



## Higher Education Enhancement Project

"Survey for measuring project`s return on beneficiaries" □

## **Introduction**

The Higher Education Enhancement Project (HEEP) includes six projects designed to reach several beneficiary groups, in order to upgrade the performance level within the higher education system, the first phase of HEEP started with signing an agreement to obtain a loan number (4658 EGT) in April 2002, between the Ministry of Higher Education (MOHE) and the World Bank for Reconstruction and Development (IBRD).

It was agreed to implement this survey study after the completion of the projects` first phase, by asking the beneficiary groups about the results that were reported by the directors of various development projects, in order to ensure the achievement of these results. It has been relied on the indicators & measures that are directly or indirectly related to the outputs stated in the presented reports and are basically related with the World Banks` objectives within the loan agreement.

The Enhancement project includes six different projects:

1. Information and communication technology project ICTP
2. Faculty & Leadership Development project FLDP
3. Quality Assurance and Accreditation Project QAAP
4. Higher Education Enhancement Project Fund HEEPF
5. Egyptian Technical Collages Project ETCP
6. Faculty of Education Project FOEP

This study concerns with the first five projects, as there was a separate study for the Faculty of Education Project FOEP

At the beginning of this study, each of the five projects directors has prepared reports containing the targeted goals of each project and what has been implemented so far. It has been relied basically on these reports in designing the survey forms, which include a series of questions and statements used to develop benchmarks and indicators to identify the degree of results achievement.

During results presentation, it has been taken into account to clarify the correlation between the index or benchmark used and the output stated in the reports.

## **Study constraints**

The most important constraints that have been encountered in the study are related to short time available for study implementation, and the beneficiary groups commitment with midterm exams dates as follows:

- Lack of time available for preparing measures & indicators used in the survey forms.
- Lack of time available for implementing the field studies and the commitment with midterm exams dates.
- The multiplicity and overlapping of outputs and results of various development projects
- Difficulty in reaching the postgraduate students during data collection time
- The lack of pre-study before implementing the development project.
- Delay in the preparation of output reports by the directors of various development projects.

### Such constraints have led to the following:

- Narrowing the scope of the study to only 12 faculties within 3 universities.
- Prolonging the survey form to obtain a sufficient number of statements, to allow for developing measurement tools to measure the extent of results achievement of various development projects with a satisfactory degree of sincerity and stability.
- Lack of time to implement some Qualitative methods, such as the "Focus Group".
- The scope of the study did not include businessmen, community surrounding the university and graduates, in order to determine the impact of the program implementation outside the university.

### **Data collection, auditing and entry**

Regarding to the collection of data, a field study group with experience in field research has been prepared. This group was divided into three teams, each team includes (15 – 20) researchers and one auditor and a field supervisor. In addition to a staff member coordinator from each of the 12 faculties, in order to assist the team in reaching the targeted beneficiary groups.

The field teams were trained theoretically on the questionnaire forms, and then they got field training within the Faculty of Economics and Political Science, in order to train researchers and to review both the questionnaire forms and the developed measurements. Work has started on the first part of the study concerning (ICTP - FLDP - QAAP), and later on the work started on the part related to (ETCP) and (HEEPF).

It should be noted that the study consulted the views of professional and dealers with the teaching and learning environment, in order to review the used statements and measurements. Moreover, measurement tools stability and confidence coefficients have been calculated, which will be presented within the results of each related part of the study.

Office auditing team was recruited with a supervisor, who is responsible for the process of receipt and delivery, and reviewing the forms according to logic, data fulfillment, coding as well as preparing the forms for data entry.

A set of databases for data entry has been prepared. In addition to training made for a number of Portal data professional by collaboration and coordination with the data entry supervisor, who is coordinating with the office auditing supervisor and preparing data for analysis.

It was agreed to review 10% of the applications that were entered in each database, this is to be doubled in case of 3% error rate of the withdrawn sample.

### **Study presentation:**

Due to the different nature and scope of projects implementation, and different targeted samples of the study, the study was divided into three separated parts according to the following:

Part I: Return study of implementing: ICTP - FLDP – QAAP.

Part II: Return study of implementing Egyptian Technical Collages Project ETCP.

Part III: Return study of implementing Higher Education Enhancement Project Fund HEEPF.

## The First Part: Study of the return of implementing ICTP – FLDP – QAAP

*This part is concerned with measuring the return of implementing three projects which are; Information and Communication Technology Project ICTP, Faculty & Leadership Development Project FLDP and Quality Assurance and Accreditation Project QAAP. They were presented together because of the overlap between the range and scope of the output impact of each of these projects.*

The report starts with presenting the methodology used in the study, which is Questionnaire design, sample design and analysis method. This is followed by presenting and analyzing the study results.

### Methodology

Beneficiaries of the three concerned projects in this part were divided into four different groups as follows:

First group: Faculty Staff Members

Second group: Students

Third group: Teaching Assistants

Fourth group: Post Graduate Students

Given this division, four different Questionnaires were designed for each group; each one includes questions related to the projects' output associated with this group. It was taken into consideration to ask about different groups' point of view for the same output, each commensurate with his relationship with the supposed influence.

### Designing Questionnaire:

Different Questionnaires were designed, one for each group of beneficiaries. Each Questionnaire asks about the outputs that were included in the achievements preliminary reports for the different projects. These Questionnaires include some questions that are directly related to the outputs of each project, as well as some questions that can't be related but they are considered as collective output results of all or some of the related projects.

In addition, the Questionnaires included questions designed to identify the relation between the respondent and the enhancement project, and to identify the extent of the respondent knowledge about the objectives, as well as his view of the project future and suggestions, if any.

Appendix 1 includes the Questionnaires for each group of interest.

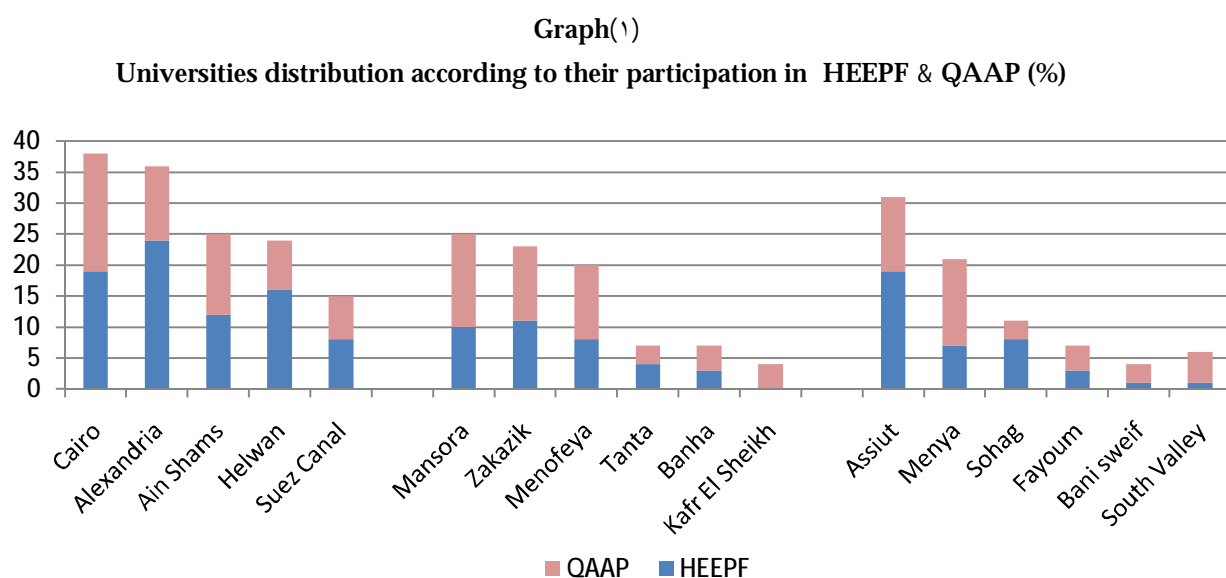
## Sample Design

The study depended on a group of random samples of the participants and beneficiaries from the Higher Education Enhancement projects. The design includes three main stages.

**The First stage:** concentrated on choosing the participated universities in this study. To achieve a good representation of participated universities in these projects, the research team decided to choose three geographically dispersed universities, in order to reflect the Egyptian universities in Urban, Lower Egypt, and Upper Egypt governorates. Cairo University has been selected to represent the universities in urban governorates and the University of Mansoura for Lower Egypt universities, and Assiut University as a representative for the Universities of Upper Egypt.

These universities were selected for being the most active participants in the enhancement projects in general. This criterion of selecting these universities represents their optimal application of enhancement projects, where there is encouraging climate for competition among the participants of the projects in order to offer several projects characterized by the best performance in different areas.

The following graph shows the distribution of those universities according to their participation in each enhancement project. We can observe the antecedence of Cairo, Mansoura and Assiut universities in this field compared with other universities in the same geographical area.



**The Second stage:** This stage concentrated on determining the faculties inside each of the selected universities. Here the research team agreed on including both the theoretical and applied Faculties. They were chosen according to the participation extent of each sector in the enhancement projects on all Egyptian universities level. According to these criteria, it was observed that Faculties of engineering and medicine are the most active applied Faculties, while Faculties of commerce and literature are the most active theoretical ones.

**The Third stage:** focused on choosing the random samples from the participants and beneficiaries of the enhancement projects; this includes four categories:

- **First:** Faculty staff members
- **Second:** Students
- **Third:** Teaching Assistants
- **Fourth:** Post Graduate Students

The sample size in each category was identified, in a way that the error in estimated percentages shouldn't exceed 0.05, which statistically acceptable. The size of each sample as following: 1000 students from the third year or above, 500 of faculty staff members, 350 of the teaching assistants and 300 of post graduate students from each participated university, equally distributed among the four Faculties in each university. The following table shows the total number of the four categories and their achieved sample sizes. The achieved percentages from the targeted samples relative to the total number of these categories were: 2.5% of students, 9% of faculty staff members and 11% of the teaching assistants. The selection of the participated samples` items was through a general coordinator on each participating university level, and a local coordinator at each of the participating Faculty level.

It should be noted that this way of sample designing, would limit the possibility of generalizing the research results only at the participating Faculties level only.

**Table (1)  
Sample Statistics**

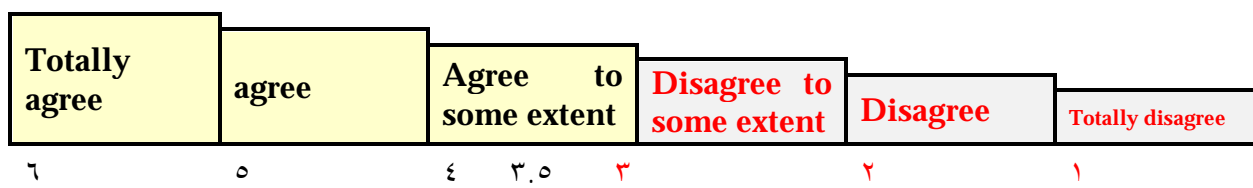
| Participating Universities | Total number of participants |                          |                                       |                                     | Achieved Sample size     |                                       |                                     |                | The percentage of the sample to the total number of participants (%) |                                    |                                     |
|----------------------------|------------------------------|--------------------------|---------------------------------------|-------------------------------------|--------------------------|---------------------------------------|-------------------------------------|----------------|--|------------------------------------|-------------------------------------|
|                            | Faculty                      | Total number of students | Total number of faculty staff members | Total number of teaching assistants | Total number of students | Total number of faculty staff members | Total number of teaching assistants | Post graduates | Total number of students   | Total number of faculty literature | Total number of teaching assistants |
|                            |                              |                          |                                       |                                     |                          |                                       |                                     |                |  |                                    |                                     |
| Cairo university           | Medicine                     | 9485                     | 2452                                  | 957                                 | 250                      | 60                                    | 25                                  | 49             | 0.026  | 0.02                               | 0.03                                |
|                            | Engineering                  | 13227                    | 695                                   | 355                                 | 250                      | 40                                    | 13                                  | 46             | 0.019  | 0.06                               | 0.04                                |
|                            | Commerce                     | 28807                    | 135                                   | 127                                 | 251                      | 42                                    | 41                                  | 30             | 0.009  | 0.31                               | 0.32                                |
|                            | Arts                         | 14577                    | 333                                   | 202                                 | 265                      | 59                                    | 40                                  | 42             | 0.018  | 0.18                               | 0.20                                |
| Mansoura University        | Medicine                     | 6805                     | 896                                   | 530                                 | 250                      | 46                                    | 39                                  | 0              | 0.037  | 0.05                               | 0.07                                |
|                            | Engineering                  | 8399                     | 213                                   | 174                                 | 255                      | 65                                    | 35                                  | 0              | 0.030  | 0.31                               | 0.20                                |
|                            | Commerce                     | 8863                     | 79                                    | 75                                  | 250                      | 20                                    | 6                                   | 64             | 0.028  | 0.25                               | 0.08                                |
|                            | Art                          | Arts                     | 130                                   | 93                                  | 253                      | 41                                    | 39                                  | 13             | 0.021  | 0.32                               | 0.42                                |
| Assiut University          | Medicine                     | 3564                     | 624                                   | 359                                 | 271                      | 60                                    | 25                                  | 33             | 0.076  | 0.10                               | 0.07                                |
|                            | Engineering                  | 5576                     | 185                                   | 127                                 | 250                      | 39                                    | 38                                  | 4              | 0.045  | 0.21                               | 0.30                                |
|                            | Commerce                     | 6078                     | 55                                    | 62                                  | 252                      | 21                                    | 27                                  | 9              | 0.041  | 0.38                               | 0.44                                |
|                            | Art                          | 4151                     | 100                                   | 84                                  | 270                      | 29                                    | 23                                  | 14             | 0.065  | 0.29                               | 0.27                                |
|                            |                              | 121615                   | 5897                                  | 3145                                | 3067                     | 522                                   | 351                                 | 304            | 0.025  | 0.089                              | 0.112                               |

### Analysis Method

The Questionnaires included many questions that can be unloaded in quantitative and qualitative variables, which can be transformed into indicators used in measuring the return of enhancement projects implementation on various beneficiaries groups.

The Questionnaires included some statements asking the respondent to identify the extent of his approval on each statement achievement from his point of view by choosing a scale from 1 to 6, where the first three choices show disagreement levels (totally disagree – disagree – disagree to some extent), while the last three show the different levels of agreement (agree to some extent – agree – totally agree). The following figure the way of explaining the degree of approval.

Figure (٢)  
Explaining the degree of approval on each statement achievement



In analyzing the results, we depended on calculating the average degree of approval on each statement achievement for all responses. We took into account all the arithmetic mean limitations resulted from the outlier values, by reviewing the mode, standard deviation values of the responses. The following figure shows the used measurement and its explanation.

Figure (٣)  
Explaining the agreement degree on statement achievement



The values from 3 to below 4 express a medium degree of statement achievement, while the values from 4 to below 5 indicates a high degree of achievement, while the values from 2 to below 3 refers to a low degree of achievement. On the other hand, the values from 5 to below 6 refer to a very high achievement degree, while the values from 1 to below 2 indicate a very little degree of achievement.

### Study Results

The Questionnaires included some questions about the effects and results that can be linked with the implementation of more than one enhancement project, also it included some of the questions associated with the results and the mechanism of implementing a particular project, therefore the study results were presented in six different sections, some of them include indicators for a specific project outcomes, while others contain collective results as following:

Section I: Communication with the Higher Education Enhancement Project,  
Section II: Information and Communication Technology Project ICTP,  
Section III: Faculty & Leadership Development Project FLDP,  
Section IV: Quality Assurance and Accreditation Project QAAP,  
Section V: Teaching and Learning Environment in general,  
Section VI : Future vision, difficulties and suggestions.

### **Section I: Communication with the Higher Education Enhancement Project**

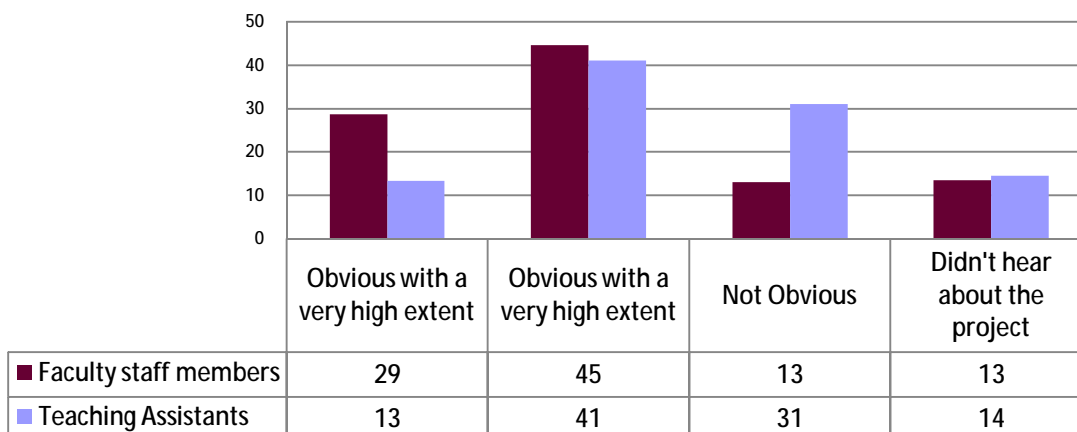
This report section begins with identifying the knowledge extent of various beneficiaries groups about the enhancement projects in general, as well as the extent and clarity of its objectives and programs, followed by a presentation of the Faculty staff members' participation in various development projects implementation. Then identifying how far of development achieved in teaching & learning environment was reached to the various beneficiaries groups.

#### **Knowledge about Higher Education Enhancement project**

The results highlighted that the faculty staff members' and their assistants knowledge about the enhancement project is higher in degree than both the under graduate & post graduate students, as 87% of the faculty staff members and 85% of the assistants have mentioned their knowledge about the project in general, while 35% of post graduate students and 46% of under graduate students said that they did not hear about the project before.

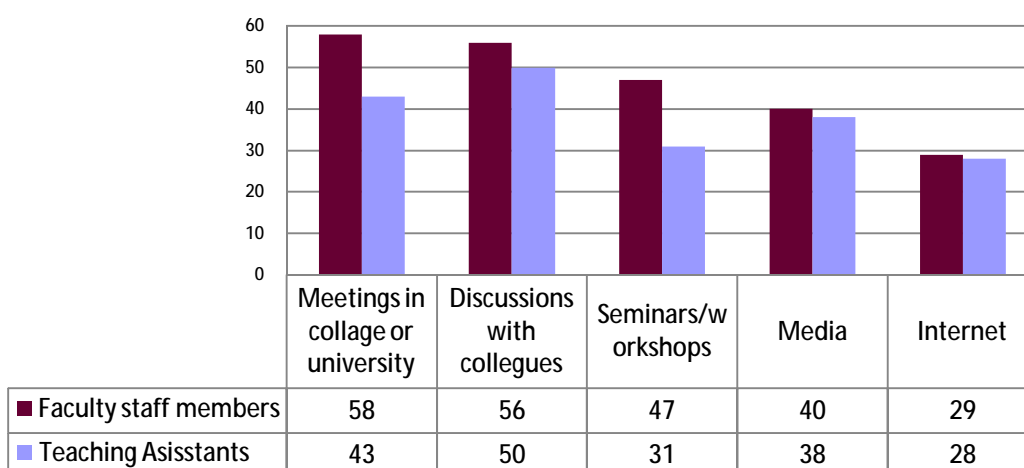
Also it was observed that the project is more obvious for the faculty staff members, compared to the teaching assistants, as 74% of the first group mentioned the clarity of the objectives and programs of the project for them whether with great or medium extent, compared to only 55% from the second group, as shown in the following figure

**Figure (ε)**  
**Clarity of the objectives and programs of the Higher Education Enhancement Project**  
**Relative distribution for faculty staff members and their assistants (%)**



When we asked the Faculty staff members & their assistants about the most important sources of information for their knowledge about development project and its objectives, for the first group; meetings on the faculty or university levels came at the top, then came the discussions with colleagues, seminars and workshops organized through the project. While for the second group; the most important sources were discussions with colleagues, then meetings at the Faculty or university level and the media (Figure 5).

**Figure (Ϸ)**  
**Faculty staff members Information sources about HEEP**  
**The percentage of respondents who consider the information sources important for them (%)**



### The participation of faculty staff members in enhancement projects

The following table shows the size and nature of the participation of faculty staff members in the sample of Higher Education Enhancement Projects. The results showed that 43% of the faculty staff members samples participate in one of the Enhancement projects and 8% of them were managers of one of these projects.

Table (٢)  
Number & nature of participants of faculty staff members in different Enhancement projects

|       | Project manager | Administrative team | Executive team | Lecturer/expert/advisor | Participation in seminars and workshops | Total |
|-------|-----------------|---------------------|----------------|-------------------------|---|-------|
| HEEPF | 7               | 25                  | 11             | 1                       | 0                                       | 44    |
| ICTP  | 3               | 9                   | 0              | 2                       | 2                                       | 16    |
| FLDP  | 2               | 6                   | 9              | 12                      | 11                                      | 40    |
| QAAP  | 4               | 22                  | 41             | 5                       | 20                                      | 92    |
| Total | 16              | 62                  | 61             | 20                      | 33                                      | 192   |

### Development within the teaching and learning environment:

In order to identify the degree of development achieved in the teaching and learning environment for different beneficiaries groups, we asked the faculty staff members and teaching assistants to determine their degree of agreement on the following statement: "there is an improvement in the teaching & learning environment within the Faculty in general".

As for the students they were asked to determine their degree of agreement on the following statement "there is an encouraging learning environment within the Faculty". With regard to post-graduate students they were asked to determine their degree of agreement on the following statement "The learning environment of post graduate studies and scientific research encourages and helps learning." The following table shows the answers of different groups of beneficiaries.

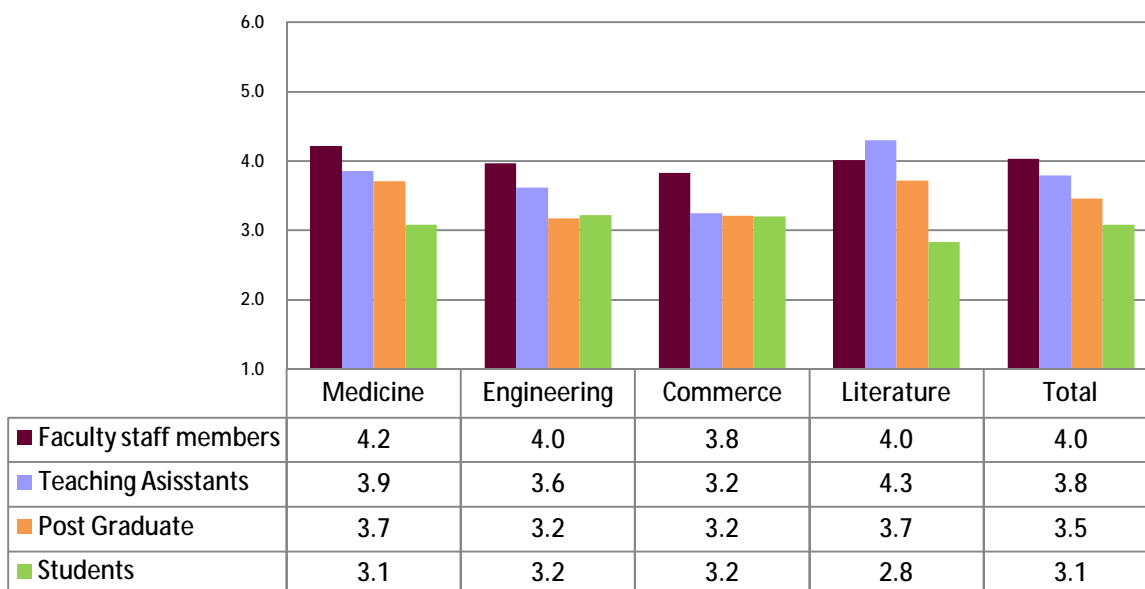
Table(۳) : Percentage distribution of respondents' degree of agreement on improvement in the teaching & learning environment according to major and the beneficiary group (%)

|                       | Totally disagree<br>۱ | disagree<br>۲ | Disagree to some extent<br>۳ | Agree to some extent<br>۴ | agree<br>۵ | Totally agree<br>۶ | Don't know | Total | Number of respondents |
|-----------------------|-----------------------|---------------|------------------------------|---------------------------|------------|--------------------|------------|-------|-----------------------|
| <b>All faculties</b>  |                       |               |                              |                           |            |                    |            |       |                       |
| Faculty members staff | 5%                    | 9%            | 10%                          | 37%                       | 31%        | 7%                 | 2%         | 100%  | ۵۲۱                   |
| Teaching assistants   | 6%                    | 15%           | 13%                          | 31%                       | 26%        | 7%                 | 1%         | 100%  | ۳۵۰                   |
| Post graduates        | 14%                   | 13%           | 15%                          | 31%                       | 19%        | 5%                 | 4%         | 100%  | ۳۱۲                   |
| Students              | 18%                   | 20%           | 19%                          | 24%                       | 13%        | 4%                 | 1%         | 100%  | ۳۰۳۹                  |
| <b>Medicine</b>       |                       |               |                              |                           |            |                    |            |       |                       |
| Faculty members staff | 2%                    | 5%            | 4%                           | 46%                       | 33%        | 5%                 | 4%         | 100%  | 166                   |
| Teaching assistants   | 5%                    | 23%           | 8%                           | 23%                       | 32%        | 10%                | 1%         | 100%  | 89                    |
| Post graduates        | 11%                   | 10%           | 12%                          | 37%                       | 26%        | 5%                 |            | 100%  | 82                    |
| Students              | 17%                   | 20%           | 21%                          | 23%                       | 14%        | 4%                 | 1%         | 100%  | 764                   |
| <b>Engineering</b>    |                       |               |                              |                           |            |                    |            |       |                       |
| Faculty members staff | 7%                    | 9%            | 13%                          | 35%                       | 24%        | 12%                | 1%         | 100%  | 144                   |
| Teaching assistants   | 12%                   | 11%           | 17%                          | 33%                       | 21%        | 7%                 |            | 100%  | 86                    |
| Post graduates        | 12%                   | 14%           | 26%                          | 26%                       | 14%        |                    | 8%         | 100%  | 50                    |
| Students              | 14%                   | 19%           | 21%                          | 26%                       | 15%        | 4%                 |            | 100%  | 756                   |
| <b>Commerce</b>       |                       |               |                              |                           |            |                    |            |       |                       |
| Faculty members staff | 9%                    | 10%           | 17%                          | 24%                       | 33%        | 6%                 | 1%         | 100%  | 82                    |
| Teaching assistants   | 10%                   | 23%           | 19%                          | 31%                       | 14%        | 3%                 | 1%         | 100%  | 74                    |
| Post graduates        | 18%                   | 17%           | 13%                          | 28%                       | 12%        | 7%                 | 6%         | 100%  | 112                   |
| Students              | 19%                   | 18%           | 15%                          | 24%                       | 16%        | 6%                 | 2%         | 100%  | 746                   |
| <b>Arts</b>           |                       |               |                              |                           |            |                    |            |       |                       |
| Faculty members staff | 3%                    | 12%           | 9%                           | 35%                       | 34%        | 5%                 | 1%         | 100%  | 129                   |
| Teaching assistants   | 1%                    | 5%            | 11%                          | 39%                       | 36%        | 9%                 |            | 100%  | 101                   |
| Post graduates        | 12%                   | 7%            | 15%                          | 35%                       | 25%        | 6%                 |            | 100%  | 68                    |
| Students              | 22%                   | 23%           | 18%                          | 24%                       | 8%         | 3%                 | 3%         | 100%  | 773                   |

- Statement for faculty staff members and teaching assistants: there is an improvement in the teaching & learning environment within the Faculty in general".
- Statement for students: "there is an encouraging learning environment within the Faculty".
- Statement for post-graduate students: "The learning environment of post graduate studies and scientific research encourages and helps learning."

To summarize information in a certain index in order to allow analysis and comparison between beneficiaries groups and the various scientific specialties, we relied on calculating the average degree of agreement given by each group. The following figure illustrates the calculated average value for different beneficiaries groups.

**Figure (٦)**  
**Improvement in the teaching and learning environment in general**  
**The average evaluation degree - Scale from 1 to 6**



The answers of the teaching staff members indicate that there is a significant development achieved in the teaching and learning environment in general. This was obvious in the faculty of medicine.

It is clear from the above figure that the achieved development results were at limited extent within teaching assistants, as they mentioned a medium degree of achieved development. Excluding Faculty of Arts as their answers pointed to a high degree of development. With regard to post-graduate students, they referred to medium degree of encouraging learning environment with a special increase in faculties of medicine and Literature. Answers of the students showed an encouraging learning environment to some extent, but this agreement degree decreased within the Faculty of Arts.

The (Mann-Whitney test) was applied to test the differences significance between the staff members answers (mean = 4, median = 4) and students (mean = 3.08, median = 3) generally about the development statements, the results indicated a significant difference ( $p < 0.001$ ) in favor of staff members. By using the same test, the results indicated absence of significant differences between staff members and their assistants (mean = 3.8, median = 4) at 1% significance level ( $p = 0.011$ ).

## Section II: Information and Communication Technology Project ICTP

This project aims to raise the infrastructure, basic structure and full mechanism of the administrations and institutions of higher education, to take advantage of the information revolution with high speed and effective access to information. In addition to linking universities through both the Egyptian Universities Network and the National Network for Scientific Research in order to prepare the university community to deal with this revolution.

### Internet Service

To measure the improvement in the Internet service, 3 statements for staff members and 2 statements for assistants and students were used, to develop an instrument to measure various beneficiary groups' satisfaction with the Internet service efficiency and its development. The following table presents the used measurement and the related statements within each beneficiary group, as well as the reliability degree for each measurement, which was calculated by (Cronbach's Alpha). Validity is computed as the square root of Alpha coefficient.

Table (4): index for measuring the internet service efficiency and their reliability and validity

| Index   | Statement   | reliability | validity |
|---|---|-------------|----------|
| Internet service efficiency                               | <b>Staff members</b>  |             |          |
|   | - I can easily get the internet service inside university             | . . ٨٦      | . . ٩٣   |
|   | - I am satisfied with the service quality                             |             |          |
|   | - There is improvement in internet service during the last five years |             |          |
|   | <b>Teaching assistants</b>  |             |          |
|   | - I can easily get the internet service inside university             | . . ٨٥      | . . ٩٢   |
| - I am satisfied with the service quality                 |   |             |          |
| <b>Students</b>   |   |             |          |
| - I can easily get the internet service inside university | . . ٦٧  | . . ٨٢      |          |
| - I am satisfied with the service quality                 |   |             |          |

**Table (5): percentage distribution of beneficiary groups` agreement degrees on internet service efficiency index according to university**

| university | group               | Totally disagree<br>١ | Do not agree<br>٢ | Do not agree to an extent<br>٣ | Agree to an extent<br>٤ | agree<br>٥ | Totally agree<br>٦ | total | No. of respondents |
|------------|---------------------|-----------------------|-------------------|--------------------------------|-------------------------|------------|--------------------|-------|--------------------|
| Cairo      | Staff members       | 5%                    | 5%                | 11%                            | 42%                     | 32%        | 6%                 | 100%  | 171                |
|            | Teaching assistants | 11%                   | 6%                | 15%                            | 27%                     | 32%        | 9%                 | 100%  | 81                 |
|            | students            | 12%                   | 17%               | 21%                            | 26%                     | 18%        | 6%                 | 100%  | 825                |
| Mansoura   | Staff members       | 3%                    | 6%                | 8%                             | 25%                     | 37%        | 21%                | 100%  | 159                |
|            | Teaching assistants | 4%                    | 7%                | 13%                            | 23%                     | 33%        | 20%                | 100%  | 70                 |
|            | students            | 15%                   | 20%               | 17%                            | 21%                     | 18%        | 8%                 | 100%  | 761                |
| Assuit     | Staff members       | 1%                    | 2%                | 11%                            | 34%                     | 40%        | 12%                | 100%  | 137                |
|            | Teaching assistants | 2%                    | 7%                | 15%                            | 25%                     | 39%        | 12%                | 100%  | 100                |
|            | students            | 13%                   | 21%               | 17%                            | 23%                     | 17%        | 10%                | 100%  | 824                |
| Total      | Staff members       | 3%                    | 5%                | 10%                            | 34%                     | 36%        | 13%                | 100%  | 467                |
|            | Teaching assistants | 6%                    | 7%                | 14%                            | 25%                     | 35%        | 13%                | 100%  | 251                |
|            | students            | 14%                   | 19%               | 19%                            | 23%                     | 18%        | 8%                 | 100%  | 2410               |

The previous table shows the percentage distribution of agreement degree according to the developed compound measurement, and in accordance with the beneficiary groups at universities sample. The table shows that there is a good return from the staff members and assistants view relative to the students view within the 3 universities. The (I do not agree % and totally disagree %) reached 33% among the students compared to 13% between the assistants and 8% among the staff members.

In order to facilitate comparison between specializations and between universities, the following table shows the average agreement degree by the staff members, assistants and students of various specialties and universities using the Internet service efficiency measurement.

Mann-Whetny test was used to identify the differences significance between the various beneficiary groups in general. The results indicated a significant differences (p

<0.001) in favor of staff members in general (mean = 4.35) compared to students (mean = 3.15), indicating that development results have reached the staff members more clearly, while student encouragement is needed to take advantage of the available technological facilities within the Faculty.

Kruskal-Wallis test was applied to identify the differences significance between staff members answers of within the three universities, Cairo (mean = 4.14), Mansura (mean = 4.46), Assiut (mean = 4.48). The results indicated absence of significant differences at ( $p = 0.005$ ).

The same test was applied to students groups of various universities, Cairo (mean = 3.17), Mansura (mean = 3.09), and Assiut (mean = 3.18). The results showed absence of significant differences at ( $p = 0.429$ ).

**Table (6): internet service efficiency by beneficiary groups according to university and specialty – average evaluation degree– scale from 1 to 6**

| university  | Faculty     | Staff members | Teaching assistants | students |
|-------------|-------------|---------------|---------------------|----------|
| Cairo       | Medicine    | 4.43          | 4.82                | 3.10     |
|             | engineering | 4.00          | 3.14                | 3.45     |
|             | commerce    | 3.83          | 3.19                | 3.15     |
|             | Arts        | 4.11          | 4.01                | 2.90     |
|             | total       | 4.14          | 3.92                | 3.17     |
| Mansoura    | Medicine    | 4.24          | 3.58                | 3.03     |
|             | engineering | 4.94          | 4.02                | 3.68     |
|             | commerce    | 4.61          | 5.00                | 2.96     |
|             | Arts        | 3.81          | 4.79                | 2.60     |
|             | total       | 4.46          | 4.32                | 3.09     |
| Asuit       | Medicine    | 4.65          | 4.32                | 3.16     |
|             | engineering | 4.67          | 4.50                | 3.71     |
|             | commerce    | 4.37          | 4.32                | 3.29     |
|             | Arts        | 4.02          | 3.95                | 2.33     |
|             | Total       | 4.48          | 4.31                | 3.18     |
| Whole total | Medicine    | 4.45          | 4.37                | 3.11     |
|             | engineering | 4.61          | 4.18                | 3.61     |
|             | commerce    | 4.19          | 3.89                | 3.13     |
|             | Arts        | 3.99          | 4.26                | 2.62     |
|             | Total       | 4.35          | 4.19                | 3.15     |

The following part shows the average agreement degree by various beneficiary groups on different statement related to the development of Internet service in universities.

Figures (7) and (8) represent the degree of development reached to different beneficiary groups in the universities and specializations within this study.

Figure (v): Improvement in the level of internet service provided according to beneficiary groups and universities - Average evaluation degree - Scale from 1 to 6

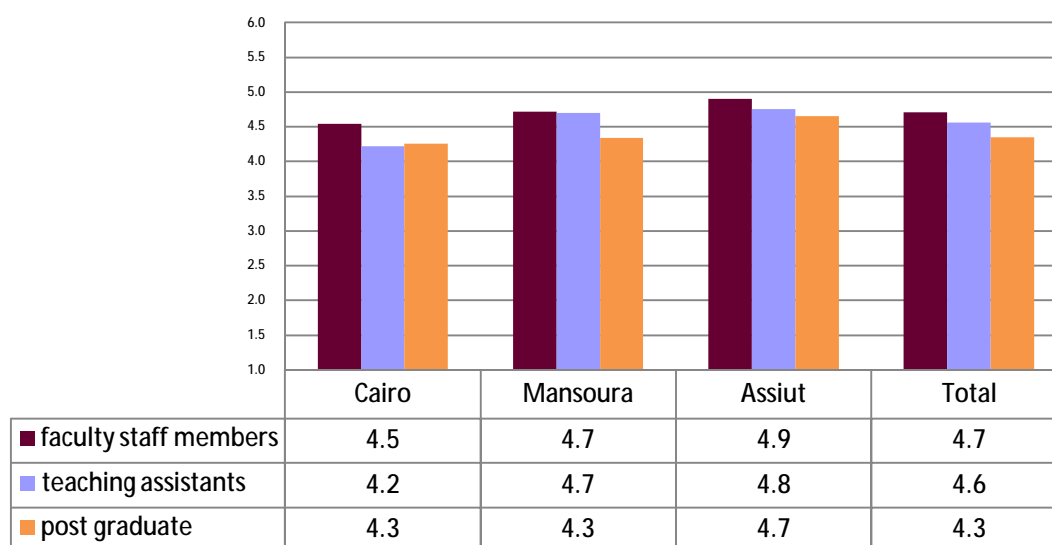
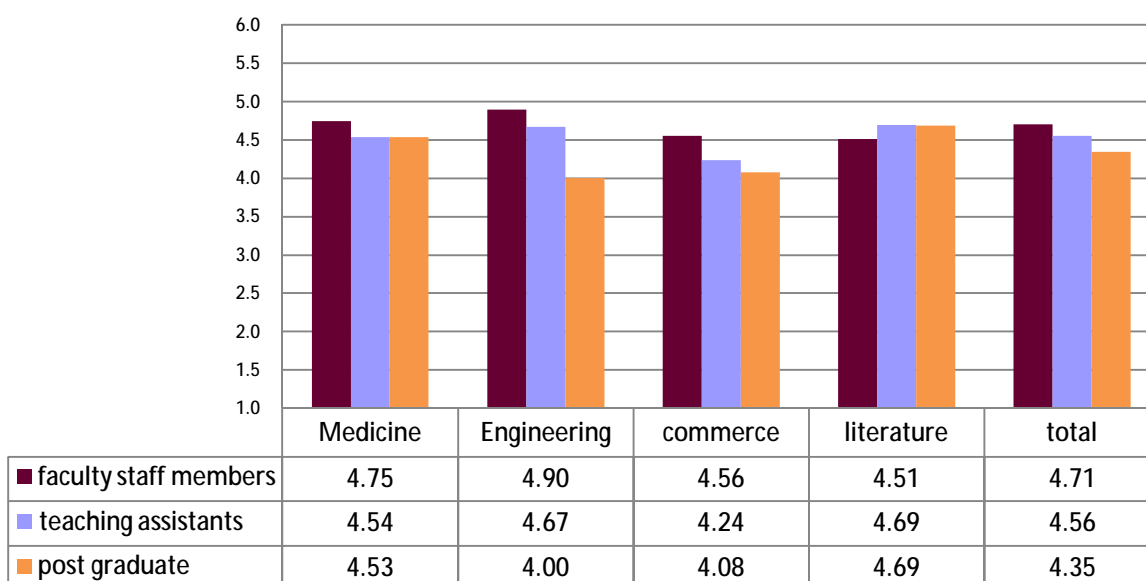


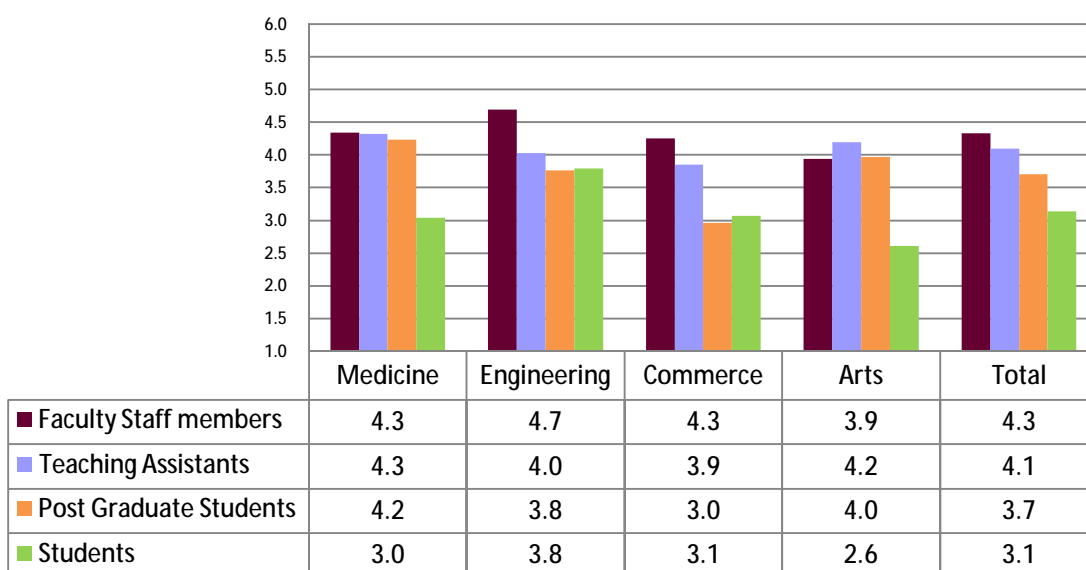
Figure (λ): Improvement in the level of internet service according to beneficiary groups according to different specialties - Average evaluation degree - Scale from 1 to 6



It appears from the previous two graphs that the faculty staff members in various universities and specialties are expressing more about the improvement in the Internet service provided during the last five years, followed by the teaching assistants, and then post graduate students, in contrast to the Faculty of Arts, where the teaching assistants mentioned a higher degree of improvement than mentioned by faculty staff members.

Figure (9) and (10) show a high degree of easy internet access from inside the faculty by the staff members and their assistants in different faculties and universities, while this feature is available with a medium degree among postgraduate students and with a lower degree among students. This feature is relatively better for groups of beneficiaries in faculties of medicine and engineering.

Figure (9): Easy Internet Access from inside the Faculty according to Beneficiaries in Different Faculties - Average evaluation degree - Scale from 1 to 6



**Figure (10): Easy Internet Access From Inside the Faculty according to Beneficiaries in Different Universities - Average evaluation - Scale from 1 to 6**

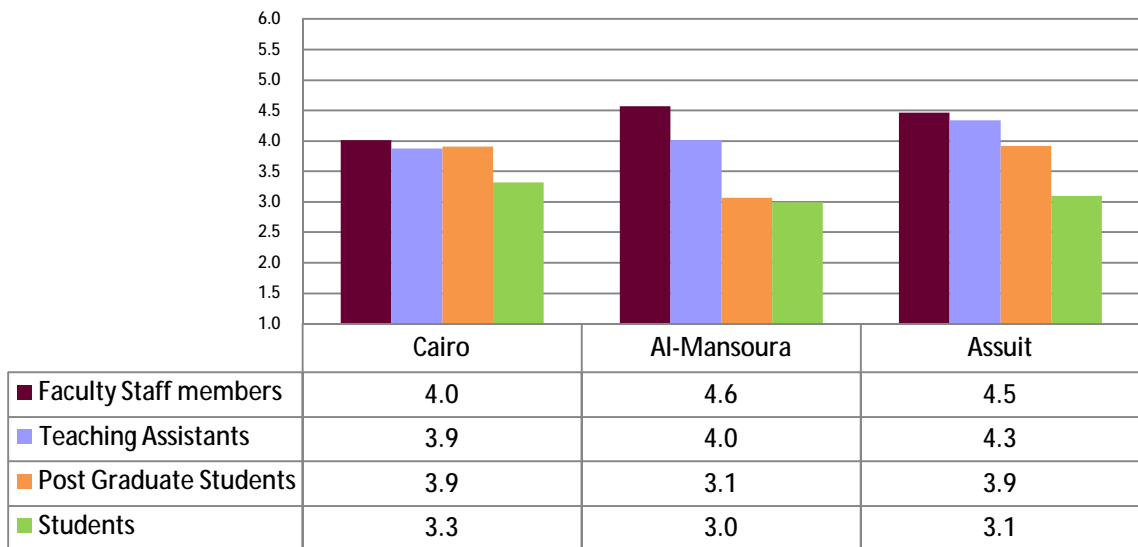
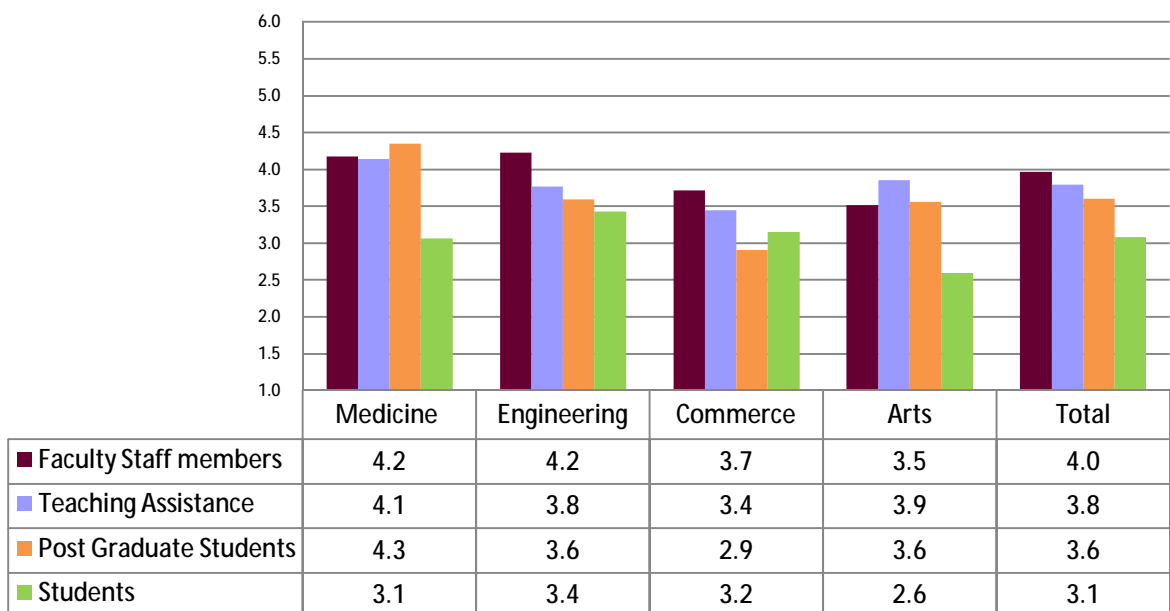
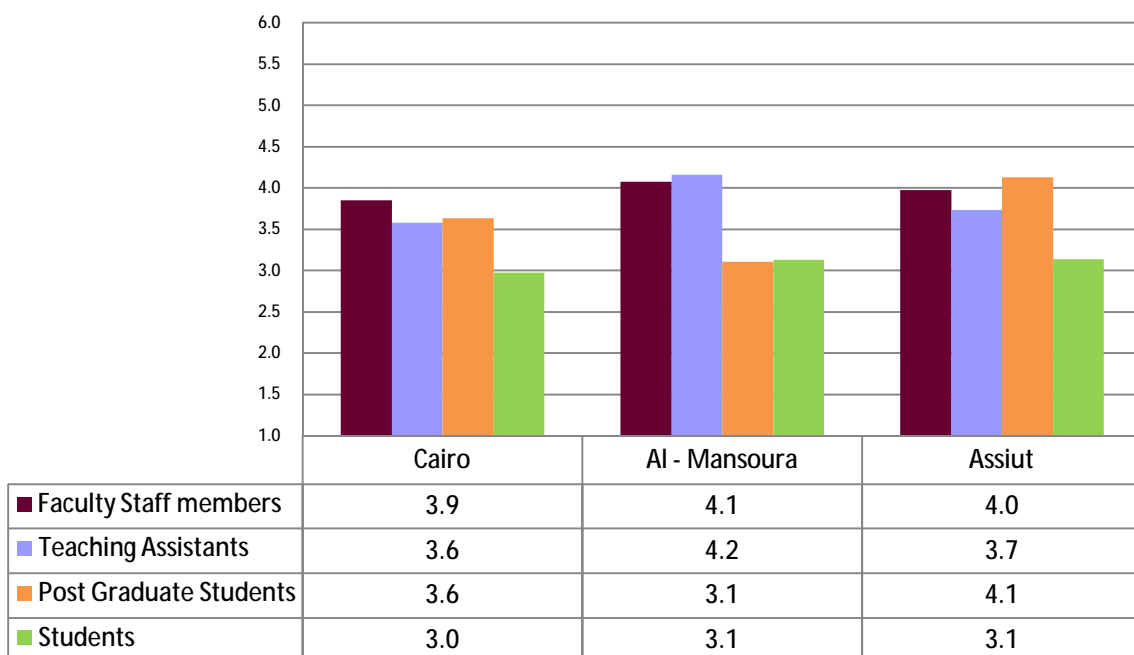


Figure (11) and (12) show the beneficiary groups' degree of satisfaction about the level of university's internet service, according to the specialization and the University.

**Figure (11): Satisfaction about Internet Service Level (Sustainability & Downloading Rate) according to Beneficiaries and Specialization - Average evaluation degree - scale from 1 to 6**



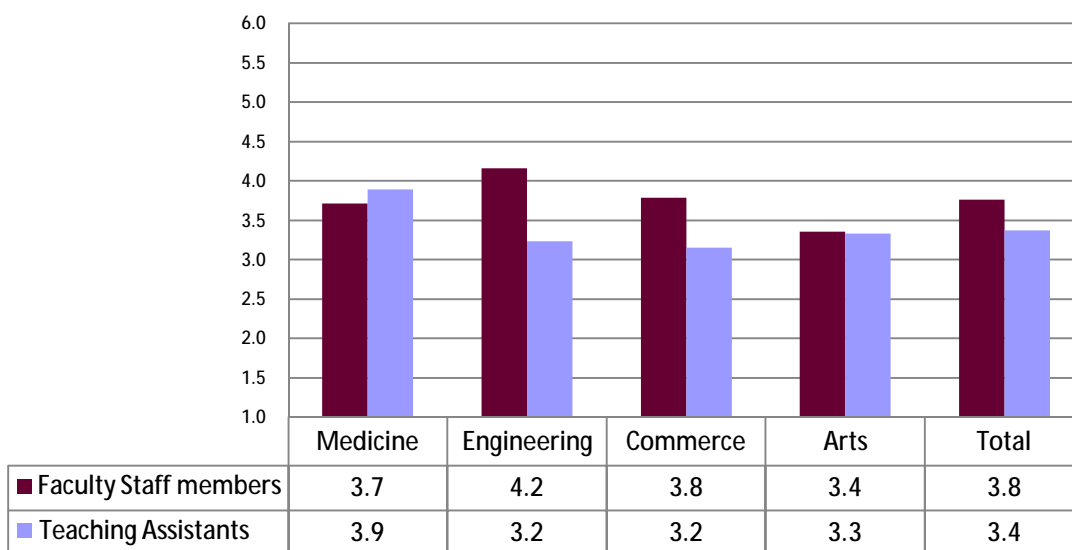
**Figure (12): Satisfaction about Internet Service Level (Sustainability & Downloading Rate) According to Beneficiaries and universities - Average evaluation Degree - Scale from 1 to 6**



The two figures show a medium degree of satisfaction about internet service among faculty staff members, assistants and post graduate students. However, this degree is better in practical faculties and generally lower among students.

Figure (13) shows the beneficiary groups' degree of reliance on internet service inside the university. The results show a medium degree among staff members, while a lower degree among teaching assistants.

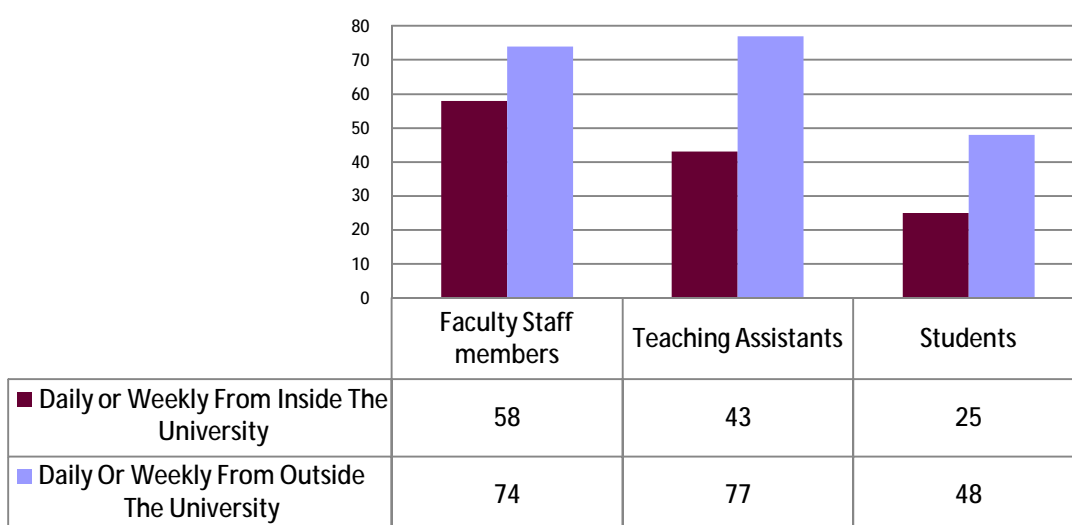
**Figure (13): Internet Reliance inside the University according to Beneficiaries and specialization - Average evaluation Degree - Scale from 1 to 6**



Figures (14) and (15) and Tables (7), (8) and (9) show the pattern of the internet access inside the University for Different Beneficiary Groups.

Moreover, it is clear from figure (14) and table (7) that 58% of the staff members access the internet from inside the faculty every day or every week, while 74% of them access from outside the faculty. It is also clear that 13% have never accessed the internet inside the faculty and 16% are rarely using it.

**Figure (14): Percentage of Respondents Who Are Using the Internet Inside/Outside The University Daily or Every Week - Staff Members – Teaching Assistants- Students (%)**



**Table (7)**  
**The Internet Access Pattern From Inside and Outside the University for Staff Members**

| The Internet Access Pattern From Inside The University (%)  |                 |       |        |                 |         |        |       |       |
|---|-----------------|-------|--------|-----------------|---------|--------|-------|-------|
| The Internet Access Pattern From Outside The University (%) |                 | Daily | Weekly | Every two weeks | Monthly | rarely | never | Total |
|   | Daily           | 29    | 5      | 1               | 1       | 2      | 1     | 39    |
|   | Weekly          | 11    | 5      | 2               |         | 1      | 0     | 19    |
|   | Every two weeks | 2     | 1      | 1               | 0       | 1      |       | 4     |
|   | Monthly         | 2     | 1      | 3               | 1       | 3      |       | 9     |
|   | rarely          | 7     | 4      | 1               | 1       | 2      | 0     | 16    |
|   | never           | 5     | 2      | 1               | 1       | 1      | 3     | 13    |
|   | Total           | 56    | 18     | 8               | 4       | 10     | 4     | 100   |

It is clear from figure (14) table (8) that 43% of the teaching assistants access the internet daily or weekly from inside the university, however 77% of them access from outside the university. In addition, there are 19% have never used the internet from inside, and 26% rarely use it.

**Table (8)**  
**The Internet Access Pattern From Inside and Outside the University for Teaching Assistants**

| The Internet Access Pattern From Inside The University (%)  |                 |       |        |                 |         |        |       |       |
|---|-----------------|-------|--------|-----------------|---------|--------|-------|-------|
| The Internet Access Pattern From Outside The University (%) |                 | Daily | Weekly | Every two weeks | Monthly | rarely | never | Total |
|   | Daily           | 17    | 3      | 0               | 1       | 2      | 0     | 23    |
|   | Weekly          | 11    | 6      | 2               |         | 1      | 1     | 20    |
|   | Every two weeks | 4     | 2      | 1               |         |        | 1     | 8     |
|   | Monthly         | 1     | 1      | 0               | 1       | 0      |       | 4     |
|   | rarely          | 17    | 4      | 1               | 1       | 2      | 0     | 26    |
|   | never           | 8     | 3      | 2               | 1       | 3      | 2     | 19    |
|   | Total           | 58    | 19     | 6               | 5       | 7      | 5     | 100   |

Figure (14) and table (6) show that, 25% of the students access the internet daily or weekly from inside the university, while 48% of them access from outside the university. It is also clear that 36% have never accessed the internet from inside the university, and 29% rarely use it.

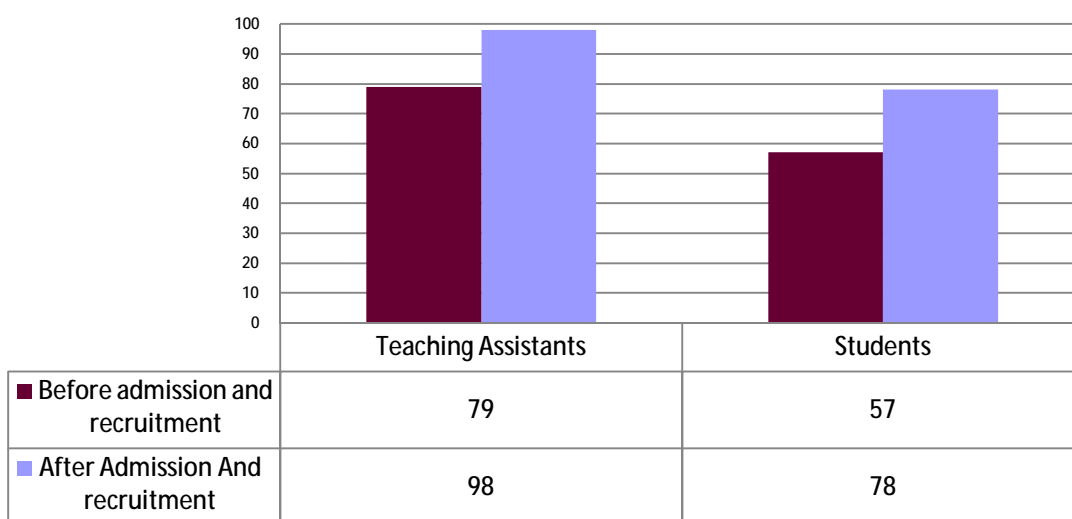
Table (9)  
The Internet Access Pattern From Inside and Outside the University for Students

| The Internet Access Pattern From Outside The University (%) |                 |       |        |                 |         |        |       |       |
|---|-----------------|-------|--------|-----------------|---------|--------|-------|-------|
| The Internet Access Pattern From Inside The University (%)  |                 | Daily | Weekly | Every two weeks | Monthly | rarely | never | Total |
|   | Daily           | 9     | 1      | 0               | 0       | 0      | 0     | 11    |
|   | Weekly          | 4     | 7      | 1               | 1       | 1      | 0     | 14    |
|   | Every two weeks | 1     | 2      | 1               | 0       | 0      | 0     | 5     |
|   | Monthly         | 1     | 1      | 1               | 2       | 1      | 0     | 5     |
|   | rarely          | 6     | 4      | 2               | 2       | 12     | 2     | 29    |
|   | never           | 6     | 5      | 1               | 2       | 7      | 15    | 36    |
|   | Total           | 27    | 21     | 6               | 8       | 21     | 18    | 100   |

Figure (15) shows the internet access pattern for the students before and after their faculty admission and for teaching assistants before and after their recruitment.

Figure (15) illustrates the pattern of internet usage by the students before and after joining the university, as well as the assistants` usage pattern before and after recruitment.

Figure (15): The Internet Access Pattern for Teaching Assistants before & after Recruitment - Students Before & After Admission (%)



The previous figure shows that 57% of students were using the internet before their admission to the university, and then they increased to 78% after their admission. Moreover, 79% of the teaching Assistants mentioned their internet access before their recruitment, and this percentage increased to 98% after the recruitment.

## The University E-mail

Regarding the usage of each university e-mail, the following figure shows that it needs more activation among staff members and their assistants. Figures (16) & (18) illustrate the average degree of reliance on university e-mail. According to the specialty, the faculty of medicine comes at the top; While El-Mansoura University is number one, compared with both Cairo University & Assiut universities.

Figure (16): Main Reliance on the University E-mail according to Beneficiaries and Specialization  
Average evaluation Degree - Scale from 1 to 6

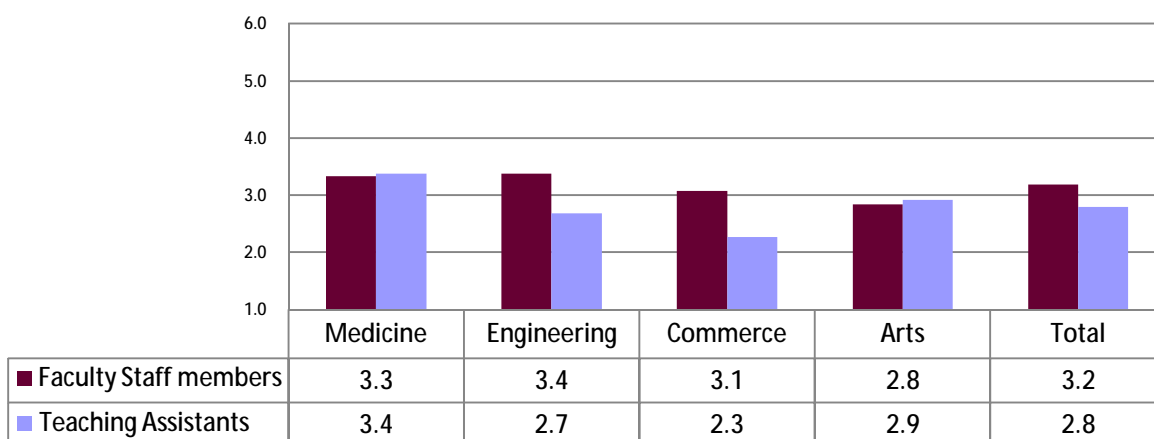
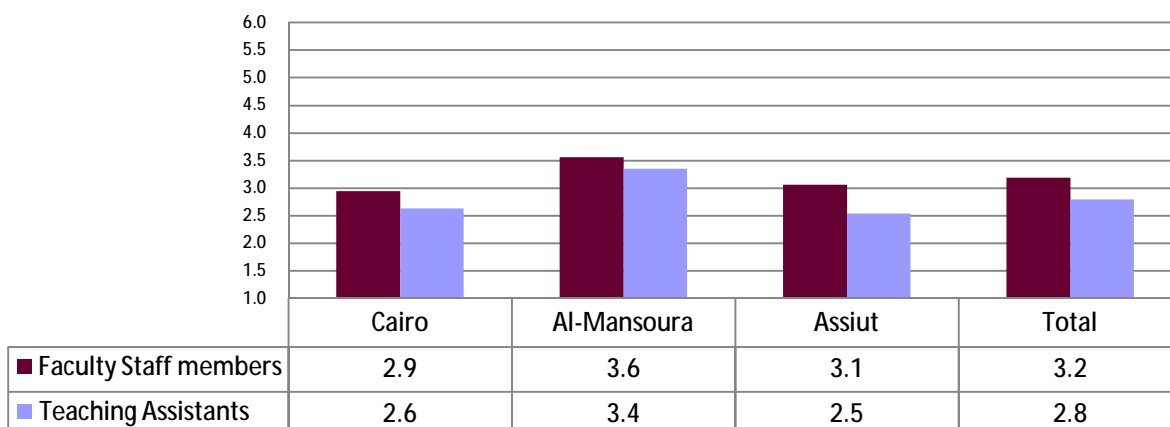


Figure (17): Main Reliance on the University E-mail according to Beneficiaries and universities  
Average evaluation Degree - Scale from 1 to 6



## The Digital Library

Figures (18), (19) & table (10) show the usage pattern of the electronic library by the staff members and their assistants within different faculties and universities. The results show that 15% of the staff members and 18% of the teaching assistants access the electronic library daily or weekly. This access rate decrease significantly in Cairo University compared with other universities.

The access rate increase among the staff members and their assistants in the faculty of engineering, to reach 20% within the first group, and 22% for the second group.

Moreover, the results show that 47% of the samples` staff members do not use the electronic library, while this percentage reaches its maximum level of 64% among Cairo University respondents. In addition, 44% of the teaching assistants do not use the electronic library.

Figure (18): Percentage of Beneficiaries (Faculty Staff Members -Teaching Assistants) Who Are Using he Digital Library Daily or Weekly according to Specialization (%)

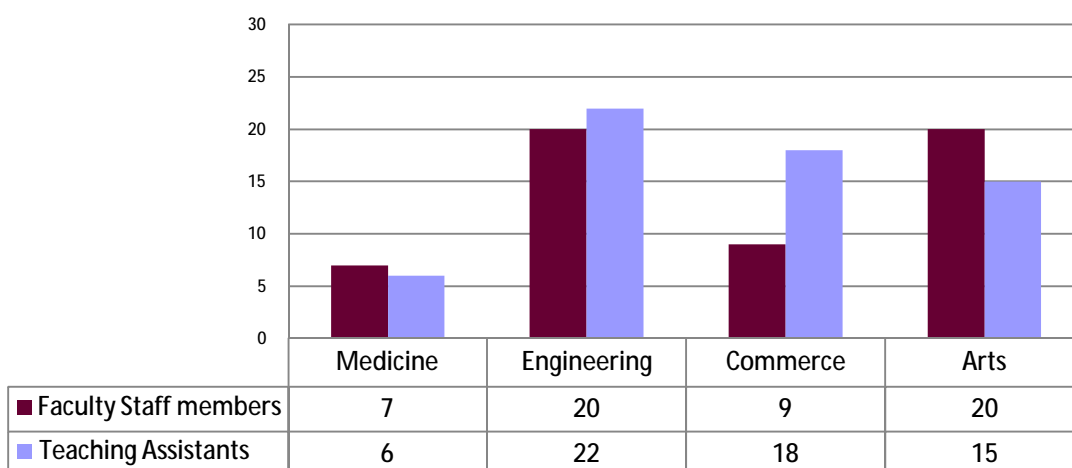
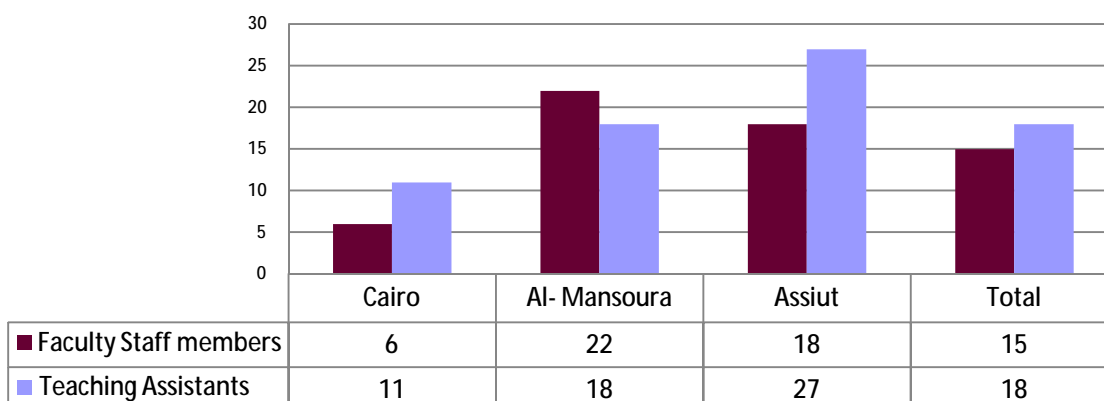


Figure (19): Percentage of Beneficiaries (Faculty Staff Members -Teaching Assistants) Who Are Using he Electronic Library Daily or Weekly according to University (%)

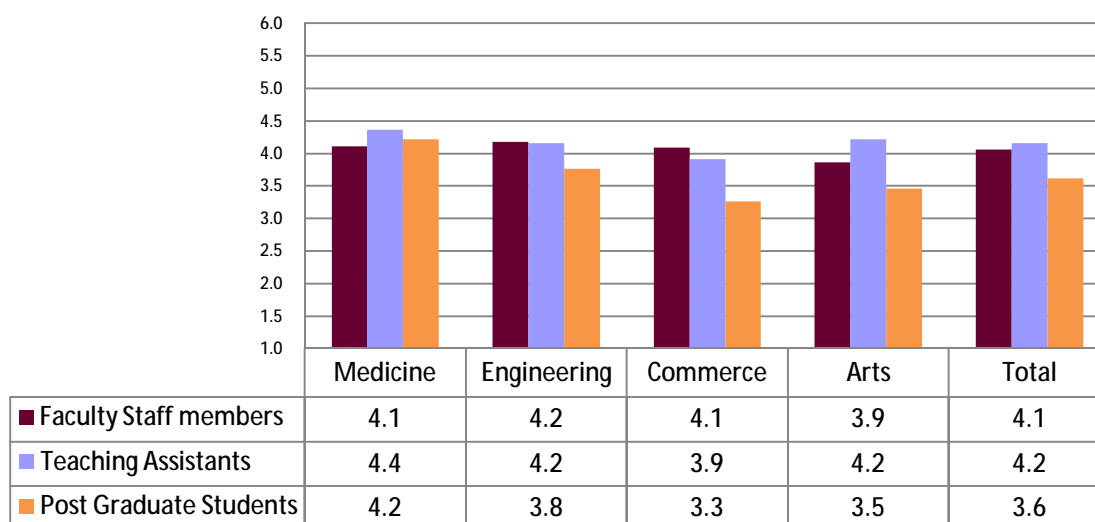


**Table (10): The Digital Library Using Pattern for Faculty Staff Members -Teaching Assistants According to the University (%)**

|                            | Daily | Weekly | Every two weeks | Monthly | rarely | never | Total |
|----------------------------|-------|--------|-----------------|---------|--------|-------|-------|
| <b>Staff Members</b>       |       |        |                 |         |        |       |       |
| Cairo                      | 4     | 2      | 1               | 7       | 23     | 64    | 100   |
| Al-Mansoura                | 11    | 11     | 8               | 9       | 24     | 37    | 100   |
| Assiut                     | 8     | 10     | 8               | 8       | 29     | 37    | 100   |
| Total                      | 8     | 7      | 5               | 8       | 25     | 47    | 100   |
| <b>Teaching Assistants</b> |       |        |                 |         |        |       |       |
| Cairo                      | 5     | 6      | 3               | 16      | 26     | 44    | 100   |
| Al-Mansoura                | 5     | 13     | 7               | 8       | 22     | 45    | 100   |
| Assiut                     | 15    | 12     | 5               | 10      | 17     | 42    | 100   |
| Total                      | 8     | 10     | 5               | 11      | 22     | 44    | 100   |

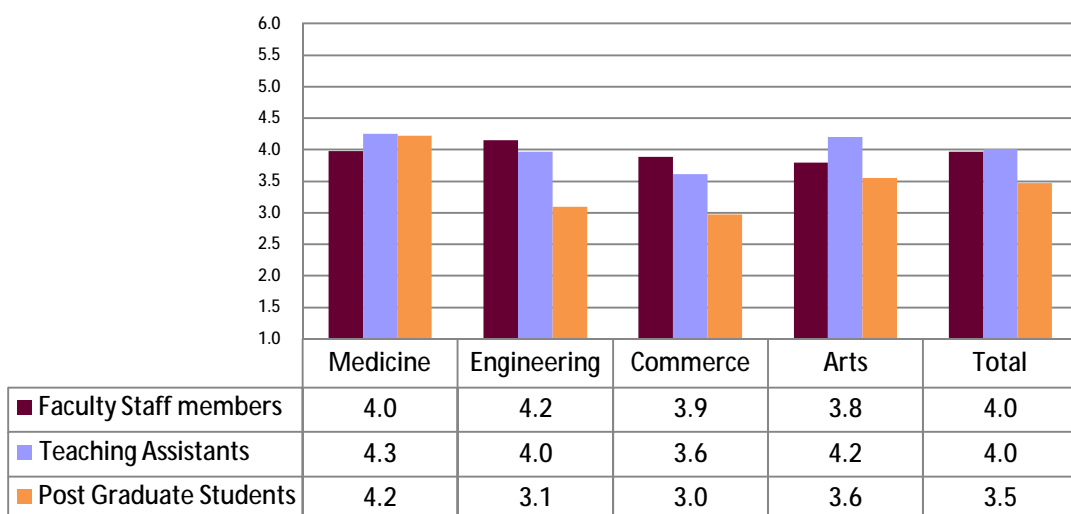
Figure (20) shows that Faculty staff members, teaching assistants and post graduate students can access the electronic library easily, this degree increases within practical faculties.

**Figure (20): Easiness of Digital Library Access according to beneficiaries and specialty - Average evaluation Degree - Scale from 1 to 6**



When we asked the beneficiaries, they mentioned that the electronic library provides them significantly with the needed requirements for researches and studies, this result is more clear within practical faculties as shown in figure (21).

**Figure (21): Provision Needs of Researches and Studies for Beneficiaries through Digital Library according to specialization - Average evaluation Degree - Scale from 1 to 6**



## E-Learning

Figure (22) shows the extent of the staff members' agreement in general on e-learning experience generalization, it is clear that there is a high degree of support within all specialties; however this degree decreases in faculties of Engineering and Arts.

Kruskal-Wallis test was applied, the differences appeared to be significant at 1% confidence level (where the  $p = 0.003$ ).

**Figure (22): The acceptance of Staff Members for Generalization of E-learning Average evaluation Degree - Scale from 1 to 6**

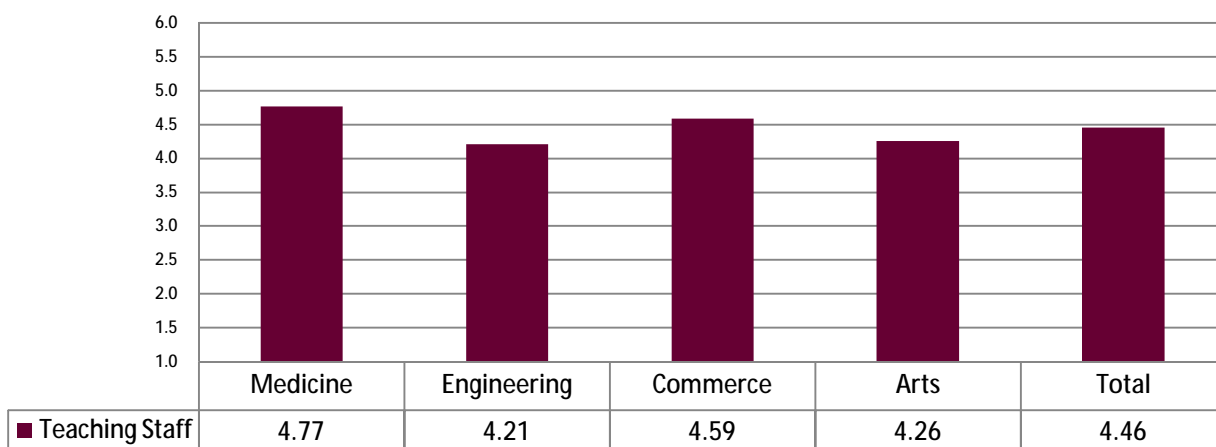


Figure (23) shows the percentage of students who have studied courses in electronic forms and are willing to generalize this experience. This percentage is high in faculties of Commerce and Medicine, and relatively low in Faculty of Engineering.

Figure (23): Students` Agreement on the E-learning Experience Generalization

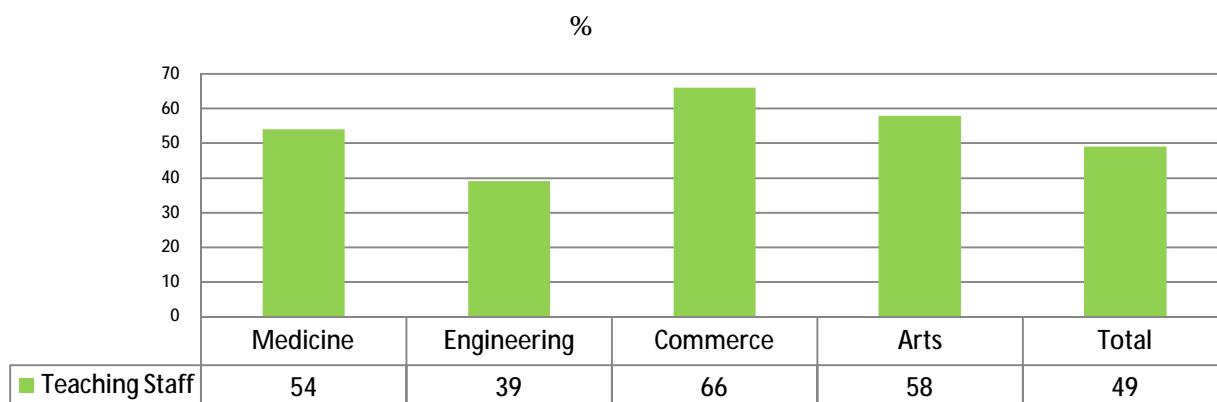


Table (8) shows the e-learning preference degree compared to traditional way among students who have studied electronic courses before. 70% of the students prefer to study electronic courses; however this percentage decreases among students in Faculty of Engineering; as 29% of them prefer the traditional way.

From tables (9) & (10) we can identify the main advantages and disadvantages from students` point of view, which could explain the support and rejection percentages.

Table (11): The Students` Degree of Preference to Study Courses/Books in Electronic form more than the Traditional Way according to Specialization (%)

|             | Better to a Great extent | Better to some extent | No Difference | Traditional way is better | Total |
|-------------|--------------------------|-----------------------|---------------|---------------------------|-------|
| Medicine    | 28                       | 45                    | 7             | 20                        | 100   |
| Engineering | 23                       | 39                    | 9             | 29                        | 100   |
| Commerce    | 49                       | 38                    | 8             | 5                         | 100   |
| Arts        | 29                       | 42                    | 15            | 13                        | 100   |
| Total       | 30                       | 40                    | 9             | 21                        | 100   |

The following table shows the main difficulties facing the e-learning according to specialization, as indicated by students who have studied electronic courses before.

The main difficulties of studying electronic courses are the absence of a computer for each student, and that some of students especially among the Faculty of commerce students.

The next difficulty is that the course is not presented or submitted in a good way. Moreover, the e-courses lecturers do not follow-up the students and do not make sure if they understand what is presented to them. Also, they pointed to the lack of communication between lecturer and the student especially among the Faculty of Medicine students. On the other hand, some of the students get bored.

**Table (12): The Percentage Distribution of the Main Difficulties Facing the Students in E-learning According to Specialization**

|   | Medicine | Engineering | Commerce | Arts | Total |
|---|----------|-------------|----------|------|-------|
| Computers are not available for some students and some of them are not used to it | 10       | 20          | 41       | 23   | 22    |
| Inefficiency in presenting the course   | 15       | 17          | 13       | 23   | 17    |
| Demonstrators do not care about whether the student understand or not             | 19       | 15          | 12       | 9    | 15    |
| The course is presented very fast   | 11       | 15          | 5        | 6    | 12    |
| Lose of contact between the demonstrator and student the                          | 21       | 8           | 4        | 2    | 9     |
| It took a long time to sit on the computer and sometimes students get bored       | 2        | 7           | 12       | 11   | 7     |
| Presentation of courses is theoretical  | 11       | 8           | 4        | 15   | 9     |
| Lose of concentration   | 6        | 4           | 1        | 4    | 4     |
| Sometimes the pictures are not clear  | 5        | 5           | 7        | 8    | 5     |
| Total percentage  | 100      | 100         | 100      | 100  | 100   |
| Total number of those who answer this question                                    | 81       | 333         | 91       | 53   | 558   |

The following table shows the main benefits accompanied by studying electronic courses from the students` point of view. It is clear that the Faculty of Medicine students indicate that the main benefit is providing demonstrated pictures and videos, while the students in faculties of Engineering, Commerce, and Arts mentioned saving time as a main benefit.

**Table (13): The Percentage Distribution of the Main Benefits Facing the Students In E-learning According to Specialization (%)**

|   | Medicine | Engineering | Commerce | Arts | Total |
|---|----------|-------------|----------|------|-------|
| Saving time   | 23       | 33          | 35       | 38   | 32    |
| Pictures, demonstrated videos, formatting, and simulation | 47       | 23          | 18       | 13   | 24    |
| It is precise in showing some concepts                    | 21       | 16          | 11       | 19   | 16    |
| It is easy and precise                                    | 8        | 14          | 18       | 16   | 14    |
| Self reliance when studying or accepting skills           | 0        | 7           | 17       | 9    | 10    |
| Available all the time                                    | 1        | 4           | 2        | 6    | 4     |
| Total percentage  | 100      | 100         | 100      | 100  | 100   |
| Total number  | 97       | 396         | 133      | 85   | 712   |

### **Courses Related to Information Technology**

The following table shows 33% of staff members and 44% their assistants from the total respondents have attended training courses related to information technology, with a two courses on average per person.

**Table (14): Percentage of Teaching Staff and Their Assistants Who Attended Courses Related To Information Technology (%)**

|               | Faculty Staff Members<br>% | Teaching Assistants<br>% |
|---------------|----------------------------|--------------------------|
| Medicine      | 37                         | 45                       |
| Engineering   | 24                         | 28                       |
| Commerce      | 27                         | 32                       |
| Arts          | 41                         | 66                       |
| All faculties | 33                         | 44                       |

As for teaching assistants, the following table shows the percentage of those who attended training courses through the university, in order to get International Computer Driving License ICDL, as well as the proportion of people who obtained them, according to the specialty. It is clear that 30% of the teaching assistants attended courses to get ICDL, and only 31% of them could obtain it. The teaching assistants of the Faculty of Arts were the most benefited group, as 39% of them attended the courses.

**Table (15): The percentage of Teaching Assistants who attended ICDL courses and those who got it according to Specialization (%)**

|             | Attended ICDL Courses<br>% | Managed to get ICDL certificate<br>% |
|-------------|----------------------------|--------------------------------------|
| Medicine    | 34                         | 35                                   |
| Engineering | 15                         | 21                                   |
| Commerce    | 30                         | 30                                   |
| Arts        | 39                         | 36                                   |
| Total       | 30                         | 31                                   |

As for students, the following table shows the percentage of those who attended ICDL training courses through the university, and the percentage of those who managed to get the certificate according to Specialization.

It is clear that 11% of the students have attended the training courses, while only 12% got the certificate. In addition, the percentage of attendance and obtaining ICDL certificate increases in faculties of Engineering and Commerce compared to faculties of Arts and Medicine

**Table (16): The percentage of Students who attended ICDL courses and those who got it according to Specialization (%)**

|             | Attended ICDL Courses<br>% | Managed to get ICDL certificate<br>% |
|-------------|----------------------------|--------------------------------------|
| Medicine    | 3                          | 4                                    |
| Engineering | 19                         | 22                                   |
| Commerce    | 16                         | 15                                   |
| Arts        | 4                          | 5                                    |
| Total       | 11                         | 12                                   |

The following table shows the verification degree of evaluation statements for information technology courses attended by the staff members and teaching assistants.

**Table (17) : statements used in IT course success index**

| Statement  | Medicine              |                    | Engineering          |                     | Commerce              |                     | Arts                  |                     | Total                 |                     |
|--|-----------------------|--------------------|----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|-----------------------|---------------------|
|  | Faculty staff members | Teaching assistant | Faculty staff member | Teaching assistants | Faculty staff members | Teaching assistants | Faculty staff members | Teaching assistants | Faculty staff members | Teaching assistants |
| The course largely increases my skills in IT field                                       | 4.48                  | 4.23               | 3.82                 | 3.72                | 4.60                  | 4.17                | 4.06                  | 4.45                | 4.22                  | 4.23                |
| This course / those courses helped me in using and applying new methods/tools in my work | 4.43                  | 4.08               | 3.79                 | 3.48                | 4.50                  | 3.63                | 4.16                  | 4.36                | 4.22                  | 4.03                |
| The trainers are very qualified  | 4.44                  | 4.38               | 3.74                 | 4.00                | 4.75                  | 4.04                | 4.34                  | 4.53                | 4.29                  | 4.33                |
| The centre is well prepared and equipped   | 4.19                  | 4.55               | 4.21                 | 4.84                | 4.75                  | 4.21                | 4.42                  | 4.69                | 4.34                  | 4.61                |
| Those types of training programs fits the teaching staff's needs                         | 4.30                  | 4.26               | 3.74                 | 3.76                | 4.35                  | 4.17                | 4.12                  | 4.28                | 4.13                  | 4.17                |
| The content of the course fits its goal  | 4.25                  | 4.41               | 3.74                 | 3.76                | 4.45                  | 4.13                | 4.29                  | 4.66                | 4.18                  | 4.37                |
| Generally, the course is good and useful   | 4.33                  | 4.61               | 3.82                 | 3.80                | 4.60                  | 4.25                | 4.27                  | 4.65                | 4.24                  | 4.44                |
| Index for IT course success  | 4.38                  | 4.36               | 3.84                 | 3.91                | 4.57                  | 4.11                | 4.29                  | 4.53                | 4.26                  | 4.32                |

It is clear from the above table that, both staff members and assistants among all specialties have achieved a great benefit; however, a relative decrease in the achieved added benefit is noticed within the Faculty of engineering beneficiaries.

As can be seen, there is a high degree of satisfaction with the centers` equipment, performance of trainers and the content, however this degree is relatively lower among the Faculty of Engineering beneficiaries.

The 7 statements listed in the previous table were used to develop an index aims at measuring the success of information technology courses both staff members and assistants, the following table shows the reliability and validity of this index for each group.

**Table (18): reliability and validity of the IT courses success index**

| Beneficiaries      | No. of statements | Reliability | Validity |
|--------------------|-------------------|-------------|----------|
| Teaching staff     | 7                 | ٠.٩٤        | ٠.٩٧     |
| Teaching assistant | 7                 | ٠.٩١        | ٠.٩٥     |

The index values show (an above average) degree of success from the staff members` and assistants viewpoint within various specialties. Applying Kroskal-Wallace to test differences significance between the staff members` answers within various specialties respect to scale. Regarding the index of courses` success, results showed absence of significant differences between answers ( $p = 0.212$ ), which means that these courses were successful for the staff members of the faculty of various specialties. With respect to the assistants, it can be considered that there is no significant difference between the answers within various specialties at 0.01 significance level ( $p = 0.045$ ).

The following table shows the percentage distribution of agreement degree by the staff members and their assistants on the courses` success index according to the specialty, which confirms the pre-mentioned results.

**Table (19): IT courses success index by beneficiary group and specialty**

|                              | Totally disagree<br>١ | Disagree<br>٢ | Disagree to some extent<br>٣ | Agree to some extent<br>٤ | agree<br>٥ | Totally agree<br>٦ | Total | Number of respondents |
|------------------------------|-----------------------|---------------|------------------------------|---------------------------|------------|--------------------|-------|-----------------------|
| <b>Faculty staff members</b> |                       |               |                              |                           |            |                    |       |                       |
| Medicine                     |                       |               | 10%                          | 50%                       | 35%        | 4%                 | 100%  | 48                    |
| Engineering                  | 6%                    | 12%           | 21%                          | 21%                       | 30%        | 9%                 | 100%  | 33                    |
| Commerce                     |                       |               |                              | 50%                       | 50%        |                    | 100%  | 20                    |
| Arts                         | 4%                    | 2%            | 11%                          | 28%                       | 50%        | 4%                 | 100%  | 46                    |
| Total                        | 3%                    | 3%            | 12%                          | 37%                       | 41%        | 5%                 | 100%  | 147                   |
| <b>Teaching assistants</b>   |                       |               |                              |                           |            |                    |       |                       |
| Medicine                     | 3%                    | 3%            | 16%                          | 26%                       | 50%        | 3%                 | 100%  | 38                    |
| Engineering                  |                       | 16%           | 16%                          | 32%                       | 36%        |                    | 100%  | 25                    |
| Commerce                     | 4%                    | 9%            | 13%                          | 26%                       | 39%        | 9%                 | 100%  | 23                    |
| Arts                         | 2%                    | 2%            | 6%                           | 30%                       | 56%        | 5%                 | 100%  | 64                    |
| Total                        | 2%                    | 5%            | 11%                          | 29%                       | 49%        | 4%                 | 100%  | 150                   |

### Section Three: Faculty & Leadership Development Project (FLDP):

This project aims to improve the institutional and professional capabilities of high education institutions, as well as developing the skills and merits of the Faculty staff members and leaders. In order to enable them to cope with today's language, and raise the efficiency of high education outputs by providing a comprehensive matrix of training courses, staff training, and prepared centres for training.

The following table shows the number of courses attended by the staff members and their assistants, also the number and percentage of courses that they consider as achieving a large benefit for them. The results show that over half of these courses were of huge usefulness for them among all specialties. This is more obvious in the Faculty of Commerce and Faculty of Arts.

Table (20): The attendance of staff members and teaching assistants FLDP courses

|   | Faculty Staff members |             |          |      |       | Teaching Assistants |             |          |      |       |
|---|-----------------------|-------------|----------|------|-------|---------------------|-------------|----------|------|-------|
|   | Medicine              | Engineering | Commerce | Arts | Total | Medicine            | Engineering | Commerce | Arts | Total |
| Number of courses you have attended?                    | 467                   | 376         | 204      | 498  | 1545  | 194                 | 129         | 291      | 1006 | 194   |
| Number of courses from which you had a clear benefit?   | 235                   | 192         | 111      | 267  | 805   | 95                  | 66          | 187      | 560  | 95    |
| Percentage of courses that achieved a clear benefit (%) | 50%                   | 51%         | 54%      | 54%  | 52%   | 49%                 | 51%         | 64%      | 56%  | 49%   |

It is worth noting that the training courses matrix has passed with many stages where several courses were excluded or introduced according to the experiment result. That indicates the need for pre-studies prior the implementation of any similar projects.

The following table includes statements related to the evaluation of the capabilities development courses in general from many aspects. It worth mentioning that the cells colored by green show that the average evaluation reached degree 4 or more which means significant statement verification. As for the cells colored by red, they show an evaluation degree less than 3.5, which means a low average degree of achievement.

The answers indicated a positive trend toward these courses from the staff members and their assistants, considering the availability of a large number of different training

courses, the success of these courses to add new knowledge and skills, the provision of good trainers, and the proper preparation of training rooms and centers.

Table (21)  
FLDP courses evaluation statements  
Scale from 1 to 6

| The element   | Staff members |             |             |             |             | Teaching Assistants |             |             |             |             |
|---|---------------|-------------|-------------|-------------|-------------|---------------------|-------------|-------------|-------------|-------------|
|   | Medicine      | Engineering | Commerce    | Arts        | Total       | Medicine            | Engineering | Commerce    | Arts        | Total       |
| There are a large number and variety of training programs available to faculty members  | 4.17          | 4.00        | 4.04        | 3.94        | 4.05        | 3.99                | 3.8         | 3.64        | 4.3         | 3.98        |
| The quality of training programs available suit the needs of faculty member   | 3.86          | 3.57        | 3.71        | 3.92        | 3.78        | 3.82                | 3.32        | 3.79        | 4.13        | 3.81        |
| The attendance of these courses was useful and help in upgrading the quality of the educational process in institutions of higher education | 3.81          | 3.57        | 3.86        | 3.91        | 3.79        | 3.71                | 3.56        | 3.87        | 4.2         | 3.86        |
| The course/ courses attended added new skills and knowledge to me   | 4.03          | 3.74        | 4.00        | 4.21        | 4.01        | 3.78                | 3.89        | 4.16        | 4.46        | 4.08        |
| Trainers are of satisfactory degree of qualification and experience   | 4.06          | 3.61        | 4.20        | 4.14        | 3.99        | 4                   | 4           | 3.87        | 4.56        | 4.15        |
| Center / training room is equipped properly   | 4.10          | 4.16        | 4.25        | 4.33        | 4.20        | 4.5                 | 4.74        | 4.69        | 4.68        | 4.64        |
| A variety of training methods   | 3.90          | 3.81        | 3.98        | 4.20        | 3.97        | 4.07                | 4.19        | 4.22        | 4.74        | 4.33        |
| These courses helped me in the usage and application of new methods/ways teaching   | 3.99          | 3.39        | 3.78        | 3.93        | 3.80        | 3.63                | 3.54        | 3.84        | 4.14        | 3.81        |
| These courses have been useful in the field of scientific research  | 3.90          | 3.23        | 3.57        | 3.84        | 3.67        | 3.78                | 3.22        | 3.51        | 3.95        | 3.67        |
| These courses helped me in the usage and application of new methods / ways for student evaluation   | 3.97          | 3.38        | 3.53        | 3.90        | 3.75        | 3.29                | 2.85        | 3.71        | 3.94        | 3.48        |
| The timing and dates of the courses were suitable   | 3.49          | 3.13        | 2.78        | 3.46        | 3.29        | 3.99                | 3.8         | 3.64        | 4.3         | 3.98        |
| Continue to offer these courses would create a human resources base within the university   | 4.07          | 3.66        | 3.93        | 4.17        | 3.98        | 3.88                | 3.64        | 4           | 4.25        | 3.97        |
| <b>FLDP courses success index</b>   | <b>3.93</b>   | <b>3.66</b> | <b>3.77</b> | <b>4.06</b> | <b>3.87</b> | <b>3.95</b>         | <b>3.73</b> | <b>3.95</b> | <b>4.31</b> | <b>4.02</b> |

Regarding the usefulness related to the scientific research and the application of new teaching methods, the results indicated a moderate degree, which is less among the staff members and assistants in the Engineering faculty. The main difficulties related to the capabilities development courses is the lack of suitable dates and timing of courses for Faculty staff members in particular.

In general, most of the staff members and assistants believe that the continuation of these courses will help creating a human resources base within the University.

The previous table includes 12 statements related to various aspects of capacity-building courses, which were used to develop an index for the degree of success identification from the staff members and assistants viewpoint.

The following table shows the reliability and validity degree of the index for each beneficiary group.

Table (22): FLDP courses success index  
Reliability and validity

| Group              | No. statements | Reliability | Validity |
|--------------------|----------------|-------------|----------|
| Teaching staff     | ١٢             | ٠.٩٣        | ٠.٩٦     |
| Teaching assistant | ١٢             | ٠.٩٢        | ٠.٩٦     |

The following table shows the percentage distribution of agreement degree by staff members and assistants on the success of the capacity building courses in general.

Table (23): FLDP courses success index  
Percentage distribution of evaluation degree

|                              | Totally disagree<br>١ | Disagree<br>٢ | Disagree to some extent<br>٣ | Agree to some extent<br>٤ | agree<br>٥ | Totally agree<br>٦ | Total | Number of respondents |
|------------------------------|-----------------------|---------------|------------------------------|---------------------------|------------|--------------------|-------|-----------------------|
| <b>Faculty staff members</b> |                       |               |                              |                           |            |                    |       |                       |
| Medicine                     | 1%                    | 3%            | 26%                          | 49%                       | 20%        | 2%                 | 100%  | 118                   |
| Engineering                  | 5%                    | 11%           | 19%                          | 42%                       | 22%        | 1%                 | 100%  | 88                    |
| Commerce                     |                       | 16%           | 14%                          | 46%                       | 24%        |                    | 100%  | 50                    |
| Art                          |                       | 9%            | 14%                          | 44%                       | 32%        | 2%                 | 100%  | 89                    |
| Total                        | 1%                    | 8%            | 19%                          | 46%                       | 24%        | 1%                 | 100%  | 345                   |
| <b>Teaching assistants</b>   |                       |               |                              |                           |            |                    |       |                       |
| Medicine                     | 1%                    | 10%           | 16%                          | 39%                       | 33%        | 1%                 | 100%  | 77                    |
| Engineering                  | 2%                    | 12%           | 18%                          | 50%                       | 18%        |                    | 100%  | 50                    |
| Commerce                     |                       | 9%            | 21%                          | 32%                       | 36%        | 2%                 | 100%  | 44                    |
| Art                          |                       | 1%            | 9%                           | 44%                       | 45%        | 1%                 | 100%  | 80                    |
| Total                        | 1%                    | 8%            | 15%                          | 41%                       | 34%        | 1%                 | 100%  | 251                   |

It is clear that the capacity building courses was successful with above average degree, from both staff members` and assistants viewpoint, as 25% of staff members and 35% of the assistants chose a scale of 5 or 6. By testing differences significance between groups and between specialties, there were no significant differences found between staff members and their assistants at 1% significance level ( $p = 0.03$ ).

Regarding to staff members, there is no significant differences between the different specialties at 5% significance level ( $P = 0.051$ ). As for assistants, the same conclusion can not be ensured at the same level of significance ( $p = 0.005$ ). As a greater success level has appeared within the Faculty of Arts compared to other faculties.

The Following table addresses the question of the attendance and degree of use (scale of 1 to 6) for each capability's development course. It illustrates the courses with relatively higher degree of benefit for staff members. These courses are Legal and financial aspects of university works, International Publication of Scientific Research, The use of technology in teaching and Quality standards in the learning process. As for assistants, the highest benefit courses were; International Publication of Scientific Research, Professional ethics and behavior, use of technology in teaching, Ethics of scientific research and Effective Presentation Skills.

Table (24)

The attendance and benefit degree of each course for staff members and teaching Assistants according to Specialization

| Training Course                                   | Staff members   |                                       |          |             |          | teaching Assistants |                                       |       |          |             |          |      |
|---|-----------------|---------------------------------------|----------|-------------|----------|---------------------|---------------------------------------|-------|----------|-------------|----------|------|
|   | % of attendance | Average degree of benefit from 1 to 6 |          |             |          | % of attendance     | Average degree of benefit from 1 to 6 |       |          |             |          |      |
|   |                 | Total                                 | Medicine | Engineering | Commerce |                     | Arts                                  | Total | Medicine | Engineering | Commerce | Arts |
| Legal and financial aspects of university works   | ٢٣              | 4.18                                  | 4.28     | 4.26        | 5.09     | 3.66                | ١٥                                    | 4.14  | 4.00     | 4.14        | 4.40     | 4.14 |
| International Publication of Scientific Research  | ٢٩              | 4.24                                  | 4.64     | 3.93        | 4.29     | 3.89                | ١٥                                    | 4.40  | 4.30     | 4.44        | 5.25     | 4.20 |
| The use of technology in teaching                 | ٣٧              | 4.09                                  | 4.24     | 3.83        | 4.43     | 3.98                | ٣٠                                    | 4.20  | 4.21     | 3.90        | 4.36     | 4.33 |
| Quality standards in the learning process         | ٣٠              | 4.01                                  | 4.10     | 4.16        | 4.00     | 3.78                | ١٧                                    | 4.15  | 4.67     | 4.07        | 4.57     | 3.25 |
| University Management                             | ١٣              | 3.98                                  | 4.21     | 3.64        | 5.00     | 3.53                | ٦                                     | *     | *        | *           | *        | *    |
| Time management and meetings                      | ٢٣              | 3.95                                  | 4.51     | 3.82        | 4.23     | 3.18                | ٧                                     | 3.50  | 3.33     | *           | *        | 3.42 |
| Strategic Planning                                | ١٤              | 3.88                                  | 4.12     | 3.36        | 4.57     | 3.47                | ٣                                     | 3.70  | 4.00     | 3.00        | 4.50     | 3.33 |
| Preparing competitive research projects           | ١٥              | 3.84                                  | 4.05     | -           | 2.50     | 3.40                | ٤                                     | 3.88  | 4.00     | *           | *        | 3.33 |
| Ethics of scientific research                     | ٢١              | 3.84                                  | 4.19     | 3.62        | 4.00     | 3.41                | ٢٤                                    | 4.18  | 4.42     | 4.10        | 4.33     | 4.09 |
| Professional ethics and behavior                  | ١٧              | 3.83                                  | 4.32     | 3.65        | 4.10     | 3.33                | ١٩                                    | 4.27  | 4.88     | 3.53        | 4.42     | 4.23 |
| Effective Presentation Skills                     | ٢٤              | 3.81                                  | 4.36     | 3.56        | 4.14     | 3.50                | ٢٨                                    | 4.18  | 4.27     | 4.19        | 4.50     | 3.96 |
| Communication skills in different education types | ٢٠              | 3.78                                  | 3.96     | 3.63        | 4.00     | 3.62                | ٣٠                                    | 4.06  | 4.21     | 4.17        | 4.21     | 3.80 |
| Organizing scientific conferences                 | ١١              | 3.75                                  | 4.24     | 3.56        | 4.00     | 3.22                | ٤                                     | *     | *        | *           | *        | *    |
| The examination systems and students evaluate     | ٣٠              | 3.72                                  | 3.87     | 3.48        | 3.31     | 3.79                | ١١                                    | 4.09  | 3.95     | 4.00        | *        | 4.40 |
| Management of Research Group Program              | ١٧              | 3.48                                  | 3.70     | 3.21        | 4.00     | 3.10                | *                                     | *     | *        | *           | *        | *    |

\*Number of attendants is less than 5.

#### Section Four: Quality Assurance and Accreditation Project QAAP

This project aims to enable the higher education institutions to establish the quality assurance systems, as well as prepare and qualify these institutions to apply for the accreditation at the time of establishing the National Authority for Quality Assurance and Accreditation. This is through the dissemination of "The Culture of Quality" and the establishment of mechanisms that ensure a high quality of the Egyptian universities' graduates in order to compete at the national, regional and international levels. Moreover, building the institutional capacity of the Egyptian universities' staff members, to guarantee the development and the continuity of quality within higher education.

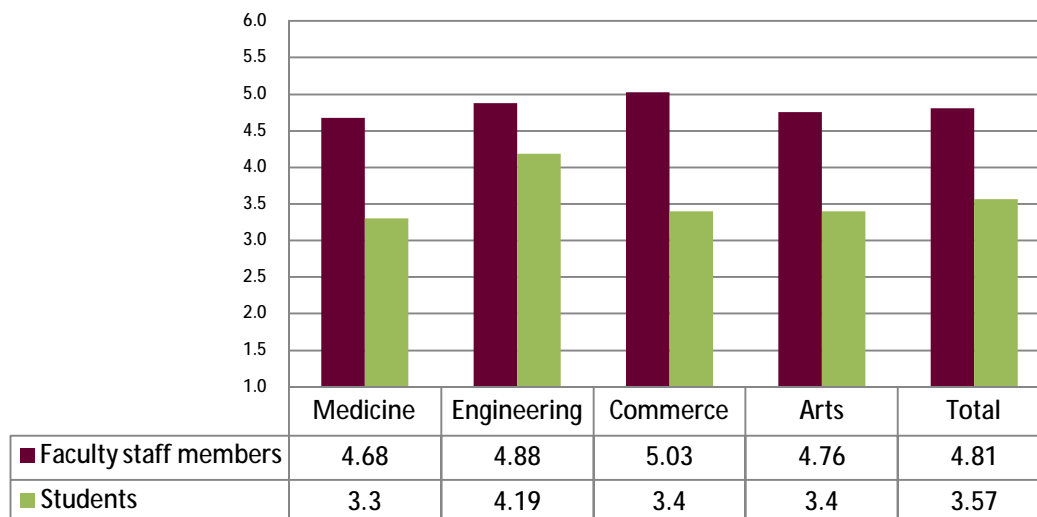
With reference to the QAAP output report, we find that the most important outputs are; the establishment & follow-up of 16 quality centers within different universities - the establishment & follow-up of 150 quality units within various faculties - capacity and experience upgrading through training, workshops, ongoing audits and report writing - preparation of faculties' and universities strategic plans - raise the awareness of the importance of quality achievement through awareness campaigns, conferences and media - over 150 faculty have prepared their self assessment documents.

We begin by presenting indicators that measure the projects' success degree in defining & spreading awareness of the quality system. Then we develop an index to know the projects' success degree in identifying and delivering a clear message for each specialty. This is followed by, developing a measurement to identify the projects' success extent within suitable environment among the beneficiaries and create a degree of communication with them.

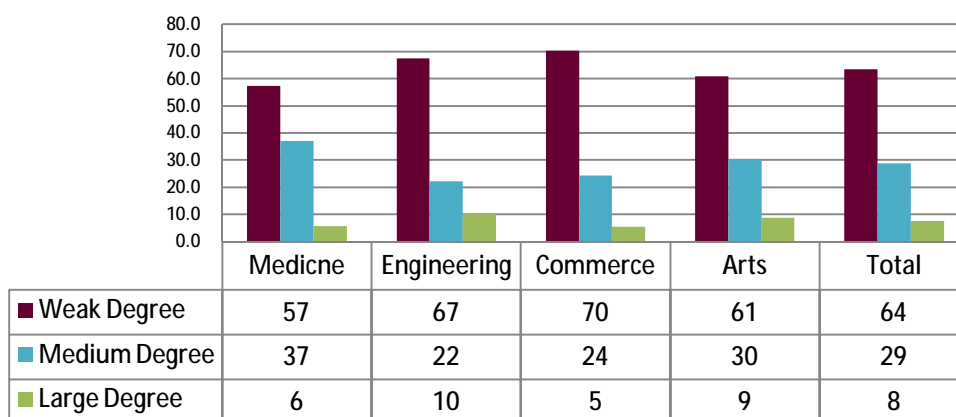
#### **The projects' success in defining & spreading awareness of the quality system**

Figures (24) and (25) show the knowledge degree of the staff members and assistants about the Quality Assurance & Accreditation Project, and it appears that 63% of the staff members know about the project with a large or medium degree, compared to only 36% of the teaching assistants.

**Figure (24): Faculty Staff Members Knowledge Degree about the Quality Assurance & Accreditation Project according to Specialization**

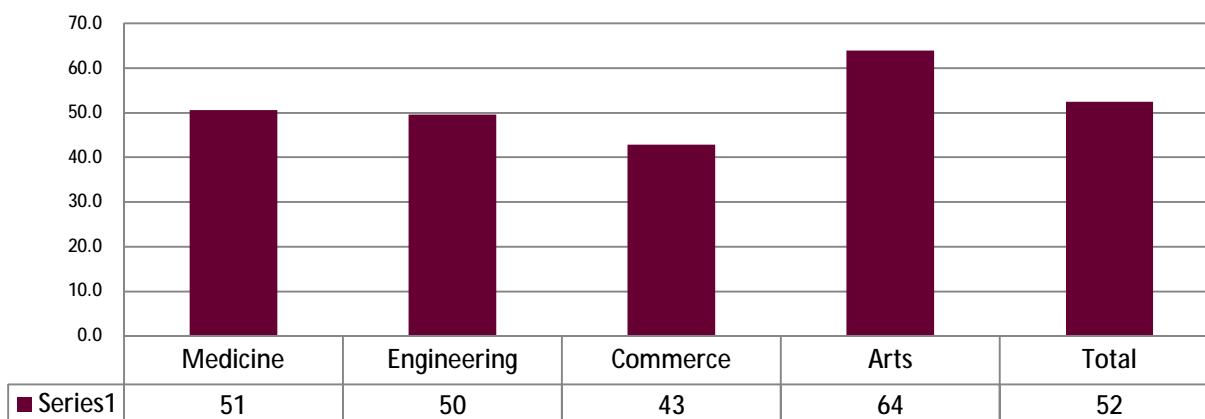


**Figure (25): Teaching Assistants Knowledge Degree about the Quality Assurance & Accreditation Project according to Specialization**



Next figure shows the staff members percentage who attended training courses and workshops related to the quality project.

**Figure (26)  
Staff Members Percentage Attended Training Courses or Workshops Related to Quality Project**



It indicated that 52% of staff members had attended such courses, this percentage increased to 64% among the Faculty of Arts staff members.

The remaining part of this section deals with the beneficiaries opinion about some of the elements associated with the Quality Assurance & Accreditation Project. The following two figures show the opinion of staff members & teaching assistants about the existence and clear publication of a Faculty mission. It is clear that 77% of the staff members believe that their faculties have a clear mission. This percentage rises to (86%) among the Faculty of Arts staff members. As for the teaching assistants, 75% finds that the faculty has a clear mission, this ratio increased to (86%) within the faculty of Medicine. 70% of the staff members find the mission clear & well published, compared with 62% of the teaching assistants.

Figure (27): The Faculty Staff Members & Teaching Assistants who believe in the Existence of a Clear Faculty Mission (%)

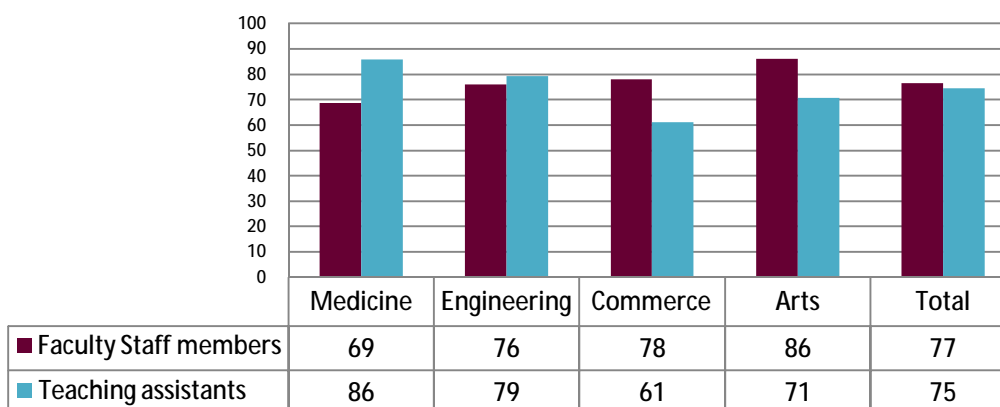
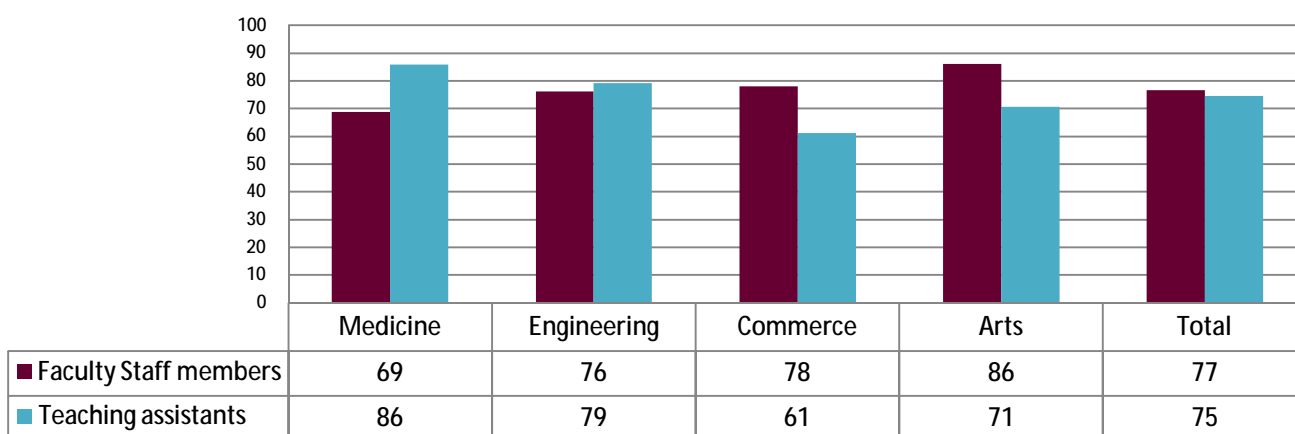


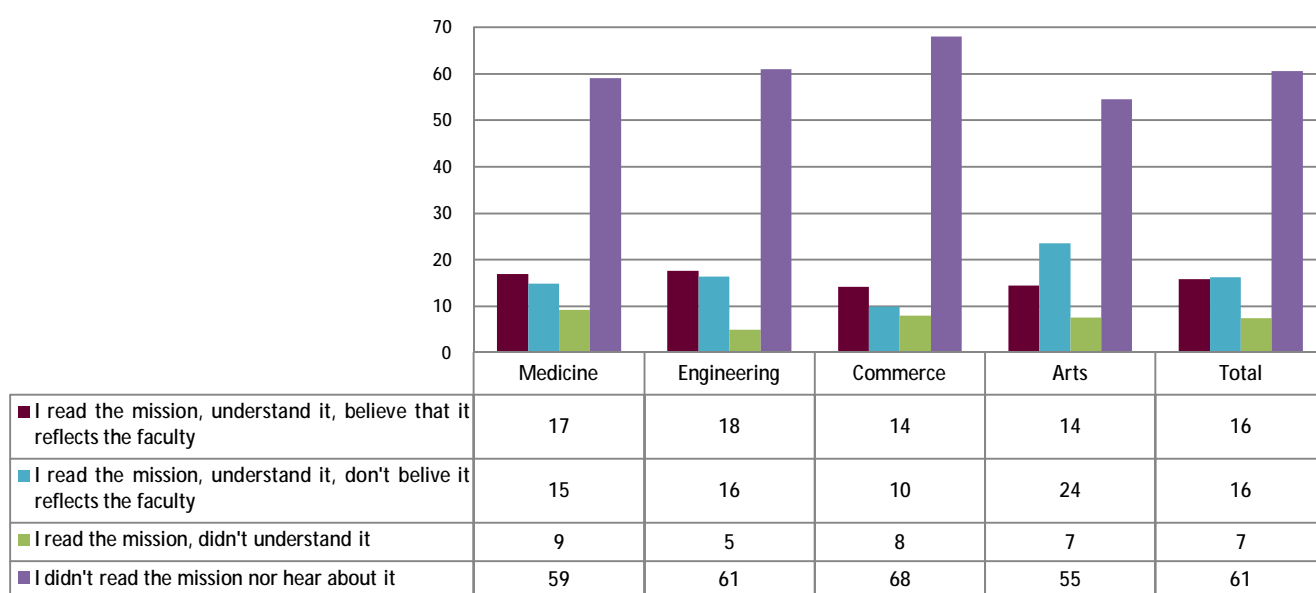
Figure (28)  
The Faculty Staff Members & Teaching Assistants who believe in a well published Faculty Mission (%)



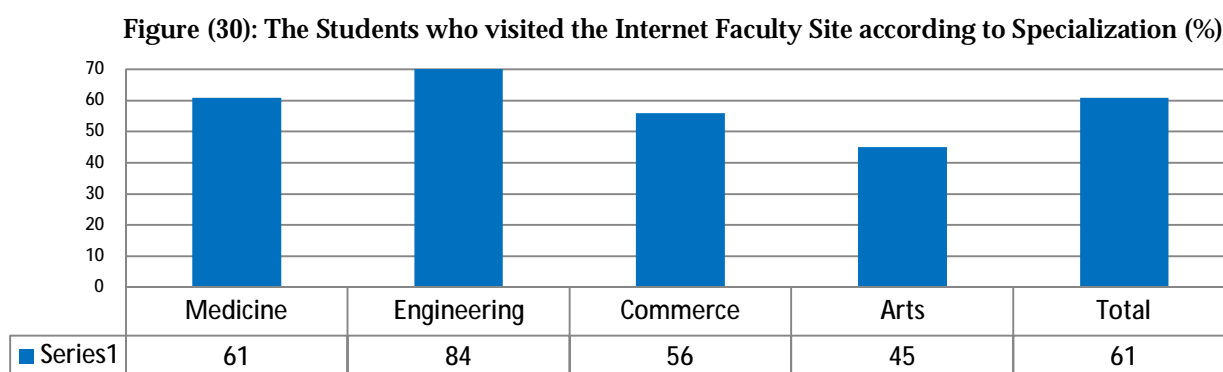
When the students were asked about their knowledge about the Faculty mission (Figure 29), (61%) of them indicated that they did not read this mission before, and this is more obvious among the Faculty of Commerce students (68%).

Moreover, 7% of the students have read the mission but did not understand it, and 16% have read it and understood it, but they do not believe that it expresses the Faculty. The remaining (16%) of the students have read the mission and understood it and believe that it expresses the Faculty well. The students believe about the Faculty mission were more obvious within the Faculty of Medicine & Faculty of Engineering.

Figure (29)  
The students Knowledge and Convenience about the Faculty Mission according to Specialization (%)



The following figure shows the percentage of students who visited the internet Faculty's site. It is clear that there is high percentage among the students within the faculties of Engineering (84%) and Medicine (61%), compared to the faculties of Commerce (56%) and Arts (45%).



**The projects` success in identifying and delivering a clear message for each Faculty**

The following table shows the staff members, and assistants average agreement degree, on some statements related to the Faculty's mission.

**Table (25): statements relate to development faculty mission and success index according to specialization – average evaluation degree - Scale from 1 to 6**

| Statement   | Teaching staff |             |          |      |       | Teaching assistant |             |          |      |       |
|---|----------------|-------------|----------|------|-------|--------------------|-------------|----------|------|-------|
|   | Medicine       | Engineering | Commerce | Arts | total | Medicine           | Engineering | Commerce | Arts | total |
| There is a clear faculty mission                                    | 4.66           | 4.55        | 4.76     | 4.64 | 4.64  | 4.43               | 4.1         | 3.79     | 3.84 | 4.04  |
| I am satisfied with the faculty mission                             | 4.56           | 4.45        | 4.86     | 4.47 | 4.55  | 4.44               | 3.82        | 3.47     | 3.71 | 3.87  |
| Improvement implementations match the faculty mission               | 4.24           | 4.21        | 4.4      | 4.27 | 4.27  | 4.28               | 3.9         | 3.34     | 3.38 | 3.72  |
| Faculty mission matches the national and international requirements | 4.09           | 4.13        | 4.51     | 4.09 | 4.17  | 4.21               | 3.9         | 3.48     | 3.3  | 3.71  |
| Graduates gain knowledge and skills satisfies faculty mission       | 4.06           | 3.89        | 2.88     | 3.11 | 4.05  | 3.99               | 4.22        | 3.78     | 3.26 | 3.02  |
| Developing faculty mission success index                            | 4.34           | 4.34        | 4.57     | 4.30 | 4.36  | 4.32               | 3.95        | 3.49     | 3.50 | 3.82  |

The above table shows that the staff members, teaching assistants, and graduate students agree on the existence of a clear and understandable mission to their faculties. However, a higher agreement degree appeared among staff members (significant difference  $p < 0.001$ ).

Regarding the satisfaction and the conviction about the faculty's mission content, the agreement degrees vary between the beneficiaries groups and among various specializations. However, it increases among the staff members in general (significant difference  $p < 0.001$ ).

With respect to the statements “Development procedures within the Faculty match the announced faculty mission”, and “Faculty mission serves directly the local, regional and international trends associated with specialization and the within the framework of the State public policy”, there was a high agreement degree among the staff members and lesser agreement among the teaching assistants (significant difference  $p < 0.001$ ). As for the statement “Knowledge and skills acquired by a faculty graduate meet the announced Faculty mission”, a higher agreement degree appeared among teaching assistants compared to the staff members in all specialties except for faculty of Medicine.

The previous table contains 5 statements that could be used to develop an index to identify the degree of projects` success in identifying and delivering a clear mission reflects each faculty.

The following table shows the degree of index reliability and validity for each group.

Table (26)

The success index of developing faculty mission: reliability and validity of the index

| Group              | No. of statements | Reliability | Validity |
|--------------------|-------------------|-------------|----------|
| Teaching Staff     | 5                 | 0.92        | 0.96     |
| Teaching assistant | 5                 | 0.91        | 0.90     |

The success composite index in table (25) shows that staff members find that the project succeeded in identifying and delivering a clear mission for each specialization, with an above average degree (mean = 4.36) and more than teaching assistants (mean = 3.82). By applying Mann and Whitney test, we find a significant difference as  $p < 0.001$ .

**Projects` success in communicating with the project and in creating a suitable environment among staff members**

The following table shows the average agreement degree among staff members on the Quality Project. There is a general positive opinion trend towards the project, as there was a great agreement among all specialization up on the comprehensive role played by the Quality Unit within the faculties and universities level. Moreover, there was a great agreement on faculties' commitment with the required quality standards, which would help achieving a better learning environment and raising the graduate level

and lead eventually to obtain the accreditation. Finally, there was generally a degree of optimism concerning the possibility of positive results achievement in the near future.

**Table (27): Creating suitable environment among teaching staff members for applying quality systems – related statements and success index – average evaluation degree - scale from 1 to 6**

| Statement   | Medicine    | Engineering | Commerce    | Arts        | Total       |
|---|-------------|-------------|-------------|-------------|-------------|
| There is a need to implement the quality system within the Faculty  | 5.08        | 4.76        | 5.18        | 4.69        | 4.91        |
| Quality Unit within the Faculty communicate with us on an ongoing basis and provide all the help and clarification that we need   | 4.13        | 4.07        | 4.55        | 4.36        | 4.24        |
| Quality Center at the university level plays an important role in this context  | 4.15        | 3.85        | 4.23        | 4.03        | 4.05        |
| Commitment to quality standards required in the faculties can lead the faculty / university to get the accreditation with the continued implementation of the project                     | 4.98        | 4.44        | 4.88        | 4.48        | 4.69        |
| I agree to the development and improvement of the curriculum, which I taught in the form in which consists with the requirements of quality and accreditation                             | 5.14        | 4.91        | 5.25        | 4.80        | 5.01        |
| Commitment to quality standards required in the faculty would help to achieve a better environment for learning and to raise the level to graduate level, who can compete internationally | 5.01        | 4.64        | 5.09        | 4.60        | 4.81        |
| Quality systems are developed successfully within the Faculty   | 4.1         | 3.77        | 4.09        | 4.02        | 3.98        |
| I expect a positive outcome in the near future  | 4.19        | 3.77        | 3.93        | 4.12        | 4.01        |
| <b><u>Composite Index of <i>Projects` success in communicating with the project and in creating a suitable environment among staff members</i></u></b>                                    | <b>4.62</b> | <b>4.32</b> | <b>4.68</b> | <b>4.39</b> | <b>4.48</b> |

The previous table shows 8 statements that could be used to develop an index to measure Projects` success in communicating with the project and in creating a suitable environment among staff members. The following table illustrates the index reliability and validity degree.

**Table (28)**

**Index of creating a suitable environment among teaching staff members: reliability and validity**

| Group          | No. of statements | Reliability | Validity |
|----------------|-------------------|-------------|----------|
| Teaching Staff | 8                 | 0.91        | 0.95     |

It is clear from table (27) and the composite index that the project has succeeded in achieving communication with staff members and in the creation of an enabling environment for quality systems application. The results showed an above average degree of success among staff members within all specialties, As Kroskal Wallace test showed insignificant index differences among various faculties ( $P = 0.137$ ).

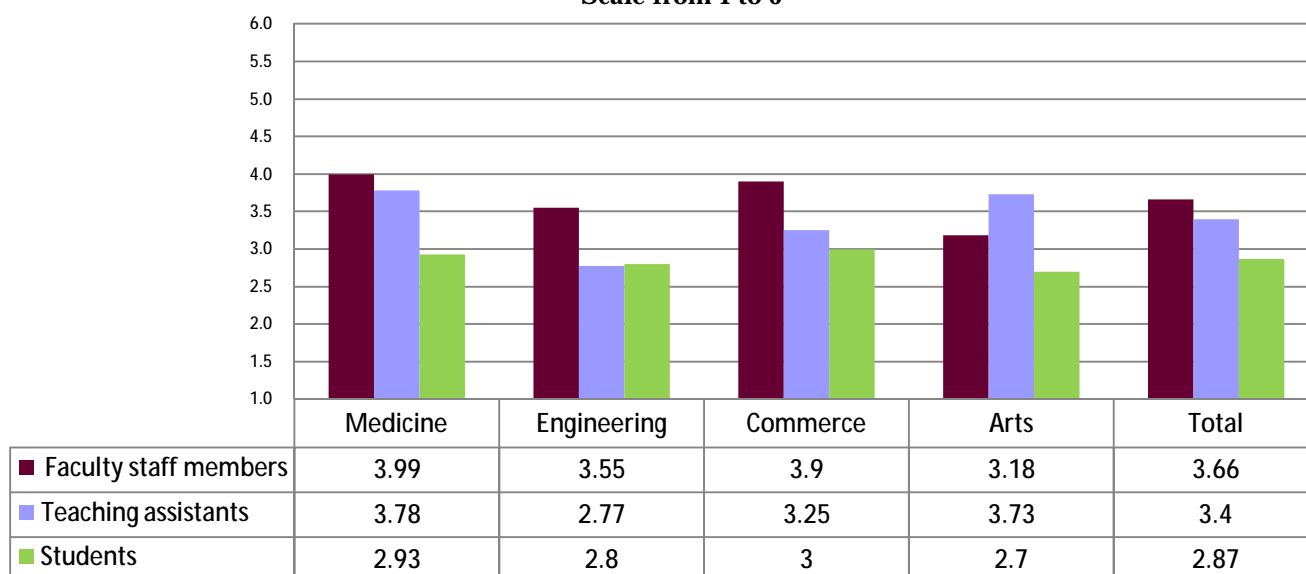
### Section Five: Teaching and Learning Environment in general

In this part, one group of respondents or more is asked about their point of view, regarding satisfaction or agreement degree concerning the achievement of a certain result related to the teaching and learning environment in general. And it is worth mentioning that these statements are related directly or indirectly with the outputs of the overall development projects.

#### Appropriateness of the teaching place and availability of assistant teaching tools

The following figure shows a low satisfaction degree among the different groups about the appropriateness of the teaching place and assistant teaching tools. Staff members find that the teaching place is appropriate to a certain extent, and the assistant teaching tools are available with an acceptable degree, this degree decreases among the teaching assistants; however they consider that the teaching places are appropriate, While Students consider the teaching places inappropriate.

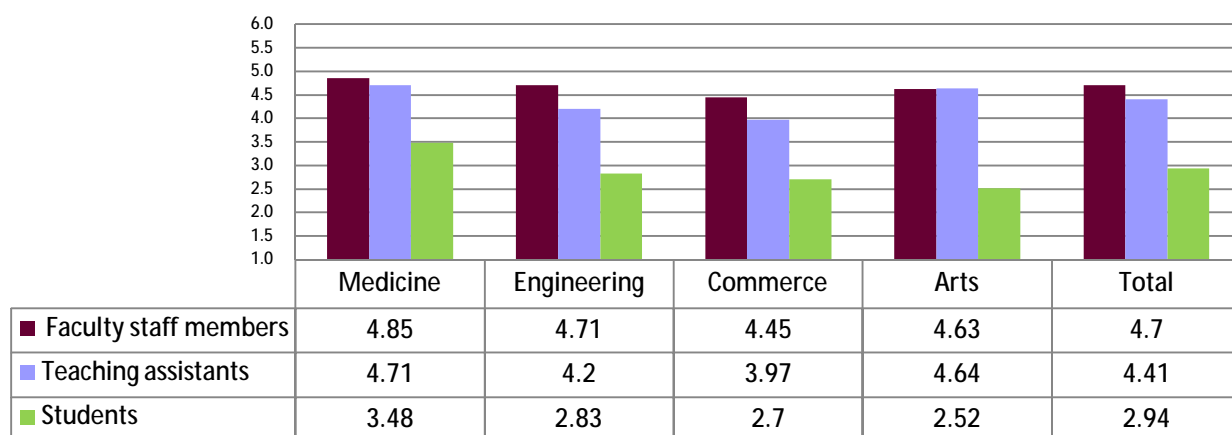
Figure (31): "Appropriateness of teaching place and availability of assistant teaching tools"  
Average evaluation degree among beneficiary groups according to Specialization  
Scale from 1 to 6



### Applying various teaching methods:

The following figure shows high agreement degree, among staff members and teaching assistants, on applying various teaching methods, however this degree is lower among students significantly within the faculties of Arts and Commerce.

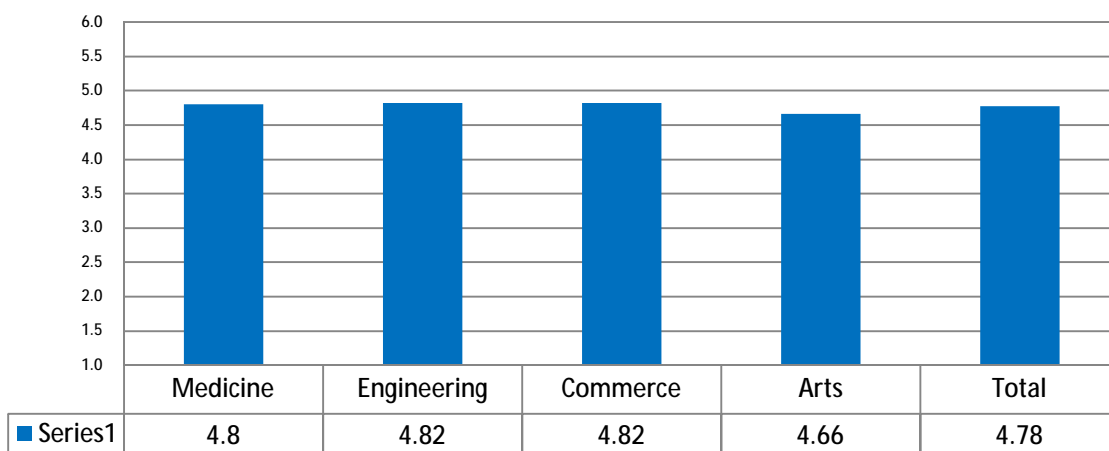
**Figure (32): “Applying various teaching methods”**  
Average evaluation degree among beneficiary groups according to Specialization  
Scale from 1 to 6



### Using New & multiple measurement methods while forming the exams:

The following figure shows the average agreement degree of staff members on the statement “I keen on using new & multiple measurement methods to assess the students' level while forming the exam”.

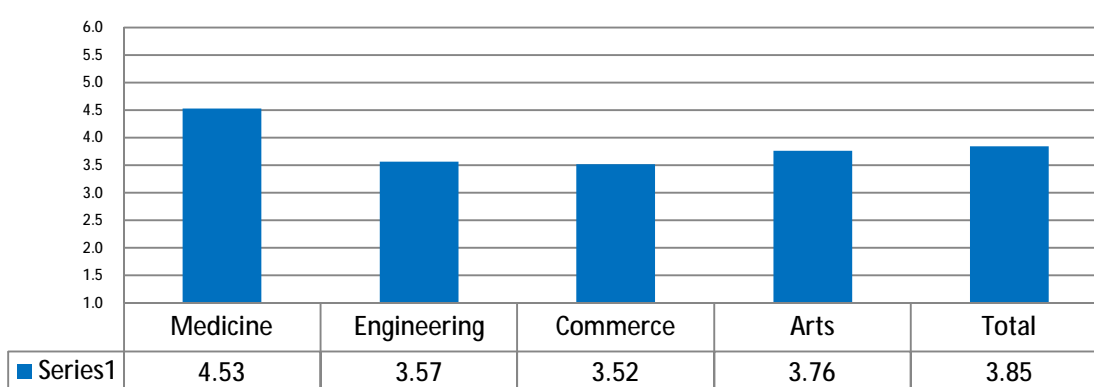
**Figure (33): “Using new and various measurement methods”**  
The average evaluation degree among staff members according to Specialization  
Scale from 1 to 6



The previous figure shows that the staff members keen on applying new and multiple measurement methods for student's level evaluation.

On the other hand, the following figure shows the students' average agreement degree on the statement "I need only to memorize well, in order to get good marks in exams", and there was an obvious high agreement degree among the Faculty of Medicine students, compared with a medium degree among the students of other specializations.

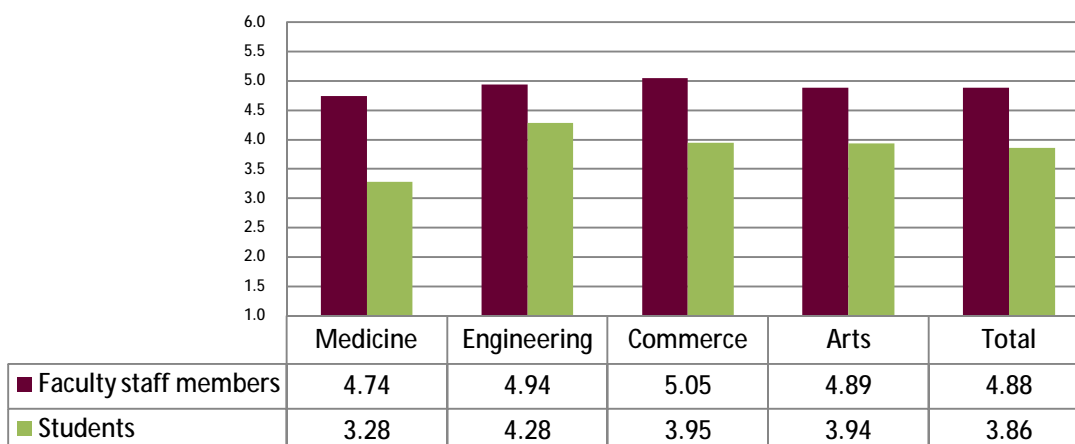
Figure (34): "I need only to memorize well, in order to get good marks in exams"  
The average evaluation degree among students according to specialization  
Scale from 1 to 6



### Clarifying the overall course objectives to the student since the beginning of the academic year:

The following figure shows a great concern among the staff members to clarify the overall course objectives from the beginning, the same result indicated from the students' answers but with a lesser degree. This is also achieved with a lower degree among the Faculty of Medicine students.

Figure (35): "The overall course objectives were clarified to students from the beginning"  
The average evaluation degree among staff members and students according to specialization  
Scale from 1 to 6

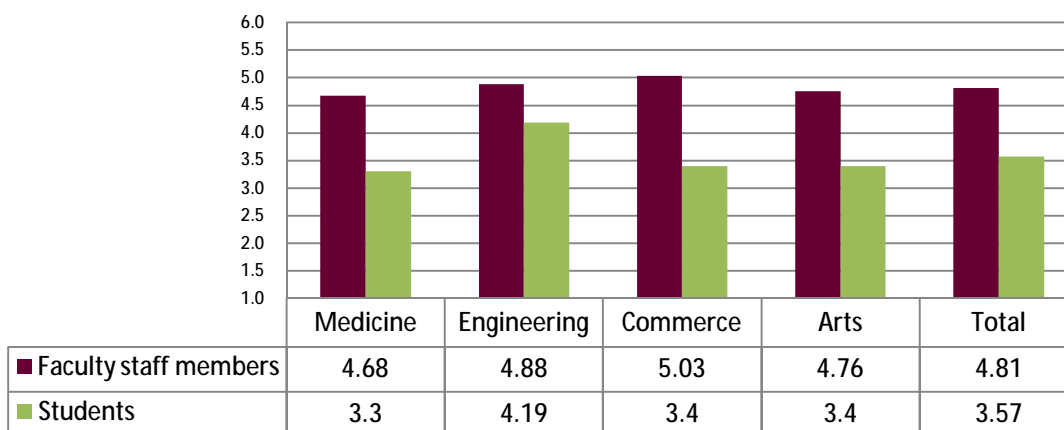


**Clarifying the applied evaluation method to the student since the beginning of the academic year:**

The following figure shows a great concern among the staff members to clarify the applied evaluation method to the student from the beginning of the academic year. On the other hand, we can observe that students agree on the same thing with a high degree within the Faculty of Engineering compared to lower degrees in the remaining faculties.

Figure (36):

"The evaluation method was clarified to the student since the beginning of academic year"  
The average evaluation degree among the staff members and students according to specialization  
Scale from 1 to 6



**Lectures and courses:**

The following two tables show the students` average agreement degree and its percentage distribution on some statements related to the lectures, and curriculum. It is clear that the students are keen to attend the lectures among all specialties, as it has been noted that attendance helps in understanding the scientific subject. The answers also indicated that the provided material (books) are not enough understood, and there is medium satisfaction level with the lecturers performance, even lower with significant difference within the Faculty of Medicine ( $P < 0.001$ ). Moreover, it was mentioned that the curriculum have helped to upgrade some of the mental capacity among students by an average degree, this degree is lower with significant difference for the Faculty of Medicine (such as analytical and problem solving capabilities).

**Table (28): statements relate to lectures and courses for teaching staff members according specialty  
Average evaluation degree – scale from 1 to 6**

| Statements   | Medicine | Engineering | commerce | Arts | Total |
|--|----------|-------------|----------|------|-------|
| I am keen on attending the lectures.   | 4.76     | 5.35        | 4.99     | 5.3  | 5.1   |
| Attending the lectures help me greatly to understand the course  | 4.39     | 4.81        | 4.91     | 5.03 | 4.79  |
| I am Satisfied with the lecturers performance in general.  | 3.7      | 4.08        | 4.13     | 3.91 | 3.95  |
| Faculty staff members are explaining what is required from me in each subject, in an easy and clear way.   | 3.46     | 3.77        | 3.9      | 3.94 | 3.77  |
| The presented scientific materials (books) are clear and understandable  | 3.41     | 3.47        | 3.69     | 3.54 | 3.52  |
| Course and teaching methods have helped in enhancing some of my mental and professional capacity (such as analytical capabilities and problem-solving skills and the ability to innovate ..... | 3.16     | 3.96        | 3.92     | 3.84 | 3.72  |
| Lecturers are committed to the time of the beginning and end of lectures   | 4.15     | 4.11        | 3.73     | 3.48 | 3.87  |
| Lecturers provide useful information during all the lecture time.  | 3.8      | 4.05        | 3.92     | 3.94 | 3.93  |

**Table (29): some statement related to performance inside lectures  
Percentage distribution of teaching staff members according to specialty  
Evaluation degree – scale from 1 to 6**

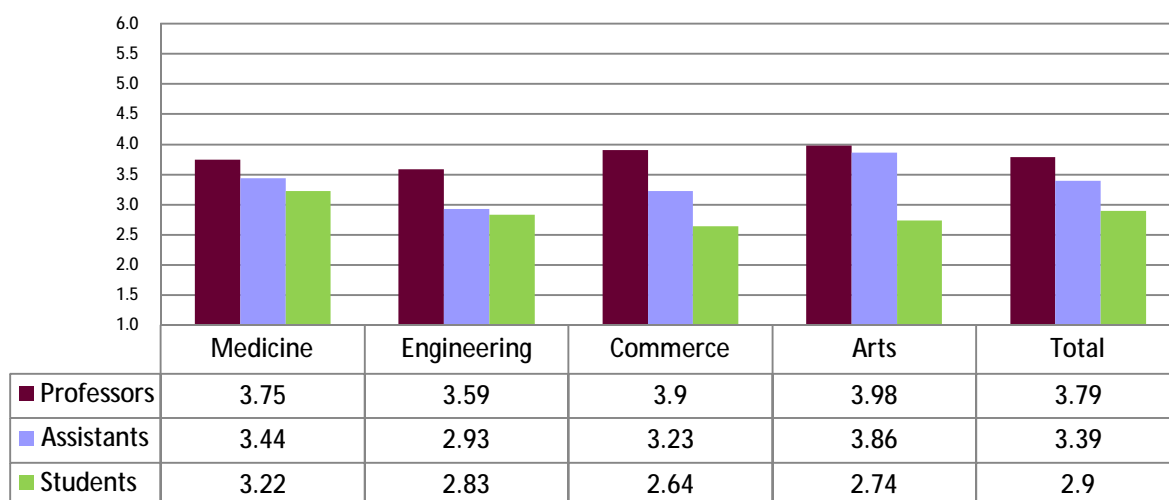
| Group  | Totally disagree<br>١ | Do not agree<br>٢ | Do not agree to an extent<br>٣ | Agree to an extent<br>٤ | agree<br>٥ | Totally agree<br>٦ | total       | No. of respondents |
|--|-----------------------|-------------------|--------------------------------|-------------------------|------------|--------------------|-------------|--------------------|
| I am Satisfied with the lecturers performance in general.  |                       |                   |                                |                         |            |                    |             |                    |
| Medicine   | 6%                    | 13%               | 18%                            | 39%                     | 19%        | 6%                 | 100%        | 758                |
| Engineering  | 4%                    | 7%                | 15%                            | 37%                     | 27%        | 11%                | 100%        | 751                |
| Commerce   | 6%                    | 8%                | 12%                            | 33%                     | 25%        | 17%                | 100%        | 732                |
| Arts   | 8%                    | 9%                | 12%                            | 37%                     | 24%        | 10%                | 100%        | 753                |
| <b>Total</b>   | <b>6%</b>             | <b>9%</b>         | <b>14%</b>                     | <b>36%</b>              | <b>24%</b> | <b>11%</b>         | <b>100%</b> | <b>2994</b>        |
| The presented scientific materials (books) are clear and understandable                          |                       |                   |                                |                         |            |                    |             |                    |
| Medicine   | 10%                   | 14%               | 24%                            | 35%                     | 14%        | 3%                 | 100%        | 756                |
| Engineering  | 9%                    | 13%               | 20%                            | 41%                     | 14%        | 3%                 | 100%        | 752                |
| Commerce   | 10%                   | 11%               | 15%                            | 36%                     | 20%        | 7%                 | 100%        | 735                |
| Arts   | 10%                   | 15%               | 17%                            | 34%                     | 17%        | 7%                 | 100%        | 758                |
| <b>Total</b>   | <b>9%</b>             | <b>13%</b>        | <b>19%</b>                     | <b>37%</b>              | <b>16%</b> | <b>5%</b>          | <b>100%</b> | <b>3001</b>        |
| Course and teaching methods have helped in enhancing some of my mental and professional capacity |                       |                   |                                |                         |            |                    |             |                    |
| Medicine   | 18%                   | 20%               | 14%                            | 27%                     | 15%        | 6%                 | 100%        | 745                |
| Engineering  | 9%                    | 10%               | 13%                            | 29%                     | 26%        | 14%                | 100%        | 742                |
| Commerce   | 12%                   | 11%               | 10%                            | 24%                     | 25%        | 18%                | 100%        | 729                |
| Arts   | 11%                   | 12%               | 10%                            | 29%                     | 25%        | 13%                | 100%        | 738                |
| <b>Total</b>   | <b>13%</b>            | <b>13%</b>        | <b>12%</b>                     | <b>28%</b>              | <b>23%</b> | <b>13%</b>         | <b>100%</b> | <b>2954</b>        |

**Satisfaction with the performance of personnel and students' affairs and the affairs of Graduate Studies**

Faculty staff members were asked about their satisfaction with the speed of papers completion within the Faculty, students were also asked about the ease in dealing with the students' affairs. The following figure shows the average agreement degree for each of them.

The following figure shows a degree of satisfaction among the staff members about administrative procedures, especially for completing papers. Such degree decreases generally among teaching assistants, to reach dissatisfaction within the Faculty of Engineering. The figure also shows that student do not deal easily with the faculties' students affairs in general.

Figure (37): Satisfaction from Dealing with the Personnel and Students Affairs by Staff Members and Students According to Specialization - The Average evaluation rate - Scale from 1 to 6



**Faculty Library**

Figure (38) shows the different beneficiary groups view point about the possibility of easy borrowing from the library. It appears that this privilege is available significantly for the staff members and their assistant, but moderately for the students, while mildly for post graduate students.

**Figure (38): “The Possibility of easy borrowing from the library”**  
**The Average evaluation degree by beneficiary groups According to Specialization**  
**Scale from 1 to 6**

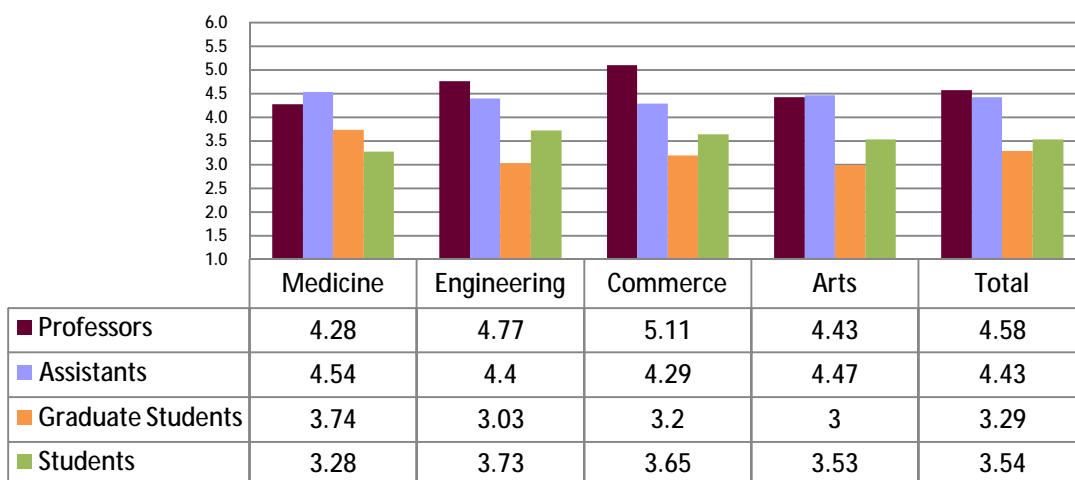
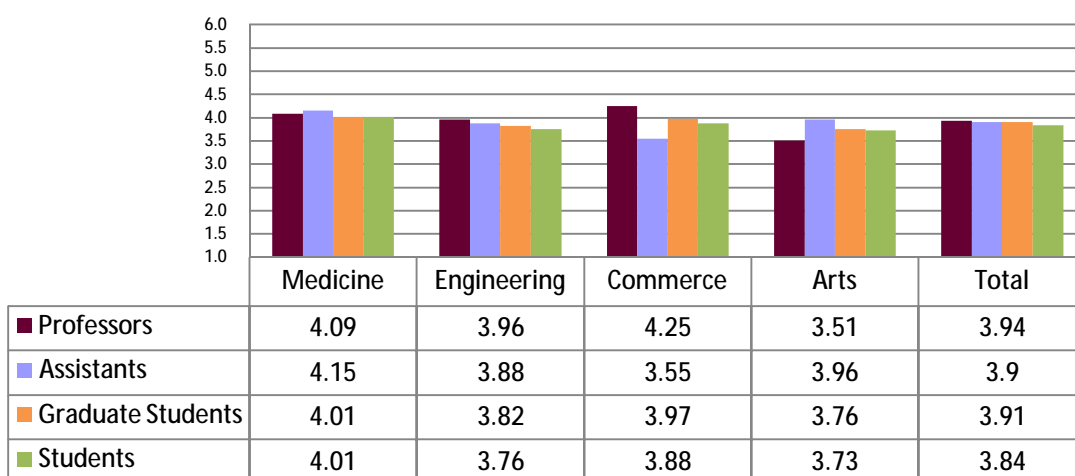


Figure (39) also indicates that the library succeeded significantly in providing books and references needed by staff members, teaching assistants, post graduate students and Faculty students.

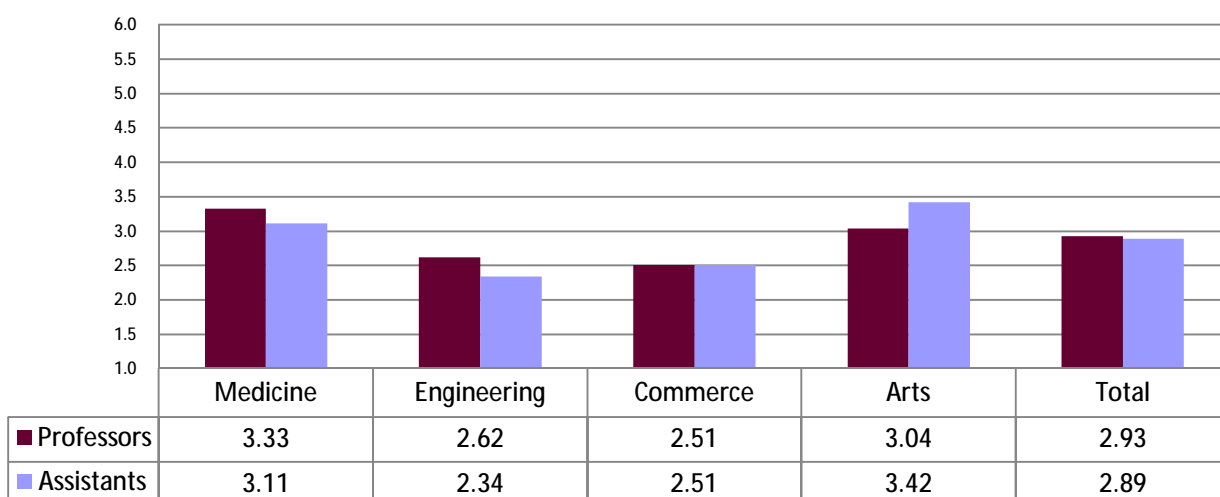
**Figure (39): “The Library Provides References & Books That I Need”**  
**The Average evaluation degree by beneficiary groups According to Specialization**  
**Scale from 1 to 6**



**Improvement in the level of new students who join the Faculty:**

The next figure shows the staff members' average agreement degree on the statement "There is an improvement in the level of new students who join the Faculty". It is clear that there is a general disapproval on this statement, especially in Commerce and Engineering Faculties.

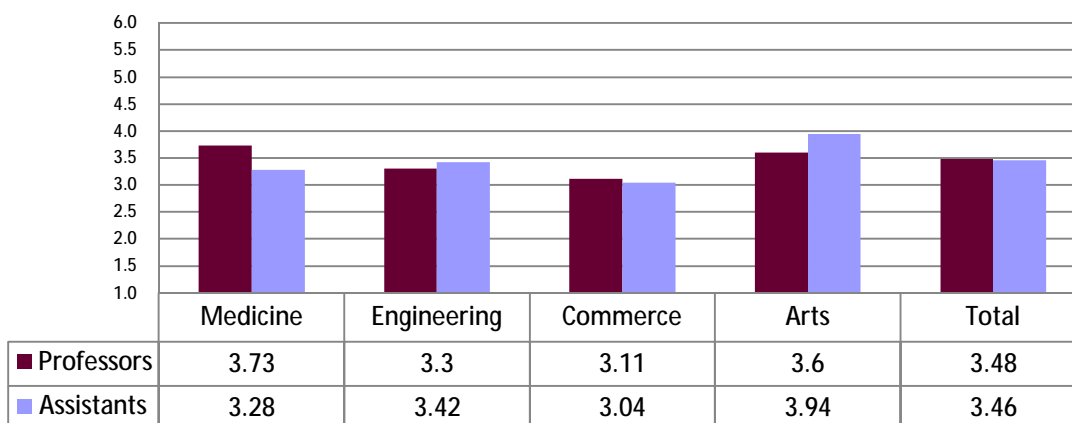
**Figure (40): “Improvement in the level of new students who join the Faculty”  
The Average evaluation degree by Staff Members and Assistants According to Specialization  
Scale from 1 to 6**



**The Faculty students` performance level is improving during various years of study:**

The following figure shows the staff members' & assistants` average agreement degree on the statement "The Faculty students` performance level is improving during years of study". It is clear that there is a medium agreement degree on this statement in general, and this degree increases within the Faculties of Medicine and Arts.

**Figure (41): “The Faculty students` performance level is improving during years of study”  
The Average evaluation degree by Staff members & Assistants according to Specialization  
Scale from 1 to 6**

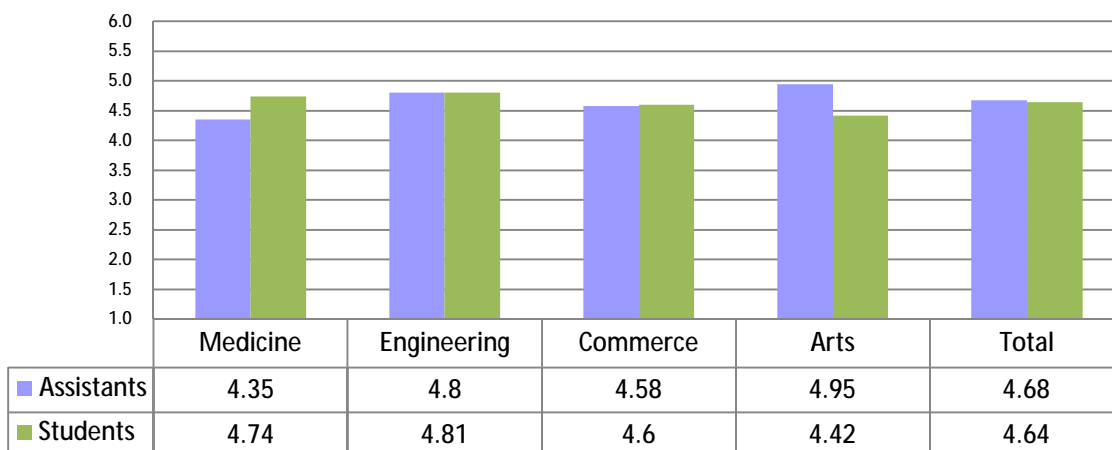


**I like the Faculty & have the Sense of belonging to it:**

Next figure shows the teaching assistants` and students` average agreement degree on the statement "I like the Faculty & have the Sense of belonging to it". It is clear that

there is a high degree of love and belonging generally among students and teaching assistants, and this degree increases within Faculties of Medicine and Engineering students. It is also noted that this degree is higher among students than teaching assistants within Faculty of Medicine, while this situation is reversed within the Faculty of Arts.

Figure (42): "I like the Faculty & have the Sense of belonging to it"  
The Average evaluation degree by Teaching Assistants & Students according to Specialization  
Scale from 1 to 6

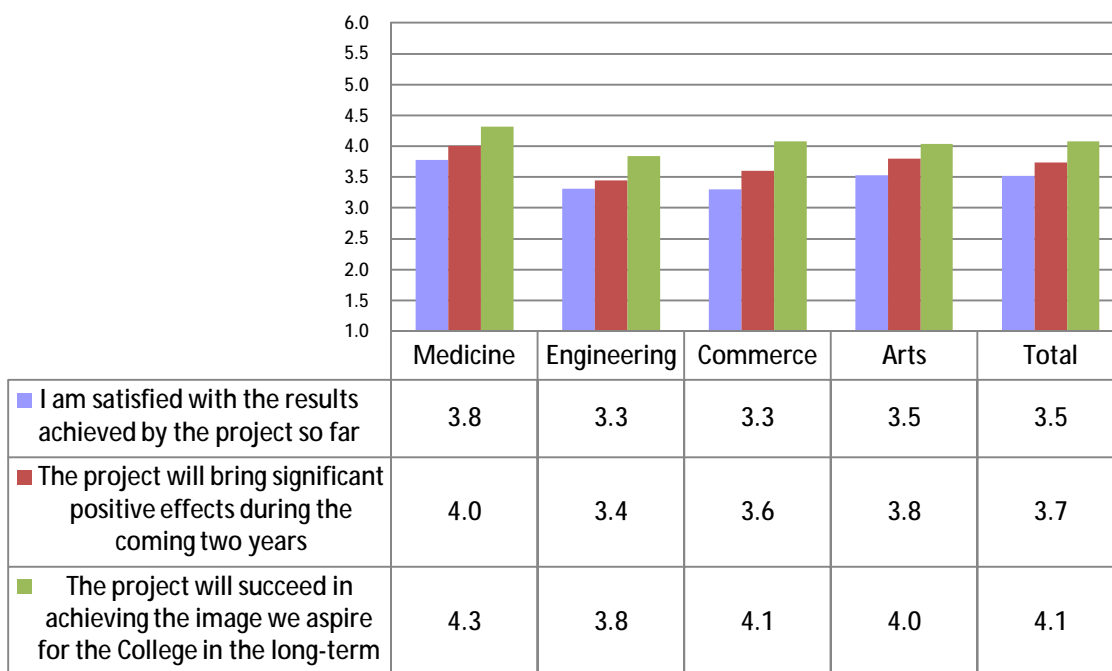


## Section Six: Future Vision, Constraints and Proposals

### The Faculty staff members` vision regarding the Higher Education Enhancement Project

It is clear from the following figure that there is a medium satisfaction degree among the staff members on the achievements accomplished through the project of enhancing higher education in general; this trend is more obvious within the Faculty of Medicine. As well as a degree of optimism about a positive outcome achieved by the project before 2010. Moreover, there is a significant optimism degree about achieving positive results concerning the targeted image of the Faculty and University in the long term.

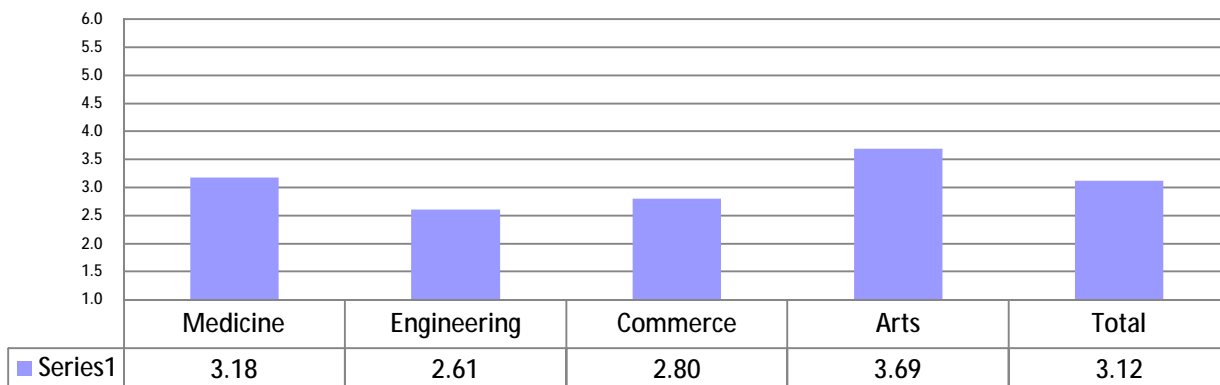
**Figure (43): The Faculty staff members` vision regarding the Higher Education Enhancement Project  
The Average evaluation degree according to Specialization  
Scale from 1 to 6**



### The Teaching Assistants Vision Regarding Higher Education in Egypt

Next figure shows the teaching assistants` average agreement degree on the statement "I am optimistic regarding the future of higher education in Egypt." It is clear that there is a medium degree of optimism among the teaching assistants of the Faculty of Medicine, this degree increases within the Faculty of Arts, while declines in the Faculties of Engineering and Commerce.

**Figure (44): "I am optimistic regarding the future of higher education in Egypt"  
The Average evaluation degree by Teaching Assistants according to Specialization  
Scale from 1 to 6**

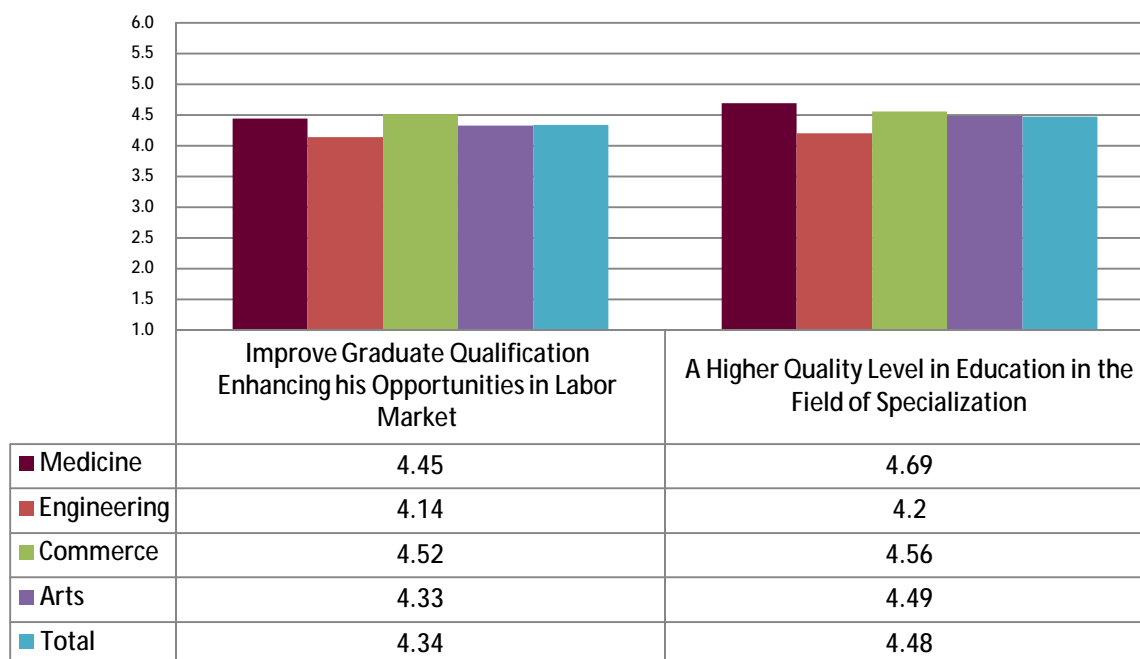


## Staff members` Viewpoint about the Effects and Constraints/Incentives Related to HEEP Implementation"

The following figure shows the staff members` average agreement degree regarding the capability of the HEEP in achieving positive outcomes related to graduate qualification level & quality of higher education

It is clear from the figure that staff members believe in the projects` capability to improve the graduate qualification, and hence increases his opportunities in labor market, moreover, to achieve better quality of higher education.

Figure (45): The Expected Impacts of the Project related to Graduate Qualification Level Of Education Quality by Staff Members according to Specialization - The Average evaluation degree Scale from 1 to 6



The following figure illustrates the staff members` viewpoint regarding the most important constraints and incentives that may affect the benefit from HEEP implementation. They believe that central administration, regulations and laws governing higher education could be barriers to achieve greater benefit from the HEEP implementation. Moreover, they mentioned catalysts for achieving higher benefit from the project these are; the increased competition between the faculties, among staff members within various faculties, and business owners related to different specializations

**Figure (46): Constraints and Incentives that may affect the Benefit from the HEEP  
Average Impact Degree, negatively or positively, on the project  
Scale from 1 to 6**



### Negative Aspects during the last Five Years in Higher Education Environment

The increasing number of students was considered the most significant negative aspect noted by the staff members. Moreover, some of the staff members do not recognize the HEEP properly, in addition to the lack of adequate scientific research facilities. Also, some staff members complained about improper attention given to their financial and moral status, as well as red tape and intransigence in some cases within the implementation of decisions by the University administration.

As for the teaching assistants, they mentioned the students` number increase within faculties of Arts, Commerce, and Engineering. They also complained about red tape and the University administration treatment within the faculties of Medicine and Engineering, also there were complaints about regulations and laws related to the M.A. discussion and forbidding obtaining M.A. from outside the Faculty where the assistant works.

The students` most important negative aspect was related to the exams, in terms of evaluation method, the exam place, and the results delay and being linked with faculty fees payment; such complaints were relatively more obvious within the faculties of Medicine and Commerce. Moreover, the students complained about their relation with the staff members, the schedule of lectures, the delay in providing books, some courses are not empirical and e-learning courses.

A complaint also appeared within the Faculty of Engineering about some of the specialized subjects being taught during the first year instead of third or fourth year. Students also mentioned the expensive books and high Faculty fees and lack of attention to expatriates. Some students demanded more attention to cleanliness of teaching rooms and restaurants.

### Positive Achievements during the Last Five Years in Higher Education Environment

Staff members believe that the development project is the most important positive achievement during the last five years within higher education. They also pointed to salary increases, and the higher attention given to them, as well as the development of textbooks and curricula.

Also, teaching assistants believe that such development project is the most important positive development achieved during the last five years within higher education, and then comes the increase in salaries and the electronic library project. Faculty of Medicine staff members mentioned both curriculum and explanation methods improvement as positives achieved outcomes.

Students have been asked about their viewpoint regarding the most important advantages occurred during their stay in faculty. They referred to student activities and making new friends, the style and way of explanation, as well as acquiring new skills and information, in addition to increase in their analysis capabilities.

### Important Proposals for Higher Education Development

Staff members demanded for the provision of all facilities required for the higher education development implementation & marketing, they also demanded more attention to scientific capacity and skills building for them, as well as supporting and developing the infrastructure and laboratories, increasing salaries, reducing the number of accepted students, developing of courses and books, caring about pre-University education, and reducing red tape.

Teaching assistants' proposals included the provision of the necessary facilities and support to encourage scientific research, greater promotion for the HEEP. They also mentioned the importance of linking courses to practice. Faculty of Medicines`

teaching assistants pointed to the attention needed for skills development, through the use of international expertise and the increase of specialized courses. While in the Faculty of Engineering claim was made to reduce the working hours and to increase salaries. Faculties of Arts and Commerce called for more attention to infrastructure.

## Conclusion

To determine the impact of HEEP implementation on different beneficiary groups, several Questionnaires were implemented among some of the Egyptian universities. Three universities were chosen; Cairo University, Mansoura University, and Assiut University. Four Faculties were also selected; Medicine and Engineering “Applied” faculties, and Arts and Commerce “theoretical” faculties.

The study focused on exploring the views of different beneficiary groups including; staff members, teaching assistants, post-graduate students, and third or fourth-year students. This was done through a series of questions concerning the implementation results of various programs related to the development project for each beneficiary group. Responses have been mostly adopted on a scale ranging from 1 to 6 degrees, to reflect the highest agreement degree of the questioned outcome.

It is clear from the respondents` answers, on questions concerning positive results achieved through the HEEP, that there is generally a medium satisfaction and agreement degree, as the average responses value ranged generally between 3 to 4 on the used scale, but at the same time no obvious values were appeared close to the value 6.

At the same time, some results had a weak average agreement level & lower than 3 on the used scale for some beneficiary groups, such as teaching staff and their assistants' dependence on the university's e-mail.

**Here is a quick summary of the main points of the report conclusions:**

- There is a high degree of communication between the development project and the staff members. However, there is a need for further objectives and programs clarification for the teaching assistants and students.
- Regarding the communication and information technology project, there is generally an agreement degree about the improvement in the Internet services level; in terms of ease of entry and the speed of loading and a constant level of service. However, a lower satisfaction degree was shown among students compared to staff members and their assistants.
- A great praise was made regarding the electronic library, as well as its ability in providing the needed references and studies, but more encouragement is needed for the expansion of using this feature among various beneficiary groups, where the results showed a large proportion of staff members and their assistants who are not dealing with the electronic library.
- Regarding teaching e-learning courses, opinions were divided between supporters and opponents students, due to the presence of some difficulties in teaching these courses, such as the lack of computers for all students, and the need to activate a mechanism that compensates the missing communication between the professor and student.
- There is a clear need for more activation of the e- mail usage among beneficiary groups.
- Regarding the FLDP, the staff members and their assistants have welcomed these courses, and have shown satisfaction about the diversity of training matrix, and the level of equipped centres and classrooms as well as the trainers' level. Reference was made to a significant benefit achieved from attending most of these courses, and they believe that providing these courses would create human capital within universities. However, there is a complaint improper dates and timing of these training courses, especially among the staff members.
- Regarding the quality and accreditation project, there is a positive trend among the staff members in terms of the need for its application, and there is satisfactory degree of communication and cooperation among the quality units and centres

within the faculties and universities. Also, a state of optimism has emerged regarding positive results achievement in the near future, as well as upgrading capabilities and qualifications of the graduate.

- A lack of knowledge about the Faculty mission content as well as a lack of content satisfaction has appeared in some cases among the students; this requires more publication and explanation of the Faculty mission for students, in order to familiarize them with the mission content and increase their convince with it.
- A moderate degree of optimism can be observed in general among the staff members regarding the possibility of positive results achievement through the project before the end of 2010. This degree increases for the long-term in terms of; better graduate upgrading and thus enhance his opportunities in labor market, as well as achieving better quality of higher education.
- Centralization and regulations as well as the laws governing higher education, appeared as barriers to achieve satisfactory benefits from the development project implementation. On the other hand, the staff members and business owners associated with various specializations, and the presence of a competitive environment among faculties have considered as catalysts that could help for the development project success.