

Level of Usage of Extension Methods by Agricultural Extension Workers in Sulaimani Governorate

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ABSTRACT

The aim of this study is to determine the level of usage of agricultural extension methods by agricultural extension workers in Sulaimani governorate and their correlation with each of the following personal and functional variables (age, gender, educational level, specialization, job title, duration of the employment service, duration of the agricultural extension service, previous training, exposure to sources of the agricultural information, attitude towards agricultural extension and job satisfaction). The target population consists of all agricultural extension workers who work in the agricultural extension directorate of Sulaimani totaling 137 workers while the answers obtained from the respondents were limited to 111 workers, representing 81% of the research population. Data were collected by questionnaire, the first part included data relating to some personal and functional variables, while the second part focused on determining the level of usage of agricultural extension methods. Data analyzed by using, Arithmetic mean, Weight percentage, Simple correlation coefficient of (Pearson), ordinal correlation coefficient of (Spearman) and Multiple step-wise Regression analysis by using the statistical program SPSS. The results showed that the level of usage of extension methods is medium and tends to low, the individual extension methods came in the first rank in the level of usage of extension methods. The results also showed a significant correlation between the level of usage of agricultural extension methods and each of the following variables: age, duration of the employment service, duration of the agricultural extension service, exposure to sources of the agricultural information, attitude towards agricultural extension and job satisfaction; while not significant correlation was found between the level of usage of extension methods and other variables. The researchers recommend the concerned authorities for the agricultural sector in Sulaimani governorate pay more attention to the agricultural sector and activate its supporting operations and opening intensive training courses are very necessary for the staff who works in the agricultural extension sections & departments and activating role of media in developing agriculture in the region by opening television channels majoring in the agricultural programs.

Key words: Agricultural Extension, Extension Methods.

INTRODUCTION

Agricultural extension is one of the integrated educational systems, and at the same time is complementary to the public education system, which is based on thinking and problem solving (Al-Omer et al 2011-2012, p 18-19). The change that is targeted by agricultural extension and its success depends on the planned extension communication process which is the essence of extension work. (Al- Samarrai and Al-Jadiri 1990, p 186). The agricultural extension agents are often described as a link between farmers and scientific agricultural research and educational institutions as they transfer what is new and of benefit to farmers and vice versa (Chizari et al 1999, p 15). The majority of states promote agricultural extension as an institution for change with vitality and importance in accelerating rates of agricultural development (Al-Adilli 1973, p 19). There are many classifications of agricultural extension methods, varied according to different taxonomic bases that are divided according to the number of the individuals in contact with them, the nature of the impact, and the presentation of information. Classification according to the number of individuals is the most common, which includes individual, group and mass methods (Seevers et al 2007, p149). The methods that have proven successfully in a particular state may not be so in any of the other countries, depending on different psychological, social, economic, political, and geographic factors (Salih 1997, p152). Therefore, because of the importance of agricultural extension also extension methods and because of the lack of previous studies revealing the reality of the usage of agricultural extension methods in Sulaimani governorate, this study designed by asking the following questions:

1. What is the level of usage of agricultural extension methods by agricultural extension workers in Sulaimani governorate in general?
2. What is the correlation between some of the personal and functional variables of the respondents and the level of usage of agricultural extension methods?

The current study aimed to answer these questions by achieving the following objectives:

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1. Identify the level of usage of agricultural extension workers in Sulaimani governorate related to the agricultural extension methods in general.
2. Identify the level of usage of agricultural extension workers in Sulaimani governorate for each field (individual, group and mass) of agricultural extension methods.
3. Rank of the paragraphs of each method of the individual, group and mass agricultural extension methods according to their level of usage by workers in the agricultural extension directorate in Sulaimani governorate.
4. Determine the correlation between the level of usage of agricultural extension workers to agricultural extension methods in Sulaimani governorate with the following personal and functional variables :Age, Gender ,Education level, Specialization, Job title, Duration of the employment service, Duration of the agricultural extension service, Previous training ,Exposure to sources of the agricultural information ,Attitude towards agricultural extension, Job satisfaction

Research Hypothesis:

To achieve the goals of the study, the researchers developed the following statistical hypothesis:

There are no significant correlation between the level of usage of agricultural extension workers in Sulaimani governorate with the following personal and functional variables: Age, Gender, Education level, Specialization Job title, Duration of the employment service, Duration of the agricultural extension service, Previous training, Exposure to sources of the agricultural information, Attitude towards agricultural extension, Job satisfaction

MATERIALS AND METHODS

The target population of this study consists of all agricultural extension workers who work in the agricultural section and departments affiliated with the agricultural extension directorate of Sulaimani, totaling 137 workers spread over 17 agricultural sections and departments, the study population was limited to 111 workers representing 81% of the research population. Data collection process took place from 11/5/2015 until 20/6/2015. Data were collected by questionnaire, the first part included data relating to some personal and functional variables as follows (Age: was measured by the age of the respondents at the time of collecting data and measured by the number of years. Gender: This variable was measured by asking the respondents if they are male or female, with male = 1 and female = 2. Educational level: This variable was measured by allocating numeric values (1, 2, 3, 4) according to the

following levels (agricultural preparatory, agricultural institute, agricultural college, Higher Diploma), respectively. Specialization: This was measured by asking the respondents if they are an agricultural extension specialist or non-specialist in agricultural extension, where agricultural non-extension specialist = 1 and agricultural extension specialist = 2. Job Title: This variable was measured by asking the respondents about their occupation in the agricultural extension work, using the following job titles: agricultural extension agent, agricultural engineer, head of agricultural extension agents, head of agricultural engineers, agricultural senior manager, associate head of the agricultural extension agent, senior agricultural extension agent, which are encoded by the numeric values 1, 2, 3, 4, 5, 6 and 7 respectively. Duration of the employment service: This was calculated by the number of active years that the respondents have spent in a career. Duration of the agriculture extension service: It was calculated by the number of years that the respondents have spent in the agricultural extension work. Previous training: This variable was measured by asking the respondents if they had participated in extension training courses or not. The numerical value of 1 was given to non-participation in training courses and a numeric value of 2 was given to participation in training courses in the field of agricultural extension. Exposure to sources of the agricultural information: This variable is measured by the degree to which the agricultural extension workers used the 17 agricultural information sources, Numeric values (1, 2 and 3) were used respectively, to the following measures: not exposed, sometimes exposed, always exposed. Attitude towards agricultural extension: This variable was measured by using 12 statements; 7 of them which carry positive implications rated on a Likert-type scale of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree, the remaining 5 statements carry negative implications rated on a Likert-type scale of 1 to 5, where 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree and 5 = strongly disagree. Job satisfaction: This variable was measured by using 16 statements, 8 of which carry positive implications rated on a Likert-type scale of 1 to 5, where 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree and 5 = strongly agree, thus the other 8 statements carry negative implications rated on a Likert-type scale of 1 to 5, where 1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree and 5 = strongly disagree. But the second part of questionnaire included 33 agricultural extension methods for the purpose of determining the level at which agricultural extension workers use these methods, namely the following individual extension methods: farm visits, home visits, office visits, telephone calls,

Personal letters, informal meetings and social networks. As well as the following group extension methods: method demonstrations, result demonstrations, extension meetings, extension symposiums, extension conferences, extension lectures, extension seminars, workshops, seasonal field day, annual field day, extension tours, training courses, extension cinema and rural theater. And the following mass extension methods: rural television programs, rural radio programs, newspapers, agricultural magazines, extension news releases, extension posters, extension newsletters, agricultural exhibits, extension museums, circular speeches, extension campaigns and the internet, a 4-point Likert-type scale used to determine the level of usage the agricultural extension methods that ranged from 0 = not used, 1 = rarely, 2 = sometimes, 3 = always. Validity of the questionnaire was conducted by presenting it to a number of specialists in the fields of media, psychology and agricultural extension. Also reliability of the questionnaire was accounted by using the Alpha-Cronbach method and the reliability coefficient reached 0.935. Data analyzed by using, Standard Deviation, Arithmetic mean, Weight percentage, Percentage ratio, Simple correlation coefficient of (Pearson), ordinal correlation coefficient of (Spearman) by using the statistical program SPSS.

RERSULTS AND DISCUSSION

First: Identify the level of usage of agricultural extension workers in Sulaimani governorate related to the agricultural extension methods in general.

Respondents has been classified according to the level of their usage of the extension methods into three categories (low, medium and high) by using the law of range and the length of categories as shown in the following table:

As shown in table (1) that more than three-quarters of the respondents' usage of extension methods fell within the medium and low categories. This may be due to lack of knowledge of agricultural extension workers in Sulaimani governorate in extension educational situations that fit the usage of extension methods, as well as the limited number of training courses for agricultural

extension agents in the usage of extension methods. This result agrees with what was found in the study of (Saleem and Al-Harbawi 2011, p12).

Second: Identify the level of usage of agricultural extension workers in Sulaimani governorate for each field (individual, group and mass) methods.

Each of the fields of extension methods and were classified according to the level of their usage of extension methods into three categories as shown in the following table:

The data in table (2) shows that the level of usage of individual extension methods is medium tending to rise. But the level of usage of group extension methods is medium tending to low; also the level of usage of mass extension methods is medium tending to low.

For the purpose of comparison between the three fields of agricultural extension methods, the researcher used the equation of weight percentage in the statistical means. The results showed the order of those fields as shown in the following table:

The data in table (3) shows that the level of usage of individual extension methods ranked the highest, with weight percentage of 56.05%. This result is attributed to the influence of individual methods in extension education which is broader and deeper than other extension methods because they allow for discussion and confidence-building as well as to identifying the reactions of the farmers to the ideas and agricultural information provided to them by the agricultural extension agents. This was followed by group extension methods with weight percentage 55.52%, while the mass extension methods came at the lowest rank with weight percentage 47.67%. This result can be interpreted in light of the nature of topographical and social rural life in the Kurdistan region, where the rugged terrain and the spread of illiteracy in some areas often hinder the delivery of extension publications, as well as there are no agricultural radios and televisions program are broadcast at irregular times. This result disagrees with what was found in studies of (Saleem and Al- Harbawi 2011, p12), and (Abdel- Gawad, et al 2003, p10).

Table 1. Distribution of respondents according to the level of usage of extension methods

Level of usage	Categories	Frequency	%	\bar{X}
Low	(18 – 42)	33	29.73	32.09
Medium	(43 – 67)	58	52.25	54.55
High	(68 – 92)	20	18.02	78.85
	Total	111	100%	

N = 111

\bar{X} = 52.25

S.D = 17.42

Table 2. Distribution of the respondents according to the fields of extension methods

Fields of Methods	Levels of use	Categories	Frequency	%	\bar{X}	S.D	Ranks
Individual	Low	(2-7)	16	14.41	11.77	3.607	1
	Medium	(8-13)	58	52.26			
	High	(14-19)	37	33.33			
	Total		111	100%			
Group	Low	(6-18)	35	31.53	23.32	8.669	2
	Medium	(19-31)	54	48.65			
	High	(32-44)	22	19.82			
	Total		111	100%			
Mass	Low	(0-12)	34	30.63	17.16	7.789	3
	Medium	(13-25)	59	53.15			
	High	(26-38)	18	16.22			
	Total		111	100%			

Table 3. Order of the aspects of extension methods according to the weights percentage values

Extension methods	\bar{X}	Over the theoretical degrees fields	Weights percentage	Rank
Individual	11.77	2-19	56.05	1
Group	23.32	6-44	55.52	2
Mass	17.16	0-38	47.67	3

Third: Rank of the paragraphs of each method of the individual, group and mass agricultural extension methods according to their level of usage by workers in the agricultural extension directorate in Sulaimani governorate.

The paragraphs of agricultural extension methods were ordered depending on the level of usage from the highest to the lowest level in accordance with the weights percentage.

1. Individual extension methods: as shown in the table (4) farm visits method is the most individual extension method used by the respondents with weight percentage 82.33%, the reason for this may be that farm visits provide agricultural extension workers with personal and realistic information on the conditions in the field and also contribute to building farmers' confidence in agricultural extension workers. While the method of personal letters came in last with weight percentage 29.66%. The reason for this may be that there is no available delivery service or the high illiteracy rate in the countryside of Kurdistan. This result disagrees with what was found in the study by (Khatam et al 2013, p 43).

2. Group extension methods: As shown in table (5) method demonstrations are the group extension method most commonly used by respondents with weight percentage 72.00%, the reason for this may be because the method demonstrations build a closer link between farmers and agricultural extension workers. Also the farmers learn new skills and expertise while providing them with the opportunity

for practical exercise in the field. While the rural theater method came in last rank with weight percentage 23.66%. This may be because this method requires many technical skills and physical requirements that are difficult to provide in the current situation of extension work in Kurdistan region. This result disagrees with what was found in the study of (Saleem and Al- Harbawi 2011, p 13).

3. Group extension methods: As shown in table (5) method demonstrations are the group extension method most commonly used by respondents with weight percentage 72.00%, the reason for this may be because the method demonstrations build a closer link between farmers and agricultural extension workers. Also the farmers learn new skills and expertise while providing them with the opportunity for practical exercise in the field. While the rural theater method came in last rank with weight percentage 23.66%. This may be because this method requires many technical skills and physical requirements that are difficult to provide in the current situation of extension work in Kurdistan region. This result disagrees with what was found in the study of (Saleem and Al- Harbawi 2011, p 13).

4. Fourth objective: Determine the correlation between the level of usage of agricultural extension workers to agricultural extension methods in Sulaimani governorate with the personal and functional variables:

Table (7) showed the correlation between the level of usage agricultural extension methods with the personal and functional variables as follows: Age:

Table 4. Order of the paragraphs of individual extension methods according to the value of weights percentage

Individual extension methods	\bar{X}	S.D	Weight percentage %	Ranks
Farm Visits	2.47	0.59	82.33	1
Telephone Calls	2.03	0.96	67.66	2
Office visits	1.86	0.67	62.00	3
Home Visits	1.70	0.83	56.66	4
Informal meetings	1.46	0.96	48.66	5
Social networks	1.37	1.04	45.66	6
Personal letters	0.89	0.87	29.66	7

Table 5. Order of the group extension methods according to the values of weights percentage

Group Extension methods	\bar{X}	S.D	Weight percentage %	Rank
Method demonstrations	2.16	0.75	72.00	1
Extension meetings	2.10	0.76	70.00	2
Training courses	2.03	0.72	67.66	3
Extension lectures	2.01	0.85	67.00	4
Result demonstrations	1.95	0.95	65.00	5
Extension seminars	1.90	0.80	63.33	6
Extension symposiums	1.87	0.79	62.33	7
Annual field day	1.70	1.00	56.66	8.5
Seasonal field day	1.70	1.00	56.66	8.5
Extension tours	1.55	1.04	51.66	10
Workshops	1.38	1.00	46.00	11
Extension conferences	1.34	0.91	44.66	12
Extension cinema	0.90	0.99	30.00	13
Rural theater	0.71	0.91	23.66	14

Table 6. Order of the paragraphs of mass extension methods according to the value of weights percentage

Mass Extension methods	\bar{X}	S.D	Weight percentage %	Rank
Extension posters	1.93	0.83	64.33	1
Extension campaigns	1.89	0.81	63.00	2
Agricultural exhibits	1.68	0.81	56.00	3
Rural television programs	1.55	0.98	51.66	4
Internet	1.46	1.13	48.66	5.5
Agricultural Magazines	1.46	0.91	48.66	5.5
Extension news releases	1.44	0.92	48.00	7
News paper	1.32	0.96	44.00	8
Rural radio programs	1.30	1.01	43.33	9
Circular speeches	1.20	0.96	40.00	10
Agricultural newsletters	1.05	0.94	35.00	11
Extension museums	0.89	0.99	29.66	12

simple correlation coefficient of Pearson used with value 0.161, it is a significant value at the level of 0.05. Thus we reject the research hypothesis, which states there is not significant correlation between the level of usage of extension methods and age, this means the level of usage of extension methods in the youth category of respondents is high but declines in older age categories, the reason may be that young people are more inclined

to use a variety of methods and are interested in more diverse methods, which they use to transport extension messages, this result disagrees with what was found in the studies of (Abdel- Gawad, et al 2003, p 14), (Fathi 2013, p 17), and (Adijah M et al 2011, p 97). Gender: the ordinal correlation coefficient of Spearman was used with value -0.048; it is not significant value at the levels of 0.05 and 0.01.

Table 7. correlation between the level of usage of agricultural extension methods in Sulaimani governorate with the personal and functional variables

variables	categories	Frequency	%	Value of r or rs
Age	25- 40	51	45.95	Value of r = 0.161* Significant
	41-56	41	36.94	
	57& more	19	17.11	
Gender	Male	78	70.27	Value of rs= - 0.048 ^{n.s} Not significant
	Female	33	29.73	
Educational level	Agricultural preparatory	36	32.43	Value of rs= 0.048 ^{n.s} Not significant
	Agricultural institute	29	26.13	
	Agricultural college	43	38.74	
	Higher diploma	3	2.70	
Specialization	Agricultural non-extension	84	75.68	Value of rs= 0.087 ^{n.s} Not significant
	Agricultural extension	27	56.19	
Job title	Agricultural extension agent	25	22.52	Value of rs= 0.077 ^{n.s} Not significant
	Agricultural engineer	29	26.13	
	Head of agricultural extension agent	23	20.72	
	Head of agricultural engineer	17	15.32	
	Agricultural senior manager	13	11.71	
	Associate head of the agricultural extension agent	2	1.80	
	Senior agricultural extension agent	2	1.80	
Duration of the employment service	1-13 A few	58	52.25	Value of r = 0.183* Significant
	14-26 Medium	33	56.24	
	27-39 Long	20	57.00	
Duration of the agricultural extension service	(1-7) A few	59	53.15	Value of r = 0.180* Significant
	(8-14) Medium	41	36.94	
	(15& more) Long	11	9.91	
Previous training	Non- participate	65	58.56	Value of rs= - 0.021 ^{n.s} Not significant
	participate	46	41.44	
Exposure to sources of the agricultural information	(18-29) A few	39	35.14	Value of r = 0.464** Significant
	(30-41) Medium	63	56.75	
	(42-53) Large	9	8.11	
Attitude towards agricultural extension	(34-42) Negative	20	18.02	Value of r = 0.264** Significant
	(43-51) Neutral	64	57.66	
	(52-60) Positive	27	24.32	
Job satisfaction	(41-50) Few	31		Value of r = 0.276** Significant
	(51-60) Neutral	72		
	(61-70) High	8		

This suggests a lack of significant correlation between both variables thus we accept the research hypothesis, this result agrees with what was found in the study of (Sadaqa 2008, p 56). Educational level: ordinal correlation coefficient of Spearman with value 0.048 was used. It is less than the table value at the level 0.05 this suggests a lack of significant correlation between

the level of usage of extension methods and educational level. Thus we accept research hypothesis, this result agrees with what was found in the studies of (Al-Abbassi , Al-Harbawi 2012, p 12) , (Fathi 2013, p 17) and (Saleem and Al-Harbawi 2011, p 14). Specialization: the ordinal correlation coefficient of Spearman with value 0.087 was used. It is less than the

table value at the level 0.05. This means that the level of usage of extension methods by respondents is not affected by the field of their specialization. Thus we accept the research hypothesis. Job Title: the ordinal correlation coefficient of Spearman with value 0.077 was used. It is less than the table value at the level 0.05. This suggests a lack of significant correlation between the level of usage of extension methods and job title. Thus we accept research hypothesis. Duration of the employment service: correlation coefficient of Pearson was used with value 0.183. It is a significant value at the level 0.05. We reject research hypothesis, which states there is not significant correlation between the level of usage of extension methods and duration of the employment service. This means that with increased years of the employment service, the level of usage of various extension methods increases. This is attributed to increased experience in the usage of extension methods. Duration of the agricultural extension service: correlation coefficient of Pearson with value 0.180 was used. It is a significant value at the level 0.05 meaning that with increasing years of agriculture extension services, the level of usage of various extension methods will increase also, so we reject research hypothesis. Previous training: ordinal correlation coefficient of Spearman with value -0.021 was used. It is less than the table value at the level 0.05 thus we accept research hypothesis, this result disagrees with what was found in the studies of (Al-Abassi and Al-Harbawi 2012, p 12), and (Al- Hosseini 2011, p10). Exposure to sources of the agricultural information: correlation coefficient of Pearson with value 0.464 was used; it is significant value at the level of 0.01, this means that whenever the agricultural extension workers are exposed to more sources of information, the level of their usage of extension methods increased, thus we reject research hypothesis. Attitude towards agricultural extension: the correlation coefficient of Pearson with value 0.264 was used. It is a significant value at the level of 0.01 this means that whenever the attitude of agricultural extension workers is positive toward agriculture extension, the level of their usage of agricultural extension methods increased, thus we reject research hypothesis. Job satisfaction: the correlation coefficient of Pearson with value 0.276 was used. It is a significant value at the level of 0.01 this indicates increasing job satisfaction resulted in increasing usage of extension methods, thus we reject research hypothesis.

CONCLUSIONS

1. The level of usage of extension methods by agricultural extension workers in Sulaimani governorate was medium tending to low; this indicates the existence of a weakness in the

extension activities directed to farmers, including the use of appropriate extension methods.

2. There is a weakness in agricultural extension worker skills in Sulaimani governorate in the use of extension methods, in the fact that most of them are not extension specialties.
3. The results of this study showed an absence of agricultural mass media in sulaimani governorate. Mass extension methods are the least commonly used methods.
4. A significant correlation was found between the level of usage of agricultural extension methods and the variables: source of agricultural information, age and attitude towards agricultural extension; we conclude that these variables are related to the workers' use of extension methods and effect on the level of usage of agricultural extension methods.

RECOMMENDATIONS

1. The agricultural sector in Sulaimani governorate must paid more attention by the government and activate its supporting operations, depending on it as a major source for developing the agricultural products.
2. The Ministry of Agriculture must increase their support to agricultural extension sections & departments, it needs more financial support, securing the material and moral incentives to support the work of agricultural extension are necessary.
3. Opening intensive training courses are very necessary for the stuff who works in the agricultural extension sections & departments by the agricultural and extension directorate of Sulaimani, it is necessary to teach them how to use the extension methods, especially the modern extension methods.
4. Activating role of media in developing agriculture in the region by opening television channels majoring in the agricultural programs.

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الملخص العربي

مستوى استخدام الطرائق الإرشادية من قبل العاملين في الإرشاد الزراعي في محافظة السلیمانية

سحاب عايد العجيلي، دلکیر صالح محمود محمد

(لبيرسون)، معامل ارتباط الرتب (لسبيرمان) باستخدام البرنامج الاحصائي SPSS.

وقد خلصت النتائج الى أن مستوى استخدام الطرائق الإرشادية من قبل العاملين بالإرشاد الزراعي في محافظة السلیمانية هو متوسط يميل إلى الانخفاض، كما تبين أن مستوى استخدام الطرائق الفردية كان متوسطاً يميل إلى الارتفاع، أما مستوى استخدام الطرائق الجماعية والطرائق الجماهيرية فكان متوسطاً يميل إلى الانخفاض، وفي نفس الوقت اتضح من النتائج قيام علاقة ارتباط معنوية بين مستوى استخدام الطرائق الإرشادية وكل من متغيرات العمر ومدة الخدمة الوظيفية ومدة خدمة الوظيفة بالإرشاد الزراعي والتعرض لمصادر المعلومات الزراعية والاتجاه نحو الإرشاد الزراعي والرضا عن العمل؛ بينما لم تظهر النتائج علاقة ارتباط معنوية بين مستوى استخدام الطرائق الإرشادية وكل من متغيرات الجنس، والمستوى التعليمي، والتخصص، والعنوان الوظيفي، والتدريب السابق، وقد استنتج الباحثان وجود ضعف في الأنشطة الإرشادية الموجهة للزراع ومن بينها استخدام الطرائق الإرشادية الملائمة ووجود ضعف في مهارات العاملين بالإرشاد الزراعي في محافظة السلیمانية في استخدام الطرائق الإرشادية كون معظمهم من تخصصات غير إرشادية.

استهدف البحث بصفة اساسية تحديد مستوى استخدام الطرائق الإرشادية من قبل العاملين في الإرشاد الزراعي في محافظة السلیمانية، وتحديد علاقة الارتباط بين مستوى استخدام هذه الطرائق الإرشادية وبعض المتغيرات الشخصية والوظيفية للمبحوثين.

شمل مجتمع البحث جميع العاملين في مديرية الإرشاد الزراعي في محافظة السلیمانية، والشعب والأقسام الإرشادية التابعة لها، والبالغ عددهم (١٣٧) موظف إرشادي، وقد تم استبعاد (٢٠) موظفاً شملوا بقياس ثبات الإستبيان، وفيما بعد تم استبعاد (٦) استمارات لعدم اكتمال البيانات فيها، وبذلك اقتصر البحث على (١١١) موظفاً.

تم جمع البيانات بواسطة إستمارة استبيان تضمن الجزء الأول منها البيانات التي تتعلق بالمتغيرات الشخصية والوظيفية للمبحوثين، بينما تضمن الجزء الثاني (٣٣) طريقة إرشادية استخدمت لغرض تحديد مستوى استخدام العاملين بالإرشاد الزراعي بمحافظة السلیمانية لهذه الطرائق. وتم تحقيق صدق الإستبيان من خلال عرضه على عدد من الاختصاصيين في مجال الإعلام والعلوم النفسية والإرشاد الزراعي، كما تم حساب ثبات الإستبيان (بطريقة ألفا كرونباخ) حيث بلغ مقدار معامل الثبات الاحصائية منها: الانحراف المعياري، المتوسط الحسابي، الوزن المنوي، النسب المئوية، معامل الارتباط البسيط