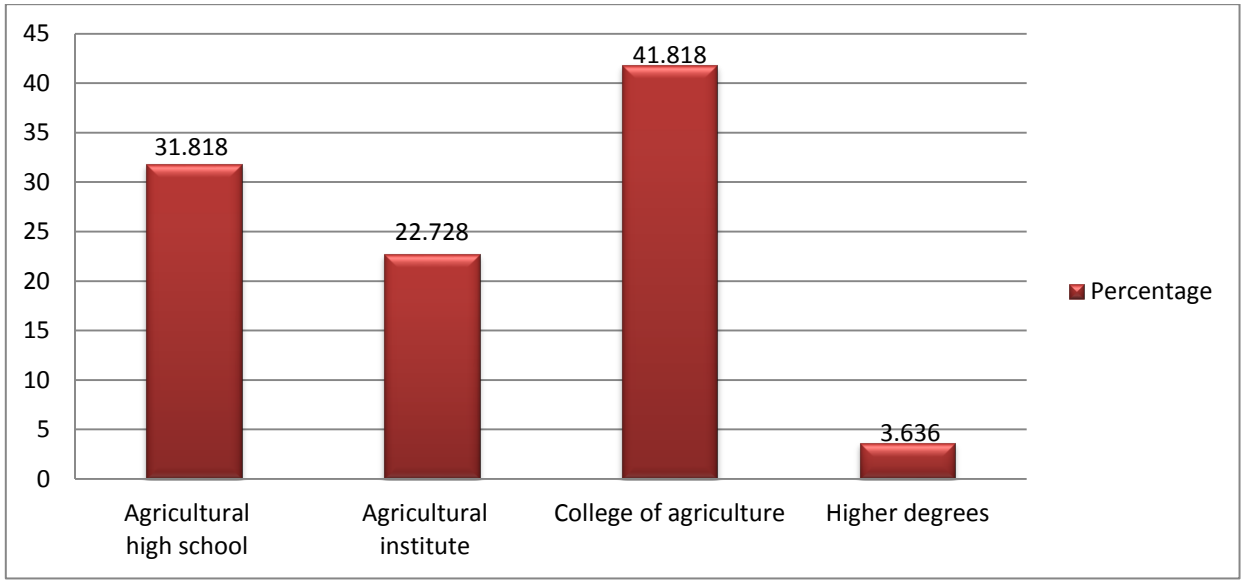


Figure4.10: Distribution of the respondents according to the educational level.

4.4.3 Academic Specialization

Academic specialization is prerequisite for the exercise of any action to ensure the success of an individual's performance and improve his/her level in order to achieve increased production to the highest.

Distribution of the respondents according to the academic specialization shows that the percentage of the respondents who were non-specialists in the field of the agricultural extension was (71.819%) with the average calculation for the training need which was (204.367) degree, while the percentage of the respondents who were specialists in the field agricultural extension was (28.181%) and with the average calculation for the training need which was (281.612) degrees, and this means that the majority of the respondents from the agricultural extension were from specifications other than agricultural extension and as described in the following table:

Table4.11: Distribution of the respondents in accordance with the categories of the academic specialization and its relationship to the training needs.

S	Categories of academic specialization	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	Agricultural extension	31	28.181	281.612	$0.043^{N.S}$	1.72	0.452
2.	Non-Agricultural extension	79	71.819	204.367			
3.	Total	110	100%				

To find the correlation relationship between the degree of the training needs and academic specialization, the coefficient correlation Ranking (Spearman Brown) has been used and its value reached at (0.043) , It is a less than tabular value at the level of (0.05), and this shows that there is no significant correlation between the two variables and thus, it refuses the Null Hypothesis which states that the significant correlation between the level of the cognitive training needs of the respondents in the area of the extension planning programs and academic specialization, and it accepts the Alternative Hypothesis, and this means that the information and knowledge of the respondent in the extension planning programs process has nothing to do with the academics specialization. And it would be obtained through reading and participation in some of the extension activities that related with the agricultural extension planning programs process, and it is not able that the training needs for the specialized agricultural extension is more than non-specialists, and this was due to the agricultural extension specialists that they recognize the importance of the extension planning programs and their desire to gain more knowledge and experience in this area. While, this realization is absent by the majority of the respondents of the extension agents as they are non-specialists, and this result corresponds with Al-Abassi (2011), Al-Abassi *et al.*, (2009) studies and the study of Al-Talb (2013).

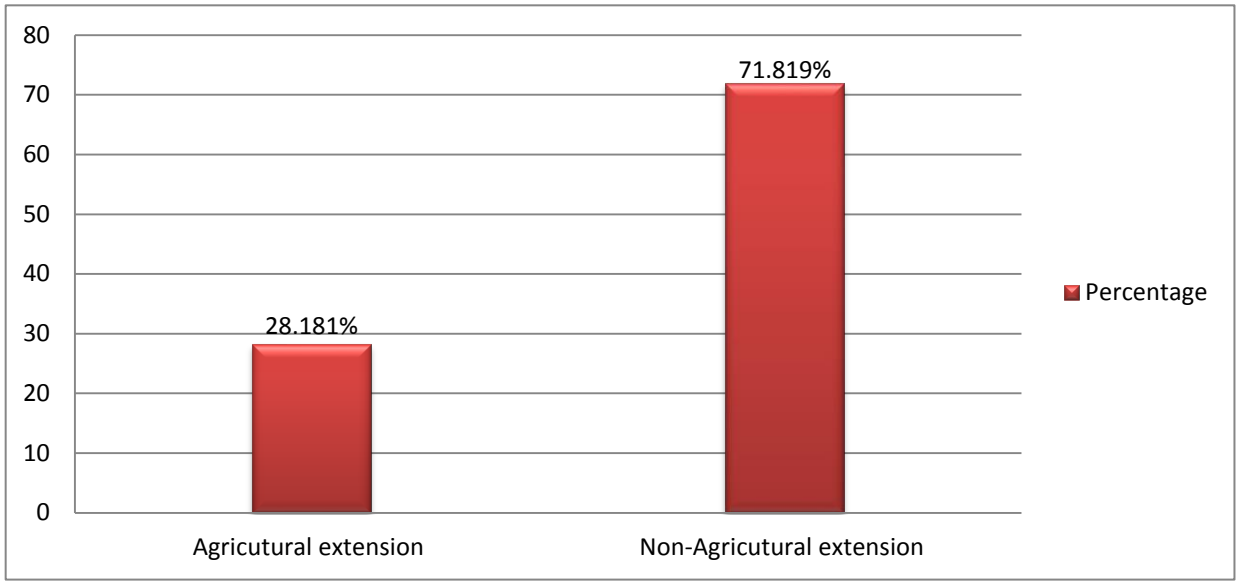


Figure4.11: Distribution of the respondents to their academic specialization.

4.4.4 The Service Duration in Agricultural Extension

The service duration is the important factor that affects the increase of functional experiences of the employee. The results of the study shows the highest service duration of the respondents was (38) years and the least was (1) year, with an average of the training need rate was (31.00) degree. The respondents has been divided in accordance to their extension service duration into three categories by using of (the Law of Range), and It was found that the highest rate of the respondents was (81.818%) who were a part of category that service duration was between (1-13) years with the average calculation of the need for training which was (282.788) degree, and the lowest rate of the respondents was (5.455%) who were within the category that their service duration was between (27-39) years with the average calculation of the need for training which was (259.166) degree, as it is shown the following table:

Table4.12: Distribution of the respondents in accordance with the service duration in agricultural extension and its relationship to the training needs.

S	Categories of service duration in agricultural extension	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	(1-13) years	90	81.818	282.788	-0.171*	31.00	6.411
2.	(14-26) years	14	12.727	284.214			
3.	(27-39) years	6	5.455	259.166			
	Total	110	100%				

* Significant at the level of (0.05)

To find the correlation relationship between the degree of training needs and service duration in agricultural extension, the Simple Correlation Coefficient (Person) has been used and its value reached at (-0.171*) degree and this is bigger than the tabular value at the level of (0.05). This shows that there is an inverse significant correlation between the two variables and thus, it refuses the Research Hypothesis, which states that there is no significant correlation between the level of the cognitive training needs of the respondents in the field of the extension planning programs and service duration in the agricultural extension, and it accepts the Null Hypothesis, and the reason for this is that the agricultural employee's performance goes up by increasing their extension service duration in which they acquire further knowledge, skills and experience, and this result corresponds with Abdurrahman and Al-Khatib (2002) and Al-Said (2005) studies but this result inconsistent with Al-Zahrani and Shaybah (1988), Al-Abassi (2011) studies and the Study of Al-Talb (2013).

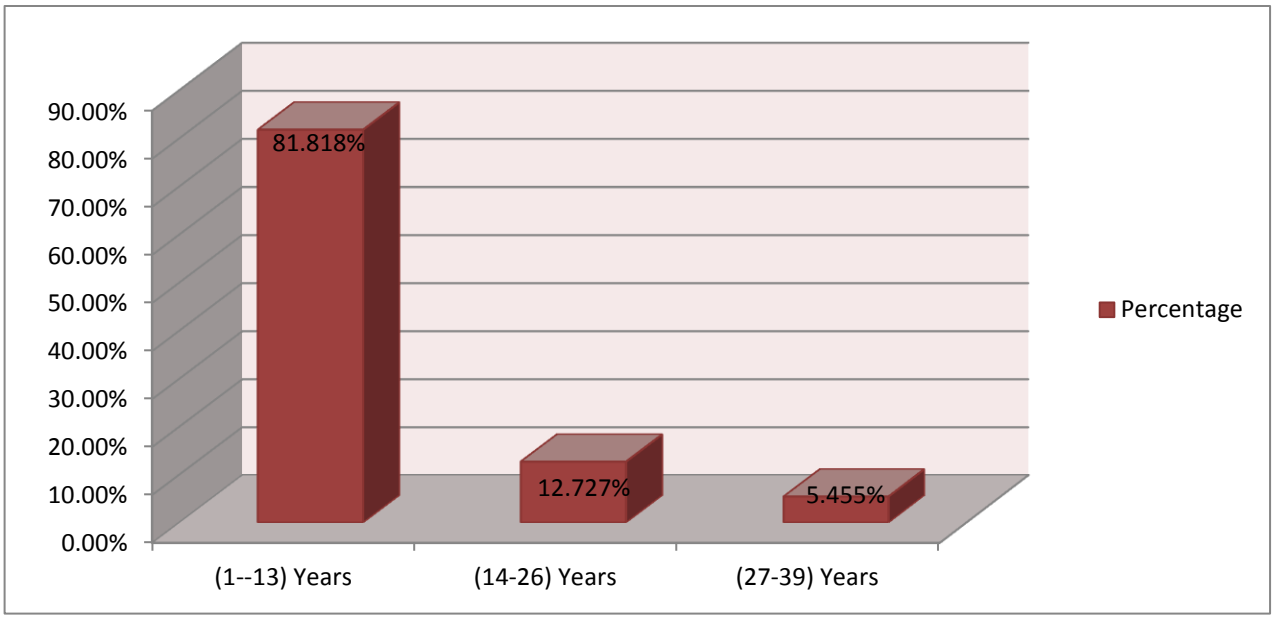


Figure4.12: Distribution of the respondents to their service duration in agricultural extension.

4.4.5 Employment Center

Employment center is the important factor to determine the employees' function and the differences between them depending on the duration of their service careers. The distribution of the respondents according to the employment center shows that (25.455%) of those who were agricultural agent and agronomists with average calculations for the training need with was (275.964) and (283.714) degrees respectively, and the rate of (16.363%) work as the head of agronomists with average calculations for the training need of (285.222) degree, and the rate of (17.272%) work as the head of the agricultural agents with average calculations for the training need of (285.578) degree, and the rate of (12.727%) are employed as the senior agricultural managers with average calculations for the training need which was (272.248) degree, and the rate of (2.728%) work as a senior agricultural agents with average calculations for the training need of (313) degree as it is shown in the following table:

Table4.13: Shows the distribution of the respondents in accordance with the categories employment center and its relationship to the training needs.

S	Categories of employment center	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	Agricultural agent	28	25.455	275.964	0.129 *	3.18	2.251
2.	Agronomist	28	25.455	283.714			
3.	Head of agronomists	18	16.363	285.222			
4.	Head of the agricultural agents	19	17.272	285.578			
5.	Senior agricultural managers	14	12.727	272.428			
6.	Senior agricultural Agents	3	2.728	313			
	Total	110	100%				

* Significant at the level (0.05)

To find a correlation relationship between the degree of the training needs and employment center which is occupied by the agricultural employees, coefficient correlation ranking (Spearman Brown) has been used and its value reached at (0.129*) which is bigger than the tabular value at the level of (0.05) and this shows that there is a positive significant correlation between the two variables and thus, it refuses the Research Hypothesis which states that there is no significant correlation between the level of the cognitive training needs of the respondents in the area of the extension planning programs and employment center, and it accepts the Null Hypothesis, this result can be explained by promoting employees to higher employment position, while the employees require more information and expertise. As much as he/she would promote to higher position he/she needs more training, and this result corresponds with the study of Al-Abassi (2003) and inconsistent with the study of Al-Abassi *et al*., (2009) and the study of Al-Talb (2013).

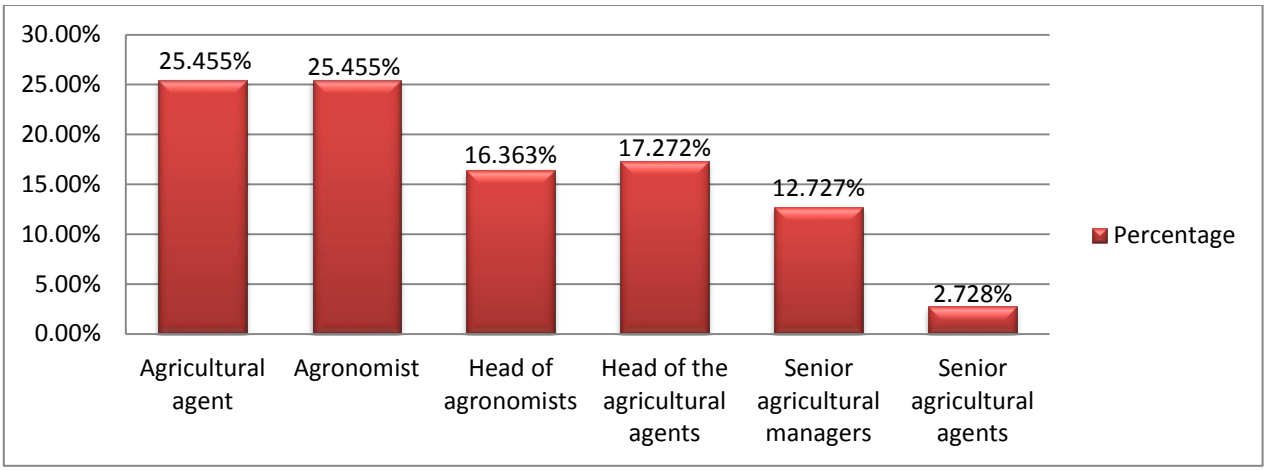


Figure4.13: Distribution of the respondents to the categories their employment center.

4.4.6 Previous Extensional Training

Training has been identified as a major component to increase information, expertise and skills of the employees in their field. The results of the study shows to the rate of the respondents was (72.728%) who participated in the training courses with average calculation of the need for training of (287.325) degree, and the rate of (27.272%) of the respondents who were non-participant in the training courses with a with average calculation of the need for training of (266.633) degree, and this means that the majority of the respondents are those who participated in the training courses and as it is shown in the following table:

Table4.14: Distribution of the respondents according to the categories of previous extensional training and its relationship to the training needs.

S	Categories of previous extensional training	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	Participant	80	72.728	287.325	0.221*	0.75	0.497
2.	Non-participant	30	27.272	266.633			
	Total	110	100%				

* Significant at the level (0.05)

To find the correlation relationship between the degree of the training needs and participation in the training courses in the agricultural extension, the coefficient correlation ranking (Spearman Brown) has been used and its value reached at (0.221*) which is bigger than the tabular value at the level of (0.05), and this indicates that there is significant correlation between the two variables and thus, it refuses the Research Hypothesis which states that there is no correlation between the level of the cognitive training needs of the respondents in the area of the extension planning programs and previous extensional training, and it accepts the Null Hypothesis, and this shows the level of the participant's cognitive in the agricultural extension planning programs process which would be increased with training courses that would be received in this area, and the result of the information that the respondents receives it in the agricultural extension planning programs process through training programs and thereby reduces training needs, and this result corresponds with the Al-Talb's study (2013) but this result inconsistent with the study of Al-Abassi *et al*., (2009) and the study of Al-Abassi (2011).

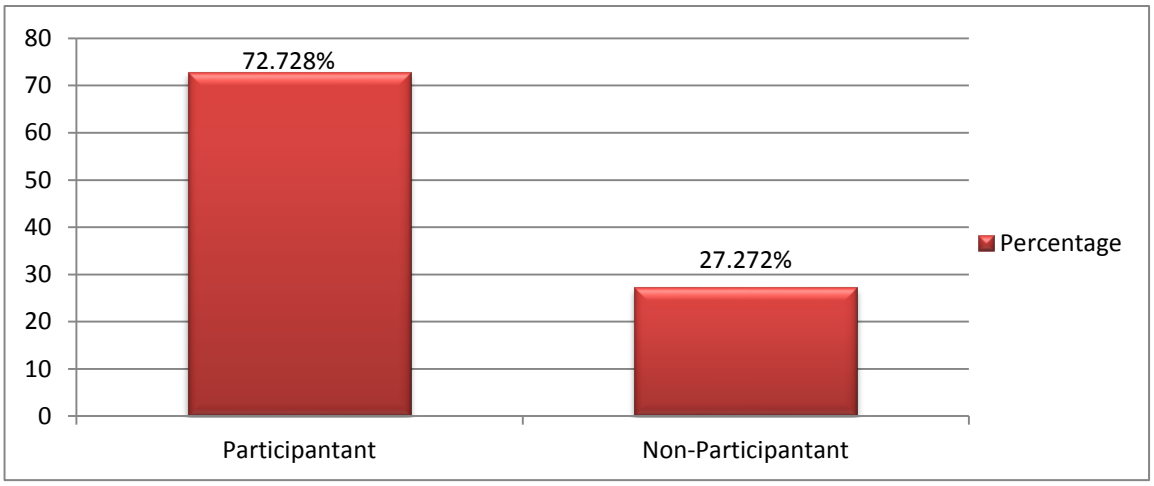


Figure4.14: Distribution of the respondents according to the categories of the previous extensional training.

4.4.7 Desire to Renewal

Desire to renewal means the degree of acceptance of the employees to change and apply it in the work being done. The results of the study shows that the highest numeric value that illustrates the desire to renewal and gained by the respondents was (52), and the least numeric value was (30) and the rate of the training need was (45.85) degree, and the respondents has been divided according to the categories of the desire to renewal into three categories by using the of (the Law of Range), and we found that the highest rate of the respondents of (63.636%) were among the categories of (46-53) with average calculation of the need for training of (285) degrees, the lowest rate of the respondents of (4.546%) were among the categories of (30-37) with average calculation of the need for training of (288.8) degree and this means that the majority of the respondents had a strong desire to renewal includes the category of the elderly and as shown in the following table:

Table4.15: Distribution of the respondents in accordance with the categories of the desire to renewal and its relationship to the training needs.

S	Categories of desire to renewal	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	(30-37) Low	5	4.546	288.8	$0.110^{N.S}$	45.85	3.814
2.	(38-45) Medium	35	31.818	274.028			
3.	(46-53) High	70	63.636	285			
	Total	110	%100				

To find the correlation relationship between the degree of the training needs and the desire to renewal, the simple correlation coefficient (Person) has been used and its value reached at (0.110) which is a less than the tabular value at the level of (0.05), and this indicates that is no significant correlation between the two variables and thus, it refuses the Null Hypothesis which states that there were a significant

correlation between the level of the cognitive training needs of the respondents in the field of the extension planning programs and the desire to renewal, and it accepts the Alternative Hypothesis, and the results refers to the lack of the difference between the respondents in their views to the degree of their training needs in the field of the extension planning programs depending on the desire to renewal, and the reason for that may be the majority of the respondents got new information and knowledge and they were keen on to fellow up with the scientific developments which were irrelevant with the extension planning programs process and as it can be seen when comparing the rates of the people with a strong desire to renewal which is much higher than the rate of those with an average and weak desire to renewal.

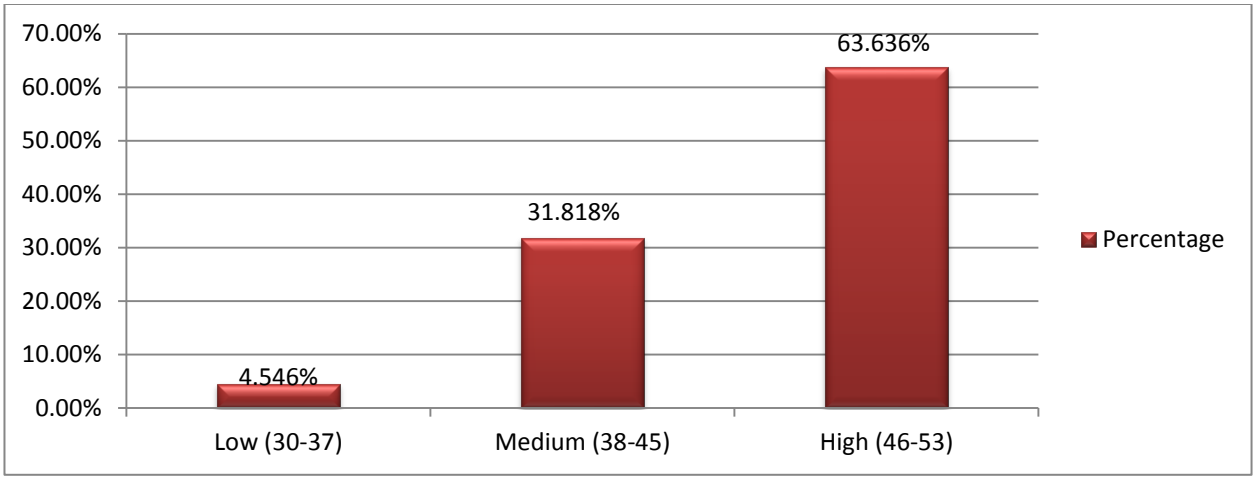


Figure4.15: Distribution of the respondents according to the categories of the desire to renewal.

4.4.8 Exposure to the Sources of Information

Sources of information is an important factor used by employees to get the information and knowledge of new agricultural. The results of the study shows that the highest numeric value from all of the sources of information which obtained by the respondents was (44), and the least numeric value was (16) and the rate of the training need was (31.00) degree, the respondents have been divided in accordance with the categories of the information sources into three categories by

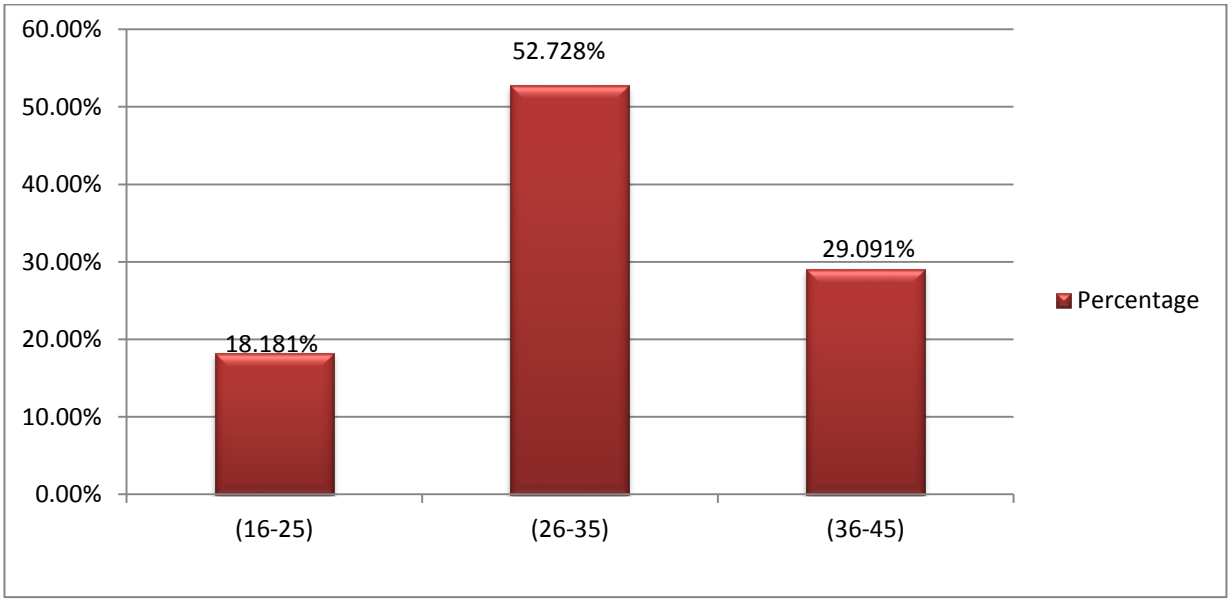
using the of (the Law of Range), and we found that the highest rate of the respondents of (52.728%) were among the categories of (26-35) with an average calculations of the need for training of (278.655) degree, and the lowest rate of respondents of (18.181%) were among the categories of (16-25) with an average calculations of the need for training of (279.3) degrees, as shown in the following table:

Table4.16: Distribution of the respondents according to the categories of exposure to the sources of information and its relationship to the training needs.

S	Categories of exposure to the sources of information	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	(16-25)	20	18.181	279.3	$0.053^{N.S}$	31.00	6.411
2.	(26-35)	58	52.728	278.655			
3.	(36-45)	32	29.091	285.968			
	Total	110	100%				

To find a correlation relationship between the degree of the training need and the sources of information ,the simple correlation coefficient (Person) was used and which its value reached at (0.053) which is a less than the tabular value at the level of (0.05), and this shows that there is no significant correlation between the two variables and thus it refuses the Null Hypothesis which states that there were significant correlation between the level of the cognitive training needs of the respondents in the area of extension planning programs and the sources of information, and it accepts the Alternative Hypothesis, and the results refers to the lack of the difference between the respondents in the training needs according to their exposure to the sources of information and the may be the reason for this result the indifference of the respondents to the quality of information which they

were exposed to or lack of information presented to them in the field of the extension planning programs.



Figuer4.16: Distribution of the respondents according to the categories of the exposure to the sources of information.

4.4.9 Organizational Climate

Organizational climate is the features and characteristics of the work environment extension centers perceived by employees and extension employees that affect their behavior, work environment vary from one organization to another. The results of the study shows the highest numeric value of the organizational climate which achieved by the respondents was (60), and the least numeric value was (32) and the rate of the training need was (43.95) degree, the respondents have been divided according to the categories of the organizational climate into three categories by using of (the Law of Range), and we found that the highest rate of the respondents of (56.364%) were within the category of (42-51) with an average calculation of the need for training of (284.677) degree, and the lowest rate of the respondents of (9.090%) were among the categories of (52-61) with an average calculation of the need for training of (277.3) degrees, as shown in the following table:

Table4.17: Distribution of the respondents in accordance with the organizational climate and its relationship to the training needs.

S	Categories	Frequency	%	Average training need	The value of the correlation coefficient	$\bar{X}$	S.D
1.	(32-41)	38	34.546	277.947	$0.053^{N.S}$	43.95	5.828
2.	(42-51)	62	56.364	284.677			
3.	(52-61)	10	9.090	277.3			
	Total	110	100%				

To find the correlation between the degree of the training need and the organizational climate, the Simple Correlation Coefficient (Person) has been used and its value reached at (0.053) which is a less than the tabular value at the level of (0.05), and this shows that there was no significant correlation between the two variables and thus, it refuses Null Hypothesis which states that there were significant correlation between the level of the cognitive training needs of the respondents in the area of extension planning programs, and the organizational climate, and it accepts the Alternative Hypothesis, and the results refers to the lack of the difference between the respondents in their views of the degree of the training needs in the field of the extension planning programs in accordance with the organizational climate, and perhaps the reason for this result is that the respondents live or subjected to similar working environment or the closeness of all of the extension directorates in the Governorate of Sulaimani and there was no relationship between training needs and the organizational climate in where they are.

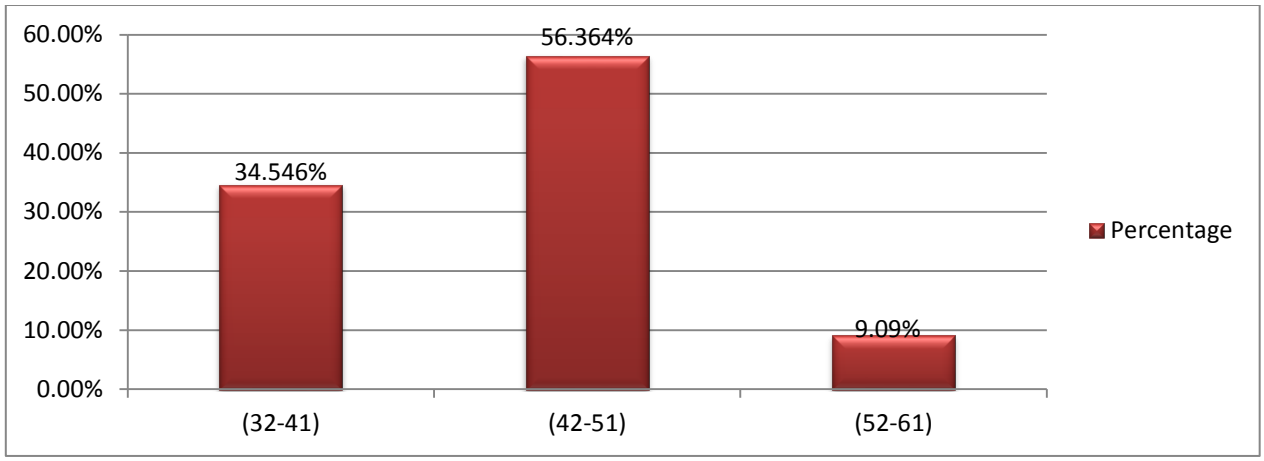


Figure4.17: Distribution of the respondents according to the organizational climate categories.

4.5 The Fifth Objectives: Determining the correlation relationship between the cognitive training needs of the agricultural extension employees in Sulaimani Governorate in the area of the extension planning programs and as personal and functional variables combined together.

The purpose of determining the correlation between the cognitive training needs for the employees in the agricultural extension in the Governorate of Sulaimani and personal and functional variables together was to figure out the influence of all of the factors by existence of other factors on the level of the cognitive training needs. In light of this arrangement of those factors, and to know the amount of the total variation in the degree of the cognitive training needs that is explained by each independent factor, in addition to the amount of the total variation in the training needs of the identifier which interpreted in the studied personal and functional variables. It has been used a multi-stage regression analysis model to identify the relationship between the level of the cognitive training needs of inter independent factors which is involved in the regression analysis. This analysis shows that the value of multi-correlation coefficient for the independent inter factors reached at (0.590), which is a significant on the probability level at (0.01), and the independent inter factors shows that together.

The regression analysis model and all phases of the analysis explained as (34.8%) of the variation in the level of the cognitive training needs, as the value of the determination coefficient reached at (0.348), which indicates a moderate* relationship between the level of the cognitive training needs and independent inter factors which is involved in the analysis, and the significant factor has been arranged for their impacts on the level of the defined cognitive training needs as described in the following table:

Table4.18: The multistage regression analysis model of the level of the cognitive training needs and personal and functional variables together.

S	The independent factors	Multiple correlation coefficient (R)	The coefficient of determination ($R^{2)}$	The change in the coefficient of determination	Significant model (F)
1.	Previous extensional training	0.417	0.174	0.174	**
2.	Educational level	0.516	0.267	0.093	**
3.	The service duration in agricultural extension	0.570	0.325	0.058	**
4.	Employment center	0.590	0.348	0.023	**

** Significant at the probability level (0.01).

Table (4.18) Shows the coefficient of determination (R^2) in the first phase of the multi-stage regression model was (0.174) and the same is equal to the change in the coefficient of determination, this means that the exposure of the respondents of for the previous training contributed to the interpretation of (17.4%) of the variation in the level of the cognitive training needs of the employee respondents in the field of the agricultural extension planning programs. In the second phase of the coefficient of determination analysis was (R^2) (0.267), as the change in it was (0.093), which means that the educational level of the respondents contributes to the interpretation

* Dr. Jasim Mohammed Aziz Al-Jubouri has reviewed the fifth objective analysis; he is the Professor of Statistics at the College of Agriculture, University of Tikrit.

of (9.3%) of the variation in the level of the cognitive training needs of the respondents. In the third phase of the coefficient of determination analysis was (R^2) (0.325), as the change in it was (0.058), which means that the service period for the agricultural extension contributes to the interpretation of (5.8%) of the variation in the level of the cognitive training needs of the respondents. In the fourth phase of the coefficient of determination analysis was (R^2) (0.348), as the change in it was (0.023) this means that the employment center, which is occupied by the factor in the agricultural extension of the respondents contributes to the interpretation of (2.3%) of the variation in the level of the cognitive training needs in the field of the agricultural extension planning programs.

4.6 Conclusions

Based on the results of the search the researcher concluded to the following:

1. The agricultural extension work in the Governorate of Sulaimani is administrated by the departments which lack sufficient knowledge in the area of managing extension units. The extension programs are administered and planning as well as the basics of the agricultural activities, which is prevailing in their work areas and this affects the level of provision of the extension service for the rural and in the level of their effectiveness.

2. The agricultural extension employees in the Governorate of Sulaimani have a large deficiency in their knowledge in areas of the different extension planning programs, especially in the field of the general framework of the planning process and in the organizations and the formation of the planning committees and the reason for this, is the weakness of the setup and academic rehabilitation of the agricultural extension employees and the lack of interest in the field work extension planning process.

3. The deficiency in efforts by the extension centers in the Governorate of Sulaimani, in the provision of specialized training for the employees in the agricultural extension and in particular in the field of the extension planning programs.

4. The non-significant variables (age, educational level, academic specialization, desire to renewal, exposure to the sources of information and organizational climate) play a weak role in influencing the cognitive level of the respondents in the extension planning programs process. This requires further study and investigations for the causes.

5. The significant variables (the service duration in agricultural extension, employment center and previous extensional training) play morally clear role in having a positive impact on the cognitive level of the employees in the agricultural extension in the Governorate of Sulaimani in the process of the extension planning

programs so that those who are responsible for planning in the region needed to be concerned about it and develop it.

6**.** The most important in the interpretation of variation in the level of the cognitive training need, because previous training will improve the level of knowledge very effectively. Dramatically; the factor of educational level, which affects the level of the cognitive training need, then the factor of the service duration in agricultural extension. When the service would be increase, it will increase the level of knowledge in the field of the extension planning programs. As a result, while the employees have received several training courses, then confronted a lot of the problems during the work; that led to the acquisition of the experience and skill in their fields, then the factor of employment center increases with the cognitive level whenever the agricultural extension employee promoted to the highest position.

7. The results of the study showed that; the four variables which were studied and explained, only (34.8%) required. Therefore, the existence of other factors which is not covered by this study that affects the cognitive training needs of the respondents.

4.7 Recommendations and Suggestions

In light of the previous findings the researcher recommends the following:

1. The extension centers should set up intensive training courses that concentrate on increasing information and knowledge in the areas of the extension planning programs for the employees in the agricultural extensions in the Governorate of Sulaimani.

2. The results showed that there is no significant differences in knowledge and skills of the specialized agricultural extension agents and none-specialized agricultural extension agents, and raises a question about supported curriculum in the Department of Agricultural Extension, especially in the process of planning programs and the ways of the training which requires re-consideration of the curricula, especially the practical side.

3. The results of a study showed that the service duration in agricultural extension has the moral correlation with the schematic efficiency performance. Therefore, the researcher recommends the need to the new extension agents to spend time with the old extension agents get benefit from their expertise.

4. Being concerned with the certain categories of the employees in agricultural extension who are in the need of high planning as new appointed ones and those with a few years in service in order to raise their competence in work and prepare them for the future, and graduates from high school and agricultural institutes should be subjected to a simple training in the areas of the extension planning programs before joining the extension service.

5. Working to meet the training needs in the areas in which there is the cognitive defect and the great need, especially in the area of the developing the planning process for the general framework through the preparation and implementation of the specialized training programs which is the responsibility of the Ministry of Agriculture and the Directorate of Agricultural Extension Research and in the coordination with the Agricultural colleges and institutes in the Region.

6. Conducting similar studies in the areas of Kurdistan Region to determine the cognitive training need for the employees and farmers in the area of the extension planning programs.

7. Conducting other studies similar to this study on the subject of the cognitive training needs for the extension agents in the Governorate of Sulaimani, in other areas of extension, and also by using methodologies and other new independent factors which wasn't used in this research.

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Appendix (1)

In the name of Allah

University of Sulaimani

Faculty of Agricultural Sciences

Agribusiness and Rural Development

No. form .....

Subject: A questionnaire for employees in the agricultural extensions

Dear Agricultural Agent...

This questionnaire that you are about to fill it out belongs to a research in the title of (Cognitive training needs for employees in agricultural extension in Sulaimani Province in the field of extension planning programs). The research aims to identify the cognitive training needs for the employees in the agricultural extension in the Governorate of Sulaimani in the field of agricultural extension programs planning generally. You as person who related to the research, please read the sections of the questionnaire well and answer them with accuracy and objectivity, which the extent of success of the research relays on the accuracy of your answer and we would like to inform you that the data contained in this form is confidential and will not be used except for the scientific research purposes only..... We appreciate your cooperation for the development of agriculture in the Kurdistan Region.

Note: No need to write your name.

Researcher

Khansa Hameed HamaFaraj

Student Master Degree: The Department of Agribusiness and Rural Development

Please tick this mark (√) in front of each section below, according to what applies to you:

Part I: Personal and Functional Variables:

1. Age: ( ) years.

2. Educational Level: - Agricultural high School ( ).
- Agricultural institute ( ).
- College of agriculture ( ).
- Otherwise stated ( ).

3. Academic Specialization: -Agricultural extension ( ).

Or

-Non-Agricultural extension ( ).

4. The Service Duration in Agricultural Extension: ( ) years.

5. Employment Center: - Agricultural agent ( ).
- Agronomist ( ).
- Head of agronomists ( ).
- Head of the agricultural agents ( ).
- Otherwise stated ( ).

6. **Previous Extensional Training:** Did you participate in training courses between years (2010-2014)?

Yes ( ). No ( ).

If you were a participant in the training courses, please state follows:

S	The Subject of Course	Place of the Course	Duration of the Course
1.			
2.			
3.			
4.			

7. Desire to Renewal:

S	Statements	Agree	Neutral	Disagree
1.	I think training it is not necessary for the development of the employees in agricultural extensions professionally.			
2.	Changing habits, attitudes and negative opinions can be helpful to develop employee's performance.			
3.	I see that research and new technologies in the internet are just waste of time and do not help the workers' development professionally.			
4.	I care to encourage others to give suggestions and present new methods in extension work.			
5.	When I try to apply the new technology, I will be exposed to criticism by others.			
6.	When I will be persuaded to a new idea to develop my performance in work I apply without any hesitation.			
7.	Working in the field of the agricultural extension does not require a high level of training.			
8.	I feel happy when I apply new things in my work.			
9.	The application of the new ideas in the work is not guaranteed with results and consequences.			
10.	I always contact people with expertise and competence for information about extension.			
11.	The change in the ways and methods of work may bring negative results.			
12.	I always look for the latest information in the field of my work in the agricultural extension.			
13.	It is better to stay away from listening to the radio and television programs that deal with the extension topics.			
14.	I would to read more when, I face a problem that is difficult to be solved.			
15.	I avoid new things that are inappropriate with the customs and traditions of our society.			
16.	Applying new ideas and methods as a priority in my work of the extension.			

S	Statements	Agree	Neutral	Disagree
17.	I start to think about the change only when I'm having a problem in my work.			
18.	I try to look at and learn from successful experiences of others in the agricultural extension.			

8. Exposure to the Sources of Information:

You are exposed to the sources of information below:

S	Sources of Information	Always	Sometimes	I don't look
1.	Agricultural TV programs.			
2.	Agricultural radio programs.			
3.	Friends and co-workers.			
4.	Extension training.			
5.	Extension Publications.			
6.	Books and extension Bulletins.			
7.	Extension newspapers and magazines.			
8.	Extension exhibitions.			
9.	Agricultural research centers.			
10.	Agricultural colleges and institutes.			
11.	Agricultural symposiums.			
12.	Agricultural conferences.			
13.	World Wide Web (the Internet).			
14.	Posters.			
15.	Agricultural companies.			
16.	Agricultural offices.			

9. Organizational Climate:

S	Statements	Agree	Neutral	Disagree
1.	Employees have been given opportunities to participate in the analysis of the work matters and make decisions about them.			
2.	The extension tasks were not determined clearly by administration staffs.			

S	Statements	Agree	Neutral	Disagree
3.	The high administration staff encourages innovation and renewal at work, in spite of all its consequences.			
4.	There are many conflicts and problems that we face at work.			
5.	The administration provided possible services to develop employees' potential and keen on them.			
6.	There is always is changes in the organizational and functional structure in our Directorate.			
7.	There are similarities between my personal values and values of the organization that I work for.			
8.	The time I spend in my work performance is the best of my time.			
9.	The Administration is keen on to identify the training needs for the employees to improve their performance in their work.			
10.	The high administration staff encourages all new ideas and invests in them strongly.			
11.	The agricultural extension tasks which are determined to us aren't unclear.			
12.	The administration won't bother to take part in happiness and sorrow moments.			
13.	My current work place gives me the opportunity to exploit my maximum energies and my potential at work.			
14.	The organizational and functional structure is always changeable in our Directorate.			
15.	The goals were set in our Directorate cooperatively.			
16.	The best time to me, is when I spend in my work performance.			
17.	Employees have been given opportunities to analyze of the work matters and participate in making-decisions about them.			
18.	The administration is keen on to provide the workers with necessary services to develop their capability.			
19.	I hope to change my current work to other work.			

S	Statements	Agree	Neutral	Disagree
20.	The administration doesn't care about our work environment (ventilation, lighting and sitting places).			
21.	There is a high degree of similarity between my personal values and values of the organization where I work.			
22.	The management of our administration is keen on improving social relationship among employees.			

Part II: Areas and Sections of the Planning Extension Programs:

First Area: The General Framework of the Planning Process.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing the concept of the extension planning programs process.				
2.	Knowing the philosophy of the extension planning programs.				
3.	Knowing the sources which are driven from philosophy extension planning programs.				
4.	Knowing the aims of the extension planning programs.				
5.	Knowing the sources which are driven from extension educational objectives that required for the planning process.				
6.	Knowing the specifications of the extensional educational goals.				
7.	Knowing the required levels of extension targets and methods of formulation.				
8.	Knowing the policy planning for the extension programs.				
9.	Knowing the stages and steps of creating the process extension programs.				
10.	Knowing the principles of the process extension programs planning.				
11.	Knowing the tasks of the extension programs planning process.				

S	Statements	Excessive need	Average need	Slight need	No need
12.	Knowing the types of extension planning.				
13.	Knowing the components of the extension program and the methods of implementing it.				
14.	Knowing the characteristics of the successful extension programs.				
15.	Knowing the educational style of the extension programs.				
16.	Knowing the ways of implementing extension programs.				
17.	Knowing the procedures of the extension planning programs.				
18.	Knowing the concept of Balanced psychological reaction in the extension planning programs.				
19.	Knowing the models of extension planning programs.				
20.	Knowing the obstacles upon extension planning program.				
21.	Knowing the characteristics of the employees in the extension planning programs.				

Second Area: The Need for Planning.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing the meaning and of procedures the need for planning stage.				
2.	Knowing the previous programs and extension activities for the purpose of the planning process.				
3.	Knowing how to justify the process of planning and obtaining fundamental approvals to it.				

S	Statements	Excessive need	Average need	Slight need	No need
4.	Knowing how to create a future extension plans.				
5.	Knowing how to predict the future needs of targeted ones.				
6.	Knowing the methods for the identification of the training needs generally.				
7.	Knowing how to arrange the problems of the targeted ones according to their priorities.				
8.	Knowing how to convert needs into the release goals.				
9.	Knowing how to choose the appropriate alternative decisions for the planning process.				

Third Area: Organization and Formation of Planning Committees.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing the concept and the importance of the organization in the process of planning.				
2.	Knowing how to fill the necessary efforts and resources in the extension planning.				
3.	Knowing how to organize the human and material resources available which is necessary for the planning process.				
4.	Knowing the role of agricultural agent in the planning process.				
5.	Knowing the required supplements for the planning process.				
6.	Knowing the most important factors that affect the organization of human and material resources which are required for the planning process.				
7.	Knowing how to form committees (councils) in planning.				

S	Statements	Excessive need	Average need	Slight need	No need
8.	Knowing of the required qualifications to participate in the planning committees.				
9.	Knowing the most important factors that influence the selecting the members of the planning committee.				
10.	Knowing the types of committees which are required for planning.				
11.	Knowing the functions and duties of the planning Committee.				
12.	Knowing the local leaders who will be involved in the process of planning.				
13.	Knowing required employees and their contribution in the extension planning process.				
14.	Knowing the required supplements for the planning process.				
15.	Knowing the importance of training of the members of the Planning Committee.				
16.	Knowing the goals of the planning committees.				
17.	Knowing how to organize the local rural leaders and encourage the public to participate in the planning processes.				

Fourth Area: The Actual Planning of the Extension Program.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing the importance of the actual planning of the extension program.				
2.	Knowing the frequent steps that are involved in the actual program planning stage.				
3.	Knowing the appropriate time to carry out the extensional program.				

S	Statements	Excessive need	Average need	Slight need	No need
4.	Knowing how to analyze the reality of building and planning the extension programs.				
5.	Knowing the individuals and the required supplies to implement planning processes.				
6.	Knowing the types of the data that is required for extensional planning.				
7.	Knowing how to study and analyze the facts and the data and their interpretation.				
8.	Knowing how to arrange the needs according to the facts.				
9.	Knowing the data collection methods.				
10.	Knowing the required activities to implement the extension programs planning.				
11.	Knowing the nature and the number of the required extension activities for the implementation of planning.				
12.	Knowing the statistical methods to deal with the data and information which is required for planning.				
13.	Knowing the types of samples and methods and selecting them.				
14.	Knowing the authorities that should cooperate and coordinate with for the implementation of the planning processes.				

Fifth Area: Writing an Action Plan Program.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing activities that are contained in the writing an action plan program stage.				
2.	Knowing the responsible authorities for writing the action plan program.				
3.	Knowing the specifications for the action plan program.				

S	Statements	Excessive need	Average need	Slight need	No need
4.	Knowing how to prepare a written document for the planning.				
5.	Knowing the contents of the extension action plan.				
6.	Knowing the most important facts that are needed to be gathered to extension planning.				
7.	Knowing the criteria to be depended on to create a good extension plan.				
8.	Knowing those who are involved in the preparation of the action plan.				
9.	Knowing the extension agents who contribute to the implementation of the action plan.				
10.	Knowing the types of the extension plans.				

Sixth Area: Evaluation of the Planning Procedures.

S	Statements	Excessive need	Average need	Slight need	No need
1.	Knowing the importance of the planning evaluation				
2.	Knowing the kinds of the evaluation for the planning process.				
3.	Knowing the required people and their contribution in the process of the evaluation				
4.	Knowing the required criteria for the evaluation process.				
5.	Knowing the required the evidence (data) in evaluation process.				
6.	Knowing how to reach judgments and decisions concerning evaluation.				
7	Knowing the required levels evaluation for the planning process.				
8.	Knowing how to monitor and follow up the results of the evaluation.				
9.	Knowing how to write reports about evaluation and deliver it to those responsible authorities				

Appendix (2): Names of Experts in Agricultural Extension, Management and Psychology Assessing Face Validity.

S	Expert Name	Academic Title	Specialization	Work Place
1.	Dr.Ahmad N.AL-Shadiadeh	Professor	Agricultural Extension	Faculty of Agricultural Technology-Al Balqa Applied University of Jordan
2.	Dr.AShwaq Abdul Razak Naji	Professor	Agricultural Extension	College of Agriculture- University of Baghdad
3.	Dr.Rushdi Ali Mirzh Jaff	Professor	psychology	College of Basic Education - Sulaimani University
4.	Dr.Kawa Muhammad Faraj Qaradaghi	Professor	Administration	College of Administration &Economics-University of Sulaimani
5.	Dr.Darman Suleiman Sadiq	Assistant Professor	Administration	College of Administration & Economics -University of Dohuk
6.	Dr.Abid Ali Hassan Doski	Assistant Professor	Agricultural Extension	Faculty of Agriculture- University of Dohuk
7.	Dr.Saad Fadel Abbas	Assistant Professor	Administration	College Administration and Economics-University of Dohuk
8.	Dr.Mithal Abdul Latif Salman	Assistant Professor	Agricultural Extension	College of Agriculture, University of Baghdad
9.	Dr.Bayan Abdul Jabbar Rada	Assistant Professor	Agricultural Extension	College of Agriculture, University of Baghdad
10.	Dr.Saber Bakr Mustafa	Assistant Professor	psychology	College of Human Sciences-University of Sulaimani
11.	Dr.Niyan NamiQ Saber	Assistant Professor	psychology	College of Human Sciences-University of Sulaimani
12.	Dr.Prshing Saleh	Assistant Professor	Administration	College of Administration &Economics-University of Sulaimani
13.	Dr.Tahir Mohammed Laeq Hassan	Assistant Professor	Agricultural Extension	Agricultural Technical College-Sulaimani Polytechnic University
14.	Dr.Wala Jawdat Ali	Lecturer	Administration	College of Administration &Economics-University of Koya
15.	Dr.Hassan Fakhraddin Khaled	Lecturer	psychology	College of Basic Education - Sulaimani University
16.	Dr.Rezhen Mohammed Harun	Lecturer	Administration	Faculty of Agricultural Science-University of Sulaimani
17.	Mr.Dara Abdulrrahman Salih	Lecturer	Agricultural Extension	Faculty of Agricultural Science-University of Sulaimani
18.	Mr.Mohammad Omer Mohammed	Lecturer	Agricultural Extension	Faculty of Agricultural Science-University of Sulaimani

S	Expert Name	Academic Title	Specialization	Work Place
19.	Mr.Mahmoud Ahmed Glob	Lecturer	Agricultural Extension	College of Agriculture-University of Baghdad
20.	Mr.Amgad Mohammed Abdullah	Lecturer	Administration	College of Administration & Management-Human Development University
21.	Alan Tawfiq Gharib	-	Animal Production	Director of Agricultural Extension in Sulaimani Governorate

الملخص

استهدف البحث بصفة رئيسية تحديد الحاجات التدريبية المعرفية للعاملين في الإرشاد الزراعي في محافظة السليمانية في مجال تخطيط البرامج الإرشادية وتحديد العلاقة بين درجة هذه الاحتياجات وبعض المتغيرات الوظيفية والشخصية.

شمل مجتمع البحث جميع العاملين في الإرشاد الزراعي بمحافظة السليمانية والبالغ عددهم (137) موظفاً, بينما عدد العاملين الخاضعين للبحث (110) موظفاً, تمت دراسته بالكامل وقد تم جمع البيانات بواسطة استمارة استبيان أعدت في ضوء مراجعة الباحثة للأدبيات وأراء الخبراء المتخصصين وموافقتهم عليها، تكونت من جزأين: الجزء الأول تضمن عدد من الأسئلة للحصول على معلومات شخصية ووظيفية بينما تضمن الجزء الثاني (80) فقرة لقياس الاحتياجات التدريبية المعرفية في مجال تخطيط البرامج الإرشادية, وتم تحقيق الصدق الظاهري من خلال عرض الاستبيان على عدد من الاختصاصيين في مجال الإرشاد الزراعي و والإدارة والعلم النفس, كما تم حساب الثبات بطريقة (ألفاكرونباخ) وبلغ قيمتها (0.983 , 0.80, 0.70) في الجوانب التالية (مجالات تخطيط البرامج الإرشادية بشكل عام, المناخ التنظيمي، الرغبة في التجديد), وقد تم تحليل بيانات الدراسة بواسطة الأساليب الإحصائية المستخدمة.

وقد أوضحت النتائج أن الغالبية العاملين الإرشاديين حاجاتهم التدريبية المعرفية كبيرة في مجالات عملية تخطيط برامج الإرشاد الزراعي بشكل عام, مجالات التخطيط البرامج الإرشادية وفقاً لأهميتها النسبية هي التالية (الإطار العام لعملية التخطيط, تنظيم وتشكيل لجان التخطيط, التخطيط الفعلي للبرنامج الإرشادي, كتابة خطة عمل البرنامج, تقويم إجراءات التخطيط, الحاجة للتخطيط), وأسهمت أربعة متغيرات في تفسير التباين في الاحتياجات التدريبية المعرفية وهي متغيرات (التدريب الإرشادي السابق, المستوى التعليمي, مدة الخدمة الوظيفية في الإرشاد الزراعي, المركز الوظيفي), واظهر ان هناك علاقة معنوية بين الحاجات التدريبية المعرفية ومتغيرات (مدة الخدمة الوظيفية في الإرشاد الزراعي, المركز الوظيفي, التدريب الإرشادي السابق) في حين لاتوجد علاقة معنوية مع متغيرات(العمر, المستوى التعليمي, التخصص الأكاديمي، الرغبة في التجديد, التعرض لمصادر المعلومات, المناخ التنظيمي).

ومن أهم استنتاجات البحث هي أن العاملين في الإرشاد الزراعي في محافظة السليمانية لديهم نقص معرفي كبير في مجالات تخطيط البرامج الإرشادية المختلفة ولاسيما في مجال الإطار العام لعملية التخطيط ومجال تنظيم وتشكيل لجان التخطيط, كذلك تبين إن أربعة متغيرات درست فسرت (34.8%) من الحاجة التدريبية فقط ولذلك نستنتج وجود عوامل أخرى لم تشملها هذه الدراسة توثر في الاحتياجات التدريبية المعرفية للمبحوثين.

وقد أوصت الدراسة بضرورة قيام المراكز الإرشادية بإعداد دورات تدريبية مكثفة تركز على زيادة المعلومات والمعارف الخاصة بمجالات تخطيط لبرامج الإرشادية للعاملين في الإرشاد الزراعي في محافظة السليمانية, والعمل على تلبية حاجاتهم التدريبية في المجالات التي ظهر فيها خلل معرفي وحاجة كبيرة وبخاصة مجال الإطار العام لعملية التخطيط وذلك من خلال إعداد وتنفيذ برامج تدريبية متخصصة تعنى بمسؤوليتها وزارة الزراعة ومديرية البحوث والإرشاد الزراعي بالتنسيق مع الكليات والمعاهد الزراعية في الإقليم.

الحاجات التدريبية المعرفية للعاملين في الارشاد الزراعي في محافظة السليمانية في مجال تخطيط البرامج الارشادية

رسالة

مقدمة الى مجلس فاكلتي العلوم الزراعية في جامعة السليمانية كجزء من متطلبات نيل شهادة الماجستير في

ادارة الأعمال الزراعية وتنمية المناطق الريفية

(التخطيط والتدريب)

من قبل

خنساء حميد حمەفرج

بكالوريوس في المحاصيل الحقلية (2012)، فاكلتي العلوم الزراعية،

جامعة السليمانية

بإشراف

الدكتور سحاب عايد العجيلي

أستاذ

شوبات 2016م — جمادي الأول 1437هـ

پوختە

ئامانجی سەرەکی ئەم توێژینەوەیە بەشێوەیەکی سەرەکی بریتیە لەدیاریکردنی پێویستیەکانی ڕاهێنانی زانیاری بۆ کارمەندەکانی بەڕێوەبەرایەتی ڕێنمایی کشتوکاڵی لە پارێزگای سلێمانی لەبواری پلاندانانی بەرنامە کشتوکاڵیەکان ، هەروەها دیاریکردنی پەیوەندی لەنێوان نمرەی پێویستیەکان و هەندێك گۆڕاوی کاری و کەسێتیەوە.

کۆمەڵگەی توێژینەوەکە پێکهاتووە لەسەرجەم کارمەندانی ڕێنمایی کشتوکاڵ لە پارێزگای سلێمانی کە ژمارەیان (137) کارمەندە، لەکاتێکدا ژمارەی ئەو کارمەندانەی کەلەتوێژینەوەکە بەشداریان کردووە (110) کارمەندە. کە توێژینەوەکە هەمویانی لە خۆ گرتبوو، زانیاریەکان کۆکرانەوە بەهۆی فۆرمێکی ڕاپرسی ئامادەکراو لەژێر ڕۆشنایی پێداچوونەوەی توێژەر بۆ نووسینەکان و بۆچوونی شارەزایانی پسپۆر و وە ڕەزامەندیان لەسەری کە فۆرمەکە پێکهاتوە لە دووبەش: بەشی یەکەم پێکهاتوە لە هەندێك پرسیار تایبەت بە دەستکەوتنی زانیاری کەسێتی و کاری بەڵام بەشی دووەم پێکهاتوە لە (80) بڕگە بۆ پێوانەی پیویستیەکانی ڕاهێنانی زانیاری لەبواری پلاندانانی بەرنامە کشتوکاڵیەکان، پاشان ڕاستی ڕوکەشی دیاریکرا پاش وەرگرتنی ڕاوبۆچونی ژمارەیەك پسپۆرانی تایبەتمەند لەبواری ڕێنمایی کشتوکاڵی و کارگێڕی و دەروونناسی، پاشان جێگیری دەرهێنرا بە بەکارهێنانی ڕێگای (الفا کرونباخ) بەبەهای (0.983، 0.80، 0.70) لە بوارەکانی (پلان دانانی بەرنامە کشتوکاڵیەکان بەشێوەیەکی گشتی، ژینگەی ڕێکخستن، ئارەزووی نوێبونەوە). پاشان داتاکانی توێژینەوەکە شیکرایەوە بە یارمەتی ڕێگاکانی ئامار بۆ شیکردنەوەی داتاکان .

بەشێوەیەکی گشتی ئەنجامەکان ڕوونیان کردەوە کە پێویستیەکانی ڕاهێنانی زانیاری زۆرینەی کارمەندەکانی ڕێنمایی کشتوکاڵی زۆرە لەبوارەکانی پرۆسەی پلاندانانی بەرنامە کشتوکاڵیەکان، بوارەکانی پلاندانانی بەرنامە کشتوکاڵیەکان بەگوێرەی گرنگی ڕێژەییان بەم شێوەیەیە (چوارچێوەی گشتی پرۆسەی پلاندانان، ڕێکخستن و پێکهینانی لیژنەی پلاندانان، پلاندانانی کرداری بۆبەرنامەی ڕێنمایی، نووسینی پلانی بەرنامەی کار، هەڵسەنگاندنی هەنگاوەکانی پلاندانان، پێویستی بۆ پلاندانان)، چوار گۆڕاو بەشداری دەکەن لە ڕوونکردنەوەی جیاوازی پێداویستیەکانی ڕاهێنانی زانیاری کەبریتین لە (ڕاهێنانی ڕێنمایی پێشوو، ئاستی خوێندن، ماوەی خزمەتی کار لە ڕێنمایی کشتوکاڵی، ناونیشانی کار).

وەدەرکەوت کە پەیوەندی هەیە لەنێوان پێویستیەکانی ڕاهێنانی زانیاری و گۆڕاوەکانی (ماوەی خزمەتی کار لەڕێنمایی کشتوکاڵی، ناونیشانی کار، خولی ڕێنمایی پێشووتر). لەهەمان کاتدا پەیوەندی نیە لەگەڵ گۆڕاوەکانی (تەمەن، پسپۆری خوێندن، ناونیشانی کاری، ئارەزووی نوێبونەوە، بەرکەوتنی سەرچاوەکانی زانیاری، ژینگەی ڕێکخستن).

وەلەگرنگترین دەرئەنجامەکانی توێژینەوەکە دەرکەوتووە کە کارمەندانی ڕێنمایی کشتوکاڵی لە پارێزگای سلێمانی گرفتی کەمی زانیاریان هەیە لەبوارەکانی پلاندانانی بەرنامە کشتوکاڵیە جیاوازەکان بەتایبەتی لەبواری چوارچێوەی گشتی پرۆسەی پلاندانان و بواری ڕێکخستن و دروستکردنی لیژنەی پلاندانان، وەهەروەها دەرکەوتووە کەچوار گۆڕاو کەخوێندنەوەیان بۆکراوەو و ڕوونکراونەتەوە تەنها (34.8٪) لەپێداویستی ڕاهێنانە، لەبەرئەوە دەگەینە ئەو دەر ئەنجامەی کەهۆکاری تر هەیە کەلەم توێژینەوەیەدا ئاماژەی پێنەکراوە کاریگەری هەبێت لەسەر پێویستیەکانی ڕاهێنانی زانیاری کارمەندەکان.

لە ڕوانگەی دەرئەنجامەکانەوە پێشنیار دەکرێت بە بەئامادەکردنی خولی ڕاهێنانی چڕ وپر لە لایەن بنکە ڕێنمایەکانەوە وە تیشك بخرێتە سەر پەرەپێدانی زانست و زانیاری تایبەت بە بوارەکانی پلاندانانی زانستە کشتوکاڵیەکان بۆ کارمەندەکانی ڕێنمایی کشتوکاڵی لەپارێزگای سلێمانی. وە کارکردن لەسەر دابینکردنی پێداویستیەکانی ڕاهێنان لەو بوارانەدا کەتیایدا دەرکەوتووە کەموکوڕی زانیاری و پێداویستی زۆریان هەیە بەتایبەتی لەبواری چوارچێوەی گشتی پرۆسەی پلاندانان ،ئەمەش لەڕێگەی ئامادەکردن و جێبەجێکردنی بەرنامەی ڕاهێنانی تایبەتمەند کە وەزارەتی کشتوکاڵ و بەڕێوەبەرایەتی توێژینەوەو ڕێنمایی کشتوکاڵی پێی هەستن بەهەماهەنگی لەگەڵ کۆلێج و پەیمانگا کشتوکاڵیەکانی هەرێم.

پێویستیەکانی ڕاهێنانی زانیاری بۆ کارمەندانی بەڕێوەبەرایەتی ڕێنمایی کشتوکاڵی لە پارێزگای سلێمانی لەبواری پلاندانانی بەرنامە کشتوکاڵییەکان

ئەم توێژینەوەیە

پێشکەش کراوە بە ئەنجومەنی فاکەڵتی زانستە کشتوکاڵییەکان لە زانکۆی سلێمانی وەک بەشێك لە پێداویستیەکانی بەدەستهێنانی بڕوانامەی ماستەر لە

کارگێڕی کاری کشتوکاڵی و گەشەپێدانی ناوچەی گوندنشین

(پلاندانان و ڕاهێنان)

لەلایەن

خنساء حمید حمەفرج

بەکالۆریۆس لە بەروبوومی کیلگەیی (2012)، فاکەڵتی زانستە کشتوکاڵییەکان،

زانکۆی سلێمانی

سەرپەرشتیار

دکتۆر سحاب عاید العجیلی

پرۆفیسۆر

شوبات 2016 زایینی **ڕەشەمێ 2715 کوردی**