

Students' Attitudes at King Abdul-Aziz University towards Interdisciplinary Programs

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Abstract

The world has abandoned the era of specialized closure. The universities of the developed world have taken the lead in developing and modernizing the fields of study and creating links between the academic fields and their diversity in response to the needs of the community. King Abdul-Aziz University has followed this trend by developing future development plans in all fields and specialized trends that enable it to compete with other universities, whether at the local, regional or international level, and to increase community participation and to emphasize the quality of education outcomes. The study aimed to monitor the students' views on the interdisciplinary programs at King Abdul Aziz University as it enhances the skills of students in new fields of knowledge due to the overlap of several academic fields imposed by the nature of the requirements of community development. By reviewing the opinions of a sample of 564 respondents representing students from the fifth level and above in a number of faculties of King Abdul-Aziz University it was found that (55.4%) of male and female students felt the urgent need for interdisciplinary programs. It was also found that (57.7%) of them believe that interdisciplinary programs provide job opportunities for graduates. 52.5% of students wish to enroll in interdisciplinary programs if they have the opportunity. The most important faculties have felt the urgent need for interdisciplinary programs and the belief that the interdisciplinary programs provide job opportunities for graduates. The most important of them who have the desire to join interdisciplinary programs are the two faculties of medicine and home economics. We also show that the student's belief in his ability to compete in the labor market is linked to his vision of the interdisciplinary programs as it upgrades his scientific level and his knowledge background. And interdisciplinary programs should therefore include the practical side to increase the professional skills of graduates with the need to consider the actual needs of the labor market and the skills required by the students of these programs. Therefore, we believe that the development of interdisciplinary programs will enhance the scientific level and new knowledge skills imposed by the requirements of development. The gap between the existing academic programs and the needs of the labor market will be reduced and the role of higher education institutions in the sustainable development of the country will be strengthened.

Keywords: Interdisciplinary programs, Labor market, Students, Sustainable development, Community participation

Introduction

Interdisciplinary programs are the new knowledge fields based on the overlap between two or more different academic disciplines in one field dictated by the nature of the requirements of the newly created professions. In view of the importance of interdisciplinary programs as one of the requirements of the labor market for university graduates of students and the growing sense of the need for the development of these programs at King Abdul-Aziz University, the study was conducted to extrapolate the views of a sample of students from the fifth level and above in a number of faculties consisted of (564) respondents to identify the attitudes and perspectives of male and female students on the nature of the programs and their views on the importance and role in reducing the gap between the education outcomes and the needs of the labor market.

Problem of the study

The problem of unemployment and the employment of the national workforce is one of the most important issues with social, economic and political implications in the Kingdom of Saudi Arabia. An important explanation for the unemployment crisis is the inadequacy of higher education outputs for labor market needs. Therefore, it is necessary to keep pace with changes and scientific and technological progress with the appropriateness of the employment environment in the university education system. Interdisciplinary specialization contributes significantly to the development of thinking, awareness and knowledge of scientific methods in order to increase the student's cognitive background and skill to face the problem of unemployment.

Study questions

The following questions were formulated to identify closely the views of the students of King Abdul-Aziz University towards the programs and outputs of the university:

Q 1: Is there a statistically significant relationship between the college the student affiliated to and his sense of

the urgent need for interdisciplinary programs?

Q2: Is there a statistically significant relationship between student enrollment in the college and the sense that interdisciplinary programs offer job opportunities for graduates?

Q3: Is there a statistically significant relationship between the student enrollment to the college and his desire to enroll in interdisciplinary programs?

Q4: Is there a statistically significant relationship at a significant level (0.05) between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs improve his scientific level and enhance his knowledge background?

Q5: Is there a statistically significant relationship between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs upgrade his applied level?

The Importance of the Study

The study's significance is as follows:

- The implementation of interdisciplinary programs at university education ensures high-quality educational outcomes with integrated information based on basic, natural and applied sciences that contribute to sustainable community development.
- These programs earn the student science and knowledge from a diverse perspective, to suit his future career, or profession he aspires to.
- Interdisciplinary programs have become a prerequisite for many professions in the labor market.
- The diversity of science and knowledge gives the student high skills and abilities that enable him to handle and analyze issues from multiple perspectives.

Objectives of the study

This study aims at the following:

- The development of interdisciplinary programs to enhance the skills of students in new fields of knowledge due to the overlap of several academic fields.
- Monitor the most important perspectives and recommendations of students about the interdisciplinary programs and the extent of its importance.
- Creating interdisciplinary programs that are consistent with the reality we live in with all its circumstances and ambitions.
- Enhancing the skills of students in new fields of knowledge as a result of the overlap of several academic fields dictated by the nature of the requirements of community development.
- Bridging the gap between existing academic programs and current and future labor market needs.

Study Approach

The study was based on the analytical descriptive method to interpret and explain what the interdisciplinary programs are and how important they are. In addition, they used a paper and electronic questionnaire to explore the opinions of students about the nature of the programs and their importance. It was distributed to a sample of (564) students from level 5 and above, Social SPSS Statistical analysis were conducted.

Literature Review

More than half a century ago, university education in most of the world's universities relied on one-system academic disciplines to transfer knowledge and generate new knowledge. Interdisciplinary studies have now become important techniques in modern curricula, combining more than two majors. Education through interdisciplinary disciplines at all levels is attractive to an increasing number of students in Western universities. Palmer (2001) explained that research problems in the world are that scientists have advocated the treatment of research problems from the perspective of interdisciplinary studies.

One of the early studies in the field of academic studies is the study of McCuskey & Conaway (1955), which discussed the interrelationship with its relation to the process of teacher qualification, which was the product of scientific disciplines, showed that the problems of education in the specialized context highlighted the need for cooperation between Specializations.

Mahmoud (2000) also presented a study entitled "The Effectiveness of Teaching Interdisciplinary and Interdisciplinary Studies on the Development of Some Thinking Skills among Students of Basic Education". The study aimed to organize the content of curricula in the basic education stage in educational curricula that combine courses on issues of importance to students' lives. The study included a presentation of a theoretical framework for interdisciplinary and multi-branch studies and critical thinking.

Jones (2010) has looked at the interdisciplinary direction in terms of benefits and disadvantages and future

benefits expected. The study concluded that the continuity of this trend and the development of its long-term learning skills (both directions and future benefits) are sufficient to achieve the goals set for it, with the skills required by the universities as well as the labor market.

The Center for Research and Studies (2011) prepared a working paper on "Interdisciplinary Studies and Labor Market Needs" at King Abdul-Aziz University. The paper discussed several important issues: the separatist approach to science, the deepening of cognitive disciplines and its implications, the methodology of inter-university studies, the challenges to promote interdisciplinary university studies, and the importance and benefits of interdisciplinary studies.

Finally, Fried et al. (2014) conducted a study entitled "Learn for the 21st Century: The Motivation, Reasonableness and Key Principles of Public Health at Columbia University", the study discussed some basic principles that should guide health education and the status of changes based on the experience of the scholarship system.

Terminology of study

Interdisciplinary studies: Studies related to new fields of knowledge based on overlap between two or more different academic disciplines in one field dictated by the nature of the requirements of the newly created professions.

Numbers and percentages of male and female students in the faculties of the university about interdisciplinary programs:

The questionnaires were distributed to the colleges. A number of questionnaires for colleges less than (5%) of the total number of students from level 5 and above were excluded. Figure (1) shows the number of female students in the household economy, which was the highest number of (150) female students by (29.6%), followed by (110) students from the Faculty of Medicine with (21.7%), followed by (104) students from the Faculty of Arts with (20.5%), followed by (46) students from the Faculty of Computer Sciences with (9.1%), Followed by (43) students from the Faculty of Economics and Management by (8.5%), followed by (39) students from the Faculty of Science by (7.7%), and (15) students from the Faculty of Engineering, with (2.9%), and this variation in numbers has already been mentioned reasons. The results showed that the numbers and percentages of the respondents in the Faculty of Home Economics, Literature, Medicine, Economics, Administration, Computers and Information Technology were high.

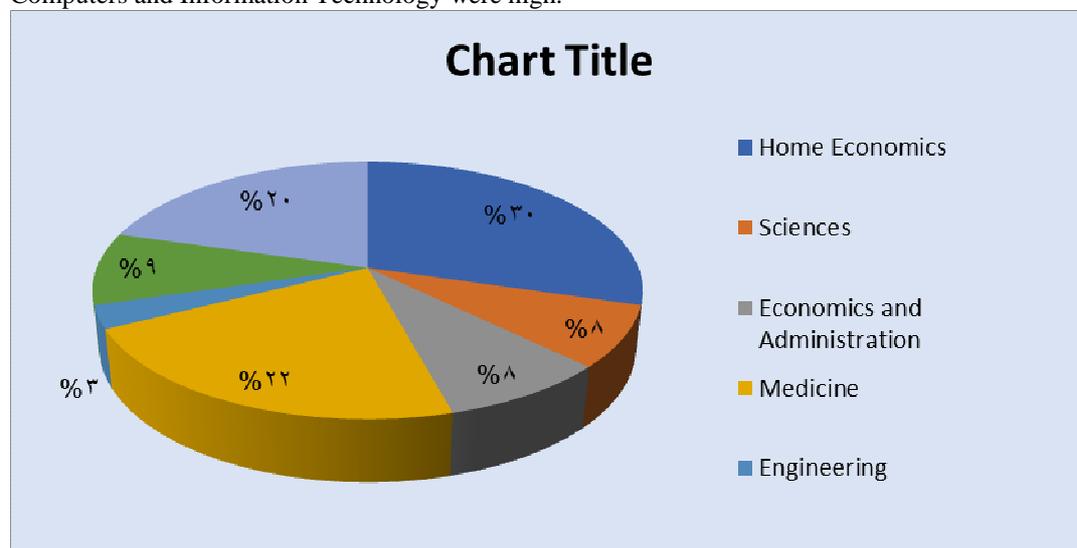


Figure (1) the numbers and percentages of male and female students in colleges about the interdisciplinary programs

Source: The student groups were obtained for the final levels of the Deanship of Information Technology, 2015 - King Abdul-Aziz University

Numbers and percentages of the GPA for the respondents:

The questionnaires were categorized according to the cumulative average for students. Figure (2) shows that (263) male and female students had an average of more than (4-5) by (51.8%), while (215) of them had an average of more than (3-4) by (42.5%) and (29) had a cumulative average of (5.7%), which means that a large proportion of the students who filled the forms from the high school grades and expect a good degree of maturity in their answers.

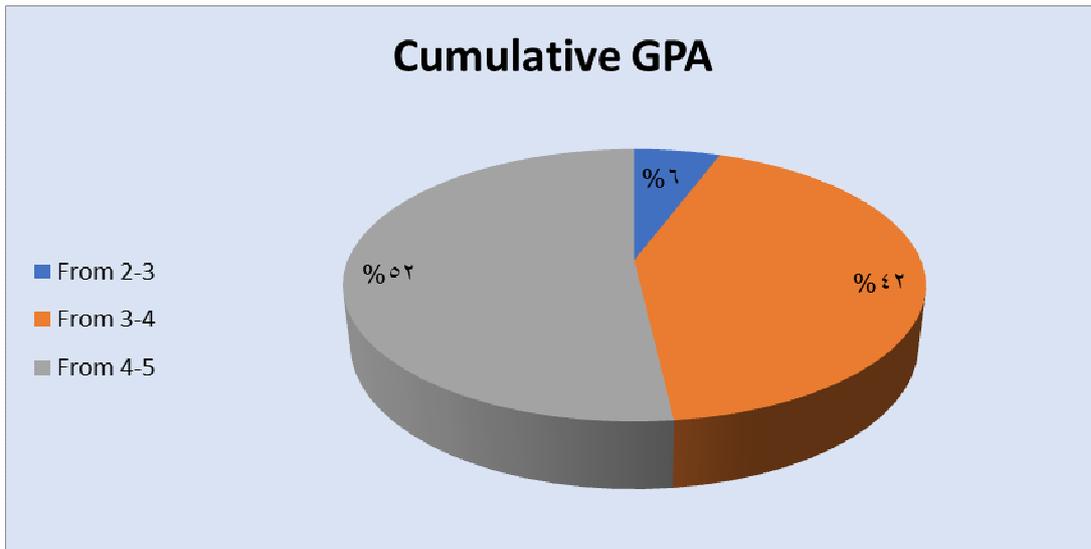


Figure (2) Numbers and percentages of the cumulative average for students

Source: Field Study 2015

Indicators of trends of students on current programs

First, there is no clear perception of how male and female students are satisfied with the skills they have gained from current programs. The results in Figure (3) showed that about (51%) of them are somewhat satisfied with the skills acquired, while the satisfaction rate is limited to (38.3%) and dissatisfaction at (10.7%). This may be due to the failure to provide students with specific information on the quality of skills required for the labor market through existing programs. The previous responses reflected their appreciation of their ability to compete in the labor market through their current specialization. About (47%) responded that they were able to some extent, while the answer rate was reduced to (36%) compared to the specific answer to the skills.

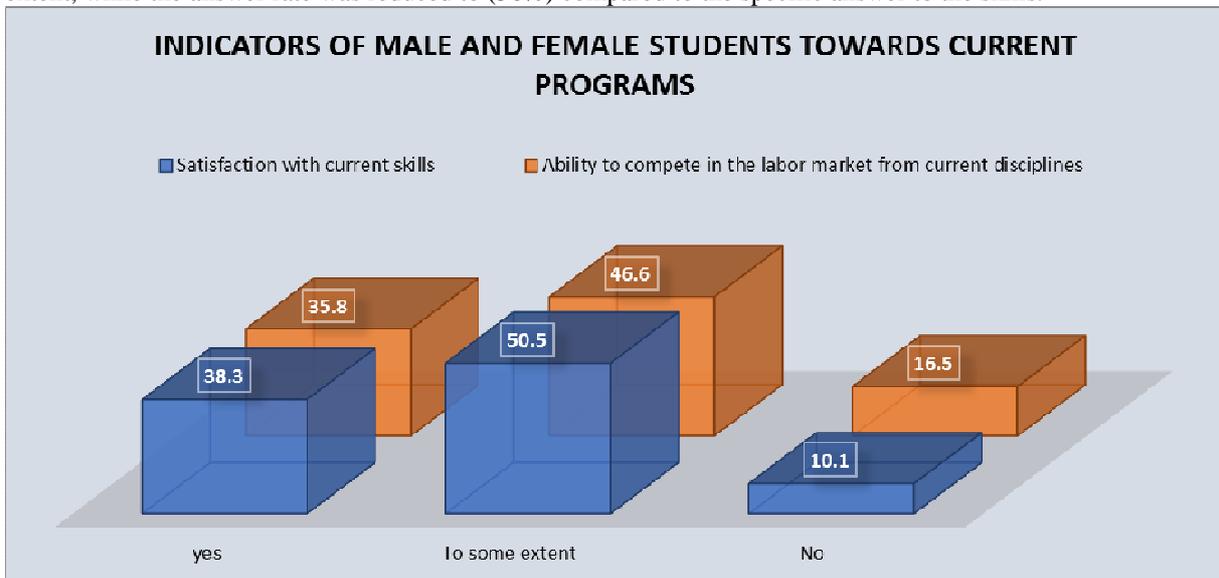


Figure (3) the ratio of some indicators about satisfaction of "male and female students" about the current skills and competitiveness in the labor market from current Programs

Source: Field Study 2015

Indicators of trends of students towards interdisciplinary programs:

And to move to clarify the aspects of male and female students' knowledge of interdisciplinary programs, we find that this knowledge is limited. In fact, about (29.2%) know to some extent, and about (70%) do not know what the interdisciplinary programs (Figure 4) are. It was logical that the knowledge of the male and female students is very specific about the presence of interdisciplinary programs in the scientific sections, where we find that about (79%) have no knowledge of this regard, noting that the academic guidance may have a role to some extent.

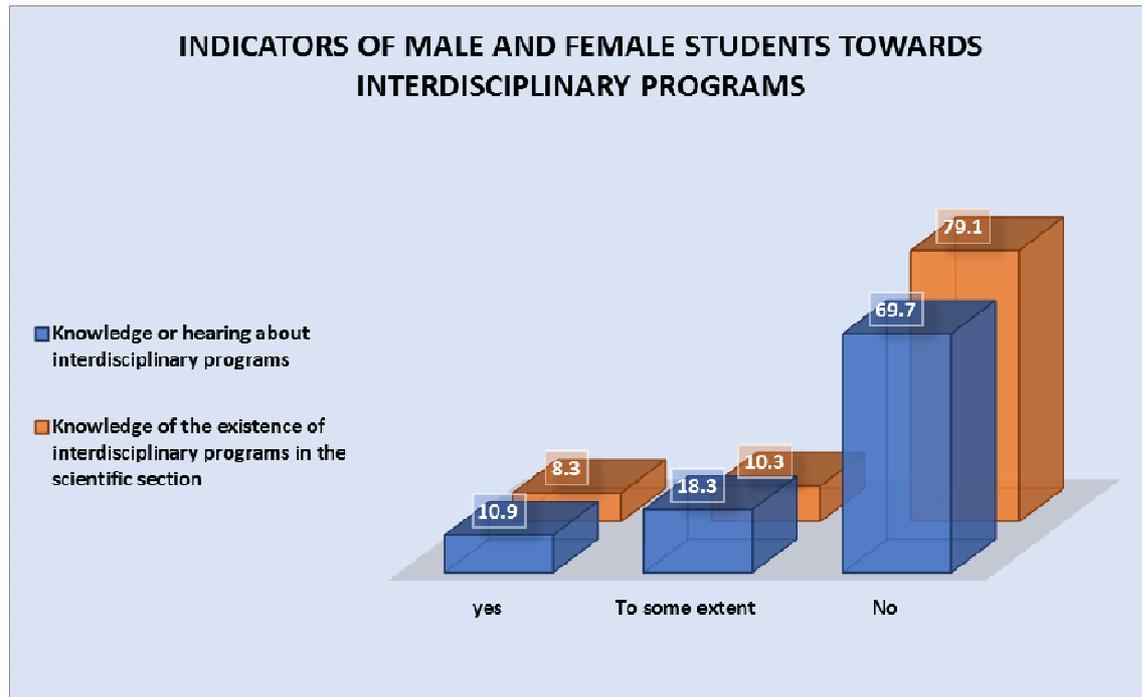


Figure (4) Number and percentages of some indicators of trends of male and female students about knowledge, or hear about the interdisciplinary programs and its presence in the scientific section
 Source: Field Study 2015

It is with limited knowledge of male and female students of interdisciplinary programs that only (55%) of them believe that there is an urgent need for interdisciplinary programs figure (5), and (57%) of them believe that these programs help to provide job opportunities for graduates, which is consistent with knowledge and job creation to the current programs they belong to, which increases the mentioned discrepancy that while the proportion of opinion that the interdisciplinary programs helps to provide employment opportunities where up to (57%), we find that about (39%) are that the interdisciplinary programs are compatible with the requirements of the labor market. Note that male and female students are not exposed to knowledge about specializations other than their specialization, noting that (20.4%) of the respondents were directed to training in areas other than their specialization. This indicator draws more awareness about the interdisciplinary programs and its importance in the labor market.

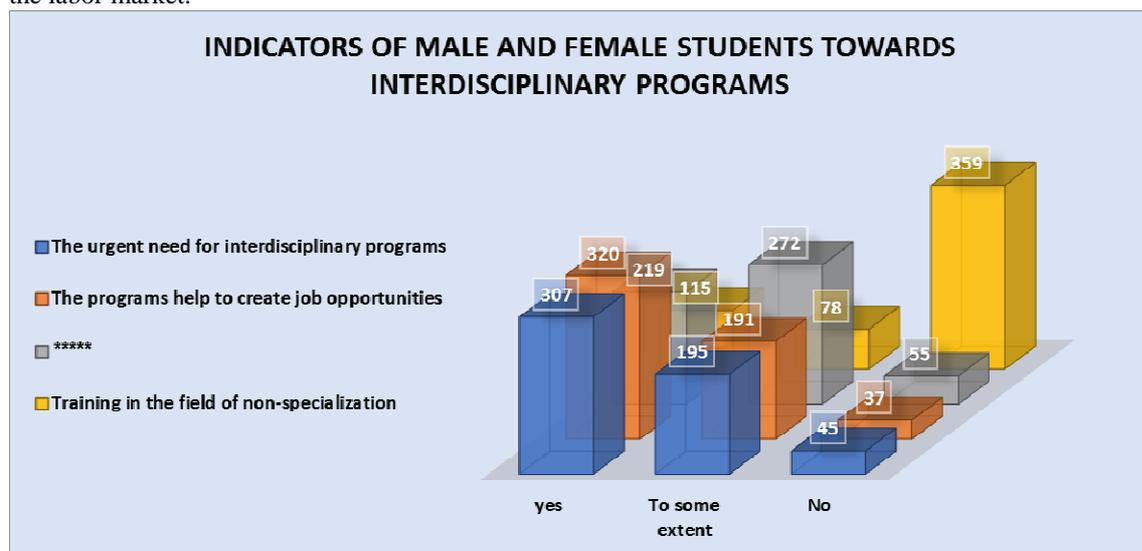


Figure (5) Number of indicators of trends of male and female students about the need for interdisciplinary programs, and helping the programs to provide jobs, and their relevance to the requirements of the labor market
 Source: Field Study 2015

And again, we find that with a lack of knowledge of interdisciplinary programs for male and female students, but about (59%) of them believe that these programs allow cooperation between scientific departments (Figure 6). About (60%) of them believe that interdisciplinary university programs allow inter-university cooperation, and that the use of inter-university programs Upgrading the scientific level of the student and enhancing the cognitive background of male and female students (64%). The use of these programs increases the applied level for students by (59.2%). Finally, the result of these contradictory views of the respondents is that about (53%) of them are willing to join the interdisciplinary programs if they have the opportunity again. These discrepancies can be attributed to the fact that (54.2%) of the students (207 students) of the study sample are enrolled in the bachelor's stage (382 students) and have not yet reached the stage of specialization and practical training. Hence, their understanding of interdisciplinary programs is limited, as is their lack of contact with business enterprises, which is reflected in the nature of their responses to the forms.

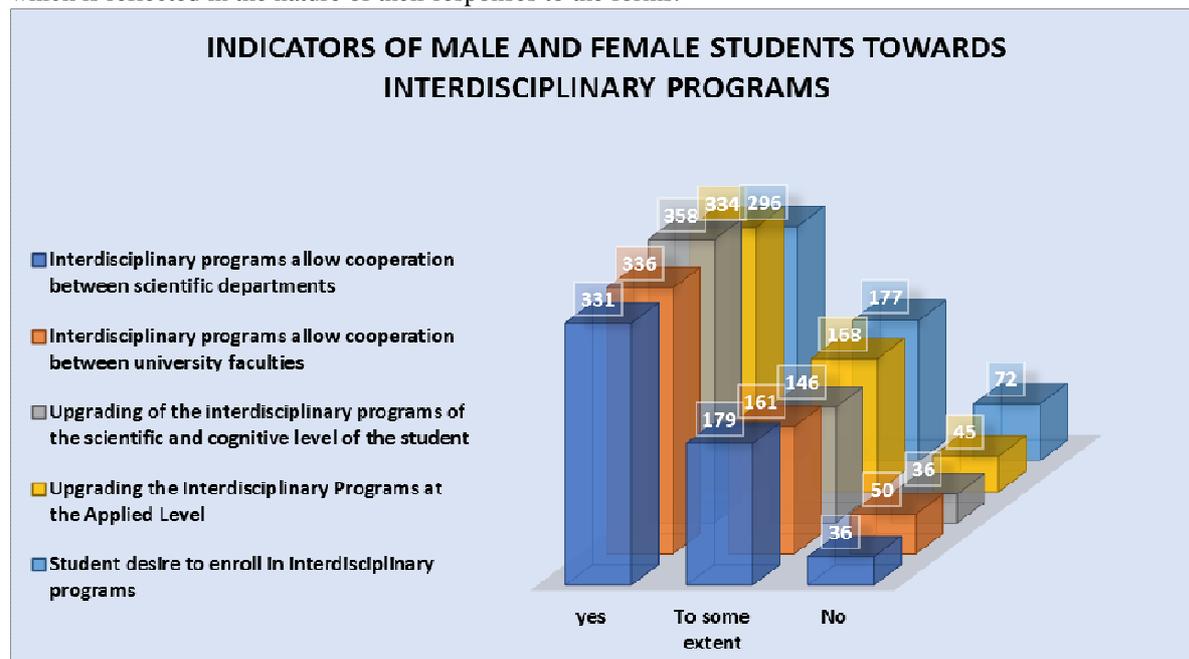


Figure (6) attitudes of male and female students about the need for interdisciplinary programs and its role in providing jobs
 Source: Field Study 2015

Statistical analysis of the study questions:

Q 1: Is there a statistically significant relationship between the college the student affiliated with and his sense of the urgent need for interdisciplinary programs?

In order to answer the first question, the method of intermittent tables was used to identify the numbers and percentages of male and female students in each college and their sense of the urgent need for interdisciplinary programs, the results were as follows: Table (1) shows that the most faculties feel the need for interdisciplinary programs are, home economics and medicine by (15.3% and 13.8%) respectively, and that (55.4%) of all college students participating in the study feel the urgency of the interdisciplinary programs, while (7%) do not feel the need for them. In order to verify the significance of the effect of students' enrollment on the sense of urgency of the interdisciplinary programs, the Chi square test χ^2 was calculated. The results showed that the value of the Chi square χ^2 reached (35,475) and the significance of (0.035) which is less than (0.05) i.e. the previous results are statistically significance.

Table (1) the relationship between student enrollment and the sense of urgency of the interdisciplinary programs

			The urgent need for interdisciplinary programs			Total
			Yes	To some extent	No	
Colleges	Home Economics	N	72	59	12	143
		Percentage of total	15.3%	% 12.5	% 2.5	30.3%
	Sciences	N	22	11	2	35
		Percentage of total	4.7%	2.3%	0.4%	7.4%
	Economy and management	N	27	12	2	41
		Percentage of total	5.7%	2.5%	0.4%	8.6%
	Arts	N	59	38	1	98
		Percentage of total	12.5%	8.1%	0.02%	20.6%
	Medicine	N	65	31	11	107
		Percentage of total	13.8%	6.6%	2.3%	22.7%
	Engineering	N	2	3	2	7
		Percentage of total	0.4%	0.6%	0.4%	1.4%
	Computer	N	14	23	3	40
		Percentage of total	3.0%	4.9%	0.6%	8.5%
	Total	N	261	177	33	471
		Percentage of total	55.4%	37.0%	7.6%	100%

Source: Field Study 2015

Q2: Is there a statistically significant relationship between the enrollment of the student to the college and his sense that the interdisciplinary programs provide job opportunities for graduates?

In order to answer the second question, the use of the intermittent tables' method was used to identify the numbers and percentages of students in each college and their feeling that the interdisciplinary programs offered jobs for graduates. The results included in table (2) are as follows:

Table (2): The relationship between student affiliation and the sense that interdisciplinary programs provide employment opportunities for graduates

			Interdisciplinary programs offer job opportunities for graduates			Total
			Yes	To some extent	No	
Colleges	Home Economics	N	73	57	13	143
		Percentage of total	15.4%	12.1%	2.7 %	30.2%
	Sciences	N	17	15	2	34
		Percentage of total	3.6%	3.2%	0.4%	7.2%
	Economy and management	N	24	13	4	41
		Percentage of total	5.1%	2.7%	0.9%	8.7%
	Arts	N	60	37	1	98
		Percentage of total	12.7%	7.8%	0.2%	20.7%
	Medicine	N	80	23	6	109
		Percentage of total	16.9%	4.9%	1.3%	23.1%
	Engineering	N	2	3	2	7
		Percentage of total	0.4%	0.6%	0.4%	1.4%
	Computer	N	17	21	3	41
		Percentage of total	3.6%	4.4%	0.6%	8.6%
	Total	N	273	169	31	473
		Percentage of total	57.7%	35.7%	6.6%	100.0%

Source: Field study 2015

Table (2) shows that most colleges believe that interdisciplinary programs provide employment opportunities for graduates of medicine and home economics with a ratio of (16.9% and 15.4%), respectively, and (57.7%) of all college students feel that that interdisciplinary programs offer job opportunities for graduates, in order to verify the significance of the student's enrollment in the college on his feeling that the interdisciplinary programs provide graduates with job opportunities, the Chi-square test χ^2 was calculated. The results showed that the value of the square χ^2 reached (41,467) and the significance of (0.007) which is less than (0.05) i.e. the previous results are statistical significance.

Q3: Is there a statistically significant relationship between the enrollment of the students in the college and his desire to enroll in interdisciplinary programs?

In order to answer the third question, the use of sporadic tables to identify the numbers and percentages of students in each college and their desire to enroll in interdisciplinary programs. The results in table (3) are as follows:

Table (3) the relationship between student enrollment of the college and his desire to enroll in interdisciplinary programs

		Desire to enroll in interdisciplinary programs			Total	
		Yes	To some extent	No		
Colleges	Home Economics	N	60	55	29	144
		Percentage of total	12.7%	11.7%	6.1%	30.5%
	Sciences	N	18	12	4	34
		Percentage of total	3.8%	2.5%	0.85%	7.2%
	Economy and management	N	26	10	4	40
		Percentage of total	5.5%	2.1%	0.85%	8.4%
	Arts	N	56	30	9	95
		Percentage of total	11.9%	6.3%	1.9%	20.1%
	Medicine	N	66	31	12	109
		Percentage of total	13.9%	6.6%	2.5%	23.0%
	Engineering	N	2	3	2	7
		Percentage of total	0.4%	0.6%	0.4%	1.4%
	Computer	N	20	17	6	43
		Percentage of total	4.2%	3.6%	1.3%	9.1%
	Total	N	248	158	66	472
		Percentage of total	52.5%	33.5%	14%	100.0%

Source: Field Study 2015

Table (3) shows that the most colleges wishing to enroll in the interdisciplinary program were the Faculty of Medicine and Home Economics (13.9% and 12.7%), respectively, followed by the Faculty of Arts (11.9%) and (52.5%) of all college students participating in the study who wish to enroll in an interdisciplinary program, To verify the statistical significance of this relationship, the Chi square test χ^2 was calculated and the results were: The value of the Chi square χ^2 was (35.957) and the significance of (0.014) is less than (0.05), i.e., the previous results are statistically significant.

Q4: Is there a statistically significant relationship at a significant level (0.05) between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs improve the scientific level and enhance his knowledge background?

In order to answer the fourth question, Pearson correlation coefficient was calculated to determine the relationship between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs improve the scientific level and enhance his cognitive background at the level of significance (0.05). One Way Anova was tested between the two variables to determine hypothesis support for a statistically significant relationship or rejection of the hypothesis. The results showed that Pearson correlation coefficient was 0.130 and this is positive and weak. In other words, the more the student believes in his ability to compete in the labor market through his current specialization, the more he feels that the interdisciplinary programs upgrade the scientific level and enhance his knowledge background, it also showed that the value of the calculated F was (8.807) and the values of significance (0.003) and it is a value less than (0.05), which enables us to support the hypothesis that there is a statistically significant relationship between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs improve the his scientific and cognitive background and it has a statistically significant significance at (0.05).

Q5: Is there a statistically significant relationship between the student's belief in his ability to compete in the labor market through his current specialization and his vision that the interdisciplinary programs upgrade to his applied level?

In order to answer the fifth question, Pearson correlation coefficient was calculated to determine the relationship between the student's ability to compete in the labor market through his current specialization and his view that the interdisciplinary programs are at the applied level at the level of significance (0.05). One Way Anova between the two variables was used in order to identify the support of the hypothesis of the existence of a statistically significant relationship or rejection of the hypothesis. The results showed that Pearson correlation coefficient was (0.039) which is positive and very weak, i.e., the more the student believes in his ability to compete in the labor market through his current specialization the more he felt that the interdisciplinary programs upgrade his applied level, the table also shows that the calculated value of F is (0.785) and the value of significance is (0.376), a value greater than (0.05), which enables us to reject the hypothesis that there is a statistically significant relation between the student's belief in his ability to compete in the labor market through his current specialization and his view that the interdisciplinary programs are at his applied level not statistical at significance level (0.05).

Results of the Study

From the above we can deduce that the enrollment of the student in the college has to do with the following variables as follows:

- 55.4% of students feel the urgent need for interdisciplinary programs 13.8% belong to the Faculty of Medicine and 15.3% from the Faculty of Home Economics in this regard.
- 57.7% of the students believe that the interdisciplinary programs provide job opportunities for graduates, 16.9% of the Faculty of Medicine and 15.4% of the College of Home Economics.
- 52.5% of students wish to enroll in interdisciplinary programs if they have the opportunity, 13.9% from the medical college and 12.7% from the home economics college.
- We can also deduce that the most faculties feel the urgent need for interdisciplinary programs and the belief that interdisciplinary programs offer job opportunities for graduates. The most interested in joining the two programs are the medical and home economics colleges.
- We also see that the student's belief in his ability to compete in the labor market is linked to his vision of the interdisciplinary programs that they raise the level of science and strengthen the background knowledge.

Recommendations

From the above studies, research and field study, the main recommendations of the study are as follows:

- The establishment of interdisciplinary programs requires monitoring of them and anticipating the problems and obstacles that may arise when they are implemented, and then putting forward treatment and proactive procedures.
- The need to consider the actual needs of the labor market and the skills required to be available among the students of these programs.
- To give special attention to the issue of balancing between the scientific disciplines (traditional) and any programs that are established to ensure that the educational and research process in a realistic and mature context takes into account the scientific necessity and not only those that take into account the labor market.
- Raising the culture of the concept of the interdisciplinary programs and its importance among the faculty members of the faculties.
- The need to encourage scientific departments to develop interdisciplinary programs to strengthen partnerships between departments within the college, or between colleges of common scientific interest
- There should be a correspondence between the job title and the academic certificate for the easy access of the graduates of the interdisciplinary programs to the appropriate job.

Finally, some male and female students put forward a number of interdisciplinary programs proposed to open in their colleges, the most important of which are:

- Introducing an interdisciplinary program including (psychology) specialization in the Faculty of Arts and Dentistry
- Introducing an interdisciplinary Program including the Faculty of Law, Faculty of Economics and Administration, College of Dentistry (Dentistry and Dental Clinic Management).
- Introducing interdisciplinary specializations in psychology for students with special needs and increasing the practical application and visits to students of special education.

- The interdisciplinary programs must include the practical side to increase the professional skills of graduates.

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