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FULL PAPER

Study of the Importance of Agricultural Extension Role in Agricultural Development from the Point of View of Workers in Agriculture Extension in Nineveh Governorate

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Abstract

Aim of current research is to know role of agricultural extension on agricultural development from perspective of agricultural guides in Nineveh governorate in general, and on each item of research. To find correlation between role of agricultural guidance in realizing agricultural development from perspective of agricultural extension and the following independent variables (academic achievement, specialization). Research's society was (418) active agricultural guides in Nineveh governorate. Out of this society, a simple random sample of (168) personnel were chosen, representing (40%) and (30) were excluded after finding stability of research. Two parts survey was made to collect data: first part included independent variables of respondents. Second: (30) items scale of role of agricultural guidance on agricultural development from perspective of agricultural guides. Survey passed a panel of experts in agricultural guidance and rural development to verify its surface and content reliability. Stability was found using Alpha-Kronbach formula scoring (0.88).

Results showed that role of agricultural guidance from perspective of agricultural guides in Nineveh governorate is moderate tends to ascend. Results also showed positive moral correlation between role of agricultural guidance in agricultural development from perspective of agricultural guides and the following independent variables (academic achievement, specialization). However, no morally significant correlation was found between dependent variables and the following independent variables (age, years spent as an agricultural guide, participation in training course).

Introduction and Problem of research

World seeks an integrated agricultural development by following numerous means and methods such as using modern agricultural methods and techniques, an important element in agricultural development focuses on perfect use of cultivated area to increase productivity (Samir 2018); (Al-Hashimi 2005). Agricultural development is an important way to preserve and expand cultivated Area , preserve water resources, develop and support agriculture academically and technically to achieve self-sufficiency (Baligh, 2004). Agricultural development aims at enhancing well-being of farmers in rural areas via increasing available cultivated (A-Akaf, 2014). Thus it's the duty of governments of developing countries in particular to fully support agricultural sector, solve relative problems due to obstacles of agricultural development on one hand and poor administrative, financial technical technological and information potentials of agricultural sector on the other hand (Ali, 2012). Agricultural development is the grale of guidance facilities, the outcome of activities of these bodies. The aim of these facilities is to qualify human element, raise its capacity and ensure participation in their guidance programs (Keshta, 2012).

Agricultural development is managing, preserving natural resources, steer technical foundation, change in a way guarantee meeting the needs of now and upcoming generations continually (Bashar ,2003).

For agricultural development to happen and realize its aims, all related parties (inhabitants and facilities) must participate in its plans and programs. One of these parties is agricultural guidance which provides agricultural activities and pedagogical services for farmers to make desired behavioural changes in their knowledge, skills and trends to enable farmers to participate in development processes. Agricultural guidance is a pedagogical process of a central job affecting all other aspects of rural society. Importance of agricultural guidance lies in developing rural life. It's starting line to solve rural problems. The most important aim of agricultural guidance is to increase agricultural production, improve quality, and raise well-being of rural families. Agricultural development can't happen without the link between agricultural research centers and farmers (Aziz, 2017). Thus one realizes role of agricultural guidance in enhancing agricultural development wheel. This agricultural guide transfers agricultural information and ideas to farmers and encourages farmers to apply them (Al-Karrot, 2019). Agricultural guidance is the link between farmers and agricultural researches centers, give farmers modern agricultural knowledge and take their problems to these centers to look for appropriate solutions (Al-Farkari, 2019); (Al-Zubaidi, 2018).

In Iraq in general and Nineveh governorate in particular , the reason behind weak agricultural development may be the result of obstacles facing plans of economical development in the past until nowadays, that caused production disorders from weak economical systems, vague agricultural policy , not to forget to mention external factors and its related challenges. Success of agricultural development processes depends on solving these problems (Nafi, 2015). Considering all the above mentioned, researchers decided to do this research to know agricultural development in Nineveh and the role played in success of agricultural development. Thus the researchers put the following questions:

- What is the role of agricultural guidance on agricultural development from the perspective of agricultural guides in Nineveh governorate in general?

- What is the correlation between role of agricultural guidance in agricultural development from perspective of agricultural guides with a number of personal, social, economical and communicative variables. The answer to these questions is what the current research is all about.

Aims of Research

1- Know role of agricultural guidance in agricultural development from perspective of agricultural guides in Nineveh governorate in general.
2- Know role of agricultural guidance from perspective of agricultural extension measured through every item in research.
3- Know correlation between role of agricultural guidance in agricultural development from perspective of agricultural guides and independent variables (age, academic achievement, specialization, years spent in this job, participation in training courses).

Materials and Methods

1-Area:

Research took place in Nineveh Governorate, one of most important governorates agriculturally with huge areas of cultivated lands with numerous agricultural branches and divisions with a lot of staff.

2- Society and sample:

Society was all (418) active agricultural guides. A random simple sample was chosen scoring (168) representing (40%) and excluded (30) persons participated in stability test.

3- Design tool (questionnaire):

A Two - parts survey was used to collect data. First part included all independent variables of researchers (age, academic achievement, specialization, years spent in this job, participation in training courses) second (30) items representing role of agricultural guidance in agricultural development from perspective of agricultural guides:

4- Measuring variables:

A- Independent variables:

- **Age**: Measured in years.

- Academic achievement: Measured via: agricultural secondary school graduate (1) agricultural institution graduate (2) university graduate (3) postgraduate (4).
- Specialty: Measured as follows: specialist (2), non-specialist (1).
- Years spent in this job: measured via period of working as an agricultural guide in years.
- Participation in training courses: measured: trained (2 points), untrained (1 point).
- Participation in training courses: Measured via: trained (2) untrained (1).

B- Measuring dependent variable: Role of agricultural guidance in agricultural development:

Measured through (30) items scale talks about role of agricultural guidance in agricultural development with (5) alternatives: imminently important (5), greatly important (4), moderately important (3) rarely important (2) unimportant (1). Sum of respondents answers represent role of agricultural guidance in agricultural development from perspective of agricultural guides.

5- Reliability and stability:
Research tool passed a panel of experts and specialists in agricultural guidance to verify surface and content reliability
6- Collecting data: The data was collected from the date (April until May, 2024).

Results and discussion

- Know role of agricultural extension in agricultural development from perspective of agricultural guides in Nineveh governorate in general:

Results showed that highest digit was (150) and the lowest was (30) with a means of (89) digital units. Respondents were categorized according to their answers into three types as shown in table (1).

Table (1): Categorizing sample according to importance of agricultural extension in agricultural development in genera:

Categories	Number	Percentage%
Low (30-69)	48	28,57
Medium (70-109)	65	38,69
High (110-150)	55	36,74
Total	168	100%

Table (1) shows that medium category (70-109) scored highest (38,69) and low scored lowest (28,57). Meaning that most respondents think that role of agricultural guidance is moderate tends to ascend. This may be because respondents realize role of agricultural guidance in agricultural development.

- Know role of agricultural guidance from perspective of agricultural guides measured through every item in research:

Research items were arranged according to average of respondent's answers as shown in table (2)

No.	Items	Arithmetic Means
1	Extension saves soil from turning into desert	4,70
2	Guidance enhances productivity	4,61
3	Increases farmers realize role of using crops to fertilize soil	4,50
4	Guidance shows benefits of using machines	4,44
5	Helps in fully exploitation of rural natural resources	4,32
6	Deliver modern technologies and agricultural ideas into farmers	4,25
7	Spotify agricultural problems of farmers	4,10
8	Help farmers to use pesticides appropriately	4,00
9	Agricultural guidance preserves soil and warns against soil erosion	3,98
10	Encourage farmers adopt modern ways in cultivation	3,90
11	Increase farmers awareness of using improved seeds	3,88

12	Engage farmers in agricultural guidance programs	3,85
13	Guidance celebrate field day to teach farmers about modern agricultural techniques	3,80
14	Make training courses for different agricultural techniques	3,75
15	Agricultural guidance increases farmers belief in results of agricultural centers	3,66
16	Agricultural guidance helps farmers to fully use available natural and human resources	3,50
17	Agricultural guidance increases farmers awareness of effective farm management	3,44
18	Agricultural guidance helps explain plow free cultivation	3,33
19	Find and support farm markets	3,25
20	Helps in setting goals of delivering appropriate agricultural technologies to farmers	3,20
21	Helps to magnify results of using this techniques	3,18
22	Activate role of cooperative societies in rural development	3,10
23	Shows importance of biological fertilizers in preserving soil	2,90
24	Encourage farmers to fight pests early	2,80
25	Apply modern methods to recycle domestic wastes in agriculture	2,70
26	Encourage farmers to use covered farming	2,66
27	Provide farmers by new production skills via practice	2,50
28	Organize training courses to utilize underground waters	2,20
29	Lowers costs of agricultural production	2,10
30	Chooses right spots to coordinate and imply guidance plans	1,90

Table (2) shows that first three items (Extension prevents the soil change to desert, guidance enhances productivity, increases farmers realize role of using crops to fertilize soil). Scored high. Thiis may be because agricultural guides know role of agricultural guidance in preventing desert, enhance agricultural production and preserve soil fertility.

Last three items (Organize training courses to utilize underground waters , Lowers costs of agricultural production, chooses right spots to coordinate and imply guidance plans) meaning that respondents lack knowledge about roe of agricultural guidance in choosing spots to apply agricultural guidance plans, lowering costs and organize training courses for farmers.

- Know correlation between role of agricultural guidance in agricultural development from perspective of agricultural guides and independent variables (age, academic achievement, specialization, years spent in this job, participation in training courses).

1- Age:

Results showed that eldest respondents into the following three types shown in table (3).

Table (3): categorizing respondents according to their age and its relation to their perspective about role of agricultural guidance in agricultural development.

Categories (years)	Number	Percentage%	Simple Pearson conjunction factor (r)	P-Value

Low (27-36)	43	25,57	0,037	0.541
Medium (37-46)	75	44.65		
High (47-56)	50	29,78		
Total	168	100		

Table (3) shows that medium category (37-46) scored highest percentage (44.65) and low category scored (25.57). Results showed no correlation between role of agricultural guidance and age. Simple Pearson conjunction factor scored (0,037) it is not significant. Meaning that agricultural extension opinion is irrelevant to his age, rather it may be relevant to other factors like expertise.

2- Academic achievement:

Respondents were categorized according to their academic achievement into 3 types shown in table (4)

Table (4): categorizing researchers according to academic achievement and its relation to their opinion about role of agricultural guidance n agricultural development

Categories (years)	Number	Percentage%	Spearman rank conjunction factor (rs)	P-Value
Graduate of agricultural secondary school	37	22,02	*0.190	0.04
Graduate of agricultural institution	48	28.57		
University graduate	68	40,48		
Post graduate	15	8,93		
total	168	100		

Table (4) shows that highest category was university graduates (40.48) and the lowest was postgraduates (8.93). Results showed positive moral relation between role of agricultural guidance in agricultural development and academic achievement. Spearman conjunction factor was (*0.190) significant at (0.05) level. Thus reject null hypothesis: no morally significant relation is found between role of agricultural guidance in agricultural development and academic achievement. Meaning that certificate of employee plays big effective role in knowing role of agricultural guidance in agricultural development.

3- Specialization:

Table (5): shows categorizing researchers according to specialization and its relation with role of agricultural guidance

Categories	Number	Percentage%	Simple Pearson conjunction factor Spearman rank	P-Value

			conjunction factor (rs)	
Specialized	50	29,16	*0.360	0.02
Non specialized	118	70.25		
Total	168	100		

Table (5) shows that non-specialized scored high percentage (70.25%). Results show that there is positive morally significant relation between role of agricultural guidance in agricultural development and specialization. Pearson simple conjunction factor (*0.360) significant at the level (0.05). Thus reject null hypothesis: there is no correlation between role of agricultural guidance in agricultural development and specialization. Meaning that specialization of respondents plays big role in drawing his information of role of agricultural guidance in agricultural development.

4- Years spent as agricultural guide:

It was found that highest number of years spent as an agricultural guide was (50) and the least was (6) with an average of (28) years, respondents were categorized into the following three types shown in table (6).

Table (6): Categorizing researchers according to years spent as an agricultural guide

Categories (years)	Number	Percentage%	Simple Pearson conjunction factor (r)	P- value
Low (7-21)	30	17,86	0.087	0.8
Medium (22-36)	80	47.61		
High (37-59)	58	34,53		
Total	168	100		

Table (6) shows that medium category scored highest percentage (47,61) while low category scored (17,86). Results showed that no morally significant relation between role of agricultural guidance in agricultural development and years spent as an agricultural guide. Simple Pearson conjunction factor was (r) (0.087) it is immoral. Meaning that years spent in this job is irrelevant to their opinion about role of agricultural guidance in agricultural development. Thus accept null hypothesis that there is no morally significant relation between role of agricultural guidance in agricultural development. Meaning that researchers' years as an agricultural guide have nothing to do with his opinion about role of agricultural guide in agricultural development.

5- Participation in training courses:

Researchers were categorized according to their participation in training courses into the following types shown in table (7).

Table (7): Categorizing researchers according to their participation in training courses and its relation to their point of view about role of agricultural guidance in agricultural development.

Categories	Number	Percentage%	Spearman rank conjunction factor (rs)	P- Value

Participated	80	47,62	0.086	0.079
Non-participant	88	52.38		
Total	168	100		

Table (7) shows that non-participants scored highest percentage (52.38), Meaning that most researchers aren't trained on agricultural guidance and development. Results showed no correlation between role of agricultural guidance in agricultural development and participation in training courses. Spearman rank conjunction factor (0.086) immoral. Thus accept null hypothesis: there is no morally significant relation between role of agricultural guidance in agricultural development and participation in training courses. Meaning that participation in training courses doesn't affect researchers' opinion about role of agricultural guidance in agricultural development.

Conclusions

1- It is concluded that respondents have full knowledge on role of agricultural guidance in agricultural development in general.

2- Item that scored high was (guidance saves soil from turning into desert) meaning that researchers are fully aware of role of agricultural guidance in preventing desert.

3-The following independent variables (academic achievement, specialization) is directly connected to respondents opinion of role of agricultural guidance in agricultural development in general.

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