Determining the level of training needs for agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq .

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Abstract

The purpose of this study is to determine the level of each stage of the work of agricultural employees working in the laboratories of that company, and arrange those stages in descending order. And to find the correlation between the work stages and each of the study variables such as (academic achievement, years of experience working in the company, work problems). The study sample was selected in a systematic random manner. The study sample included (202 agricultural employees), which constitutes (47%) of the study population of (428) agricultural employees. Which percentage was calculated using the equation (SThompson, 2012, p59_Thompson 60). The research method included preparing and designing a questionnaire consisting of two parts: the first included the personal characteristics of the respondents. The second included measures of the work stages. A questionnaire form consisting of (67) test paragraphs was prepared, distributed over (7) stages as an initial formula. It was presented to experts specialized in agricultural guidance for the purpose of determining the relative importance of each stage of the work. In light of their comments, (4) paragraphs were deleted and (11) paragraphs were reformulated, so that the number of paragraphs became (63). Then, a pre-test was conducted on it by distributing it to (30) respondents as a survey sample to measure the reliability coefficient, which exceeded (73)%. After the questionnaire form was ready, it was distributed from (5/1/2023 to 9/1/2023). The data was collected through personal interviews. The percentage of ease, difficulty and discriminating power was measured, as (3) results were deleted due to their difficulty not being appropriate and not good in their discriminating power, so the number of test paragraphs became (60) paragraphs. The data were coded and processed using statistical methods (range, arithmetic mean, weighted mean, t-test, relative importance, correlation coefficient) using the SPSS program. The results also showed that the stage of (grain examination and analysis) ranked first, indicating the importance of this stage in receiving grains from farmers. It was followed by the importance of other work stages in succession, and that there was a significant inverse correlation between training needs and each of (academic achievement and number of years of experience), while the results showed that the relationship between training needs and problems was significant. This indicates the great importance of the need to conduct continuous and specialized training courses in the work of the respondents. The researcher recommended the importance of introducing agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq to training courses inside and outside the country, and that these courses be linked to the necessary training needs, and focus on introducing modern technologies.

Introduction:

The human element is a contributing factor to the generation of agricultural technologies in agricultural research institutions and centers due to the learning and availability of information and basic learning for the specialized cadre in the success and transfer of this technology, and it also provides the technical and administrative skills necessary to transfer it and thus provide agricultural inputs and services to develop agricultural production [1]. Therefore, agricultural technologies and the results of scientific research have become requirements called for by many research bodies to implement them in order to increase productivity and develop the agricultural sector [2]. Agricultural activity in Iraq is of exceptional importance as it represents the activity in which about a third of the number of workers in Iraq work, in addition to the fact that the agricultural gross domestic product ranks second in financing the gross domestic product after the oil sector [3]. Accordingly, the advancement of this activity requires the activation of many of its links, and the issue of the decrease or increase in the percentage of agricultural or arable land from the total land in a country is of importance because it clearly reflects the extent of benefit from agricultural activity. [4] It is noted in Iraq at the present time that a large segment of workers in the guidance apparatus lack a lot of information, knowledge and skills in many fields, and this is what was confirmed by the study of [5]. Study [6]. Study [7]. Study [8]. Study [9] As modernizing and developing agriculture has become an inevitability imposed by the requirements of life to secure food and clothing for the population, and provide the raw materials needed for industry, in addition to providing real job opportunities for young people, and to achieve sustainable rural development for farmers. This modernization depends on science, understanding, comprehending, transferring and delivering it to its beneficiaries and helping them to apply it and deal with it in a correct manner and benefit from it, and agricultural guidance is an important link in the correct connection between an integrated work system in which each party affects the other parties and is affected by them and directs them and they all work to advance agriculture and develop rural society, and the importance of students studying agricultural guidance courses in colleges of agriculture is due to helping them transfer what they have learned about modern agriculture in their scientific departments to farmers through appropriate guidance methods and aids [10]. It is well known that working in the laboratories of the General Company for Grain Trade requires a lot of knowledge, experience and skills in addition to a high educational level and specialization. In order for the agricultural employee to perform his scientific and practical duty and role at any stage of his scientific and professional life, society must understand its needs and provide ways to satisfy them and meet them with the necessary capabilities. Accordingly, a number of needs appear to the agricultural employee that require satisfaction so that the employee can be in harmony with himself on the one hand and with his society on the other hand, so that society directs those forces for its benefit and advancement [11]. Therefore, it is necessary to establish a fixed policy to provide human power and invest it at its various levels of skill, responsibility and specialization and raise the level of productive efficiency of workers and increase their experience to keep pace with the development taking place in various sciences and knowledge. This is done

through training and acquiring new experiences. Training needs are the most important stage in planning a training program. Training needs include two aspects: the first is the existing or expected weaknesses or deficiencies that training can complete, and the second aspect is other aspects that need to be formed or developed, but they do not necessarily need to be weak or deficient. That is, training needs include a problem that actually exists or is expected to occur and is intended to be solved through training. Training is one of the important areas for developing human resources, whether they are professionals or producers, as the results of the knowledge revolution and its accompanying innovations are growing, covering almost all areas of life, and it is necessary to employ them in an optimal manner [12]. This research aims to determine the level of training needs for farmers working in the laboratories of the General Company for Grain Trade - Republic of Iraq in all stages of the research, which are: the stage of withdrawing samples and coding them (secret number), the stage of examining and analyzing grains, the stage of emptying and storing grains, the stage of sterilization, control and covering storage, the stage of ventilation and recycling storage, the stage of transporting and preparing mills, and the stage of issuing laboratory analysis certificates. The problem of the research lies in the shortage in the number of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq at different levels. With the slow introduction of technologies and their weak use, with a decline in the technical skills of workers due to the lack of training programs that keep pace with the development of innovations and new technologies of devices and equipment for examining and analyzing grains. As well as in

the process of storing, controlling and recycling them. Therefore, there is an urgent need for employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq.

Research objectives: Determine the level of training needs for farmers working in the laboratories of the General Company for Grain Trade - Republic of Iraq in all stages of work in the company's laboratories, which are: the stage of withdrawing and coding samples (secret number), the stage of examining and analyzing grains, the stage of emptying and storing grains, the stage of sterilization and control, covering storage, the stage of ventilation and recycling storage, the stage of transporting and preparing mills, the stage of issuing laboratory analysis certificates, and their correlation with the research variables (academic achievement, number of years of experience working in the General Company for Grain Trade, problems facing work).

Research hypotheses:

Negative hypotheses:

1- There is no significant correlation between training needs and academic achievement.

2- There is no significant correlation between training needs and number of years of experience working in the General Company for Grain Trade.

3- There is no significant correlation between training needs and problems facing work.

Positive hypotheses:

1- There is a significant correlation between training needs and academic achievement.

2- There is a significant correlation between training needs and the number of years of experience working in the General Company for Grain Trade.

3- There is a significant correlation between training needs and the problems facing the work.

Research questions:

The idea of this research came to serve as answers to the following research questions:

1- What is the level of training needs for farmers working in the laboratories of the General Company for Grain Trade - Republic of Iraq in all stages of work in the company's laboratories, which are: the stage of withdrawing and coding samples (secret number), the stage of examining and analyzing grains, the stage of emptying and storing grains, the stage of sterilization, control and covering storage, the stage of ventilation and recycling storage, the stage of transporting and preparing mills, and the stage of issuing laboratory analysis certificates.

2- What is the correlation between the level of training needs for farmers working in the laboratories of the General Company for Grain Trade - Republic of Iraq in all stages of work in the company's laboratories and each of the research variables (academic attainment, number of years of experience working in the General Company for Grain Trade, problems facing work).

Research variables:

The research included a number of variables, namely (educational attainment, number of years of experience working in the General Company for Grain Trade, problems facing work) as independent variables and work stages, which include (the stage of withdrawing and coding forms (secret number), the stage of examining and analyzing grains, the stage of emptying and storing grains, the stage of sterilization and control, covering storage, the stage of ventilation and recycling storage, the stage of transporting and preparing mills, and the stage of issuing laboratory analysis certificates as dependent variables.

Research area:

The laboratories of the General Company for Grain Trade affiliated to the Ministry of Trade in the Republic of Iraq were chosen. The research area is because a large number of agricultural employees work in it, distributed across sites and branches spread across all governorates and regions of the Republic of Iraq. And it has a prominent and effective role in achieving food security.

Research importance:

1- The importance of the research is highlighted in identifying the training needs of agricultural employees working in the laboratories of the General Company for Grain Trade, one of the most important formations of the Ministry of Trade - Republic of Iraq. In a scientific and accurate manner. This is to be addressed by entering them into the training courses set on Accurate global research foundations.

2- Identifying the weaknesses and shortcomings in each stage of the work of its employees in the technical and administrative aspects.

Research limitations:

The research is limited to agricultural employees working in the laboratories of the General Company for Grain Trade affiliated to the Ministry of Trade - Republic of Iraq and its affiliated sites in all governorates.

Procedural definitions:

1- Training needs: - The knowledge, needs and trends needed by agricultural employees working in the laboratories of the General Company for Grain Trade affiliated to the Ministry of Trade - Republic of Iraq. Which includes receiving (wheat grains (wheat)) and storing them and then preparing them for mills or transporting them to the rest of the storage sites.

2- Agricultural employees: - They are all agricultural employees working in the

laboratories of the General Company for Grain Trade affiliated to the Ministry of Trade - Republic of Iraq. And who hold an agricultural certificate (preparatory agriculture, diploma in agriculture, bachelor's degree in agricultural sciences, master's degree in agricultural sciences, doctorate in agricultural sciences).

3- Agricultural experience: - The number of years of work in the General Company for Grain Trade affiliated to the Ministry of Trade - Republic of Iraq.

4- The General Company for Grain Trade: - It is one of the most important companies affiliated to the formations of the Ministry of Trade - Republic of Iraq. Which core of its work is receiving grains, storing grains, and preparing mills for the purpose of producing flour and distributing it to citizens within the items of the ration card.

5- Silo: - A group of concrete stores called (benzat) and is often cylindrical in shape and its shape varies according to the capacity or the origin. It is vertical and reaches a height of approximately 30 meters.

6- Bunker: - A concrete store designed in a rectangular shape, its size varies according to its storage capacity, and is often (100 x 20) m. Its wall height reaches 2 meters, and its storage capacity ranges from (5000-6500) thousand tons.

Research method.

Research area:

Laboratories of the sites and branches of the General Company for Grain Trade - Republic of Iraq were selected, distributed over (25) sites and branches spread across all governorates of Iraq. The storage capacity of these sites is estimated at approximately (5634900) tons.

Research community:

The study included (428) agricultural employees working in the laboratories of the General Company for Grain Trade, affiliated to the Ministry of Trade, Republic of Iraq.

Research sample:

To select the study sample, all agricultural workers working in the laboratories of the sites and branches of the General Company for Grain Trade, Republic of Iraq were identified. The equation was applied. [13].

(SThompson,2012,p59_Thompson 60)

$$n = \frac{N.p(1-p)}{N-1(d^2 \div z^2) + p(1-p)}$$

Where n represents the sample size

N is the size of the study community

P = 0.5

D = 0.05

Z = 1.96

According to which a regular random sample of (202) respondents was selected, representing (47%) of the total research population, which is (428) respondents, as shown in Table (2).

Table (1.3) comprehensive and the research sample and its percentage.

Total	PhD in Agriculture	Master of Agriculture	Bachelor of Agriculture	Diploma in Agriculture	Preparatory Agriculture	Educational level
428	13	29	317	23	46	Comprehensive study
202	6	14	149	11	22	Study sample 47%

Research tool:

The researcher used the questionnaire form to obtain information by answering the respondents' questions on the questionnaire. The questionnaire form was prepared to determine the training needs of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq. According to the scientific rules for preparing the questionnaire form in terms of the clarity of the questions, their coordination, sequence and interconnection to meet the purpose of the study, the research relied on several sources to prepare the questionnaire form, including those sources.

-1Personal interviews with specialists from agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq. As shown in Appendix (B.(

-2Literature and instructions for the stages of work of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq issued by its Quality Control Department.

-3Previous studies related to the research topic.

-4The Internet.

-5The researcher's personal and professional experience. He holds the position of the company's branch manager in Salah al-Din Governorate.

The questionnaire consisted of two parts:

A - Part One:

This part included phrases and questions related to identifying the personal and functional characteristics of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq. Represented by (academic achievement, number of years of work experience, problems facing work) These independent factors were measured as follows-:

-1Academic achievement: This variable was measured according to the following academic levels: (Preparatory Agriculture, Diploma in Agriculture, Bachelor of Agricultural Sciences, Master of Agricultural Sciences, Doctorate in Agricultural Sciences). These levels were given the following codes: (1, 2, 3, 4, 5) respectively.

-2Number of years of work experience in the company: This variable was measured by determining the period that the respondent spent working in the laboratories of the General Company for Grain Trade by the number of years.

-3Work problems: This variable was measured through (12) paragraphs, a graduated scale consisting of the following levels was used to measure them: (very large, large, medium, small, very small) and these levels were given the following values: (1,2,3,4,5) respectively, and the total score on the scale represents the degree of the respondent's point of view on the problems he faces in the job, and the theoretical range values for this variable were between (12-60.(

B- Part Two:

This part included a number of stages and test paragraphs that include determining the

knowledge, skills and attitudes related to the work of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq, as (7) seven stages were identified, which are: (withdrawing and coding forms (secret number), the stage of examining and analyzing grains, the stage of unloading and storing grains, the stage of sterilization, control and covering, the stage of ventilation and recycling of storage, the stage of transporting and preparing mills, and the stage of issuing laboratory analysis certificates). As shown in Table (3.2.(

Table (3.2) Main work stages.

Stages	No.
Drawing and coding of samples (secret number)	1
Grain inspection and analysis stage	2
Grain unloading and storage stage	3
Sterilization, control and covering stage	4
Warehouse ventilation and recycling stage	5
Mill transportation and preparation stage	6
Laboratory analysis certificates issuance stage	7

After completing the identification of the stages and paragraphs, they were presented to the experts (subject specialists) as shown in Appendix (T) to determine the relative importance of each stage by distributing the (100) degrees that the researcher identified as

a desired situation to reach into seven stages, as the average of the degrees indicated by the experts was taken. As shown in Table (3.3) below.

Table (3.3) shows the determination of the relative importance of each stage by the experts.

Relative importance rate%	Expert3	Expert2	Expert1	Work stages	No.
%19	%14	%24	%19	Sample withdrawal and coding (secret number)	1
%19	%19	%19	%19	Grain inspection and analysis stage	2
%19	%24	%19	%14	Grain unloading and storage stage	3
%19	%19	%14	%24	Control and sterilization stage	4

% 8	%7.75	%7.75	%8.5	Warehouse ventilation and recycling stage	5
% 8	%8.5	%7.75	%7.75	Mill transportation and preparation stage	6
% 8	%7.75	%8.5	%7.75	Laboratory analysis certificates issuance stage	7
%100	%100	%100	%100	total	

Initial test of the test form:

After completing the preparation of the questionnaire form. The preliminary test (Pre-Test) was conducted on it, and a regular random sample of (30) employees was .(

selected, which constitutes (7%) of the total number of respondents, which is (428) respondents. The survey sample data was collected by personal interview for the period from 3/1/2023 to 4/1/2023, as shown in Table (3.6

Table (3.6) includes the study, the study sample, and the survey sample.

Total	PhD in Agriculture	Master of Agriculture	Bachelor of Agriculture	Diploma in Agriculture	Preparatory Agriculture	Educational level
428	13	29	317	23	46	Comprehensive study
202	6	14	149	11	22	Study sample 47%
30	1	2	22	2	3	Exploratory sample 7%

Reliability   and   validity:

From the survey sample, the reliability of the test used in the study was measured and its validity was shown using the (Alpha - Cronbach) method, as the reliability coefficient reached (0.73) and the test is considered stable if the reliability coefficient exceeds (0.70) or more [13]. To obtain the validity coefficient, the reliability coefficient was rooted and the result was (0.90.(

Difficulty of paragraphs and their discriminatory power:

In order to analyze the test paragraphs, the difficulty of the paragraphs and their discriminatory power were calculated As follows:

A - Ease and difficulty of paragraphs:

The purpose of calculating the difficulty of paragraphs is to determine the paragraphs with appropriate difficulty and delete the very easy or very difficult paragraphs and modify the marginal paragraphs, and accept the paragraphs whose difficulty ranges between (20%-80%). The equation for calculating the

degree of difficulty for each paragraph of the test was used, and accordingly (3) test paragraphs numbered (50, 57, 36) were excluded because they were outside the permissible range for accepting the paragraphs, while the rest of the paragraphs were acceptable in their degree of difficulty because their difficulty factor ranges between (20%-80%.(

B - The power of discrimination of paragraphs:

It means the extent of its ability to distinguish between the respondents from the low-knowledge category and the high-knowledge category in their answers to the paragraph. The special equation was used to calculate the

discriminating power of each paragraph of the test and the (EBEL) scale was relied upon as a standard for comparing the discriminating power of the paragraphs. Accordingly, (2) paragraphs numbered (50, 57) whose discriminating power was less than (20%) were excluded, and the paragraphs whose discriminating power ranged between (20% - 29%) were modified. After deleting all the paragraphs due to their inappropriate difficulty and poor discriminating power, which amounted to (3) paragraphs, the number of test paragraphs became (60) paragraphs. After that, the paragraphs of each stage were redistributed and weighted according to their relative importance, as shown in Table (3.8.(

Table (3.8) shows the final distribution of the paragraphs of each stage and their percentage weights.

Paragraph weight	Paragraph sequence	Stage weight%	Number of paragraphs	Stage
1.66	1	20	12	Drawing and coding of samples (secret number)
1.67	2			
1.67	3			
1.66	4			
1.66	5			
1.67	6			
1.67	7			
1.67	8			
1.66	9			
1.67	10			
1.67	11			
1.67	12			
1.66	1	20	12	Grain inspection and analysis stage
1.67	2			
1.67	3			
1.66	4			
1.66	5			
1.67	6			
1.67	7			
1.67	8			
1.66	9			

1.67	10			
1.67	11			
1.67	12			
1.66	1	20	12	Grain unloading and storage stage
1.67	2			
1.67	3			
1.66	4			
1.66	5			
1.67	6			
1.67	7			
1.67	8			
1.66	9			
1.67	10			
1.67	11			
1.67	12			
1.66	1	20	12	Sterilization, control and covering stage
1.67	2			
1.67	3			
1.66	4			
1.66	5			
1.67	6			
1.67	7			
1.67	8			
1.66	9			
1.67	10			
1.67	11			
1.67	12			
1.75	1	7	4	Storage ventilation and recycling stage
1.75	2			
1.75	3			
1.75	4			
1.62	1	6.5	4	Mills transportation and preparation stage
1.63	2			
1.62	3			
1.63	4			
1.62	1	6.5	4	Laboratory analysis certificates issuance stage
1.63	2			
1.62	3			
1.63	4			
100	\	100	60	total

Measuring   training   needs:

The training needs of the respondents were measured by the respondent's answer to the test form paragraphs to know the respondent's answer and after giving the grade allocated to each paragraph according to the specifications table and collecting the grades obtained by the respondent and subtracting them from the standard grade (100). The respondent's need is determined according to the following equation- :

Training need = Current status of knowledge - 100

Data collection:

After preparing the test form and completing all the scientific conditions that must be available in the entire form, the form became ready. As in Appendix (A) to collect data and information, the information collection process was carried out through personal interviews with the respondents, numbering (202) respondents, as the data collection process began from 5/1/2023 until 9/1/2023.

.13.3Data Analysis:

After completing the data collection, unpacking and tabulation, it was analyzed using the special program (SPSS) for social sciences, and since the research data is distributed normally, the researcher relied on the following statistical methods:

)range, arithmetic mean, standard deviation, item ease and difficulty coefficient, Pearson correlation coefficient, Spearman's rank correlation coefficient, multi-stage regression model, Chi-square, t-test (t.(

Results and discussion:

 -1The results in Table (10.4) below showed the training needs for all seven work stages (the stage of withdrawing and coding forms (secret number), the stage of examining and analyzing grains, the stage of unpacking and storing grains, the stage of sterilization, control and covering storage, the stage of ventilation and recycling storage, the stage of transporting and preparing mills, and the stage of issuing laboratory analysis certificates.(

Table (10.4) shows the level of training needs in the different work stages.

Low Training Needs	Medium Training Needs	High Training Needs	Stage	No.
%5.44	%64.35	%30.19	Sample collection and coding	1
%9.90	%52.47	%37.62	Grain inspection and analysis	2
%4.95	%61.88	%33.16	Grain unloading and storage	3
%7.92	%57.42	%34.65	Sterilization, control and covering of storage	4
%28.71	%41.58	%29.70	Storage rotation and ventilation	5
%41.58	%54.45	%3.96	Mill handling and preparation	6
%26.23	%66.83	%6.93	Issuance of laboratory certificates	7

It is clear from the results obtained in Table (10.4) above that the training needs of the respondents in (Phase II) reached the highest rate of training needs. This may be attributed to the fact that this stage is based on instructions and specifications of receipt that change from year to year with regard to the percentage of impurities, barley, and breakage, as well as the percentage of moisture, specific weight, Sunn insect infestation, and the percentage of charring, in addition to the emergence or development of laboratory devices used in examining grains that are lacking in the laboratories of the company's sites and branches. It was followed by (Phase IV), which ranked second, then followed by the stages (Third, First, and Fifth) successively, and this is an indication that the respondents in general lack a lot of important and necessary knowledge and skills. Due to the difficulty of these stages and the continuous changes in the development of technologies and instructions related to them, the importance of developing this knowledge and skills and bringing about a change in trends appears by giving priority to intensive and continuous training courses for the respondents according to the rate of training

needs for the stage. Especially during the job. Which would reduce those training needs. As for the training needs for the two stages (sixth and seventh), their results showed that they are average and tend to decrease, which means that the respondents record clear training needs but less than the previous stages and have become traditional jobs for the respondents and are less important from their point of view, as the respondents may have acquired knowledge and skills during the continuity of work, which made them have less training needs than the previous stages of work.

-2The correlation between the level of training needs for farmers working in the laboratories of the General Company for Grain Trade - Republic of Iraq in all stages of work in the company's laboratories and each of the research variables (academic achievement, number of years of experience working in the General Company for Grain Trade, problems facing work.(

-1Academic achievement:

The respondents were distributed according to their academic achievement into (5) five categories, as shown in Table (4.12.(

Table (4.12) shows the training needs of the respondents according to the categories of academic achievement.

t tabulated value	t calculated value	rs value	Average Training Needs	Percentage%	numbers	Academic Achievement
3.89	* 14 -	0.70-	77.92	10.89	22	Preparatory
			70.28	5.44	11	Agricultural Diploma
			57.54	73.76	149	Bachelor's
			45.61	6.63	14	Master's
			26.34	2.97	6	PhD
				%100	202	Total

*

Indicates that the relationship is significant at the level (0.05). Table (4.12) shows that the highest category of respondents are those holding a Bachelor's degree in Agricultural Sciences at a rate of (73.76%), with an average training needs of (57.54). Followed by the category of holders of a preparatory certificate at a rate of (10.89%), with an average training needs of (77.92). Followed by the category of holders of a Master's degree in Agricultural Sciences at a rate of (6.93%). With an average training needs of (45.61), followed by the category of holders of a Diploma in Agricultural Sciences at a rate of (5.44%). With an average training needs of (70.28), and the category of holders of a PhD in Agricultural Sciences came in at the lowest rate (2.97%). With an average training needs of (26.34). To find the correlation between training needs and academic achievement. Spearman's rank correlation coefficient was used, which reached (-0.70), which is a negative relationship between the two variables. To test the significance of the relationship, the (t) test was used, which reached (-14). When compared with the tabular t value, it was found to be inversely significant at the probability level (0.05). Thus, the statistical hypothesis is rejected and the alternative hypothesis is accepted, which is (there is a significant correlation between training needs and academic achievement). This training need decreases with the increase in the level of academic achievement. This means that the more agricultural respondents advance in their academic achievement, the less their training needs become. This result is consistent with what was reached by [15] and [16]. It does not agree with what was reached by [17.[

 -2Number of years of experience:

The respondents were distributed according to the number of years of work into three categories using the range law and category length, as shown in Table (4.14) below.

Table (4.14) shows the distribution of respondents according to the categories of the number of years of experience.

t tabulated value	t calculated value	r value	Average training needs	Percentage%	numbers	Years of work categories
			62.48	69.80	141	9-15 years
	*		54.92	20.29	41	16-22 years
		0.51-	39.83	9.90	20	23-29 years
3.89	8.5-			%100	202	Total

*Indicates that the relationship is significant at the level (0.05). Table (4.14) shows that the highest number of years of experience for the respondents was (29) years. The least number was (9) years. Since more than (6.5) six and a half years before the study date, no agricultural employees were appointed to work in the laboratories of the General Company for Grain Trade. Therefore, the least years of experience appeared to be (9) nine years. With an average of (12.89). The highest

percentage (69.80%) of the respondents was within the category of number of years (9-15) years. With an average training needs of (62.48), followed by a percentage of (20.29%) within the category of number of years (16-22) years. With an average training needs of (54.92), then the lowest percentage (9.90) of the respondents was within the category of number of years (23-29) years. With an average training needs (39.83), and to find the correlation between training needs and the number of years of experience, the simple Pearson correlation coefficient was used, which reached a value of (-0.51), which is a negative relationship between the two variables, and to test the significance of the relationship (using the t-law), which reached a value of (-8.5), and when compared with the tabular (t) value, it was found to be an inverse significant relationship at a probability level of (0.05). Thus, the statistical hypothesis is rejected and the alternative hypothesis is accepted, which is (there is a significant correlation between training needs and the number of years of experience working in the General Company for Grain Trade). The reason for this is that increasing the years of experience leads to the accumulation of information, knowledge and skills among the respondents, and this result is consistent with what was reached by [15] and [17]. It does not agree with what was reached by [16] and [18].

3- Work problems:

Using the range law and the length of the category. The respondents were divided into three categories, as shown in Table (4.17.(

Table (4.17) shows the distribution of respondents according to work problems.

t tabulated value	t calculated value	r value	Average training needs	Percentage %	numbers	Work Problem Categories
			44.78	14.85	30	12 – 27
			54.63	50.49	102	Low
			70.60	34.65	70	28 – 43
3.89	* 13.4	0.67		%100	202	Medium

*Indicates that the relationship is significant at the level (0.05). Table (4.17) shows that the work problems of the respondents are multiple and vary from one respondent to another. The highest value of work problems was (58) and the lowest value was (12). The highest percentage (50.49%) of the respondents in the category (28-43) had moderate work problems, with an average training needs of (54.63). Followed by a percentage (34.65%) of the respondents in the category of high work problems, with an average training needs of (70.60). While the lowest percentage (14.85%) of the respondents in the category of low work problems, with an average training needs of (44.78). To find the correlation between

training needs and work problems, the simple correlation coefficient (Pearson) was used, which reached a value of (0.67). To identify the significance of the relationship, the (t) test was used. Which reached a value of (13.4) and when compared with the value of (t) table, it was found to be significant, thus rejecting the statistical hypothesis and accepting the alternative hypothesis, which is (there is a significant correlation between training needs and problems facing work.(

This result confirms that the more work problems increase, the more training needs increase to solve and overcome those problems, and thus the respondents are in dire need of training courses that will reduce work problems, which will reduce training needs. This result does not agree with what was reached by [18], which is that training needs increase with the increase in work problems.

Conclusions:

-1The results of the research showed that the first four stages have a training importance ranging from (55%) to (75%) and are considered to be of relatively high importance, and therefore there must be urgent priority in developing training programs for those stages.

-2The research results showed that the level of training needs for the stage (drawing forms and coding them (secret number)) is close to (30%) of those with high training needs, (64%) of those with medium training needs, and only (5%) of those with low training needs.

-3The research results showed that the level of training needs for the stage (inspecting and analyzing grains) is close to (38%) of those with high training needs, which is the highest percentage recorded in all stages, and (52%) of those with medium training needs, and only (10%) of those with low training needs.

-4The research results showed that the level of training needs for the stage (unloading and storing grains) is close to (33%) of those with high training needs, (61%) of those with medium training needs, and only (5%) of those with low training needs.

-5The research results showed that the level of training needs for the stage (sterilization, control and covering of storage) is close to (34%) of those with high training needs, (57%) of those with medium training needs, and only (8%) of those with low training needs.

-6The research results showed that the level of training needs for the stage (recycling and ventilation of storage) is close to (30%) of those with high training needs, (42%) of those with medium training needs, and only (29%) of those with low training needs.

-7The research results showed that the level of training needs for the stage (transferring and preparing mills) is close to (4%) of those with high training needs, (54%) of those with medium training needs, and only (42%) of those with low training needs, which is the highest percentage of training needs of all stages, indicating its ease and the lack of need to intensify training programs for this stage.

-8The research results showed that the level of training needs for the stage (issuing the laboratory certificate) is close to (7%) of those with high training needs, (66%) of those with medium training needs, and only (26%) of those with low training needs, which is the highest percentage of training needs of all stages, indicating its ease and the lack of need to intensify training programs for this stage.

-9The research results showed an inverse significant relationship between each of the training needs and academic achievement, which means that the more the agricultural

employees surveyed advance in their academic achievement and knowledge, the more information and knowledge they have, which reduces their training needs.

-10The research results showed an inverse significant relationship between each of the training needs and years of experience. The reason for this is that increasing years of experience leads to the accumulation of information, knowledge and skills among the surveyed. Thus, the level of training needs among the surveyed decreases.

-11The research results showed a significant relationship between each of the training needs and work problems. This result confirms that the more work problems there are, the more training needs there are, and thus the respondents are in dire need of training courses in an accurate and continuous manner.

Conclusion:

-1The results showed that there are cognitive and skill needs among agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq. They need to be addressed quickly to meet quality standards and enhance productivity, especially in the areas of grain testing and analysis.

-2The results showed that there is a need to design training programs that take into
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account the training needs of the work stages of agricultural employees working in the laboratories of the General Company for Grain Trade. The specificities of work in this sector by integrating theoretical and practical methods in a balanced manner, in addition to the importance of continuous follow-up and evaluation of these programs to improve and develop their technical skills.

Recommendations:

-1Emphasizing the opening of continuous and specialized training courses that focus on the first four stages.

-2Preparing intensive and specialized programs for the stage of grain testing and analysis and the importance of that stage, especially during the process of receiving grains during the marketing season.

-3Demanding and urging senior management to bring modern technologies specialized in the work of agricultural employees working in the laboratories of the General Company for Grain Trade - Republic of Iraq, which would improve the performance of the respondents to keep pace with the development witnessed by the world in this field. Appendix (T) Names of agricultural employees who were interviewed

Work location	Job Title	Names	No.
Tikrit Silo Laboratory	Senior Chief Agricultural Engineer	Diaa Thalj Jassim	1
Al-Dour Grain Complex Laboratory	Chief Agricultural Engineer	Hussein Ahmed Saleh	2
Al-Alam Grain Complex Laboratory	Senior Chief Agricultural Engineer	Waleed Khaled Ahmed	3
Sharqat Silo Laboratory	Chief Agricultural	Yassin Issa Al-	4

	Engineer	Lahibi	
Al-Tajji Grain Complex Laboratory	Chief Agricultural Engineer	Ahlam Attia Joda	5
Samarra Grain Complex Laboratory	Chief Agricultural Engineer	Fares Wasmi Shihab	6

Appendix (B) Names of agricultural employees (specialized experts).

Academic Achievement	Work location	Job Title	Names:	No.
PhD	Babylon Silo Laboratory	Expert	Adel Hussein Radhi Al-Marshadi	1
PhD	Sharqat Silo Laboratory	Chief Agricultural Engineer Senior	Salem Ibrahim Akram	2
PhD	Grain Complex Laboratory	Chief Agricultural Engineer Senior	Sumait Awad Sumait	3

Appendix (C) Names of agricultural extension experts to whom the questionnaire form was presented

Job Title	Specialization	Academic ladder	Name	no.
College of Agriculture\Tikrit University	Agricultural Extension	Professor	Dr. Ali Ahmed Ghadib	1
College of Agricultural Engineering Sciences\University of Baghdad	Agricultural Extension	Assistant Professor	Assistant Professor Mithal Abdul Latif Al-Mashhadani	2
College of Agricultural	Agricult	Professor	Dr. Bayan Abdul	3

Engineering Sciences\University of Baghdad	ural Extension		Jabbar Reda	
College of Agriculture\Tikrit University	Agricultural Extension	Assistant Professor	Assistant Professor Majid Khalil	4
College of Agriculture University of Kirkuk	Agricultural Extension	Assistant Professor	Dr. Al-Sayed Khattab Abdullah Muhammad	5
College of Agriculture University of Tikrit	Agricultural Extension	Assistant Professor	Al-Sayed Mahmoud Hadis Jassim	6
College of Agriculture University of Kirkuk	Agricultural Extension	Assistant Professor	Dr. Salah Jassim Amin	7
College of Agriculture\Tikrit University	Specialization	Assistant Professor	Ahmed Sakr	8

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