Article

Problems facing the coordination process between the Guidance Department and the research center in Baghdad governorate

Farah Emad Sbeih[1,*], and Mithal Abdullateef Salman AL-Mashhadani[2]

[1] College of Agricultural Engineering Sciences, University of Baghdad, Iraq.
[2] College of Agricultural Engineering Sciences, University of Baghdad, Iraq.
* Correspondence: Farahemad197@gmail.com

Abstract

The research aimed was to identify the reality of the coordination process between the Guidance Department and research centers in the Baghdad governorate in terms of organization, planning, implementation, follow-up, and evaluation and to recognize the problems of the coordination process between the Guidance Department and research centers, (represented by problems of coordination policy, problems of organizing coordination, problems of the nature of the work mechanism coordination, training and capacity building problems, and funding problems), besides improving the effectiveness of the coordination process between the Guidance Department and research centers, (represented by simplifying the organization of coordination, harmony, and integration between coordination plans, programs, and policies, research partnership, and linkage, means of communication and information technology, training and capacity development, financial and technical support). The research was conducted in the Baghdad governorate, where a proportional, stratified random sample of 15% was selected from the research population of 935 respondents, with a rate of 22 from the Ministry of Agriculture, 63 from the College of Agricultural Engineering Sciences, 33 from the College of Veterinary Medicine, and 19 from the Agricultural Research Department, in addition of taking the entire population of the Guidance Department, totaling 23 respondents graduate degree holders. Thus, the number of respondents subject to the research became 160 respondents. A questionnaire comprising 112 items divided into two domains and 11 themes was prepared to collect data from the respondents to achieve the research objectives. There were 35 items within the domain for identifying the problems of the coordination process between the Guidance Department and research centers, distributed over five themes: 10 items for the problems of coordination policy, 7 items for the problems of organizing coordination, 8 items for the problems of the nature and mechanism of coordination work, 6 items for training and capacity building problems, 4 items for financing problems. For the domain of improving the effectiveness of the coordination process between the Guidance Department and research centers, the items to improve the effectiveness of the coordination process between the Guidance Department and research centers were 77 items distributed among 6 themes involving 14 items of them to simplify the organization, 12 items Including harmony and integration between coordination plans, programs, and policies, 15 items for partnership and research link, 18 items for means of communication and information technology, 9 items of training and capacity building, and 9 paragraphs for financial and technical support. The SPSS statistical analysis software and manual analysis were used to analyze and display the

results, as frequencies, percentages, arithmetic mean, weight percent, weighted mean, and Cronbach's Alpha equation were calculated. The research concluded that there is a multiplicity and diversity of coordination problems between the Guidance Department and research centers in the Baghdad governorate, and the approval of the majority of respondents to the domains, themes, and items to improve the effectiveness of the coordination process between the Guidance Department and research centers. The researcher recommends having a guiding system prepared scientifically and capable of being an effective communication link between the target audiences and their problems on the one hand and the scientific research devices on the other hand.

Keywords: coordination process, Guidance Department, research center

Introduction

Development is a dynamic process that consists of a set of structural and functional changes occurring in society, as it is achieved through the optimal use of natural and human resources and capabilities to improve the living conditions of the target audiences [11]. It focuses on the participation of different scientific disciplines to play their role in implementing developmental projects and programs [2] by linking the scientific knowledge sources and the modern ideas for its application in the field, which became necessary for agricultural development. That caused the developing countries, including Iraq, to increase their investment in agricultural research by establishing administrative research centers to serve researchers and theoretical and applied scientific research, as well as learning, training, and educating to develop agricultural research and advance the scientific reality [7]. Research centers are considered quality indicators in the modern era. They contribute to developing the ability to make decisions that help societies grow and develop. They are a substantial tool for producing many important projects and a means to study everything related to those projects according to a scientific approach linking the theoretical and applied aspects [12]. It is thus considered a tributary to the agricultural sector by focusing on the technical aspects of generating modern technologies that contribute to increasing production in quantity and quality, as well as identifying the problems facing the target audience [5], through the institutions concerned with achieving development including the agricultural guidance system, which plays a key role in responding to the knowledge needs of the target audience. Moreover, it acts as a link between the research centers and the target audiences, as it transfers their problems to the research centers to find solutions for them and then transfers the research results to the target audiences [10]. Hence, the role of the agricultural guide, who plays the role of coordinator, is to create a kind of link and coordination between information sources and places of application through understanding the information that arrives from the sources and then the ability to simplify, adapt and spread it in a way allowing the target audience to understand and realize [9], and apply it on their farms. To achieve this, the guidance system needs support from powerful applied research centers to serve the target audience effectively. Research centers also need potent guidance services for problem-oriented fieldwork directed [6]. Based on the formerly mentioned, there are links between agricultural guidance within the chain of the farm, the market, and the research centers [1]. Each has independent functions to achieve their goals in different ways and overlapping functions. The ability of research centers to investigate modern

methods of producing modern techniques addressing agricultural problems experienced by the target audience is a criterion for the success of scientific research. In contrast, the application of modern techniques in the fields of the target audience is considered a criterion for the success of the agricultural guide [8]. Thus, they are regarded as two important elements for facing agricultural challenges, developing and sustaining to increase production and productivity and attain the best results for managing agricultural activity, achieving development for rural communities, and responding to the needs of the target audiences, which can only be achieved by strengthening the relationship and enhancing and developing the relationship between research centers and guiding organizations and achieving interdependence, interaction and coordination between them [3], to unify the various efforts to achieve the best use of financial and material resources and transfer information between workers in the field of coordination to achieve goals with less effort, less time, and fewer expenses (Ghazi, 164:2005). Coordination achieves homogeneity and prevents duplication between research centers and guidance organizations, improves the effectiveness of guidance activities, and makes workers act on achieving common goals (cited in sommres.2004, 28), arranging them according to their priorities, setting policies and plans, and achieving compatibility and integration between activities through a team with experience in the field of coordination work (Shaker and Qassem, 50: 2001). Thus, it aims to spread the spirit of cooperation and joint work and raise morale among the coordination team [15]. Accordingly, despite the importance of coordination between research centers and agricultural guidance, there is still a wide gap between what researchers have achieved in research and agricultural guidance centers and the production rates achieved by the target audiences [6]. There is a weakness or absence of cooperation and institutional coordination with local agricultural communities, especially in developing countries, including Iraq [14]; furthermore, the results of research centers remain academic and have not been applied by the target audience (Proietti, Tudini, 2013:215). The relationship between agricultural guidance and research centers was characterized by periods varying between strength and weakness during the past fifty years. There was no official engagement except for a short period [4]. Coordination is based on unofficial personal interpretations, the absence of coordination regulations and laws, and the absence of obvious work mechanisms between guidance and research centers, in addition to the fundamental changes in the Ministry of Agriculture after 2003 that led to the abolition of substantial wings of agricultural scientific research, resulting in the abandonment of its role in enriching agricultural guidance with everything new [3]. Despite the multiple studies that have been conducted in the field of linkage and coordination between research centers and agricultural guidance, the extent of communication, the nature of coordination, and the problems and benefits faced by workers in the field of coordination between the guidance department and research centers have not been monitored

Research objectives
Improving some aspects of the coordination process between the Guidance Department and research centers in Baghdad governorate

Research hypothesis
Most respondents approve of improving some aspects of the coordination process between the Guidance Department and research centers in the Baghdad governorate.

Materials and methods
To achieve the objectives of the research, the descriptive approach was used, which is concerned with describing the phenomenon accurately, identifying the method of relationships between the variables that affect the phenomenon, and predicting it by obtaining realistic and accurate information based on which the results are formulated (Al-Omrani, 2012: 103). Thus, it focuses on describing the phenomenon to be studied, represented by improving the effectiveness of coordination between the Guidance Department and research centers in the Baghdad governorate.

Research population
The research population included the high degrees holders in the Guidance Department and research centers in Baghdad governorate, which numbered (935) respondents and distributed as follows:
1-3- 145 Respondents at the Ministry of Agriculture
2-3-23 Respondents at the Guidance Department, the whole community was taken
3-3-126 Respondents at the Agricultural Research Department
4-3- 423 Respondents at the College of Agricultural Engineering Sciences
5-3-218 Respondents at the College of Veterinary Medicine

Research sample: A proportional, stratified, random sample, with a percentage of 15%, was taken from the research population of 912, with 137 respondents distributed among the research centers.

Research centers	Number	15% of the sample
Ministry Of Agriculture	145	22
College of Agricultural Engineering Sciences	423	63
College of Veterinary Medicine	218	33
Agricultural Research Department	126	19
Total	912	137
Guidance Department		23
Total	935	160

Table 1: Distribution of the research population and sample.

The entire population of the Guidance Department was taken, totaling 23 respondents, and accordingly, the sample subject to research became 160 respondents.

Research tool and its design stages
Based on the objectives of the research, the questionnaire was used as a tool for collecting data and information from the respondents, as it was designed in its initial form according to the following sources:
Examining foreign and Arab literature, articles, studies and research.
Opinions of experts and specialists in research centers, the Ministry of Agriculture and the Guidance Department.
With the help of the Internet.

Field visits and personal interviews with some workers, as several field visits were conducted, involving visits to the Ministry of Agriculture, the College of Agricultural Engineering Sciences, the College of Veterinary Medicine, the Guidance Department, and the Agricultural Research Department to see the coordination process. According to the sources above, 21 items for the problems facing the cooperating process between the Guidance Department and research centers were identified and distributed over three themes.

Problems of coordination policy (10 items)
Problems of organizing coordination (7 items).
Funding problems (4 items)

Arbitrator validity
Having the domains and themes identified and the paragraphs formulated in their initial form, they were presented to 16 arbitrators with specializations and experience in the field of agricultural guidance, agricultural economics, field crops, and livestock, and the Department of Research and Technology Sciences to measure the face and content validity. This is to benefit from the arbitrators' observation and suggestions regarding the suitability of the items to the research domains and themes in terms of the integrity of expression, the absence of overlap and repetition between the topics, the clarity of the paragraphs, and their scientific accuracy, as well as proposing what they deem appropriate in case that they do not agree with it, by deleting or adding other items to come up with the final version for the tool before presenting it to the respondents, according to a three-tertiary scale consisting of (agree, agree in case of amendment, disagree) where the following weights were assigned to it (0,1, and 2 respectively).
The experts were asked to put a tick (√) in the place expressing their agreement regarding the domains, themes, and items. Accordingly, the opinions of the experts were collected and their answers recorded during the period (10/8/2021-24/11/2021) and analyzed and agreed upon according to the following:
Determining a cut-off threshold of 75% or more regarding the validity of the domains, themes, and items included in the questionnaire.
Amending the items in case the opinions of experts and specialists differ about them.
Deleting the items on which the percentage of experts' agreement is less than 75%.
Delete similar paragraphs and merge some similar paragraphs
Calculating the average degrees of experts' approval of the components of the scales included in the questionnaire in its initial form. The average percentage of experts' agreement included in the questionnaire was 94% in the opinions of experts who were informed about the items' accuracy, clarity, and formulation.

Search tool reliability
Reliability is a necessary process and a basis for verifying the validity of the measurements included in the questionnaire. Accordingly, the reliability was conducted as a pre-test for the questionnaire to identify the respondents from 12/1/2021 to 12/26/2022 on a sample of 30 respondents in the College of Veterinary Medicine. To verify the stability of the scales included in the questionnaire from outside the sample and to measure the reliability, the initial test data were analyzed using Cronbach's Alpha equation, as shown in the table below.

Questionnaire	Reliability coefficient
Problems facing the coordination process	**%93**
1- Problems of coordination policy	**%94**
2- Problems of organizing coordination	**%96**
Funding problems	**%94**

Table 2: Reliability of the domains and themes of the coordination process.

It is clear from the table above that the value of the reliability coefficient ranged between 94.0 and 96.0 degrees, while the total reliability coefficient of the questionnaire to improve the coordination effectiveness reached 93.0 degrees, which expresses good reliability coefficients that are important to achieve the objectives of the research, and thus this tool in its final form is field applicable.

Data tabulation and analysis:
After collecting data on the phenomenon under study, which is to improve the effectiveness of coordination between the Guidance Department and research centers, they were arranged and coordinated in a way that they can be read, analyzed, and concluded results as follows:

Problems of the coordination process: To measure the problems facing the coordination process, 21 items distributed on three themes were formulated. A graded scale consisting of four levels (agree to a large degree, agree to a moderate degree, degree to a small degree, disagree) was developed, and weights (1, 2, 3, and 4) were given to it, respectively. Thus, the scale's total score ranged between 21 and 84 degrees. Frequencies, percentages, weighted mean, and weighted percentile for each scale's items were calculated and arranged in descending order according to their degree of importance to the respondents. Each theme of the coordination problems between the Guidance Department, research centers, and my agencies will be presented, tabulated, and analyzed as follows:

Problems of coordination policy: To measure the problems facing the coordination policy, ten items were formulated according to a quadruple-graded scale consisting of four levels (agree to a large degree, agree to a moderate degree, agree to a small degree, and disagree), and weights (1, 2, 3, and 4) were given to them. Thus, the scale ranged between 10 and 40 degrees. The frequencies, percentages, the weighted mean, and the weighted percentile were calculated for each item of the scale, and they were arranged in descending order according to the degree of their importance to the respondents.

Problems of organizing coordination: To measure the problems facing the organizing coordination, seven items were formulated according to a quadruple-graded scale consisting of four levels (agree to a large degree, agree to a moderate degree, agree to a small degree, and disagree), and weights (1, 2, 3, and 4) were given to them. Thus, the scale ranged between 7 and 28 degrees. The frequencies, percentages, the weighted mean, and the weighted percentile were

calculated for each item of the scale, and they were arranged in descending order according to the degree of their importance to the respondents.

Funding problems: To measure the problems facing the funding, four items were formulated according to a quadruple-graded scale consisting of four levels (agree to a large degree, agree to a moderate degree, agree to a small degree, and disagree), and weights (1, 2, 3, and 4) were given to them. Thus, the scale ranged between 4 and 6 degrees. The frequencies, percentages, the weighted mean, and the weighted percentile were calculated for each item of the scale, and they were arranged in descending order according to the degree of their importance to the respondents.

Results
The respondents' problems with coordination between the Guidance Department and research centers include 3 themes (coordination policy problems, coordination problems, and funding problems). Grand averages and percentage weights were used to analyze them.

Problems of coordination policy
Research results showed that the respondents paid attention to this theme as according to their answers to the 10 items laid out to the problem of the coordination policy, obtaining weighted means lie between 3.10 and 3.25 degrees, a percentage weight lies between 77.50 and 81.25%, and grand average of 3.17 degrees, as shown in the table below.

Sequence according to the questionnaire	Sequence according to importance	Items	Scale	Frequency	percentage	Weighted mean	Weight percentile
9	1	There is no clear policy for coordination between the Guidance Department research centers	agree to a large degree	67	41.9		
			agree to a moderate degree	72	45.0	3.25	81.25
			degree to a small degree	15	9.4		
			disagree	6	3.8		
5	2	There are no communication channels between the Guidance Department and research	agree to a large degree	71	44.4		
			agree to a moderate degree	62	38.8	3.22	80.50
			degree to a small degree	18	11.3		

		centers to unify ideas regarding coordination problems	disagree	9	5.6		
3	3.5	No organized coordination mechanisms are available between the Guidance Department and research centers	agree to a large degree	68	42.5		
			agree to a moderate degree	66	41.3	3.21	80.25
			degree to a small degree	18	11.3		
			disagree	8	5		
10	3.5	The absence of programs and plans that lead to the existence of channels of action that can be followed to coordinate between the Guidance Department and research centers	agree to a large degree	69	43.1		
			agree to a moderate degree	61	38.1		80.25
			degree to a small degree	24	15.0	3.21	
			disagree	6	3.8		
7	5	The presence of unstable particular factors or variables surrounding agricultural work makes the person responsible for the coordination process unable to work	agree to a large degree	70	43.8		
			agree to a moderate degree	57	35.6		
			degree to a small degree	23	14.4	3.17	79.25
			disagree	10	6.3		
2	6	Weak coordination and arrangement of significant processes and procedures between the Guidance Department and research centers	agree to a large degree	66	41.3		
			agree to a moderate degree	63	39.4		79
			degree to a small degree	22	13.8	3.16	
			disagree	9	5.6		
8	7	There is no suitable environment for the exchange of coordination information between the	agree to a large degree	70	43.8	3.15	78.75
			agree to a moderate degree	53	33.1		
			degree to a small degree	28	17.5		

		Guidance Department and research centers	disagree	9	5.6		
4	8	Inability to suggest the appropriate method for the coordination process between the Guidance Department and research centers	agree to a large degree	65	40.6		78.50
			agree to a moderate degree	62	38.8	3.14	
			degree to a small degree	23	14.4		
			disagree	10	6.3		
6	9	Inability to face problems and unwanted situations during the coordination process between the Guidance Department and research centers	agree to a large degree	63	39.4		77.75
			agree to a moderate degree	59	36.9	3.11	
			degree to a small degree	31	19.4		
			disagree	7	4.4		
1	10	Lack of understanding of the nature of coordination between the Guidance Department and research centers	agree to a large degree	55	34.4		77.50
			agree to a moderate degree	71	44.4	3.10	
			degree to a small degree	29	18.1		
			disagree	5	3.1		
		The theme as a whole				3.17	79.25

Table 3: Weighted means and percentage weights for items of coordination policy problems between the Guidance Department and research centers.

It is apparent from the table above that most of the respondents emphasized the item "there is no clear policy for coordination between the Guidance Department and the research centers," reinforced by obtaining the first rank in terms of importance or the level of respondents' approval. It achieved a weighted mean of 3.25 degrees and a weight percentage of 81.25%. This is because coordination starts from the first stage of developing plans and policies to achieve balance in coordination work. The item "not understanding the nature of coordination between the Guidance Department and the research centers" ranked last in importance or the level of the respondents' approval, achieving a weighted mean of 3.10 degrees and a weight percentage of 77.50%. This may be due to the need for workers to be aware of the nature of coordination between guidance and research centers, as it is a comprehensive and necessary activity for completing all administrative functions and all activities at all levels.

Problems of organizing coordination: The research results showed that the respondents paid attention to this theme according to their answers to the items

listed for the problem of organizing coordination, which numbered 18 items, obtaining a weighted mean between 2.69 and 3.18 degrees and a percentage weight between 76.5 and 79.5%, with a grand average of 3.15, as shown in the following table.

Sequence according to the questionnaire	Sequence according to importance	Items	Scale	Frequency	percentage	Weighted mean	
7	1	There is no directing in the joint coordination work between the Guidance Department and research centers	agree to a large degree	69	43.1		
			agree to a moderate degree	61	38.1	3.18	
			degree to a small degree	19	11.9		
			disagree	11	6.88		
3	2	Lack of coordination to participate in conducting research of interest to the rural community	agree to a large degree	67	41.9		
			agree to a moderate degree	61	38.1	3.17	
			degree to a small degree	24	15.0		
			disagree	8	5.0		
4	3.5	Choosing research centers for research randomly, which leads to repetition of topics or conducting research far from the agricultural work environment,	agrees to a large degree	65	40.6		
			agree to a moderate degree	64	40.0	3.16	
			degree to a small degree	23	14.4		
			disagree	8	5.0		
5	3.5	Weak horizontal and	agree to a large	66	41.25		

		vertical relations between the Guidance Department and research centers	degree			
			agree to a moderate degree	62	38.8	3.16
			degree to a small degree	23	14.4	
			disagree	9	5.6	
2	5	Difficulty in relations between coordination officials between the Guidance Department and research centers	agree to a large degree	57	35.6	3.06
			agree to a moderate degree	63	39.4	
			degree to a small degree	33	20.6	
			disagree	7	4.4	
1	6	The absence of coordination between the Guidance Department and research centers that determines the explanatory fields in which research results are applied	agree to a large degree	59	36.9	
			agree to a moderate degree	60	37.5	3.04
			degree to a small degree	30	18.8	
			disagree	11	6.9	
6	7	The contradiction and inconsistency in the decisions taken to implement the coordination activities between the Guidance Department and the research centers	agree to a large degree	69	43.1	2.96
			agree to a moderate degree	52	32.5	
			degree to a small degree	29	18.1	
			disagree	10	6.25	

		The theme as a whole		3.15	

Table 4: Weighted means and percentile weights for organizing coordination problems.

It is clear from the above table that most of the respondents emphasized the item "not directing the shared coordinate work between the Guidance Department and the research centers," reinforced by obtaining the first rank in terms of importance or the level of respondents' approval, achieving a weighted mean of 3.18 degrees and a percentage weight of 79.5% which may be because guidance plays a crucial role in achieving coordination between the Guidance Department and research centers to unify their efforts towards completing the work at one time and in a certain way, while the item "contradiction and inconsistency in the decisions taken to implement the coordination activities between the Guidance department and research centers" ranked last in terms of importance or the level of the respondents' approval, achieving a weighted mean of 2.69 degrees and a weight percentage of 67.25%. This may be because the relationship between the Guidance Department and research centers is unorganized but subject to unstable conditions, which causes inconsistency in choosing the most appropriate solution for implementing coordination activities.

Funding problems
Research results showed that the respondents are interested in this theme, as according to their answers to the problems set in the domain of coordination financing, which numbered 4 items, obtaining a weighted mean lies between 3.30 and 3.38 degrees, a percentage weight that falls between 82.5% and 84.5 %, and a grand average of 3.34 degrees, as shown in the following table.

Sequence according to the questionnaire	Sequence according to importance	Items	Scale	Frequency	percentage	Weighted mean	Weight percentile
1	1	lack of adequate funding for continuing the coordination meetings between the Guidance Department and research centers	agree to a large degree	86	53.8		
			agree to a moderate degree	53	33.1	3.38	84.5
			degree to a small degree	17	10.6		
			disagree	4	2.5		
4	2	Lack of study of the capital and	agree to a large degree	84	52.5		

		the needs of the Guidance Department and research centers for continuing the coordination process	agree to a moderate degree	55	34.4	3.35	83.75
			degree to a small degree	14	8.8		
			disagree	7	4.4		
2	3	The coordinating committees do not benefit from the local and foreign aid provided to the agricultural sector	agree to a large degree	78	48.8		
			agree to a moderate degree	59	36.9	3.32	83
			degree to a small degree	19	11.9		
			disagree	4	2.5		
3	4	Difficulty of administrative coordination to overcome the material, financial and human difficulties between the Guidance Department and research centers	agree to a large degree	82	51.3		
			agree to a moderate degree	52	32.5	3.30	82.5
			degree to a small degree	18	11.3		
			disagree	8	5.0		
		The theme as a whole				3.34	83.5

Table 5: Weighted means and percentiles for coordination financing problems.

Discussion

Most of the respondents emphasized the item "not providing adequate funding for the continuation of the coordination meetings between the Guidance Department and the research centers," reinforcing that it ranked first in terms of importance or the level of respondents' approval and achieving a weighted mean of 3.38 degrees

and a percentage weight of 84.5%. This may be due to the need for more clarity in the financing policies supporting the implementation of coordination activities in the Guidance Department and research centers. Whereas the item 'the difficulty of administrative coordination to overcome the material, financial and human difficulties between the Guidance Department and the research centers" obtained the last rank in terms of importance or the level of approval of the respondents, achieving a weighted mean of 3.30 degrees and a percentage weight of 82.5%. This is due to the weakness of the coordination activity, which negatively affects its ability to face material and human problems in different coordination situations[17,18].

Conclusions

The relationship between the guidance system and research centers is essential based on the workers' jurisprudence, efficiency, skill, and efforts, relying on something other than scientific foundations, legal frameworks, and objective criteria for the coordination process between the two sides.

Universities are looked at as institutions of higher education whose main tasks are to carry out activities in the fields of scientific research and community service, and thus facing the major challenge of achieving the necessary balance between performing their tasks as educational outputs for the development inputs, in addition to their contribution to economic development and the research and development activities in the agricultural field.

Recommendation

Working to strengthen the links and coordination between the Guidance Department and research centers in a codified and fruitful manner that is not subject to specific individuals' relationships, including the implemented guidance programs.

There is the necessity of having a scientifically prepared guiding system that is capable, from a scientific point of view, of being an effective link between the target audiences and their problems on the one hand and the scientific research systems on the other.

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