

## **A new educational unit to enhance the skillful performance of home economics students in the graduation project**

**Dr. Eslam goma khalaf**

**Teacher of Clothing and Textiles Department of Home Economics**

**College education quality -Fayoum University**

**[Omregk10@gmail.com](mailto:Omregk10@gmail.com)**

### **Summary:**

The field of curriculum development is vital for everyone who is related to the education process, and some may think that this matter needs a teacher who specializes in the curricula and not others, but the fact is that every educational leadership needs to study this field, given that understanding its content is the way to transfer thought to the application level (reference 1)

) Thames and Hudson: 1991) These are combinations of fabrics in one

The design of children's room furnishings aims to provide for their needs as their designs address the childhood spirit and fit with it and suggest a spirit of departure and fun as it is attractive and provokes interest as well as the spontaneity of expression, it should evoke his/her imagination and address his conscience (Samia Lotfy-3003(

Taking into account the materials used for the furnishings that are suitable for the interior design and the general shape of the room, the fabric is characterized by flexibility and dilation, the material is of high quality such as cotton, cotton fabric residue was used in the current research, and the dyes used are of the fixed type against washing, the material is equipped against ignition (Saadia Mostafa-2005(

Fabrics and techniques of fabrication are among the innovative methods. Flat work has been transformed into prominent forming works through touches, lines, and areas highlighted by fabrication methods. (Abeer Al-Araby-2015(

What inspired the idea of the research in the work of a new educational unit in the graduation project material to train students how to recycle fabric residues using various technical methods in the implementation of child room furnishings that are inexpensive and commensurate with the current economic conditions of the Egyptian society through studied scientific steps and we find that the graduation project material is taught as a subject, so a new teaching unit had to be proposed that includes everything that female students who studied in previous years subjects and materials related to "clothing and weaving" of (embroidery, and weaving skills) to benefit from them in implementing new products such as the study (Amira Abdullah Nu Raldine: 2013) Creating an educational unit in the cutting and sewing course to take advantage of used clothes and employing them as a new product, (Medhat Morsy, Omaima Abdel Hamman: 2013) an educational unit for silk screen printing within the "Design and print textiles method in a simplified and low cost for the first division and found that there are statistical significant differences" In favor of the post application, where we find that the graduation project subject is one of the subjects that are taught during the whole year, as well as directing students towards how to benefit from fabric residues, as well as waste from ready-made garments factories, which is very important because of its aesthetic and functional value, on one hand, and its importance on the other hand, the research and experimentation in this field provided opportunities for many designers and artists to convert

the remains of fabrics into designs related to art based on artistic and innovative bases, so that those remains become meaningful and valuable after they were neglected (Iraqi, Shaima Abdel Rahman: 2002), as a study (Jihan Muhammad: 2017) confirmed, it is possible to take advantage of the exhausts of textile factories' fabrics to produce printed fabric jewelry, (Najdah Ibrahim: 2008) Recycling industrial waste to make designs suitable for children in order to preserve the environment, as well as the benefit of residues fabrics with other materials, such as the study by (Angie p Re: 2015) which is an experimental study to integrate the shapes of the fabric and the residue of fabrics to enrich the aesthetic and functional aspect of women's clothing, and that it was intended for small industries as a study (Lamia Ibrahim: 2010) confirmed to manufacture some clothing supplements, specifically handbags for women through a training program, making use of the remaining fabrics to obtain a new formulation of the artistic works in the light of contemporary arts, as confirmed by the study of Abeer Al-Arabi (2015), a study (Rabab Muhammad, Susan Ali: 2016). Utilization of fabric residues in a folding and bending style to implement contemporary models of jungles for middle childhood. From the above, the researcher pushed to prepare a new educational unit in the graduation project to take advantage of the fabric residues by various technical methods to design some furnishings that fit the child's room in order to benefit from the fabric residues that are neglected and can be converted into designs of high artistic value without being exposed to the pressure of spending, it could be the nucleus of micro-projects, which are appropriate to the current conditions of society, the possibility of making use of all available resources and not wasting them.

**From the above, the research problem is determined in the following questions:**

- 1-What is the possibility of preparing a new educational unit in the graduation project subject to take advantage of the fabric residue to implement child room furniture?
- 2-Are there statistically significant differences between the average scores for the post-test in favor of the post-test?
- 3-How satisfied are the producers and consumers of mothers with the proposed designs?

**Research aims:**

- 1-Preparing an educational unit to develop the skills of female students to recycle fabric residues in different technical methods.
- 2-Measuring the effectiveness of the unit developed at the skill level of the fourth year students.

**Research importance:**

- 1-Developing the students 'creative thinking to keep pace with modern trends in education.
- 2-Study how to make optimal use of ready-to-wear exhausts, fabric residues to be the nucleus for small projects.

The proposed designs could provide a portion of the financial return for the Egyptian family spent on purchasing children's furniture, using the leftover fabrics.

**Search limits:** The current search is limited to:

- The fourth year students, who are 7 students, Department of Home Economics - Faculty of Specific Education - Fayoum University - for the academic year 2017-2018.

**-Production methods:** (folding and bending style, adding style, patching style, asmux style, striking style.)

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The leftovers of fabrics of cotton materials with colors suitable for children's room furnishings.

The research tools consisted of the following:

. The new educational unit.1-

2-The skill performance test (pre-dimension) to measure the skill performance of the requests.

A note card for female students..3-

Form for evaluating the implemented designs..4-

Research methodology: The research used the experimental one-group approach where the same skill test was applied to the same group before and after to measure the effectiveness of the unit developed for recycling fabric residues using technical methods to implement child room furnishings.

Table (1) correlation coefficient between the arbitrators for the proficiency test

Arbitrators	Skill performance test as a whole
S,a	0,901
S,c	,882
C,a	,745

Skill performance test for all arbitrators

The results of Table (1) indicate the high correlation between the two arbitrators, as the values are indicative at (0.01 level) of their approach to the correct one, which indicates the stability of the skill test.

3-An evaluation questionnaire for designs implemented by professionals. \* (Appendix No.(4- The researcher designed a questionnaire aimed at identifying the opinions of the arbitrators and the extent of their acceptance of the executed designs. A number of (15) designs were implemented and consisted of two axes. The first is the possibility of using the fabric residues, the second axis and the presence of the visual vision of the technical methods used.

Validity of the form: The form was presented to a number of specialized teaching staff members, and some phrases have been changed for easy formulation.

Validity of internal consistency: correlation coefficient was calculated between the scores of the professional correctors, who benefited towards the questionnaire.

Table (2) correlation coefficient between the two correctors for the questionnaire

The hub	Correlation coefficient
The design	,912
Technical methods	,897
The possibility of using a fabric rest	,893

The results of Table (2) indicate the high correlation between the two correctors, as the values are indicative at the level of significance (0.01), which indicates the presence of internal consistency between the axes of the questionnaire.

Stability: The alpha stability factor was performed on the axes of the form to ensure its stability, using the mid-point segmentation method, and the results were as follows.

Table (3) Alpha Stability Coefficient and Midterm Fraction Method

After the patch before the alpha axis patch

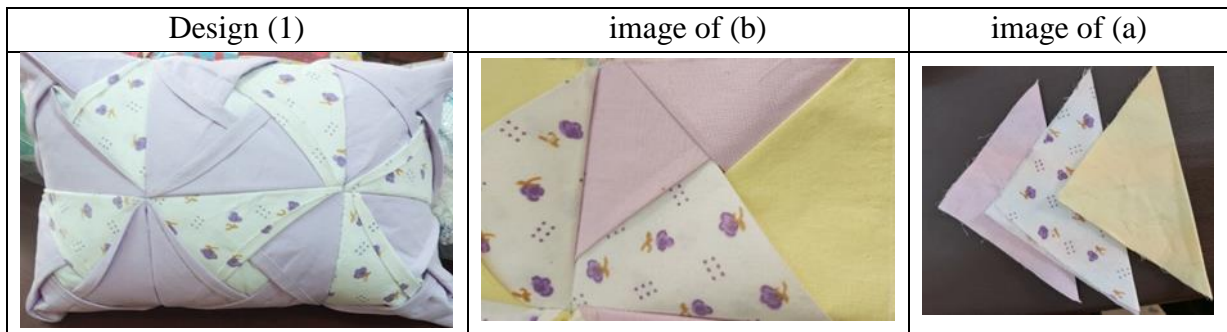
The hub	alpha	Before correction	after correcting
The design	,912	,88	,87
Technical methods	,897	,87	,89
The possibility of using a fabric rest	,893	,89	,88
Total marks			,91

It is clear from the previous table that the alpha stability factor = 0.91, which is a high stability rate, and the correlation coefficients are high at the level of significance (0.001)

Discuss the study results:

Results of the first question: To answer the first question that states, "What is the possibility of preparing a new educational unit in the graduation project material to take advantage of the fabric residues to implement the furniture of a child's room? Where the pre-skill test was conducted and then the study applied the new educational unit to recycle the remains of fabrics by different technical methods.



The results are as follows, showing some of the furnishings made by the students.



Design (1) is a cushioning, the method used for the fold-and-fold style, in which each piece of fabric is folded separately, as in the image of (a). Four triangles are joined together and woven with the machine as in (Figure 1B), then all four triangles are combined with the other until we reach the length and the required offer.

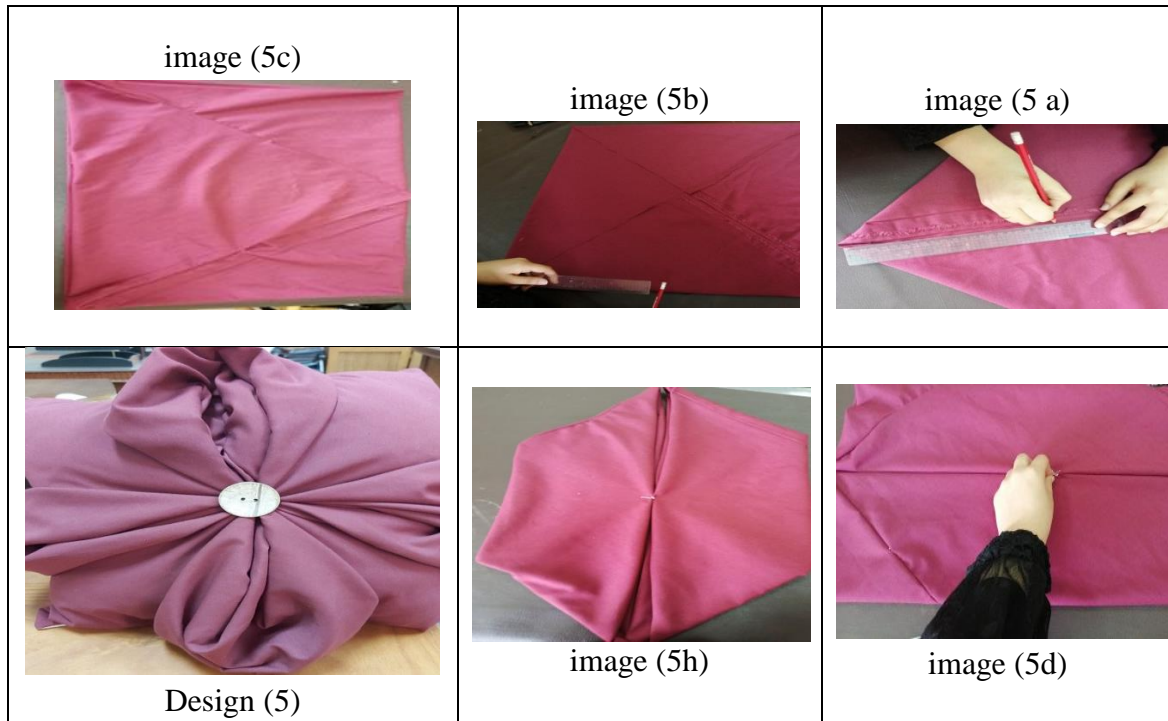
		
<p>Design (3)</p>	<p>image of (3A)</p>	<p>image (3B)</p>

Design (3): It is a baby quilt with a length of 140 cm, width 115 cm, the method used (the combined patches) as in the image of (3A), the stye of the apples as in the image (3B).

<p>Design (4):</p>	<p>image of (4a)</p>
	

Design (4): It is a hanging. Use (aggregate patches) in the form of triangles where the base of the triangle is 15 cm, as in the image of (4a), the method of striking where the letters of the triangle are enabled

Design (5): is a cushioning, the method used for the fold-and-fold style, whereby the fabric is folded in the form of opposite triangles, as in Figure 0 (5a). Sew the center piece by hand stitching, as in the image (5 and), then turn each triangle to take the shape of the leaves of the picture (5).



Results of the second question: To answer the second question, which states "Are there statistically significant differences between the average scores for the skill test in favor of the post-test?"

The results were as shown in the table (T-test). This assumption was applied as a "T" test for validation.

Table (5) The significance of the differences between the average scores for the pre and post-test in the total skill score

The significance level, the value of the degrees of freedom, the number of individuals in the sample "n", the standard deviation of the mean. It is clear from the previous table that (c) calculated between the pre and post- test of the total sum of the levels of the applied test indicates that there are fundamental differences in favor of the post application, this indicates the effectiveness of the educational unit in achieving its goal. The students studied how to recycle the remains of the fabrics they have in houses, using various technical methods to implement children's room furnishings through educational activities and appropriate strategies to develop skills for female students, and this was confirmed by the study by (Amira Abdullah Noor Aldine: 2013) The creation of an educational unit in the storytelling and weaving course to benefit from the used clothes and employ them as a new product, study by (Medhat Marina: 2013) educational unit for printing silkscreen within "Orteursamam and textile printing in a simplified manner and it was reached at a low cost of Frqhalaoly, there are statistically significant differences in favor of the post test.

The third question, which stipulates the extent to which producers and consumers of mothers accept the proposed designs?

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The questionnaire was presented to a group of (30) consuming mothers. The analysis of variance was calculated for the average degrees of designs; the following table shows that:

Table (5) The extent of achieving the degree of consumer acceptance

Significant standard deviation, mean, computational design

It is clear from the previous table, the value of (F) was (789,099) at the level of significance (0,000), which indicates the presence of preferences among consumers in terms of best design.

It is clear from the above that moms' consumables accept the implemented designs from recycling the cotton fabric residues by various technical methods, which makes the neglected amount of fabrics turn into designs of high technical value without being exposed to the pressure of spending.

### **Recommendations:**

1-Take advantage of the fabric residues to implement practical utilitarian products.

2-Attention to small projects by linking scientific research in universities to small industries through recycling of textile waste.

Going to use modern teaching strategies in the field of clothing..3-

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