

**M.Sc. thesis abstract****Suggested Guide for Women's Clothes Design Which Agree with Anthropometric Measurements and Body Defects using Computer****Bassant Raafat Mohamed Abou Shabana<sup>1,\*</sup>, Azza Ibrahim Ali<sup>1</sup>,  
Ehab Fadel Aboumoussa<sup>2</sup>, Safaya Abd Alazez Saroukh<sup>1</sup>**<sup>1</sup>Home Economics Department, Faculty of Agriculture, Alexandria University<sup>2</sup>Clothing and textile department, Faculty of Home Economics, Menofya University**ABSTRACT**

The research aims to develop the skills of the research sample (individuals) in three-dimensional fashion design, through a proposed educational program divided into integrated educational units that explain how to use the Marvelous Designer 2 program in the implementation of basic clothing pieces (gounla - pants - corsage - blouse - jacket) Using the different program tools, where the user learns how to create a flat pattern within the program, then how to sew the pattern together, and then dress it on the mannequin to obtain a three-dimensional design that simulates reality.

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\* The results of the study indicated that 68.5% of the study sample falls in the age group (30-40) and 69.5% of the respondents are married, as it was found that 36% of the respondents prefer pants and blouse, and 45% prefer natural materials, and that the preferred design in general for the respondents The correct figure was 55%, that 79% of the respondents believe that the external appearance has an effect on the first impression of others, and that 48.5% of the respondents feel that they feel satisfied with the shape of the body when wearing their clothes and that 91% of the respondents believe that the color and thickness of the cloth It affects the body shape and it was found that 50.5% of the female respondents find clothes that meet their needs in concealing physical defects.

\* The researcher has made a table of sizes for the study, and the program (clo-Optitex) has been used in making objects with the same sizes of the table above. The researcher then made designs on the clo program (22) design and designs were evaluated on a number (10) of the arbitrators ( Faculty of Agriculture, Alexandria University, Faculty of Home Economics, Menoufia University) in order to judge the various designs to see the highest success rates for designs that can achieve the purpose of research and benefit from them in hiding flaws.

**SUMMARY**

The garment industry is an important industry in c. M . AR, which is constantly developing as a result of the rapid development of social and economic life, which makes both the clothing manufacturers and their researchers compete to provide the factors necessary for the success of the industry (Inas Abdel Aziz, 1999).

The computer is a product of contemporary scientific and technological progress, and at the same time it is one of the pillars that drives this progress, which has recently made it the focus of attention of scholars and specialists in various scientific and scientific fields (Muhammad Hajjaj, 2009).

Also, the fields of ready-made clothes are one of the most important of these areas, which have won a large share of this progress and development at the field level, "the field of industry" where many international organizations specialized in the field of clothing industry appeared, and issued many complete systems and programs specialized in fashion design (Sawsan Abdul Al-Latif, 2001).

Therefore, the study of physical patterns, as well as their types, requires the study of clothing styles and physical defects, so that the physical needs can be met through clothes with their various designs, especially since the Egyptian bodies have multiple patterns, and therefore the clothing designs must be available, whether manual or automatic, to keep pace with the technological progress in the field of clothing manufacture (Safia Saroukh , 2012).

In a study by Mohamed Abdel Hamid Mohamed Fathi Hajjaj (2013) entitled Study of the effectiveness of a proposed educational program for 3D fashion design using a computer.

This research aims to develop the skills of the research sample (individuals) in three-dimensional fashion design, through a proposed educational program divided into integrated educational units that explain how to use the Marvelous Designer 2 program in the implementation of basic clothing pieces (gounla - pants - corsage - blouse - jacket) ) Using the various program tools, where the user learns how to create a flat pattern within the

program, then how to sew the pattern together, then dress it on the mannequin to obtain a three-dimensional design that simulates reality.

From the above it is clear that the process of producing clothes that suit different body styles is a necessary and vital process and that this process is

continuous and always evolving. This development is accompanied by an interest in the use of technology in general in the garment production process a garments because of the indispensable role of this industry (Rania Haykal 2005) and the use of computers in particular in the design and implementation of.

**research importance:**

Treating Egyptian body styles using computer programs in fashion design.

**Research objective:**

The main objective of the research is to build a proposed guide to clothing designs that are compatible with anthropometric measures and physical defects of women using a computer.

From this goal, several sub-goals emerged

- 1- Familiarize yourself with the anthropometric measures and physical patterns of women.
- 2- Reaching the appropriate patterns for women.
- 3- Identify the problems of the body pattern using a computer.
- 4- Drawing virtual clothing designs to treat physical defects using a computer through digital measurements of objects to the program.
- 5- Implementing virtual Patrons to treat physical defects using the computer.
- 6- Knowing the problems of clothing design using a computer.
- 7- Develop a suggested guide for female consumers to dress up designs that are compatible with the defects of the physical style of Egyptian women.

**Research problem:**

The problem appears in the production of overalls that do not agree with measurements with some bodies, due to the fact that the measurements that are used in ready-made clothes factories are not based on a national study of the Arab bodies, but they are translated from several foreign measurements and are used in Arab factories.

Whereas the academic learner's mission was primarily to develop with theoretical scientific study to arrive at practical ideas and applications aimed at serving and developing society.

For this reason, the research is interested in serving many groups of society who do not fit the available sizes in the markets, either because they are not appropriate or because of the inconsistency of the dimensions of their bodies and those who are not specialized in the field of detailing and sewing and who are interested in excellence and learn the principles of sewing without resorting to training places for this, this research dealt with designing clothes Using the program (cio-Optitex) to blame bodies with physical defects and full, which prompted the study to choose the subject of the research, which is "a proposed guide to clothing designs consistent with the anthropometric measures and physical defects of women using a computer"

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\* The results of the field study indicate a significant relationship between:

- 1- Generally preferred design and age.
- 2- Meeting the needs in concealing physical and occupational defects.

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The designs were divided into four categories, the first category from size 40 to 44, which was applied to designs from the first to the sixth, the second category from size 46 to 50, which was applied to designs from the seventh to the twelfth and the third category from size 52 to 56, which were applied to designs from From the thirteenth to eighteenth and the fourth category from size 58 to 60, which were applied to designs from the nineteenth to the twenty-second, as results showed that the sixth design in the first category is the most successful design, while the second category was the most successful design of the eleventh design, and the eighteenth category is either The fourth and final category was the most successful design, the twenty-second.

### المخلص

يهدف البحث إلى تنمية مهارات عينة البحث (الأفراد) في تصميم الأزياء ثلاثية الأبعاد، من خلال برنامج تعليمي مقترح مقسم إلى وحدات تعليمية متكاملة تشرح كيفية استخدام برنامج المصمم الرائع ٢ في تنفيذ قطع الملابس الأساسية (الجونلة) - بنطال - صدرية - بلوزة - سترة) باستخدام أدوات البرنامج المختلفة، حيث يتعلم المستخدم كيفية إنشاء نمط مسطح داخل البرنامج، ثم كيفية خياطة النمط معاً، ومن ثم تليسه على المانيكان للحصول على شكل ثلاثي الأبعاد تصميم يحاكي الواقع. الهدف الرئيسي من البحث هو بناء دليل مقترح لتصميمات الملابس المتوافقة مع القياسات الجسمية والعيوب الجسدية للنساء باستخدام الكمبيوتر. الهدف الرئيسي من البحث هو بناء دليل مقترح لتصميمات الملابس المتوافقة مع القياسات الجسمية والعيوب الجسدية للنساء باستخدام الكمبيوتر \* أشارت نتائج الدراسة إلى أن ٦٨,٥% من أفراد عينة الدراسة يقعون في الفئة العمرية (٣٠-٤٠) وأن ٦٩,٥% من أفراد العينة متزوجون، كما تبين أن ٣٦% من أفراد العينة يفضلون البنطلون والبلوزة، و٤٥% من أفراد العينة يفضلون البنطلون والبلوزة % يفضلون المواد الطبيعية، وأن التصميم المفضل بشكل عام لدى أفراد العينة وكانت النسبة الصحيحة ٥٥%، وأن ٧٩% من أفراد العينة يعتقدون أن المظهر الخارجي له تأثير على الانطباع الأول للآخرين، وأن ٤٨,٥% من أفراد العينة يعتقدون أن ارتداء ملابسهم وأن ٩١% من المبحوثات يعتقدون أن لون وسمك القماش يؤثر على شكل الجسم وتبين أن ٥٠,٥% من المجيبات يجدن الملابس التي تلبية احتياجاتهم في إخفاء العيوب الجسدية \* قام الباحث بعمل جدول مقاسات للدراسة، وتم استخدام برنامج (clo-Optitex) في صنع كائنات بنفس مقاسات الجدول أعلاه ثم قام الباحث بعمل تصميمات على برنامج (22) clo تصميم وتم تقييم التصميمات على عدد (١٠) من المحكمين (كلية الزراعة جامعة الإسكندرية، كلية الاقتصاد المنزلي جامعة المنوفية) وذلك للحكم على التصاميم المختلفة رؤية أعلى نسب النجاح للتصاميم التي يمكن أن تحقق غرض البحث والاستفادة منها في إخفاء العيوب.