# TRAINING NEEDS FOR FACULTY MEMBERS AT AL-ALBAYT UNIVERSITY FROM THEIR PERSPECTIVES IN THE LIGHT OF SOME VARIABLES 

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#### Abstract

The aim of this study is to detect the training needs of faculty members at Al-albayt University from their perspectives in the light of some variables. These variables include: Faculty, Gender, and the last eassessment degree. This is in a view of identifying the appropriate training programs for them during the first semester of the academic year 2015/2016, which will held by the Faculty Development Center (FDC) at Al-albayt University. To achieve this, a questionnaire consisted of 25 items was built and distributed in three fields, namely: teaching skills, research skills, and technological skills. The questionnaire was applied to a cluster sample consisting of 102 faculty members from Al-albayt University which was chosen randomly. Appropriate statistical methods was used to analyze the data. Results of the study showed that faculty members gave high importance to all the skills covered in the questionnaire. Thus, the most important field is the technological skills, followed by research skills, and finally by teaching skills. It was found that the most prominent training needs of technological skills is the "Use virtual labs". "Analyze quantitative and qualitative data using statistical programs" was the most prominent training needs of research skills, whereas "Development of thinking skills and solving students' problems" was the most prominent training needs of teaching skills. Also, results revealed statistically significant differences on the total tool due to the last e-assessment degree of member electronic questionnaire assessment which assess its performance in favor of the first level (which is less than or equal to 82\%). There is no statistically significant differences due to the variables of the faculty. The gender were revealed in the total tool and in the fields of research and technological skills. In light of the study findings, a number of conclusions and recommendations were suggested.


Keywords: Training Needs, Technology in Education, Training Programs, Faculty Members, E-assessment

## Introduction

In light of the rapid transformation which has become the most important features of this century, it is of great importance to develop the capacities of the faculty members at universities. Also, it is important to be aware of their training needs because of their impact and their primary role in raising the quality of higher education and its outputs (Al-Dougan, 2010; Alsabbag, 2014).

However, the process involved in the preparation of training programs is an organized process, and it is based on the collection of realistic data about training needs for faculty members. It is not an arbitrary or an improvisational process, but it is a starting point and the basis for proper training which is aimed at improving performance (Maria \& Rafael, 2010).

Harris (1980) defined training in the field of education as a planned program which consists of learning opportunities offered to faculty members in the educational institution in order to improve their performance in their specific work. Durrah et al. (1988) defined it as a regulator and as a planned voltage to provide manpower in the organization of certain knowledge, improving and developing their skills and capabilities, and changing its behavior and trends positively. However, Al-Sakarneh (2011) defined it as a planned activity designed to bring about changes in the individual and in the community in terms of information and experiences, skills, levels of performance, ways of working, and behavior and trends. Thus, this makes individual or group to be effective in doing their jobs in a high production efficiency.

Mitchell (1987) believes that the basic function of the training is to contribute in making the changes that will help in solving a large number of problems faced by the various institutions, including universities. Preskill \& Russ (2005) pointed that the training needs is a group of changes and developments that are required regarding a person's information, skills, and attitudes. Thus, this was aimed at meeting the business requirements and confront the problems that occurs in the organization. Furthermore, Brown (2002) believes that training needs must be determined in accordance with the foundations of objective criteria, based on scientific facts in light of the reality of work and personnel problems. Thus, it would help to address future problems because it is a preventive measure in protecting against these problems. In addition, it helps in determining the cost, time, and effort.

Training needs is not something constant which is measured and determined once. Thus, it is a flexible concept (Dynamic) which varies according to the experiences of faculty members and their abilities. It is also
affected by variables, local, and global developments which affects the educational institution. Therefore, training needs must be identifed in any institution on a regular basis, so that training efficiency will be adapted with contemporary changes and requirements (Abd Alāli, 2012; Rothwell \& Sredl, 2000)

The training needs of the University and faculty members can be classified into three main categories which are necessary for every educational institution and every educational system. These training needs are namely: regular frequent needs; needs that relate to the problems of work arising from the lack of knowledge, skills and innovation; and needs that aims to meet the future needs in response to the requirements of the environment (Morsi, 2001; Armstrong, 2006).

Hence, the lack of attention to these needs, both in terms of identifying them, or hand counted and assembled, often leads to loss of time, effort, and money (Elewa, 2001). This is confirmed by Alanzi (2012) who accurately determined that the needs of the trainees must precede the design of any training program, until the program achieve the desired goals.

The interest in identifying training needs provides information which contributes to the development of plans. Hence, this leads to the precise objectives of the training, and help in designing a targeted training programs that bridges the gap between the current performance of the faculty member and the hoped performance (Alsabbag, 2014; Noe, Hollenbeck, Gerhart \& Wright, 2004; Sadik, 2007)

Many studies of Arab and foreign research on the subject of training needs and evaluation was conducted. The researcher reviewed these studies in order to benefit from their procedures and instruments building. Thus, they are arranged from the newest to the oldest.

Al-Sulaiman \& Al-Najjar (2014) study aimed to identify the Kuwait University faculty members’ usage of the internet in the educational process and in scientific research. A questionnaire was administered to a sample of faculty members $\mathrm{N}=335$. However, results indicates that all faculty members have positive perceptions toward the importance of using internet in the educational process and in scientific research. Moreover, findings suggest that there are existence of statistically significant differences between the faculties of social studies, social sciences, and sciences studies. However, this is based on their perceptions on the importance of using the internet in scientific research in favor of the faculty members of science studies.

Lamtara (2014) study aimed to examine information and communication technology (ICT) practices of Moroccan english as a foreign language (EFL) teacher. Thus, the study was aimed at finding out about EFL teacher's ICT beleifs and practices in the classroom. The findings show that the Moroccan EFL teacher's ICT practices are disadvantaged by an exiting
dissonance between technological and pedagogical exploitation of teaching activities. Moreover, the study explains that despite the teacher's advancement in ICT skills, the technology was not used appropriately. Thus, this was because it did not reinforce pedagogical planning of teaching activities.

Saeed \& Othman (2014) study aimed to determine the point of view of Faculty of Education Staff Members on the role of training in professional development for staff members of Educational colleges in Sudan ("Edwards Deming" criteria's in quality...). Consequently, the study showed thirteen results. Thus, the most important ones is the training and specifying of the training needs. Scientific methodology are important for the professional development of staff members at the faculty of Education in Sudan. In addition, there are important training needs such as English Language, educational technologies, and several others.

Abdul Hafiz (2013) study aimed to identify the training needs of faculty members at community colleges in Jordan from their points of view regarding the integration of technology in higher education. The study will takes into account the impact of gender on those needs. According to the needs of this field, it will also suggest a training program for the purpose of integrating technology in community colleges in Jordan. The study sample comprises of 225 members. Results indicate that training needs were highly emphasized with a number of 36 which is $100 \%$. The results also indicate that there was no statistically significant difference in assessing the training needs of faculty members belonging to the gender variable.

The study of Elzubeir (2011) aims to prepare faculty for their roles as facilitators and assessors in a new implemented problem-based graduate entry medical program. Consequently, it was concluded that clinical faculty who are not specialized in medical education can offer high-quality and wellacceptable training for their peers. Faculty development, underpinned by a distributed leadership approach which supports learning organization tenets, imaginative, flexible and democratic approaches to developing and nurturing expertise at all levels of the organization, is likely to result in the improvements of medical education. Also, the information provided is useful both as a basis for decision making and program improvement.

The study of Al-Asmar (2009) was to determine faculty development needs according to their professional roles: teaching, research, management, and participation in community service from the point of view of Umm Al-Qura University faculty members. A survey instrument, demographic information, and professional development survey was developed and administered to 357 faculty members, consisting of fifty items. Results indicated that overall average of professional development needs was high in teaching, research, university management, and
participation in the Jung community service. Thus, there was a significant difference in the responses of the study population members of different gender and the academic position variable.

The results of Jung research (2005) showed that teaching is becoming one of the most challenging professions in our society. This is because knowledge is expanding rapidly and modern technologies are demanding teachers to learn how to use these technologies in their teaching. While new technologies increase teachers' training needs, they also offer part of the solution. Information and communication technology (ICT) can provide more flexible and effective ways of professional development for teachers, improve pre- and in-service teacher training, and connect teachers to the global teacher community. This research analyses and organizes a variety of approaches found in ICT uses in teacher training into a four-cell matrix. Based on the analysis of those approaches, it discusses new possibilities and challenges that ICT has brought to teacher training and professional development. It concludes with the discussion of emerging research issues with respect to ICT integration into teacher training and networking.

Whereas Preskill and Russ (2005) study presents a meta-evaluation of a beta-test of a customer service training program. The initial evaluation showed a low response rate. Therefore, the meta-evaluation focused on issues related to the conduct of the initial evaluation and reasons for nonresponse. The meta-evaluation identified solutions to the nonresponse problem to be related to authority, capacity, and motivation.

Based on the foregoing, it was clear that great attention was given to the studies on the subject of training needs. Also, it has a major role in determining the appropriate training programs for target groups from their point of view. Most of these studies used the descriptive analytical method. Its tool was the questionnaire, especially in studies between different Arab countries such as Jordan, Saudi Arabia, Egypt, Kuwait, Morocco and foreign countries university education. From here, this study aims to detect the training needs of faculty members at Al-albayt University from their perspectives in light of some variables (Faculty, Gender, and the last eassessment degree obtained by the faculty member from students electronic assessment of his performance). Thus, this was aimed in identifying the appropriate training programs for them during the first semester of the academic year 2015/2016, which was held by the Faculty Development Center (FDC) at Al-albayt University.

## Problems and Questions of the Study

The preparation and development of a faculty member take the attention of higher education institutions in various countries around the world. However, the university begins the professional development of the
faculty member since he held a particular job, and continue beyond that through specialized centers within the university framework, such as the Faculty Development Centers (FDC).

Al-albayt University is one of these institutions that is interested in identifying the training needs of faculty members from the viewpoint of the trainee himself. This was so because his participation gives him the opportunity to assess those needs, identify issues that needs to developed, and improve training programs. However, this continues until the program achieves the goals it seeks to get.

The current study seeks to answer the following questions:
1 . What is the relative importance of each item of the designed tool to find out the training needs for faculty members at Al -albayt University?
2. Does the training needs for faculty members at Al-albayt University differ depending on the faculty, Gender, and the last e-assessment degree obtained by the faculty member from student's electronic assessment of his performance and the interaction between these variables?

## The Aim of the Study

This study aimed to detect the training needs for Faculty members at Al-albayt University from their point of view. Also, it aims to know the effect of faculty, gender, and the last e-assessment degree obtained by the faculty member from students e-assessment of his performance. Subsequently, this is with respect to them identifing the importance of training needs in teaching skills, research skills, and technological skills

## Importance of the Study

The importance of the current study can be described by the following aspects:

First: Theoretically, it involves detecting the training needs at Alalbayt University. Also, it entails detecting if the estimation of the faculty members to these needs vary with the faculty to which the member belongs to, the Gender, and the last e-assessment degree obtained by the faculty member from students e-assessment of his performance and the interaction between these variables.

Second: In practical terms. its importance lies in the fact that it helps officials at Al-albayt University, specifically (FDC) to focus on the skills which are more needed by faculty members. In addition, it uses them to build their own training programs. Furthermore, it also provides the center (FDC) with feed back based on the results of this study. Researchers in other universities in Jordan or other Arab Universities which have the characteristics of Al-albayt University can also make use of the tools of this study.

## Operational Definitions

Faculty Members: Each one holds the rank of professor or associate professor or assistant professor, or a teacher, or a lecturer.

- Training Needs for Faculty Members: These are courses and workshops that faculty member hopes to participate in. It aims to develop their professional abilities according to the three fields: teaching skills, research skills, and technological skills. Thus, it is measured by the degree to which the faculty member gets on the questionnaire items.


## Limitations of the Study

1. The study was limited to a sample of faculty members at Al-albayt University, during the second semester of the academic year 2014/2015.
2. The ratio of $82 \%$ was adopted as a cut-off point to determine the levels of e-assessment degree obtained by the faculty member. However, it was a general estimation of the performance of faculty members at the university during the first semester of the academic year 2014/2015.
3. Generalizing the results of the study depends on the degree of the study tool validity, reliability, and its psychometric characteristics.

## Methodology of the Study

Participants
The population of this study consisted of all faculty members (383) at Al-albayt University during the second semester of the academic year 2014/2015, according to (FDC) statistics.

The study sample was chosen at random in cluster of various faculties of the university. The number of members reached was 102, which represents $26.63 \%$. Table (1) shows the distribution of the study sample according to three independent variables (faculty, Gender, and the last eassessment degree obtained by the faculty member from student's eassessment of his performance).
Table (1). Distribution of the study sample according to three independent variables (faculty, Gender, and the last e-assessment degree)

| Gender | Faculty | The last e-assessment degree |  | Total |
| :---: | :---: | :---: | :---: | :---: |
|  |  | less than or <br> equal to 82\% | higher than 82\% |  |
|  | Humanities | 9 | 26 | 35 |
|  | Science | 16 | 10 | 26 |
|  | Total | 25 | 36 | 61 |
| Female | Humanities | 9 | 11 | 20 |
|  | Science | 10 | 11 | 21 |
|  | Total | 19 | 22 | 41 |

## Instrument

To achieve the aim of this current study, a questionnaire was built in several steps, including: Reviewing theoretical background (theoretical framework) that are required for the training needs of faculty members, and reviewing of the literature of the educational topics that are related (such as Al-Sakarneh, 2011; Lamtara, 2014; and Maria \& Rafael, 2010). This study directs open question to be answered from a number of faculty members about the necessary training needs from the point of view. Then, in writing the questionnaire items in its initial form, it consisted of 35 items distributed in three fields (fields) which are: teaching skills, research skills, and technological skills.

The tool was presented to the committee of arbitrators which consisted of 12 member from the Faculty of Education at Al-albayt University. These members were interested and willingness to spend enough time for arbitration in order to verify the virtual honesty of the tool (content validity). The committee of arbitrators express their views in items tool, to estimate the extent of affiliation of the fields that falls under it, and if it represenst the training needs for a faculty member at the university. Some of them suggested the addition of other needs, delete duplicate requirements or overlapping, and modify the language of some of the other items, after the amendment, deletion, and addition of the tools have received the approval of the Commission. The final tool is composed of 25 items, which are distributed in three fields: teaching skills (12) items, research skills (7) items, and technological skills (6) items.

To estimate the reliability of the tool, internal consistency reliability coeffecient of the scale (after its application to a sample consisting of 29 faculty members of the study population and outside the study sample) was estimated using Cronbach Alpha. Hence, the internal consistency coefficient was 0.88 , and in using Guttman equation, it was 0.82 .

The quintet Likert scale (strongly agree, agree, niether, disagree, strongly disagree) was used and given grades (5, 4, 3, 2, 1), respectively. This is because it is the most common response for each item. In addition, the lowest score obtained by the responder is 25 on the tool as a whole, while the highest score is 125 . According to the fields, they are ranged from 1260 for teaching skills field, between 7-35 for research skills field, and between 6-30 for the technological skills field.

## The Study Procedures

The researcher distributed the questionnaire (25) items to the participants of the study. The researched explained to them that this questionnaire (FDC) aims to detect the training needs of faculty members at Al-albayt University from their point of view. It also aims to identify the
impact of each of the faculty, gender, and the last e-assessment degree, with respect to identifing the importance of the training needs.

He asked the participants to give the tool the importance it deserves, and to answer its items accurately and credibility. Thus, their answers will be subject to analysis in order to identify them with the necessary training courses they need in the next semester (first semester of the year 2015/2016).

The questionnaires were corrected, and a score was extracted for each faculty member in the total tool. Furthermore, the degree of each sub-tool field was considered in order to answer the study questions.

## The Study Variables:

The study included the following variables:

- Independent variables, namely:

Faculty: It has two levels, Humanities and Science. Gender: It has two levels, Male and Female.
The Last E-assessment Degree: It has two levels, Less than or equal to $82 \%$ and higher than $82 \%$ (general estimation for the performance of faculty members at the university).

## - The Dependent Variable

The dependent variable is the estimates of faculty members on the questionnaire which is prepared. However, this was aimed in identifying the training needs of the faculty members at the university. Also, it consists of 25 items, distributed in three Fields (fields): teaching skills, research skills, and technological skills.

## Statistical Treatment

To answer the study questions using statistical software (SPSS), the relative importance, means, and standard deviations were extracted for each item of the questionnaire in order to answer the first question. In addition, 3Way ANOVA and MANOVA using Hotelling test were used to answer the second question of the study.

## Results and Discussion

To answer the first question, " What is the relative importance of each item of the designed tool to find out the training needs for faculty members at Al-albayt University" ?.

The relative importance, the means, and the standard deviations were extracted for each item of the Questionnaire. Thus, this was done for each field, and for the total tool as shown in Table (2).

Table (2). The relative importance, the means, and the standard deviations of the tool items in descending order.

| Number of Item | Rank | Item Content | Mean | Standard <br> Deviation | Relative Importance $\%$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| A21 | 3 | Use virtual labs. | 4.12 | 0.735 | 82.35 |
| A20 | 5 | Design teaching courses electronically. | 4.08 | 0.829 | 81.57 |
| A23 | 6 | Design computerized adaptation exams. | 4.07 | 1.092 | 81.37 |
| A22 | 7 | Design educational sites on the internet. | 4.02 | 0.879 | 80.39 |
| A25 | 10 | Set electronic office hours to respond to students' enquiries through direct conversations. | 3.87 | 0.864 | 77.45 |
| A24 | 11 | Submit and receive assignments to/from students electronically. | 3.83 | 0.996 | 76.67 |
| Training needs in technological skills |  |  | 4.00 | 0.549 | 80.03 |
| A19 | 1 | Analyze quantitative and qualitative data using statistical programs. | 4.21 | 0.825 | 84.12 |
| A18 | 2 | Publish researches in international magazines. | 4.14 | 0.732 | 82.75 |
| A16 | 8 | Arts of presenting researches in local and international conferences. | 3.99 | 0.814 | 79.8 |
| A15 | 9 | Use of basics of scientific translation. | 3.87 | 0.908 | 77.45 |
| A13 | 12 | Write and prepare research plans. | 3.73 | 0.977 | 74.51 |
| A14 | 13 | Possession of scientific research ethics. | 3.73 | 0.914 | 74.51 |
| A17 | 24 | Use of international data bases. | 2.78 | 1.199 | 55.69 |
| Training needs in research skills |  |  | 3.78 | 0.597 | 74.55 |
| A9 | 4 | Development of thinking skills and solving students' problems. | 4.11 | 0.795 | 82.16 |
| A10 | 14 | Design university exams. | 3.69 | 0.995 | 73.73 |
| A12 | 15 | Employ results of exams and utilize them to develop the course. | 3.69 | 0.901 | 73.73 |
| A11 | 16 | Analyze data of university exams. | 3.68 | 0.966 | 73.53 |
| A7 | 17 | Grab students' attention while teaching. | 3.31 | 1.024 | 66.27 |
| A6 | 18 | Steer students towards self-learning. | 3.3 | 1.133 | 66.08 |
| A8 | 19 | Motivate students to learn and receive their participation and questions. | 3.19 | 1.326 | 63.73 |
| A4 | 20 | Application of teaching methods and educational counseling and guidance. | 3.02 | 1.243 | 60.39 |
| A3 | 21 | Use of proper teaching methods. | 3.01 | 1.316 | 60.2 |
| A2 | 22 | Possession of principles and ethics of teaching at university. | 3 | 1.298 | 60.14 |
| A1 | 23 | Preparation of a syllabus for the course explaining the objectives, topics, test dates, and basic references. | 2.81 | 1.355 | 56.27 |
| A5 | 25 | Effective management of the lecture | 2.74 | 1.455 | 54.71 |
| Training needs in teaching skills |  |  | 3.29 | 0.672 | 65.87 |
| Total |  |  | 3.60 | 0.536 | 71.96 |

Data in the table (2) shows clearly the extent of the relative importance attached by faculty members at Al-albayt University for all training needs contained in the study tool. The three Fields of the questionnaire have received considerable attention from all faculty members. Items of the relative importance (0.75) or higher, or a mean (3) or higher, belong to the three Fields, and not to one particular field only. Also, the relative importance of the total tool is $71.96 \%$, which is a good percentage. This result is consistent to some extent with some of the studies that have looked at identifying faculty training needs such as the study of Alsulaiman \& Al-Najjar (2014) and Lamtara (2014).

As can be seen, the faculty members have given a great importance to technological skills. The mean of this field was 4.00 with relative importance (80.03\%). However, the field of research skills came after with a mean 3.78 and a relative importance of $74.55 \%$. This could be interpreted that the faculty members are interested in the technological skills in order to keep pace with the technological development in the academic field, especially "Using virtual labs" as well as the "Design teaching courses electronically". More than their interest in teaching skills, it is possible to develop their teaching skills through technological methods across different communication methods. This methods include the Internet which was provided by the university for all faculties in their offices and laboratories. Thus, this is consistent with the study of Lamtara (2014) and Jung (2005).

From Table (2), we also note that all the items of the questionnaire have a relative importance more than the neutral level ( $60 \%$ ). The means is higher than the neutral mean (3) with the exception of item (5) "Effective management of the lecture." However, its relative importance was 54.71\%, and the mean was 2.74. Item number (17) "Use of international data bases" came after with relative importance of $55.69 \%$, and the mean was 2.78 . Then, for item (1) "Preparation of a syllabus for the course in explaining the objectives, topics, test dates, and basic references", its relative importance reached $56.27 \%$ and the mean was 2.81 . The lack of the need for faculty members to those skills may be due to the workshops held by FDC for newly appointed faculty. However, they include skills, as well as skills to build a university tests and computerization tests, and workshops that are related to a university systems and instruction. Thus, the vast majority of the faculty members have full knowledge about these skills. In addition, the daily experience in the field of teaching has helped faculty members to acquire those skills.

Also, it appears from the Table (2) that the faculty members have remarkably confirmed the importance of the items "Analyze quantitative and qualitative data by using statistical programs", " Publish researches in international magazines", and "Use virtual labs". This is normal because of
the urgent need of faculty members to analyze the results of his tests, and the results of his research by himself. The longing to see the Use virtual labs course that would be held in the next semster is a clear indication that the next training program for faculty members must contain workshops and courses in statistical analysis. However, such analysis uses the Statistical Package for Social Sciences (SPSS) software as well as some modern statistical software such as Bilog- MG3 and others.

To find out the results of the second question, "Does the training needs for faculty members at Al-albayt University differ depending on the faculty, Gender, and the last e-assessment degree obtained by the faculty member from student's electronic assessment of his performance and the interaction between these variables"?

Means and standard deviations were extracted for the total tool, and sub- three fields (teaching skills, research skills, and technological skills) according to the variables of faculty member (faculty, gender, and the last eassessment degree), as shown in Table (3).
Table (3): Means and standard deviations for the total tool, and sub- three fields (teaching skills, research skills, and technological skills) according to the variables of faculty member
(faculty, gender, and the last e-assessment degree)

| Faculty | Gender | Last eassessmen t degree | N | Teaching Skills |  | Research Skills |  | Technologica I Skills |  | Total |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Mea ns | Std. | Mea ns | Std. | Mea ns | Std. | Mea ns | Std. |
| Humani ties | Male | less than or equal to 82\% Higher than 82\% Total | 9 <br> 26 $35$ | $\begin{aligned} & 3.08 \\ & 3.21 \\ & 3.18 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.554 \\ & 0.565 \\ & 0.557 \end{aligned}$ | $\begin{aligned} & 3.44 \\ & 3.85 \\ & 3.75 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.323 \\ & 0.497 \\ & 0.489 \end{aligned}$ | $\begin{aligned} & 3.69 \\ & 4.09 \\ & 3.99 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.556 \\ & 0.445 \\ & 0.501 \end{aligned}$ | $\begin{aligned} & 3.33 \\ & 3.60 \\ & 3.53 \end{aligned}$ | $\begin{aligned} & 0.397 \\ & 0.448 \\ & 0.447 \end{aligned}$ |
|  | Female | less than or equal to $82 \%$ Higher than 82\% Total | $\begin{gathered} 9 \\ 11 \\ 20 \\ \hline \end{gathered}$ | $\begin{aligned} & 3.29 \\ & 3.24 \\ & 3.26 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.785 \\ & 0.569 \\ & 0.656 \end{aligned}$ | $\begin{gathered} 3.7 \\ 3.64 \\ 3.66 \\ \hline \end{gathered}$ | $\begin{aligned} & 0.569 \\ & 0.607 \\ & 0.576 \end{aligned}$ | $\begin{aligned} & 4.06 \\ & 3.88 \\ & 3.96 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.635 \\ & 0.489 \\ & 0.551 \end{aligned}$ | $\begin{aligned} & 3.59 \\ & 3.51 \\ & 3.54 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.642 \\ & \\ & 0.423 \\ & 0.519 \\ & \hline \end{aligned}$ |
|  | Total | less than or equal to 82\% Higher than $82 \%$ Total | 18 <br> 37 <br> 55 | $\begin{aligned} & 3.19 \\ & 3.22 \\ & 3.21 \\ & \hline \end{aligned}$ | $\begin{gathered} 0.668 \\ 0.558 \\ 0.59 \\ \hline \end{gathered}$ | $\begin{array}{r} 3.57 \\ 3.79 \\ 3.72 \\ \hline \end{array}$ | $\begin{aligned} & 0.467 \\ & 0.533 \\ & 0.518 \\ & \hline \end{aligned}$ | $\begin{array}{r} 3.87 \\ 4.03 \\ 3.98 \\ \hline \end{array}$ | $\begin{aligned} & 0.609 \\ & 0.462 \\ & 0.515 \\ & \hline \end{aligned}$ | $\begin{aligned} & 3.46 \\ & 3.57 \\ & 3.53 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.534 \\ & 0.437 \\ & 0.469 \\ & \hline \end{aligned}$ |
| Science | Male | less than or equal to 82\% Higher than 82\% Total | $\begin{aligned} & 16 \\ & 10 \\ & 26 \end{aligned}$ | $\begin{aligned} & 3.59 \\ & 3.03 \\ & 3.38 \\ & \hline \end{aligned}$ | $\begin{gathered} 0.808 \\ 0.653 \\ 0.79 \\ \hline \end{gathered}$ | $\begin{aligned} & 4.04 \\ & 3.63 \\ & 3.88 \\ & \hline \end{aligned}$ | $\begin{gathered} 0.621 \\ 0.64 \\ 0.647 \end{gathered}$ | $\begin{gathered} 4.15 \\ 3.77 \\ 4 \\ \hline \end{gathered}$ | $\begin{aligned} & 0.544 \\ & 0.594 \\ & 0.583 \end{aligned}$ | $\begin{aligned} & 3.85 \\ & 3.37 \\ & 3.67 \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.618 \\ & 0.549 \\ & 0.627 \\ & \hline \end{aligned}$ |
|  | Female | less than | 10 | 3.78 | 0.788 | 4.13 | 0.589 | 4.23 | 0.615 | 3.98 | 0.665 |



The data in Table (3) indicate that faculty members in the Scientific faculties have received higher degrees than their colleagues in the Humanity faculties in the total tool. However, the mean of the scientific faculties is 3.67 compared to 3.53 for humanity faculties. Consequently, it was in the sub- three fields, where Scientific faculties mean in the field of teaching skills, research skills, and technological skills are 3.39 ,3.85 and 4.02, respectively compared to $3.21,3.72$, and 3.98 for humanity faculties.

The data in Table (3) also indicate that the female faculty members received means higher than the male in the total tool. The males degrees mean is 3.59 compared to 3.61 for females. Also, the females degrees mean in the field of teaching skills has reached 3.34 compared to 3.26 for males. In the field of research skills, the females degrees mean is 3.74 compared to 3.80 for males. Finally, in the field of technological skills, the females degrees mean is 4.01 compared to 3.99 for males.

From Table (3), one can note the differences between the faculty members means in obtaining e-assessment degree less than or equal to $82 \%$ (first level) and those which are higher than 82\% (Level II) in the total tool. Furthermore, the faculty members at the first level have received means
higher than the second level. The mean of the first level was 3.72 compared to 3.51 for the second level. In the sub- three fields of the tool, the mean of the first level in the field of teaching skills was 3.47 compared to 3.16 for the second level. In the field of research skills, the mean was 3.87 compared to 3.71 for the second level. Thus, in the field of technological skills, the mean was 4.05 compared to 3.96 for the second level.

To ensure that the significances of these differences, 3-Way ANOVA analysis had been conducted on the total tool, and the (Hotelling) test had been used to analyze MANOVA. However, the three fields (teaching skills, research skills, and technological skills) are dependent variables. Table (4) shows the results of 3-Way ANOVA analysis of study sample on the total tool.

Table (4): Results of 3-Way ANOVA analysis of study sample on the total tool.

| Source of variance | SS | DF | MSS | F value | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Faculty <br> Gender | 0.491 | 1 | 0.491 | 1.86 | 0.176 |
| Last e-assessment <br> degree | 1.07 | 1 | 1.07 | 4.048 | 0.047 |
| Gender*Faculty <br> Faculty * Last e- <br> assessment degree <br> Gender * Last e- <br> assessment degree <br> Faculty * Gender * <br> Last e-assessment <br> degree | 0.00001 | 1 | 0.00001 | 0 | 0.996 |
| Error | 0.293 | 1 | 1 | 2.21 | 8.363 |
| Corrected Total | 24.842 | 94 | 0.293 | 1.11 | 0.005 |

Table (4) shows that there were no statistically significant differences at the level of significance $(\alpha=0$. 05) between the means estimates due to faculty and gender variables. Thus, F values reached 1.860 and 0.580 , respectively. The results showed no statistically significant differences at the level of significance ( $\alpha=0$. 05) between the means estimates of a questionnaire for faculty members due to the variable Last e-assessment degree in favor of the first level (which is less than or equal to 82\%). Also, the value of F has reached 4.048 . Furthermore, there were no statistically significant differences in the interactions of bilateral and trilateral interactions between the current study variables. This was with the exception of the degree of interaction between Faculty and Last e-assessment degree. The value of F was 8.363 , which was statistically significant at $\alpha=0.05$.

From previous results, it can be said that there is a consensus or an agreement between the faculty members of humanity and scientific faculty
on the importance of training programs despite the non significant virtual differences. With respect to gender variable, there was agreement on the training needs between faculty members which were both male and female. Therefore, this shows that the training needs at Al-albayt University has a relative stability and objective from the viewpoint of faculty members. Lack of differences may be due to the faith of the faculty members on the importance of taking their suggestions and perceptions. This occurs before starting the implementation of the training programs or perhaps arbitrarily implemented.

This agrees with the study indicated by Brown (2002) which determines training needs from the viewpoint of the trainee himself. It helps in reducing future problems, and is a preventive measure for protection against problems facing the training program. Also, it helps to determine the cost, time, and effort. This result is consistent with the results of a study (Alsulaiman \& Al-Najjar, 2014) which indicated that the faculty members have a high positive perceptions about training needs, particularly towards research and technological skills. On the other hand, the result of the current study contradict the results of the same study which indicated the existence of differences among faculties in the identification of the training needs of faculty members from their point of view in favor of scientific faculty. It is also consistent with the results of Lamtara (2014) and the study of Jung (2005), which referred to the need to focus on technological skills.

Regarding the variable of gender, the results of the current study has agreed with the result of Sadik (2007) study and Abdul Hafiz (2013) study which indicated no differences of gender in the training needs. It also differed with the result of Al-Asmar (2009), which indicated differences of gender in training needs.

With respect to the Last e-assessment degree variable, it was observed from Table (4) that there was statistically significant differences ( $\alpha$ $=0.05)$ between the means estimates due this variable. $F$ value reaches 4.048, and the differences are in favor of the first level (last e-assessment degree less than or equal to $82 \%$ ). Also, one can note the existence of the effect of the interaction between the Last e-assessment degree and faculty. Here, F reached the value of 8.363 . Perhaps, this reason is based on the faith of the first level of faculty members. This shows that the information resulting from the estimates they make about the training needs from their point of view would be the basis for the right decision to take and develop the necessary training programs. Thus, this was according to a study (Elzubeir, 2011) which indicated that the information provided is useful both as a basis for decision making and for program improvement.

To answer the second part, MANOVA was conducted using Hotelling test. However, the impact of each of the faculty, gender, and the

Last e-assessment degree on the three fields of the tool (teaching skills, research skills, and technological skills), is as shown in Table (5).
Table 5: Results of MANOVA for the impact of study variables (faculty, gender, and the Last e-assessment degree) on the three fields of the tool (teaching skills, research skills, and technological skills).

| Source of deviation | Fields | SS | DF | MSS | F value | Sig. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| FacultyHotelling $=0.013$ | teaching skills | 0.338 | 1 | 0.338 | 0.774 | 0.381 |
|  | research skills | 0.273 | 1 | 0.273 | 0.816 | 0.369 |
|  | technological skills | 0.019 | 1 | 0.019 | 0.062 | 0.805 |
| Gender <br> Hotelling $=0.022$ | teaching skills | 0.075 | 1 | 0.075 | 0.171 | 0.68 |
|  | research skills | 0.16 | 1 | 0.16 | 0.478 | 0.491 |
|  | technological skills | 0.002 | 1 | 0.002 | 0.007 | 0.936 |
| Last e-assessment degree <br> Hotelling=0.043 | teaching skills | 1.815 | 1 | 1.815 | 4.156 | 0.044 |
|  | research skills | 0.447 | 1 | 0.447 | 1.336 | 0.251 |
|  | technological skills | 0.189 | 1 | 0.189 | 0.613 | 0.436 |
| Error | teaching skills | 42.798 | 98 | 0.437 |  |  |
|  | research skills | 32.794 | 98 | 0.335 |  |  |
|  | technological skills | 30.163 | 98 | 0.308 |  |  |
| Corrected Total | teaching skills | 45.593 | 101 |  |  |  |
|  | research skills | 33.819 | 101 |  |  |  |
|  | technological skills | 30.416 | 101 |  |  |  |

Table (5) shows significant statistically difference at $\alpha=0$. 05 . Thus, this difference is caused by Last e-assessment degree variable in the field of teaching skills. F value is 4.156, and this result is in favor of the first level (which is less than or equal to $82 \%$ ). This result may be because the first level are more interested in the development of their academic aspects than the second level. So, they need to hold training courses tailored to their needs. The reason may also be that they did not attend training courses held by FDC at the university because of the lack of a mandatory requirement to attend. The current trend of holding training courses may be due to the trends of FDC and in cooperation with the presidency of the university to connect the degree of electronic assessment with the quantity and quality of training courses. Subsequently, this must be attended by a faculty member for the purposes of scientific promotion from the rank of an assisstant professor to an associate professor or a full professor.

Also, Table (5) shows that there were no statistically significant differences at $\alpha=0$. 05 , in the means estimates of faculty members at Alalbayt University. Thus, this is based on the training needs according to the
faculty and gender variables in the three fields of the tool. This result confirms the result of the study on the total tool. This means that faculty members (male and female) in the scientific and humanity faculties using the e-assessment questionnaire have a high preference of training needs in the field of teaching, research, and technological skills.

Based on the above, this study has achieved two main objectives. First, the development of tool in the training needs of faculty members at Alalbayt University. Second, is in determining the most prominent training needs from the perspective of the faculty members themselves. Also, it determines the differences in their estimates of these variables depending on the needs of the faculty, gender and the last e-assessment degree. Results of the study revealed a statistically significant difference which was due to the last e-assessment degree variable in the total tool and in the field of teaching skills in favor of the first level (last e-assessment degree less than or equal to $82 \%$ ). There is no statistically significant differences in the fields of the tool depending on the faculty and gender variables. Also, it revealed the most prominent training needs of faculty members that needs to be held. This may help the faculty member at the university to fill the gaps in his work, in order to improve their quality and the quality of university education. This can be achieved by providing the university administration and FDC with scientific information to enable them to make decisions about the actual training programs that will be held during the first semester of the academic year 2015/2016. Thus, this was done in order to improve the performance of faculty members and to upgrade university professors.

## Recommendations and Suggestions

In light of the current study findings, the researcher gave some recommendations and suggestions. Firstly, there is a need to give the estimates of faculty training needs utmost importance by the university administration and FDC at our University. Thus, this is because it will contribute to the improvement of the educational process at the university, and saves time and effort necessary to convene the sessions. Hence, this are not required by faculty members and cost. Provide trainees with feed back which will enable them to avoid weaknesses and strengthen the teaching, research, and technological skills. This comply training efficiency with contemporary changes and the requirements of the trainee. The researcher recommends holding a series of special training programs for faculty members at FDC in the preparation of those programs. Also, FDC centers must take into account the result of the current study in the field of teaching, research, and technological skills. Specifically, the training courses on "Use virtual labs", "Analyze quantitative and qualitative data by using statistical programs", and "Development of thinking skills and solve students'
problems" is taken into account. Moreover, the researcher recommends that research and studies on training needs for faculty members must be held periodically, and the need to take other variables which may have an impact on the training needs such as academic rank, and the number of training courses. Finally, there is need to take advantage of the current study tool, try in developing it, and coordinate with the university computer center on the need for computerization. This was done such that at the end of each semester, it can be answered by faculty member electronically through the website. However, FDC could identify training programs from this point of view through the next semester. This contributes to improving the quality of the training programs held in FDC for the sake of the service of the university orientations. Therefore, it aims at linking the quality and quantity of the courses of future scientific promotions for faculty members.

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