

Academic Staff Assessment on the Agricultural Economics Undergraduate Program in Turkey

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ABSTRACT The aim of this study was to assess the agricultural economics undergraduate programs in Turkey with regards to the academic staff. An internet-based electronic survey with 90 academic staff was used to collect data. Descriptive analysis technique was used to analyze the data. Research results showed that about one-third of the academic staff stated that the departments generally had insufficient facilities and academic staff. Half of the departments did not have a strategic plan and assessment system for their programs. There was a need to update the undergraduate curriculum. Academic staffs were largely neutral as to whether the department satisfied adequately the expectation of graduates. To improve the quality of agricultural economics undergraduate programs, the departments should have a strategic plan and assessment system for their programs, and their facilities and academic staff resources should be improved. Furthermore, the departments collaborated with their stakeholders and used student-based learning systems to ensure industry ready graduates.

INTRODUCTION

Nowadays, we are facing a changing world, and the agricultural economics discipline is forced to adapt to these changes. There are many factors that push for updating the education programs of the agricultural economics discipline regularly. Thus, there has been a declining trend of enrolling students with low university exam scores to the agricultural economics undergraduate programs; farm population in the agricultural sector; and fewer government interventions on the agricultural markets. However, there has been more internalization and competition for the agricultural markets, more volatile weather due to climate change, a higher desire for the protection of environment to improve the economic viability of farms etc. All these factors have been discussed extensively for the most appropriate teaching, research and extension activities in the agricultural economics discipline.

In Turkey, the agricultural education started as of secondary school level in 1848, and then the Higher Agricultural Institute was established

in 1933. To date, different undergraduate program systems have been used in Turkey. Thus, while there had been a general agricultural education undergraduate system until 1952 (Gunes 1994), the departmental system had been applied in agricultural education until 1990's. Due to the changing conditions and high unemployment rates among agricultural engineers in Turkey, three undergraduate programs, namely crop production, animal production and the agricultural technology, were established, and students were accepted by these programs during the period of 1999-2003. In the period of 2003-2009, the undergraduate programs became general agricultural engineering undergraduates programs again. During this period, students were accepted by the agricultural faculties, and after the first or second years, they were placed to the departments according to their university entrance scores and preferences. Since 2009, the departmental undergraduate program system has been used in agricultural education in Turkey.

In Turkey, while there were 55 academic staff and 7 agricultural economics departments in 1994 (Gunes 1994), in 2015, the number of academic staff and departments reached 139 and 17, respectively. However, the number of research assistants decreased from 68 to 61 during the same period. Neither the academic staff nor research assistants in question are considered to be adequate for educating students. Students are accepted by the agricultural economics under-

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graduate programs according to their national university entrance examination scores, if they get an adequate score. Agricultural economics departments accept students with Turkish Language and Mathematics 1 (TM-1) scores. In 2014-2015, every department enrolled about 36-47 students, and a total of 639 students were enrolled to 17 departments. The enrolment ranks of students to the agricultural economics undergraduate program varied between 190.000 and 344.000, among about 1.5 million candidate students who took the national exam, and their ranks in TM-1 scores varied from 238 to 412. The top score of TM-1 was 544.501. These ranks or scores showed that top-level students did not choose the agricultural economics departments.

Literature Review

Undergraduate programs in agriculture prepare students for immediate employment in the fields they choose. The goal of this professional training is to produce specialists who will be able to apply a set of practical skills to a limited set of technical problems. Agricultural economics is multidisciplinary and has its roots in agronomy as well as in economics (Wesley et al. 1988). Agricultural economics undergraduate (bachelor) program is composed of undergraduate courses with 240 European Credit Transfer System (ECTS), and it takes four years in Turkey. The student who completes undergraduate courses at the agricultural economics department takes undergraduate (bachelor) degree both on agricultural engineering and agricultural economist. An agricultural economist constantly monitors agricultural industry and factors which could affect production and markets. Agricultural economists provide forecasts for the economic setting on agriculture, and they offer sound advice and strategies for businesses and individuals involved in agriculture. Agricultural economists are often asked to help policy makers identify appropriate incentives, toward inclusive and sustainable pathways for economic development (Ruben and Burger 2007). Academic staff consists of faculty members with PhD degrees and teaching staff. Faculty members with PhD consist of professors, associate professor and assistant professors. Teaching staff consists of instructors, lecturers and support staff (Karaca and Erdem 2014).

Assessing education programs is very important to improve the quality of education and meet the expectations of students and other stakeholders. Furthermore, self-assessment has a very important role in assuring accountability with self-governance (Van Alfen et al. 2007). Assessment is described as the systematic collection, review and use of information about educational programs undertaken for the purpose of improving student learning and development (Palomba and Banta 1999).

The agricultural economics literature has discussed continually the future of teaching, extension and research. Thus, Senzanje et al. (2006) examined the relevance of agricultural engineering education against the background of a changing world and concluded that there had been a need for more dynamic programs, by reviewing and modifying their curricula regularly. Lissitsa et al. (2005) assessed the agricultural economics education in Ukraine and stated that a substantial reduction in state financing had forced universities to adapt a range of survival strategies. Broder and Taylor (1994) evaluated the teaching aspect of undergraduate programs of agricultural economics and related departments in the USA and Canada and found that there was little evidence that student evaluation forms contribute to teaching quality. Litzenberg (2010) reviewed the best teaching approach for millennial students in undergraduate agricultural economics. Boland (2009) provided an overview of information with the leaders of agricultural economics departments and discussed their challenges. Espey and Boys (2012) explored internal challenges and opportunities to successful student recruitment in applied economics departments. Ruben and Burger (2007) evaluated the contributions of agricultural economics to critical policy issues. Jensen et al. (2007) exposed the department heads' perceptions on distance education in agricultural economics in the USA. Porter and Philips (2014) examined master's programs in agricultural economics as U.S. land grant universities and categorize commonalities, differences, strengths and positive aspects. Dridi et al. (2010) assessed the ranking of agricultural economics department on the basis of citations and research outputs. Weersink (2006), Comlan (2007) and Perry (2010) evaluated the future of agricultural economics departments.

Despite the increasing interest in assessing higher education programs, there have been lim-

ited empirical assessments on agricultural economics undergraduate or graduate programs in Turkey. These limited studies introduced the education and research situation in the departments of agricultural economics in Turkey. Thus, Erkan and Bostan Budak (2000) examined the academic staff's teaching methods and their effects on the students in the Agricultural Faculty of Çukurova University. Gunes (1988, 1994) assessed broadly the education and research system of agricultural economics. Erkan (2006) pointed out the education and research problems in agricultural economics in Turkey. Yavuz (2010) discussed possible opportunities the Bologna process would provide to higher education of agricultural economics in Turkey and stressed the steps adapting the Bologna process such as identifying program qualifications, writing down course learning outcomes and curricula with respect to program qualifications, improving physical infrastructure, faculty members' potential, and teaching and evaluation methods, respectively. There have been many developments during the last two decades in Turkey, and the agricultural economics departments have tried to re-structure their programs and curricula.

State of the Problem

There have been important developments in all disciplines of science including agricultural economics. These developments entail reconsidering the curricula and courses at the agricultural economics programs. However, neither there is research conducted to improve the undergraduate or graduate programs of agricultural economics nor the academic staff care about this needful subject. Therefore, the academic staff's assessment toward the undergraduate programs of agricultural economics departments in Turkey is a critical issue.

Purpose of the Study

The purpose of this paper was to assess the undergraduate program of agricultural economics departments, from the view of academic staff in Turkey. The study sought to answer the following research questions: What are the academic staff's views on the department facility sufficiency, administrative approach, academic staff resources, curriculum and teaching methods and graduates' gains? The results of this

research would have general application to the undergraduate programs of agricultural economics and other departments in the agricultural faculties.

METHODOLOGY

Research Design

A descriptive survey design was used in this study. A descriptive study provided the opinions of the respondents regarding the phenomenon studied (Assn and Lumadi 2013). In this case, the phenomenon studied was the evaluation of academic staff's assessment on the undergraduate programs of the agricultural economics departments in Turkey.

Population

There are 17 agricultural economics departments which have undergraduate programs under the agricultural faculties in Turkey. The population of this study consisted of 138 faculty members or academic staff employed by 17 departments nationwide. While we aimed to make our survey with all the academic staff (139), 90 academic staff, equal to 65.2 percent of the total academic staff who responded to the survey. About 38.9 percent of the academic staff who responded to the survey were professors, 32.2 percent associate professors, 26.7 percent assistant professors and, 2.2 percent lecturers with a master's degree.

Data Collection

An internet-based electronic survey was used to collect data about the lecturer assessment between 25-30 August, 2014. The survey covered a range of topics including the characteristics of academic staff, academic staff's evaluation about the adequacy of department facilities, administrative approaches, cooperation with stakeholders, undergraduate curriculum, academic staff resources, teaching and learning methods and gains of graduates. The researcher queried some characteristics of the academic staff with multiple choice or open-ended questions. However, the academic staff's assessment on the undergraduate programs was queried based on Five Likert Scale questions in which a value of 5 implied strong agreement and 1 strong disagreement. The researcher assumed that the academic

staff could give reliable and accurate answers to the survey questions. The data obtained from the survey were analyzed through the SPSS for Windows 20.00 program.

Data Analysis

To analyze the data collected in this study, a descriptive analysis technique was used which is a qualitative research technique. Academic staff's characteristics and evaluation of the undergraduate programs were summarized by using frequencies and descriptive statistics. These data give a basis for interpreting the undergraduate programs of agricultural economics departments.

RESULTS AND DISCUSSION

Views on the Department Facility Sufficiency

One of the main necessities for a high performing department is to have enough physical infrastructure or facilities. The academic staff's views on the facility sufficiency of the departments were given in Table 1. About 27.8 percent of the academic staff stated that there was not enough office for the academic staff at the department. Furthermore, 35.5 percent of the academic staff indicated that their departments did not have sufficient facilities such as land, green house etc. to conduct student practices. Yavuz (2010) stated also that the agricultural economics departments do not have satisfactory physical infrastructures. However, about 54.4 percent of the academic staff indicated that there were sufficient computer, printer and projectors at their departments. About 36.7 percent of the academic staff strongly agreed or agreed with the state-

ment that there were satisfactory books or journals at the faculty, department or individual libraries. On the other hand, 37.7 percent of the academic staff stated that the scope and actuality of the department website was not sufficient.

Views on the Administrative Approach

In order to provide effective and contemporary services, the departments should be administrated with sound management approaches. The academic staff's views on the administrative approach were presented in Table 2. While half of the academic staff strongly agreed or agreed with the statement that the undergraduate program was administrated with a strategic planning approach, half of them strongly disagreed or disagreed that the undergraduate program was administrated with a total quality management system based on the outputs of the education system. Yavuz (2010) quoted there had not been interior or exterior quality assurance control system in the departments. Kola and Sesho (2012) indicated that in order to administer the departments with a strategic planning approach, the department heads as key strategy implementers should be supported by the senior managements of the institutions. However, in order to adapt to a changing world, strategic planning should be learnt and applied (Wesley et al. 1988). While 57.8 percent of the academic staff stated that the mission and vision of the undergraduate program were specified and taken into account for the department activities, 47.8 percent of the academic staff indicated that the mission and vision of the undergraduate program should be changed. Senzanje et al. (2006) also stated that agricultural engineering departments needed to re-evaluate their mission statements to be dynamic. About 60 percent of the academic

Table 1: Views on the department facility sufficiency

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
The department has enough office for the academic staff	38.9	25.6	7.8	15.6	12.2
Our faculty has sufficient facilities such as land, green house etc. for student practices	12.2	27.8	24.4	21.1	14.4
The department has sufficient electronic equipment such as computer, printer and projectors	23.3	31.1	17.8	21.1	6.7
There are satisfactory books and journals at my individual department or faculty library	15.6	31.1	18.9	24.4	10.0,
Free internet connection for the students is available at our department or faculty	32.2	32.2	8.9	14.4	12.2
The scope and actuality of the department website is not sufficient	13.3	24.4	27.8	26.7	7.8

staff strongly agreed or agreed that education and teaching priorities of the undergraduate program were specified. About half of the lecturers, 47.8 percent, strongly agreed or agreed that the program had been updated regularly and the department had a strong desire about rehabilitating the undergraduate programs. However, 45.6 percent of the academic staff indicated that the assessment of the undergraduate program and research activities had been made termly and annually. Furthermore, Parpala and Lindblom-Ylänne (2007) also stated that while appropriate assessment was an essential element of good teaching, its role was not emphasized by teachers. About 42.2 percent of the academic staff disagreed or strongly disagreed with the statement that national and international needs were taken into account while updating the undergraduate program. About half of the academic staff, 47.7 percent, disagreed or strongly disagreed that their university had given sufficient support to their researches and publications. Only one-fourth of the academic staff indicated that the research institutions of the Ministry of Food, Agriculture and Livestock should be merged with the universities.

Views on the Cooperation

Cooperation with farmers, agro-food industry, other universities and public institutions in

agricultural economics education can establish a strong chain between research, application and extension. The academic staff's views about cooperation were presented in Table 3. About half of the academic staff disagreed or strongly disagreed that their departments had sufficient cooperation with farmers, the agro-food industry, other universities and public institutions. Besides, 36.7 percent of the academic staff stated that the cooperation on student exchange programs such as Erasmus+ and Mevlana programs were not sufficient. Erasmus+ is an exchange program for students, academic and administrative staff among the members of European Union or partner countries, whereas Mevlana is an exchange program for students and academic staff between Turkey and non-Erasmus partner countries.

Views on the Lecturer Resources

In Turkey, while the average number of faculty members per department was 8.1, the minimum number was 3 and the maximum was 21. Of 17 departments, 11 departments have 7 or fewer faculty members. Yavuz (2010) also indicated that the numbers and competences of the academic staff in agricultural economics departments were insufficient. The academic staff gave 21.7 hours

Table 2: Views on the administrative approach

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
The undergraduate degree program of the department is administrated with the strategic planning approach	10.0	40.0	20.0	18.9	11.1
The undergraduate program has been administrated with total quality management system based on the output of the education process	2.2	28.9	18.9	26.7	23.3
The mission and vision of the undergraduate program are specified and taken into account for the department activities.	16.7	41.1	18.9	15.6	7.8
It is necessary to change the department mission and vision for the undergraduate program.	20.0	27.8	24.4	21.1	6.7
The education and teaching priorities of the undergraduate program are specified.	12.2	47.8	18.9	13.3	7.8
The undergraduate program has been updated regularly, and there has been a strong desire about rehabilitating it.	8.9	38.9	24.4	18.9	8.9
Assessment of the undergraduate program and research activities have been made termly and annually.	6.7	24.4	23.3	25.6	20.0
The country and international needs were taken into account for updating the undergraduate program.	10.0	24.4	23.3	28.9	13.3
Our university has given sufficient financial support to our researches and publications.	8.9	26.7	16.7	24.4	23.3
Research institutions of the Ministry of Food, Agriculture and Livestock should be merged with the universities.	13.3	11.1	28.9	25.6	21.1

Table 3: Views on the cooperation

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
Our department has sufficient cooperation with farmers and agro-food industry.	2.2	21.1	21.1	35.6	20.0
Our department has sufficient cooperation with other universities and public institutions.	3.3	24.4	22.2	32.2	17.8
Our department has sufficient cooperation on Erasmus+ and Mevlana programs with foreign universities.	5.6	23.3	34.4	27.8	8.9

of lesson a week. If the course was free, they were willing to give 8.9 hours of lesson a week. Van Alfen et al. (2007) stressed that because the academic staff income increased according to the number of courses given, academic staff were incentivized to teach a large number of courses, and this left no time for research. In this research, about half of the academic staff stated that generally they could not have enough time for doing research. The academic staff directed averagely 7.9 master's thesis or PhD dissertations. The lecturers managed 3.9 research projects and participated in 5 research projects as researchers. An average academic staff published a total of 24.5 articles in international journals or proceedings and 17.3 articles in national journals or proceedings. All these findings showed that the academic staff had many responsibilities and works in their departments.

The academic staff's views on academic staff resources at the departments, were given in Table 4. While 63.3 percent of the academic staff strongly agreed or agreed with that there was a sufficient number of academic staff at the department, about half of the academic staff stated that there were insufficient numbers of research assistants. Nowadays, while a department can open an undergraduate program with only three academic staff, this number of staff is not considered adequate for a high quality education. Due to the insufficient number of academic staff and to earn money for extra lessons, the academic staffs are incentivized to teach a large number of courses, and they have no time for doing research. About 41.2 percent of the academic staff thought that the academic staff's basic knowledge levels, teaching and research skills were generally insufficient. About half of the academic staff, 51.1 percent, finished their bachelor's, master's and doctorate degrees at the same uni-

versity. Can (2015) stressed that the selection and placement system of academicians hampered the qualitative improvements of university education in Turkey, and there had been a need for philosophical and intellectual transformation in education. The average foreign language score of the academic staff was 72.2, and about 16.7 percent of the academic staff had a score over 80. While 72.2 percent of the academic staff stated that their foreign language was sufficient to follow international literature, only 55.5 percent of the lecturers indicated that they could give their courses in a foreign language. Majority of the academic staff (84.4%) stated that they provided information about the aim, scope and learning outcomes of the course at the beginning of the semesters and every lesson. While 87.8 percent of the academic staff stated that they made enough preparations before the lessons and supported their lessons with actual subjects, three-fourth of the lecturers thought that students came to classes without making preliminary preparations. Yavuz (2010) stated that students did not have enough motivation, which affected education negatively. Ninety percent of the academic staff stated that they encouraged the students to participate in the discussions. About 78.8 percent of the academic staff stated that they queried at the exams the levels the students gained and the learning outcomes. While 31.1 percent of the academic staff stated that the students visited their office only before the exams, about 70 percent of the academic staff strongly agreed or agreed with the statement that the students could reach the academic staff or research assistants easily, and they had a good communication with the students, and they allocated enough time to them. About 75.6 percent of the academic staff stated that they had sufficient information about the needs of the agro-food

sector. About half of the academic staff strongly agreed or agreed with the statement that the academic staff were innovative, and they had taken advantages from opportunities to promote themselves professionally. About 60 percent of the academic staff stated that they attended at least one national or international scientific meeting every year. On the other hand, 44.4 percent of the academic staff had not been in a foreign country yet. It is important that, three-fourth of the academic staff strongly agreed or agreed with the statement that if they had sufficient opportunities, the departments would have a good and fast development potential. While only 45.5 percent of the academic staff strongly agreed or agreed with the statement that the researcher could not generally find enough time for making research, 48.9 percent of them stated that re-

searchers should be employed at the department to only make research.

Views on the Curriculum and Teaching Methods

The academic staff's views on the undergraduate curriculum and teaching methods were presented in Table 5. About 26.7 percent of the academic staff strongly agreed or agreed with the statement that the number and credits of courses at the program were too high. Gunes (1994) also stressed previously that the students had a heavy course load. While 74.4 percent of the academic staff stated that academic staff decided the curricula, course scopes and teaching methods, 37.8 percent of the lecturers thought that the scopes of the courses were not actual

Table 4: Views on the academic staff resources

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
The number of academic staff at the department is sufficient	21.1	42.2	15.6	13.3	7.8
The number of research assistants at the department is sufficient.	20.0	23.3	10.0	26.7	20.0
The basic knowledge levels, teaching and research skills of the academic staff are generally sufficient.	7.8	30.0	21.1	25.6	15.6
I graduated from my bachelor, master and PhD programs at the same university.	14.4	36.7	18.9	20.0	10.0
My foreign language is sufficient to understand the literature.	41.1	31.1	11.1	12.2	4.4
I can easily give my courses in English.	21.1	34.4	13.3	20.0	11.1
I give information about the aim, scope and learning outputs of the courses to the students at the beginning of the semesters and lessons.	62.2	22.2	2.2	7.8	5.6
I make enough preparation before my lesson and support my lessons with actual subjects.	56.7	31.1	3.3	5.6	3.3
Students come to class without making preliminary preparations.	53.3	20.0	8.9	7.8	10.0
I encourage the students to participate in discussions.	55.6	34.4	1.1	5.6	3.3
The students come to my office only before exam time.	6.7	24.4	14.4	31.1	23.3
I query the levels of the students gain and the learning outcomes at the exams.	35.6	42.2	14.4	6.7	1.1
The students can easily reach me and research assistants, and we allocate enough time to the students.	37.8	33.4	12.2	12.2	4.4
Academic staffs have generally a good communication with the students.	21.1	48.9	11.1	13.3	5.6
I have sufficient information about the needs of the agricultural and agro-food sectors.	28.9	46.7	12.2	8.9	3.3
Academic staffs are innovative and they have taken advantages from opportunities to promote themselves professionally.	15.5	34.4	24.4	22.1	3.6
I attend at least one national and international scientific meeting every year.	33.3	30.0	11.1	17.8	7.8
The department would have a good and fast development potential if there were sufficient opportunities.	26.7	47.8	11.1	12.2	2.2
Generally, I could not find enough time for making research.	13.3	32.2	22.2	21.1	11.1
The researchers should be employed at the department to only make research.	17.8	31.1	31.1	15.6	4.4

and sufficient. About 37.7 percent of the academic staff strongly agreed or agreed with that the courses of the curriculum were not planned according to the employment opportunities of graduates, and the department did not focus on having the graduates contribute to the higher development of the sector. About 32.2 percent of the academic staff indicated that practical applications of the courses were not adequate. About 54.5 percent of the academic staff stated that they gave enough assignments and let students present adequate seminars. About half of the academic staff strongly agreed or agreed with the statement that the students evaluated the academic staff at the end of the semester. While 31.1 percent of the academic staff strongly agreed or agreed with the statement that the memorizing method without thinking had been used at the undergraduate program, only 38.9 percent of the academic staff stated that student based learning methods had been used at the undergraduate program. Erkan and Bostan Budak (2000) stated that only 20 percent of the academic staff in

the agricultural faculty of Cukurova University used student based learning methods. However, 36.7 percent of the academic staff thought that the department had not focused on improving the learning and communication skills of students. However, nearly two decades ago, Gunes (1994) over-emphasized the innovative and participatory teaching methods for the agricultural economics education. Erkan and Bostan Budak (2000) also indicated that the courses did not improve the problem solving abilities of 44.2 percent of students. About 38.9 percent of the academic staff indicated that the current teaching methods could not be modified, and the department had not tried to change the current teaching method from theory to practice. Erkan (2006) stated that while there had been some efforts on transforming education methods from a memorizing approach to an active learning approach, these efforts were not sufficient. However, only half of the academic staff strongly agreed or agreed with the statement that their undergraduate programs had been supported by research and extension results.

Table 5: Views on the curriculum and teaching methods

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
The number of courses and credits at the program are too high	11.1	15.6	21.1	40.0	12.2
The scope of courses at the undergraduate program is actual and sufficient.	5.6	30.0	26.7	25.6	12.2
Academic staff decide the courses, their scope and teaching methods of the undergraduate program	31.1	43.3	7.8	16.7	1.1
The curriculum are planned according to the graduates' employment opportunities and focused on having the graduates contribute to the higher development of the agricultural and agro-food sectors.	4.4	33.3	22.2	27.8	12.2
There have been adequate practical applications of the courses	6.7	30.0	31.1	18.9	13.3
I give enough assignments, and students make adequate presentations at my lessons.	16.7	37.8	15.6	21.1	8.9
The students evaluate the academic staff at the end of every semester.	18.9	32.2	15.6	20.0	13.3
Memorizing method without thinking has been used at the undergraduate program.	8.9	22.2	26.7	31.1	11.1
Learning methods such as student based, problem solving, lifelong, project based have been used at the undergraduate program.	6.7	24.4	30.0	30.0	8.9
It was focused on improving the learning and communication skills of the students at the undergraduate program.	10.0	26.7	26.6	28.9	7.8
I think that the teaching methods used at the undergraduate program can be modified, and the department has tried to change the teaching method from theory to practice.	6.7	24.4	30.0	30.0	8.9
The undergraduate program has been supported by research results and extension services.	15.6	35.6	21.1	21.1	6.6

Views on the Graduates' Gains

The academic staff's views on graduates' gains were given in Table 6. About half of the academic staff thought that the graduates had sufficient competence about basic knowledge comprehension and ability to analyze, synthesize and evaluate the knowledge with the program. However, the employers thought that the knowledge and practical abilities of the graduates were not sufficient (Erkan 2006). Half of the academic staff stated that the graduates had an ability of using related computer programs. About 40 percent of the academic staff thought that the graduates gained the ability to reach knowledge and gained communication skills and a conscious of professional ethics and liability. The academic staffs were largely neutral as to whether the graduates had gained sufficient skills from their undergraduate programs. However, about 30 percent of the academic staff strongly agreed or agreed with the statement that the graduates gained sufficient ability about entrepreneurial spirit, lifelong learning and individual working. Sixty percent of the academic staff agree or strongly agree that the graduates did not gain sufficient oral and writing skills in a foreign language to conduct their profession. About 55.6 percent of the academic staff strongly agreed or

agreed with the statement that the department had not provided services on graduates' career plans, and they did not prepare adequately the graduates for employment and did not follow-up the students' employments after graduation. Two-third of the academic staff was neutral about or somewhat disagreed that the department satisfied adequately the graduate's expectations. Pery (2010) stated that if the students left satisfied with their education and were able to secure good employment after graduation, they were likely to encourage others to pursue a degree in the same program.

CONCLUSION

The research findings showed that the assessment of academic staff on their programs was an important information source for administering their programs and improving the quality of education. The conclusions can be stated in six points, namely department facilities, administrative approach, cooperation, academic staff resources, curriculum and teaching approach and graduate gains.

The first conclusion was that the departments appeared to be inadequately funded for their physical infrastructures. Besides, the students had problems to find especially actual and good quality textbooks in Turkish. Moreover,

Table 6: Views on the graduates' gains

<i>Statements</i>	<i>Strongly agree</i>	<i>Agree</i>	<i>Neutral</i>	<i>Disagree</i>	<i>Strongly disagree</i>
The graduates had sufficient competence about basic knowledge comprehension and ability to analyze, synthesize and evaluate the knowledge with the program.	4.5	41.1	32.2	21.1	1.1
The graduates had an ability of using related computer programs.	10.0	41.1	26.7	18.9	3.3
The graduates gained an ability of reaching knowledge and research.	7.8	38.9	32.2	16.7	4.4
The graduates gained a conscious of professional ethics and liability.	4.4	36.7	34.4	18.9	5.6
The graduates gained sufficient communication skills about their profession.	5.6	43.3	33.3	16.7	1.1
The graduates gained sufficient ability of individual and team working.	2.2	37.8	37.8	20.0	2.2
The graduates gained sufficient ability of entrepreneurial spirit.	4.4	28.9	38.9	23.3	4.4
The graduates gained sufficient ability of lifelong learning	3.3	28.9	40.0	23.3	4.4
The graduates gained sufficient oral and writing skills in a foreign language.	6.7	11.1	22.2	23.3	36.7
The department has given services on career planning, prepared the graduates for employment and followed-up the students' employments after graduation	4.4	24.4	25.6	36.0	19.6
The undergraduate program has satisfied adequately the expectations of graduates	4.4	31.1	41.1	17.8	5.6

many departments had insufficient and outdated web pages.

The second conclusion was that the departments were not generally administrated with strategic planning and a total quality management system. Furthermore, there had been a need for changing the mission and vision of the departments. The departments did not generally assess and update their undergraduate programs and curricula. It was generally considered that national and international needs had not been taken into account to update the programs' curricula. However, it is worthy that there had been a strong desire for improving the undergraduate programs.

The third conclusion was that cooperation of the departments with farmers, agro-food industry, public institutions and other universities were not considered enough.

The fourth conclusion was that the quantity and quality of academic staff in the departments were not considered to be sufficient. Besides, about half of the academic staff finished their degree programs at the same university. This may bear certain disadvantages for the departments such as having the same knowledge and experiences with supervisors, affecting relationships adversely among academic staff etc. Basic knowledge levels, teaching, research and foreign language skills of the academic staff were generally considered to be insufficient.

The fifth conclusion was that there were too many courses in the undergraduate curriculum and the scopes of the courses were not actual and not planned according to the graduates' employment opportunities. Moreover, student based learning methods had not been used and there has not been a widespread effort to change the education methods from theory to practice in the departments, and students had generally not enough motivation. Undergraduate programs had not been supported with research and extension results.

The last conclusion was that the graduates could not get sufficient gains from their undergraduate programs and the departments could not satisfy adequately their expectations. The departments did not prepare their graduates adequately for employment and follow-up to their employments.

RECOMMENDATIONS

By considering the research conclusions of the academic staff's assessment on the under-

graduate programs in Turkey, the following recommendations could be made, respectively:

Since physical infrastructures and other facilities are essential, the universities should plan and provide adequate physical infrastructures to the departments and encourage academic staff to write actual and high quality textbooks. Writing textbooks should be taken into account significantly for calculating their performance and raising academic ranks.

The departments should manage their undergraduate programs according to the strategic planning and total quality management approaches, and academic staff should take these systems into account in their education and research activities. Therefore, the departments should update their mission and vision. On the other hand, the undergraduate curricula must be evaluated and updated regularly by considering regional, national and international needs of the agricultural and agro-food sector.

The departments should develop their collaboration with the agriculture, agro-food sector, public institutions and other universities by acquiring enough knowledge about their needs. By establishing or co-locating research institutes at the universities, government researchers would be able to work closely with academic staffs and students and academic staffs could access government facilities.

It is very essential to improve both the quantity and quality of the academic staff in the departments. The departments should hire their academicians from other universities which is the method commonly used by US universities. This could ensure scientific diversity and freedom for the academic staff at their departments. For a short or mid-term, distance education system could be an alternative way to educate the students of the departments with an insufficient number of academic staff. The universities should require the academic staff and students to improve their foreign language proficiency. The academic staff should be encouraged by their universities to visit foreign countries, as a sabbatical to improve their teaching and research abilities. The departments should integrate their research and extension activities for better education.

The number of credits and courses in the curricula of the departments should be reduced to a number essential for achieving a quality education. In developing curricula, the departments

could incorporate a quality assessment component which would be based on the outputs of the educational process. However, the scopes of courses should be updated according to the sector needs and employment opportunities. Therefore, a comprehensive education should be delivered using student learning-based methods and the departments should consider helping students in learning how to learn and emphasize critical thinking and problem solving.

Since the customer of the agricultural economics departments is the industry sector, the departments should ensure industry ready graduates and focus on preparing students to contribute to greater strides in the development of the sector. The graduates should be educated as innovative individuals and should gain ability to identify and define the sector requirements and needs. Leadership will be critical for the future success of agricultural economists

Future research on the agricultural economics discipline should be focused on both analyzing students and academic staffs' assessment, of the undergraduate and graduate programs.

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REFERENCES

- Assan TEB, Lumadi MW 2013. Effectiveness of the induction program for school principals in the North West Province. *Anthropologist*, 15(1): 79-87.
- Boland MA 2009. Leadership development in agricultural economics: Challenges for academic unites. *Journal of Agricultural and Resource Economics*, 34(3): 367-382.
- Broder JM, Taylor WJ 1994. Teaching evaluation in agricultural economics and related departments. *American Journal of Agricultural Economics*, 76: 153-162.
- Can E 2015. Qualitative obstacles in Turkish education system and suggestions. *Anthropologist*, 20(1, 2): 289-296.
- Colman D 2007. The Rise and Decline of Agricultural Economics. *Paper presented at EAAE Seminar*, Corvinus University of Budapest, Budapest, September 6, 2007.
- Dridi C, Adamowicz WL, Weersink A 2010. Ranking of research output of agricultural economics departments in Canada and selected U.S. Universities. *Canadian Journal of Agricultural Economics*, 58: 273-282.
- Erkan O, Bostan Budak D 2000. Cukurova Universitesi Ziraat Fakultesindeki Öğretim Elemanlarının Eğitim Yöntemleri Ve Öğrenciler Üzerindeki Etkileri. *Paper presented in the Turkey's IV National Agricultural Economics Congress* in Trakya University, Tekirdag, 6-8 September, 2000.
- Erkan O 2006. Education and Research Problems in Agricultural Economics. *Paper presented in the Turkey's VII National Agricultural Economics Congress* in Akdeniz University, Antalya, September 13-15, 2006.
- Espey M, Boys KA 2012. Filling the Gap: Exploring Internal Challenges and Opportunities to Successful Student Recruitment in Applied Economics Department. *Paper presented in the Annual Meeting of Southern Agricultural Economics Association*, Birmingham, AL, February 4-7, 2012.
- Günes T 1988. Education and Research System of Agricultural Economics in Turkey. *Paper presented in the Meeting of Institute Agronomique Mediterranean Montpellier*, Montpellier, 8-9 January, 1988.
- Gunes T 1994. Türkiye'de Tarım Ekonomisi Eğitimi ve Öğretimi. *Paper presented in the Turkey's I National Agricultural Economics Congress* in Ege University, Izmir, September 8-9, 1994.
- Jensen K, English B, Clark C 2007. Distance education in agricultural economics: Perceptions of department heads. *Journal of Agricultural and Applied Economics*, 39(2): 253-264.
- Karaca F, Erdem AR 2014. The academic expectations of academic staff from their universities. *Anthropologist*, 18(2): 399-412.
- Koc Damgaci F, Aydin H 2014. An analysis of academicians' perceptions of multicultural education: A Turkish experience. *Anthropologist*, 18(3): 817-833.
- Kola IM, Selesho JM 2012. The role of the academic heads of departments in the strategic planning of the university. *Anthropologist*, 14(3): 209-214.
- Lissitsa A, Coelli T, Rao DSP 2005. Agricultural Economics Education in Ukrainian Agricultural Universities: An Efficiency Analysis Using Data Envelopment Analysis. *Paper presented at XI International Congress of EAAE*, Copenhagen, August 24-27, 2005.
- Litzenberg KK 2010. Great teaching: Undergraduate agricultural economics millennial students. *Journal of Agricultural and Applied Economics*, 42(3): 407-418.
- Perry GM 2010. What is the future of agricultural economics departments and the agricultural and applied economics association? *Applied Economic Perspectives and Policy*, 32(1): 117-134.
- Palomba CP, Banta TW 1999. Assessment Essentials: Planning, Implementing and Improving Assessment in Higher Education. From <<http://assessment.uconn.edu/what/index.html>> (Retrieved on 5 July 2015).
- Parpala A, Lindblom-Ylänne S 2007. University teachers' conceptions of good teaching in the units of high-quality education. *Studies in Educational Evaluation*, 33: 355-370.

- Porter SS, Philips JC 2014. Master's Programs in Agricultural Economics: Situation and Analysis. *Paper presented in the Meeting of the Western Agricultural Economics Association*, Monterey, California, June 26-28, 2013.
- Ruben R, Burger K 2007. Contributions of agricultural economics to critical policy issues. *Agricultural Economics*, 37: 127-132.
- Senzanje A, Moyo N, Samakande I 2006. Relevance of agricultural engineering education against the background of changing world: The case of southern Africa. *International Journal of Engineering Education*, 22(1): 71-78.
- Weersink A 2006. Agricultural economics in Canada: Ready to step up or fall back? *Canadian Journal of Agricultural Economics*, 54: 1-9.
- Wesley E, Peterson F, Ruppel FJ, Padberg DI 1988. Assessing agricultural education: Agricultural economics at a crossroads. *Agriculture and Human Values*, 26-33.
- Van Alfen N, Angle S, Gamble R, Hashimoto AG, Wang JK, McMara L, Nguyen P 2007. *Observations on the Current Status of Education in the Agricultural Sciences in Vietnam*. Washington, D.C.: The Vietnam Education Foundation by the National Academies of the United States.
- Yavuz F 2010. Possible Impacts of Bologna Process on Agricultural Economics Higher Education in Turkey. *Paper presented in the Turkey's IX National Agricultural Economics Congress* in Harran University, Sanliurfa, September 22-24, 2010.
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