

Effectiveness of a Training Program to Qualify Home-economics Female Graduates to Start Small Businesses

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The research is funded by the Deanship of Scientific Research, Najran University (NU/SHED/14/124)

Abstract

This study aims to prepare a training program to qualify the female graduates to start small businesses, and to investigate the validity of the program in acquiring knowledge and skills through making handicrafts. The experimental method was used in this study. The instruments of the study are the training program, achievement test, skill test and assessment measure. The skills of the study are limited to preparing furniture for children's rooms: Curtains, tapestry, quilt, cover of tissue box, toy box, table cloths, box for keeping pens, pillows and floor pillows. The study resulted in the effectiveness of the training program conducted in this study to qualify the Home-economics female graduates to establish small businesses and to make use of their skills and competencies for making progress in economic development and community service.

Keywords: effectiveness, training program, home economics, graduates, small businesses.

1. Introduction

Handicraft production is a relatively small business sector in Saudi Arabia. Yet, for a growing number of people this is a means to gain an income, gain new skills and to be empowered in their daily lives. Researchers and operators alike have tried time and again to identify the competencies, skills and knowledge that are necessary prerequisites for successful small businesses. Furthermore, these individuals have proposed methods of implementing such skills in ways that can lead to the vitalization or revitalization of the community's economy, the creation of jobs and the practice of professional development. The economy may be improving, but that doesn't mean it's any easier for today's college graduates to find a good, full-time job. The job market is highly competitive, and even if you're perfectly qualified for a position, there's no guarantee that you'll get it. So, there is a new trend for human resources to seek for new ideas for starting small businesses.

Human resources are one of the most important pillars of economic and social development. Its development is a series of procedures and principles that meant to organize individuals to get the maximum benefit from the human efficiencies and get the best prospects, and is the gateway to fulfill the overall development process (Abdel-Latif, 2008). Human resources are the most important asset of the organization, a real resource that provides potentialities, creates, innovate and manage other assets at the organization (Cushway, 2002). Training process occupies a pivotal and essential role in modern institutions and organizations, and constitutes the backbone of the efforts made by these institutions towards development and updating; the interest in human resources is the only way for the advancement of communities. (Al-Seweidan, 2009).

Both training and development are closely linked to the development of human resources for achieving human development and therefore developing the communities in all social, economic and cultural fields. Psychologists regard training as one of the solutions offered to solve the recent cultural problems, training is considered as an investment in human resources to enable the individuals to play the role assigned to them in the modern environment framework, and help them cope with the conditions of work. (Marei, 2005). Training is the tool of development if properly made use of to achieve efficiency in performance and production; training reinforces human resources, which in turn contributes to increase production efficiency of the organization as a whole (Al-Sayed, 2010); training is a planned activity aimed to bring about changes in the information, skills and experience and trends of individuals. There are many studies conducted about training and the importance to raise the efficiency of the trainees such as the study of (Wells, 1995), (Randall and Jin, 1997), (Rifai, 1999, 2002), (Bo HSU & Kleiner, 2000), (Peckford, 2000), (Morrow, 2001) and (Abdel-Fattah, 2010), which all confirmed the importance of training programs in raising the efficiency of the trainees and human resource development.

Other studies assured the importance of training to identify the needs that will help push the wheel of human development such as the study of both (Phillips, 2002), (VU, 2003), (Blyth, 2004), (Akuratiyagamage & Vathsala, 2005), and (Anonymous, 2006). Unemployment is a prevalent phenomenon and common in the Arab world that is difficult to ignore. The vast majority of the unemployed are from university female graduate students and this means wasting competencies and human resources that have been invested in the educational process without any return. There is no doubt that small businesses play an important and effective role in

overcoming this problem. (Mejala, 2000), (Al-Salhi, 2004) and (Haddad and Al-Khatib, 2005) stressed that small businesses are providing job opportunities for female graduate students and contribute to addressing the problem of unemployment, as well as raising the standard of living and income, small businesses are responsible for achieving optimum exploitation for idle human resources depending on the features of these projects that are more spread and popular than large industries.

There is no doubt that universities and educational institutions are the common denominator in any comprehensive development processes taking place at the state level, where they are at the first place assigned to the development of trained human resources to participate in increasing production.

Hence, the Department of Home Economics is regarded as one of the scientific majors at Colleges of Education that can contribute in guiding the female graduates towards the establishment of small businesses because home economics contributes to provide quality production skills for female students and graduates, who require support to face unemployment and to meet the needs of the community and contribute to solving the problems.

Consequently, the authors conducted the current study to set up a training program for qualifying the female graduate students of the Department of Home Economics at the College of Education, University of Najran, for establishing small businesses and to strengthen human development.

1.1 Statement of the problem

The following questions outline the problem of the study:

1. What is the role played by the Department of Home Economics at the College of Education in the University of Najran to support and develop female graduate students?
2. What are the scientific methods on which the training program is based to make female graduates of Home Economics Department acquire knowledge and skills that qualify them for the establishment of small businesses?
3. What is the effectiveness of the training program in providing basic knowledge for establishing small businesses through the production of handicrafts?
4. What is the effectiveness of the training program in providing basic skills for the establishment of small businesses through the production of handicrafts?

1.2 Objectives

1. To identify the role played by the Department of Home Economics, College of Education at the University of Najran, to support and develop female graduate students.
2. To prepare a training program to qualify female graduates to establish small businesses.
3. To verify the effectiveness of the training program to provide female graduates with the basic knowledge for the establishment of small businesses through the production of handicrafts.
4. To verify the effectiveness of the training program to provide female graduates with the basic skills to establish small businesses through the production of handicrafts.

1.3 Importance of study

1. Highlighting the role of educational institutions in the development of human resources.
2. Opening new horizons for graduates of the Department of Home Economics for the establishment of small businesses and to exploit their potential and competence in advancing of economic development and community service.
3. Help to solve the problem of unemployment and the development of community through finding new business fields for female graduates and improving their performance level, thereby positively affecting the economic income.

1.4 Terms of the study

- Effectiveness

Effectiveness is meant to determine the desired or expected impact caused by the program in order to achieve the objectives, and that impact or result is measured by identifying the increase or decrease in the mean scores of the respondents of the study (Sadiq and Abu Hatab, 2000).

- Program

A plan set to achieve some work (al mu'jam al wajiz, 2003). A specific number of steps set to perform a specific task in a specific manner and time (Redha, 2005).

- Training

An integrated continuous systematic effort aimed to enrich and develop the knowledge and skill of the individual to perform their work efficiently and effectively (Imran, 2009).

- Training Program

Training program is a continuous activity that starts with planning and ends with assessment, and is designed to provide individuals with knowledge and skills in specific areas to improve their performance at work, or change their attitudes and patterns of behavior for the performance of their current or future career so as to help achieve the goals of this work. (Redha, 2005).

- *Small businesses*

They are known as projects, which run within small institutions, employing a small number of individuals, actively work for its own account or provided activities as a service to others, work under the private sector, and is run by an individual, and is defined as an activity that has a certain target in a specific time (Heykal, 2003).

1.5. Hypotheses

1. There are statistically significant differences between the mean scores of the female trainees' pre-and-post training in favor of the posttest.
2. There are statistically significant differences between the mean scores of the female trainees in the acquired knowledge of pre-and-post training in favor of the posttest.
3. There are statistically significant differences between the mean scores of female trainees in skills acquired in pre-and-post training in favor of the posttest.

1.6. Methods

This study is based upon experimental approach in order to achieve the study's objectives and to verify its hypotheses.

1.7. Sample

The training program has been applied to (25) of the female graduates of the Department of Home Economics at College of Education, the University of Najran.

1.8. Instruments

1. Training program for developing the knowledge and skills of the female graduates of Home Economics Department to establish small businesses.
2. (Pre and post) achievement test to measure the knowledge included in the training program.
3. (Pre and post) skill test to measure the skills involved in the training program.
4. Estimate measure to assess the training results in order to measure the skills provided by the training program.

1.9. Limitations of study

The study is limited to:

1. Subject limitations: include knowledge limits and skill limits.

1.9.1. *Knowledge limits*: (definition and components of small businesses - the preparation of the feasibility study - management methods - marketing means - ways to evaluate the success of small businesses).

- Skill limits

- Furniture of the children's rooms represented in:

- Curtains.
- Tapestry.
- Quilt.
- Cover of tissue box.
- Toy Box.
- Table Cloths.
- Box for keeping pens.
- Pillows.
- Floor Pillows.

1.9.2. Spatial limits: The study experiment was conducted in Home Economics Department of the College of Education, University of Najran.

1.9.3. Time limits: The program lasted six weeks.

2. Theoretical framework

2.1. Definition of Training

Training is an integrated system consisting of inputs, processes and outputs, which is one of the important policies in Business Administration.

2.2. Training objectives

1. Providing the individuals with knowledge and skills to carry out business to the fullest.

2. To develop performance methods to ensure effectively done work (Armstrong, 2004).
3. To provide female trainees the ability to apply ideas, opinions and solutions resulted from studies leading to bridge the gap between theory and practical application.
4. To increase female trainees' ability to think creatively so that they can adapt to their business on the one hand and face future problems and overcome them on the other hand.

2.3. Importance of training

1. Improving the professional abilities of the individual and develop their skills.
2. Training is one of the features that organizations are keen to keep up with every change in the uses of technology.
3. Training provides the community with greater productivity, and reduces the time and expenditure needed for performance as a result of upgrading the performance of human resources (Al-Sayed, 2010).

2.4. Training system

First, Input

1. Human inputs: trainers, female trainees, personnel, technicians.
2. Abstract inputs:
 - Experiences, knowledge and information required to be acquired by female trainees.
 - Training goals.
 - Provide the appropriate training programs.
3. Financial input: Funding available for the completion of the training process. (Imran, 2009).

Secondly, procedures

The transfer of training inputs into outputs is conducted in several stages:

- Description and analysis of processes and procedures.
- Description and analysis of individuals' behaviors and assessing their performance.
- Identifying the training needs.
- Well-equipped training room.
- Conducting and supervising the training programs.
- Follow-up and evaluation of the training activity (Abdel-Latif, 2008).

Thirdly, outputs

Outputs are the results and achievements that resulted from the previous training system; it is the outcome of the interaction between inputs and processing as well as their integration. Outputs are represented in the knowledge, skill, behavioral, moral and materials. (Abdel-Latif, 2008)

Fourthly, feedback

It is regarded as a comparison between the training system outputs and the goals set in advance to determine the extent of matching the actual results with the targeted results, and identify errors to treat them. (Abdel-Wahab, et al, 2002).

2.5. Key principles of training

First, training is indispensable continuing activity

Training conforms to an internally and externally changing needs, training is a continuous activity as there is a constant need to acquire new information and skills as a result of the rapid and continuous change in the ways and methods of work and the emergence of new inventions (Abdel-Latif, 2008).

Secondly, integrated training system and not random

Training is an integrated process including the information, skills, abilities, attitudes and behavior, and then aimed at developing the individual as a whole. (Imran, 2009).

Thirdly, training is an organized activity

The process of training is subject to study and scientific research not randomly conducted.

Fourth, developed realistic activity

Training must be realistic and meet the actual needs of the trainees in line with their competencies and levels, and developed to provide trainees with updates in their field. (Abdel-Wahab, et. al, 2002).

Fifthly: a collaborative activity

Training relies on cooperation between the various parties involved in it: administration, the trainer and the trainee; administration pays attention to the training activity and the benefits of, the trainer interlinks training activity parts, but the trainee must have a desire for his information and skills development. (Imran, 2009).

Sixthly, training is activity run in a logical progression

Training starts with presenting basic knowledge and skills which then falls into the most complex topics. (Abdel-Latif, 2008).

Seventh, multi-trended activity

Training aims to achieve three trends; theoretical trend that aims to increase and improve the performance of trainees, practical trend that aims to teach female trainees new skills and techniques, and behavioral trend that seeks to develop the behavior of the trainees and strengthen their own positive trends.

Eighthly, training is a changeable renewed activity

Training interacts with changes and then must be characterized with changing and renewal. (Abdel-Wahab, et. al, 2002).

Ninthly, a technical administrative process

As an act of administrative process, it is required to determine the goals and make plans to reach those goals, and needs, as a technical process, to a group of specialized experts in the identification of training needs and conduction and evaluating the programs. (Imran, 2009).

2.6. Designing of training system

Stage I: Identifying the training needs

The process of identifying the training needs is the first and most important process in a series of inter-linked processes covered by the training system; the training needs are the sum of the required positive changes done for the individual regarding their information, experience, performance and trends. (Abdel-Latif: 2008, 388). Training needs are the most important things that make training activity achieve its objectives (Madbouly, 2002). The process of identifying training needs is carried out in several steps:

- a. Determining the goals to be achieved in the future.
- b. Collecting data about individual and collective performance indicators.
- c. Studying and analyzing the data to determine the most significant performance problems.
- d. Analysis and classification of problems to identify the causes.
- e. Defining the problems to determine the training needs. (Abdel-Rahman, 2010).

Stage II: Designing of the training program

Design of the training program includes:

1. Identifying the training program goals: Identifying the training goals helps design the training programs properly, and goals of training mean intended solutions designed to address the problems resulting from the analysis of the problem, and can be used to evaluate training results to determine the level of achievements that have done. (Bashri, 2007). The objectives or goals help achieve success in training programs, and they are a measure to evaluate the activity after its implementation.

2. Identifying the content of the training program:

Rules to be followed when determining the content of the training program:

- Associating the study subjects with training objectives.
- Sequencing in the presentation of subjects.
- Easy style and presentation of the material for achieving the required scientific benefits.
- Selecting the methods that help convey easily the scientific material to the trainee.
- Reviewing and evaluating the training content before being presented to the trainees. (Bashri, 2007).

3. Time schedule of the training program: Time is determined by the duration required to complete each step in the training program based on several factors:

- Extent of achievement of objectives.
- Presenting the subjects of the training program in terms of importance.
- The scientific material must be available to accomplish the training program. (Hillal, 2001).

4. Selecting the trainers: The trainer is the main determinant of achievement in the training process (Abdel-Latif, 2008). The trainer's efficiency determines the way by which the training program is conducted, and that his experience makes him able to diversify the training methods as needed and the use of aids to the process of training in order to simplify and convey information to the trainees. (Al-Seweidan, 2005).

5. Identifying the training methods: the training method is the way used to convey content from the trainer to the trainee to reach the desired goals, and there are some criteria that help choose the proper training method.

Stage III: Implementing and conducting the training program

The training program is implemented through three stages: *the first step* includes implementation procedures, arrangements such as preparing of training classrooms, timetable, data show, and to inform the trainers about the time of their lectures, and to inform the candidates of the date, time duration and location of the program. *The second step*: Procedures done during implementation, and include all the technical and administrative issues for ensuring the regularity and punctuality of the participants, classroom equipment, testing, providing an appropriate training environment and daily follow-up. *The third step* includes post-implementation procedures, including evaluation of the program, and preparing a report of its findings and costs. (Abdel-Latif, 2008).

Stage IV: Training Evaluation

Evaluation is a systematic process to collect information in the light of specific scientific criteria in order to issue an objective judgment on the value of things, such as programs, practices of people, individuals' knowledge,

skills and attitudes for improvement and development. (Abdel-Rahman, 2010).

2.7. Steps for evaluating the training programs

First, evaluating the training programs before implementation: (Pre-Evaluation)

Training programs are evaluated before implementation to measure its success.

Secondly, evaluating the training programs during implementation includes

1. Evaluation of training time, ways, means and techniques used in training to make sure that the process of implementation of the program is consistent with the designed plan.
2. Trainee performance evaluation in terms of the response of the female trainees with the knowledge and skills and its relation to the tasks and duties in the work field.
3. Evaluation of the performance and capabilities of the trainer so as to identify the criteria set for the selection of trainers in the future.

Third, evaluating the training programs after their implementation: (Post-Evaluation)

Post evaluation aims to measure the extent to which the objectives of the training programs achieved and their success in meeting the training needs.

3. Application framework

3.1. Preparing the training program

Preparation of the training program requires several stages including:

1. Identifying the subject of training: the authors of the current study selected the point/subject of the training program to strengthen human development, in order to give the trainees' knowledge and skills to be qualified for establishing a small business, the training program included the knowledge and skills:

- Knowledge and information included in the program:

- Special knowledge to prepare small businesses: (definition and components of small businesses - the preparation of the feasibility study - management methods - marketing means - ways to evaluate the success of small businesses).
- Knowledge for production of furnishings (raw materials - designing - methods of decoration furnishings - types of machines/devices used - types of finishes used in the furnishings – methods of packaging furniture)

- Skills included in the program:

- Furniture of the children's rooms represented in:

- Curtains.
- Tapestry.
- Quilt.
- Cover of tissue box.
- Toy Box.
- Table Cloths.
- Box for keeping pens.
- Pillows.
- Floor Pillows.

2. Identifying of training objectives: Identifying the objectives of the training helps choose the training material, methods and techniques presented (Diab, 1999).

The training objectives of the training program have been formulated in accordance with the three levels shown as follows:

- The general objectives of the training program

After completing the training program, the female trainee could:

- Define the fundamentals of establishing a small business in handicrafts.
- Take into account the sequence of practical steps.
- Explain the basics to be followed in the preparation of handicrafts.
- Recognize the basics to be followed in the preparation of handicrafts.
- Recognize the specifications of raw materials used in the production of handicrafts.
- Draw some handicrafts models.
- Implement a variety of handicrafts.
- Plan to set up a small business.

- Procedural objectives of the training program

A. Informative objectives: they are concerned with the information and facts:

At the end of training, the female trainee will be able to:

- Prepare feasibility study for a small business.
- Recognize the materials and facilities available for the preparation of handicrafts.

- Take into account color and material matching when assembled to produce the handicraft items.
- Understand the basic information necessary for preparing the handicrafts.

B. Psychomotor objectives: to make female trainees acquire skills:

- Take into account the sequence of steps.
- Using the available raw materials and facilities.
- Master drawing handicrafts models.
- Manage to implement techniques necessary for the production of handicrafts.
- Produce furniture for children's rooms.
- Make curtains.
- Master to produce tapestry.
- Make quilt.
- Produce Cover of tissue box.
- Make toy box.
- Master to make tablecloths.
- Make pen case.
- Produce pillows.
- Master to make floor pillows.
- Master finishing handicrafts.

3. Identifying and organizing the program content: program content comes after determining the objectives, and it has been taken into account that the content must be linked to the training objectives to be achieved, the program includes:

- Furniture of the children's rooms represented in:

- Curtains.
- Tapestry.
- Quilt.
- Cover of tissue box.
- Toy Box.
- Table Cloths.
- Box for keeping pens.
- Pillows.
- Floor Pillows.

4. Evaluation stage: the training program has been submitted to a group of professors to make sure s its scientific and technical integrity and to express their viewpoint about:

- The extent of consistency of objectives and content with the training program.
- Logical step sequence of the training program.
- Clarity of information.
- How easy and clear is the wording.
- Scientific method used in the program.
- The appropriateness of the methods and tools with the training program content.

The entire professors agreed to the validity of the program for application with making some proposals concerning the logical sequence of some steps in the program, and changes have been made.

3.2 Preparing the instruments for evaluating the training program:

- Achievement test to evaluate the knowledge included in the program.
- Practical test to measure the skillful performance included in the program.
- Assessment measure for evaluating the output resulting from the application of the skill test.

3.2.1. Achievement test

Achievement test made to measure the level of information achievement that has been acquired through the study of the training program. Achievement test for information included (20) multiple choice questions, each question has four alternatives/choices with a different arrangement of the correct answer to each question.

Marking the test

The authors of the current study mark the achievement test in accordance with the answer key, one score for each correct answer, so the total score of the achievement test is (20).

3.2.2. Practical Skill Test

Practical skill Test was designed to judge the effectiveness of the skills included in the program. This type of test is used for objective estimation of efficiency by which tasks achieved (sensory, cognitive, and motor). (Sadiq and Abu Hatab, 1994).

3.2.3. Measure of Assessment

The authors of the current study designed assessment measure for each part of the skill test, the measure was

offered to a group professors in order to verify the validity of the measure and its content, and expressed their viewpoint about the appropriateness of the measure items to the content. The authors took into account the reviewers' suggestions for making changes during writing the measure in its final draft. The measure has five estimations according to the measure of "Likert", and logical sequence of items was taken into account by the authors.

Marking: three specialists on the subject of the program marked it by placing a sign in front of assessment that applies to the item in the measure; signs were translated into scores, where every female trainee has grades for handicraft parts carried out in accordance with the skill test.

3.3. *Validity and reliability of instruments*

Validity of achievement testing

The achievement test reviewed and evaluated by specialist professors display to make assure of the easiness and clarity of the test items, and how objectives are interlinked with test questions. The evaluators all agreed to the appropriateness of the achievement test for application with making some changes, which have been taken into account by the authors.

Achievement Test Reliability

Reliability means that the test is integrated regarding giving results. The reliability coefficient of the test has been calculated in the following ways:

A - Reliability using split half method:

Split half method assured the reliability of the achievement test, and the correlation coefficient values are (0.842) – (0.953), which are statistically significant at the level of (0.01), which proves the reliability of achievement test.

(B) – Reliability of Alpha coefficient:

The Alpha coefficient = (0.915), which is a high value that indicates the achievement test reliability at the level of (0.01), the following table shows the values of reliability.

Table (1) shows reliability of achievement test:

Reliability of achievement test	Split half method		Alpha coefficient	
		0.953 – 0.842	0.01	0.915

Validity of skill test

The test was offered to a group of specialist professors and all acknowledged of the appropriateness of the test for application.

Reliability of skill test

Three specialist reviewers marked the test using the assessment measure in the evaluation process, and the correlation coefficient calculated between the three scores established by the professors (x, y, and z) for post-practical test using the correlation coefficient for each sample alone as shown in the following table:

Table (2) shows the correlation coefficient for parts of the skill test

	Curtains	Tapestry	Quilt	Cover of tissue box.	Toy box	Table cloths	Box for keeping pens	pillows	Floor pillows	Total of Skill Test
X & Y	0.750	0.803	0.960	0.934	0.851	0.777	0.702	0.835	0.918	0.888
X & Z	0.905	0.713	0.789	0.894	0.738	0.824	0.862	0.945	0.842	0.745
Y & Z	0.846	0.957	0.873	0.706	0.717	0.923	0.795	0.728	0.764	0.816

The above table indicates that the values of correlation coefficients between the scores of the reviewers are high, and all the values are statistically significant at a level of (0.01), so it proves the reliability of practical test, which measures the skillful performance reliability, and also indicates the reliability of assessment measure, an instrument for correcting the skill test.

3.4. *The application of the program*

3.4.1. Sample

(25) Female trainees from graduates of the Department of Home Economics at the College of Education, University of Najran.

- Preparing and arranging Laboratory for female trainees:

* The authors made sure that the lab is well equipped for training and is appropriate for the experiment.

- Pre-training "Pre-application of cognitive and skill tests":

* The authors held a meeting with the female trainees to introduce them with the importance and advantages of training programs in the development of individual skills, as well as the financial interest that accrue to them through establishing small businesses.

* The cognitive achievement test was applied on the first day of the experiment to the female trainees, who were

asked to answer all questions, and apply all parts of the skill testing.

- Training stage, studying the program

The duration of the training program is (6) weeks.

- Post-training "Pre-application of cognitive and skill tests"

After the completion of studying the training program, the cognitive achievement test was applied to the female trainees, the same achievement test which was submitted to them before the training process, and after answering the cognitive achievement test, each female trainee was asked to take the skill test.

The authors marked the pre/post cognitive achievement test in accordance with the answer key; the post skill test was marked based on the measure prepared for performance assessment.

4. Results

The first hypothesis: "There are statistically significant differences between the mean scores of the female trainees' pre-and-post training in favor of the posttest".

To investigate the validity of this hypothesis, T test was applied. Table (3) shows significant differences between mean scores of female trainees before and after training.

Total of cognitive and skill test	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	27.948	4.848	25	24	40.299	0.01 In favor of posttest
Posttest	159.371	8.636				

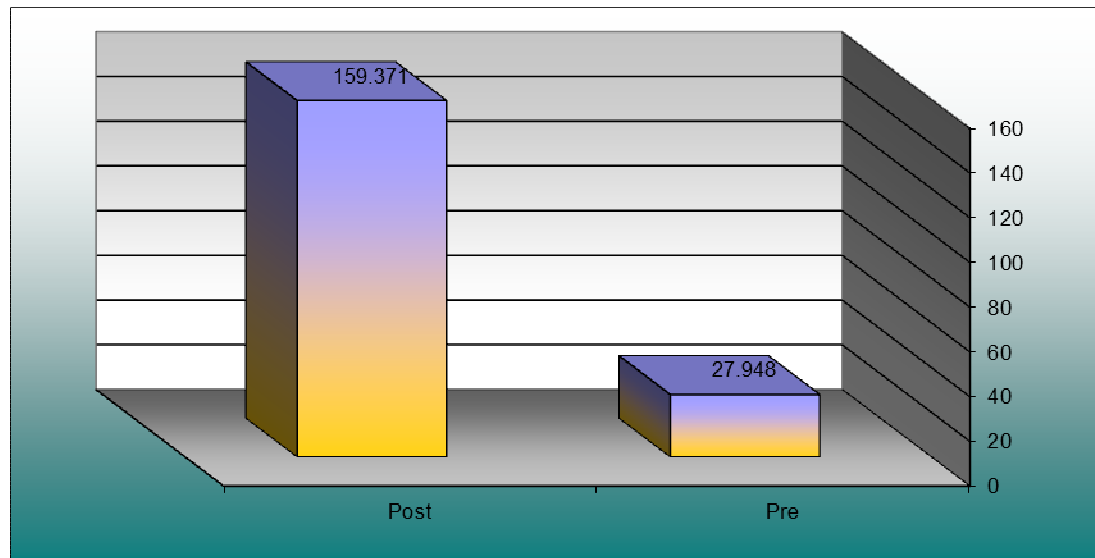


Figure (1) shows significant differences between mean scores of female trainees before and after training.

Table (3) and Figure (1) indicate that the value of "T" = (40.299), a statistically significant value at the level of (0.01), where the mean posttest scores of the female trainees = (159.371), while the mean pretest scores = (27.948), which indicates that there is a real differences between the two applications in favor of the post application, i.e. the training program in this study achieved its objectives. To identify the effect size of the training program, ETA equation applied: (T value) = (40.299), degree of freedom = (24).

$$n^2 = \frac{t^2}{t^2 + df} = 0.985$$

The effect size, $n^2 = 0.985$

$$d = \frac{2\sqrt{n^2}}{\sqrt{1-n^2}} = 16.22$$

The effect size is determined as follows:

- (0.2) = small effect size.
- (0.5) = medium effect size.
- (0.8) = large effect size.

This means that the effect size of the training is large, and thus achieving the first hypothesis. This result conforms to most of literature review, Rifai (2002), VU, Uywn (2003) and (Anonymous, 2006) in that the training programs have a great effect upon trainees and of great importance in raising the level and efficiency of

the female trainees' performance.

Al-Sayed (2010) emphasizes that training is a systematic scientific activity that aims to reinforce the skills, develop competencies and change behavior, views or beliefs of individuals that would affect positively on the results of their work.

The second hypothesis: "There are statistically significant differences between the mean scores of the female trainees in the acquired knowledge of pre-and-post training in favor of the posttest".

To validate this hypothesis, T test was applied. Table (4) shows significant differences between mean scores of female trainees in the knowledge acquired before and after training.

Total of cognitive test	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pre-	2.326	0.214	25	24	15.123	0.01 In favor of posttest
Post-	18.762	2.320				

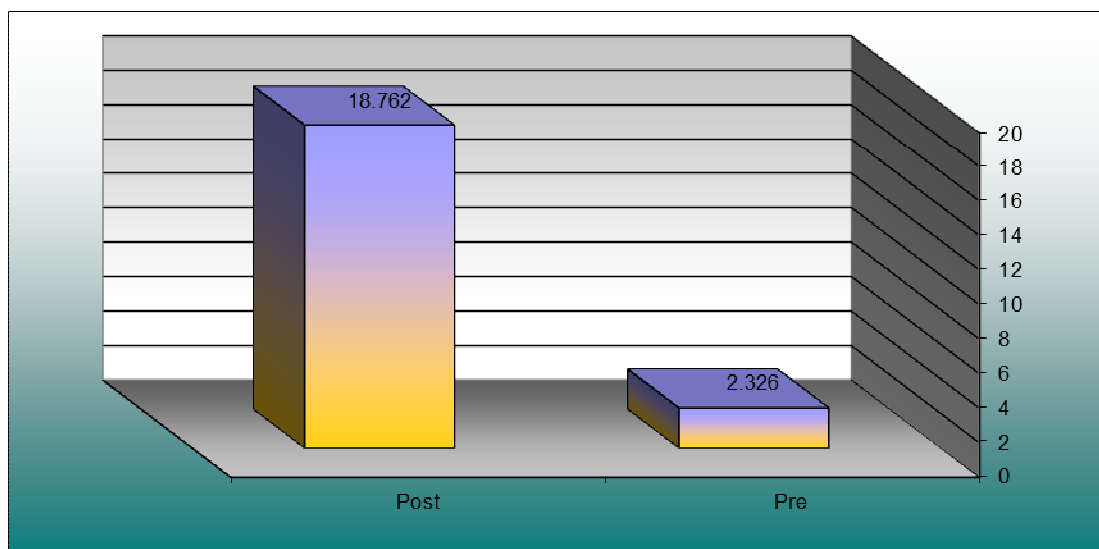


Figure (2): significant differences between mean scores of female trainees in the knowledge acquired before and after training.

Table (4) and Figure (2) point out that the value of "T" = (15.123), a statistically significant value at a level of (0.01) in favor of the post test, where the mean posttest scores of the female trainees = (18.762), while the mean pretest scores = (2.326), this result shows that the female trainees take advantage of the knowledge involved in the training program, and so the second hypothesis is achieved.

This result is consistent with Raj, C. Augello, M. Dent, A (2007) and Gerject, P. Hellenthal, Schorr, T (2008), who confirmed the effectiveness of training and efficiency in raising the level of the female trainees regarding the information acquired from the training program. Sharaf (2011) sees that the training is a meaningful activity that aims to transform the theoretical knowledge to masterful work through the application of science to work.

The third hypothesis: "There are statistically significant differences between the mean scores of female trainees in skills acquired in pre-and-post training in favor of the posttest."

To validate this hypothesis, T test was applied. Table (5) turns out significant differences between mean scores of female trainees in skills acquired before and after the training on "Curtains".

Curtains	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	3.024	0.253	25	24	10.223	0.01 In favor of posttest
Posttest	14.142	2.288				

Table (5) shows that the value of "T" = (10.223), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (14.142), while the mean pretest scores = (3.024).

Table (6) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Tapestry"

Tapestry	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	1.039	0.914	25	24	8.702	0.01 In favor of posttest
Posttest	10.158	1.502				

Table (6) points out that the value of "T" = (8.702), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (10.158), while the mean pretest scores for female trainees = (1.039).

Table (7) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Quilt"

Quilt	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	2.558	1.110	25	24	15.559	0.01 In favor of posttest
Posttest	18.749	3.941				

Table (7) shows that the value of "T" = (15.559), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (18.749), while the mean pretest scores for female trainees = (2.558).

Table (8) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Cover of tissue box"

Cover of tissue box	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	4.024	0.753	25	24	19.787	0.01 In favor of posttest
Posttest	25.226	4.035				

Table (8) reveals that the value of "T" = (19.787), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (25.226), while the mean pretest scores for female trainees = (4.024).

Table (9) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Toy box"

Toy box	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	3.038	0.733	25	24	9.003	0.01 In favor of posttest
Posttest	12.247	2.847				

Table (9) indicates that the value of "T" = (9.003), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (12.247), while the mean pretest scores for female trainees = (3.038).

Table (10) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Table cloths"

Table cloths	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	1.014	0.211	25	24	11.153	0.01 In favor of posttest
Posttest	13.559	3.152				

Table (10) shows that the value of "T" = (11.153), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (13.559), while the mean pretest scores for female trainees = (1.014).

Table (11) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Box for keeping pens"

Box for keeping pens	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	2.789	0.823	25	24	7.102	0.01 In favor of posttest
Posttest	10.559	1.446				

Table (11) shows that the value of "T" = (7.102), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (10.559), while the mean pretest scores for female trainees = (2.789).

Table (12) shows significant differences between mean scores of female trainees in skills acquired before and after the training on "Pillows"

Pillows	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	3.668	1.514	25	24	15.516	0.01 In favor of posttest
Posttest	19.758	2.689				

Table (12) shows that the value of "T" = (15.516), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (19.758), while the mean pretest scores for female trainees = (3.668).

Table (13) shows significant differences between mean scores of female trainees for skills acquired before and after the training on "Floor pillows".

Floor pillows	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	4.468	0.140	25	24	12.229	0.01 In favor of posttest
Posttest	16.211	2.579				

Table (13) indicates that the value of "T" = (12.229), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (16.211), while the mean pretest scores for female trainees = (4.468).

Table (14) shows significant differences between mean scores of female trainees in the total skills acquired before and after training.

The total skill test	Mean	Standard Deviation	Sample (N.)	Degree of freedom	T value	Significance level
Pretest	25.622	3.010	25	24	34.229	0.01 In favor of posttest
Posttest	140.609	7.884				

Table (14) shows that T value = (34.229), a statistically significant value at a level of (0.01) in favor of the posttest, where the mean posttest scores of the female trainees = (140.609), while the mean pretest scores for female trainees = (25.622), which indicates that the female trainees take advantage of the skills involved in the training program, and thereby the third hypothesis achieved.

This result is consistent with Phillips (2002), VU (2003) and Rifai and Abdel Moneim (2007), who assure the effectiveness of training programs in skill development. Abdul Rahman (2010) confirmed that training is a means to develop skills, experience and behavior of individuals making them eligible to achieve their goals; training is a long-term investment that makes individuals able to work.

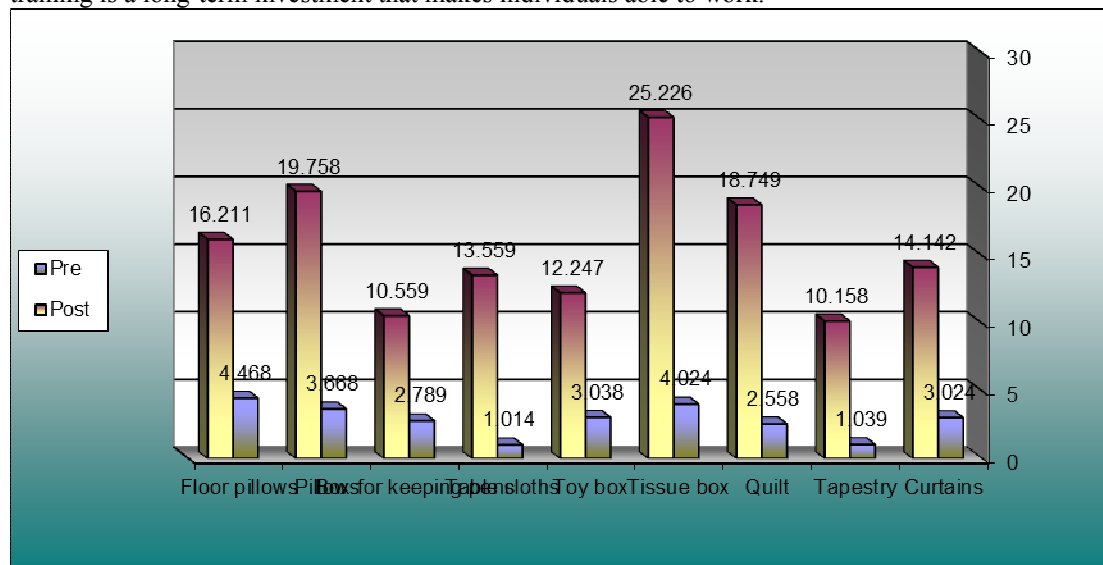


Figure (3) indicates significant differences between mean scores of female trainees in skills acquired before and after training

Recommendations

- Opening up to the developed world by holding meetings with employers and employees to identify the modern methods and trends of training and developing human resources.
- It is necessary for training in institutions to be continued in order to meet the rapid changes as an essential part of human development.
- Taking advantage of the training program in designing other training programs.

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