

## **Suggested system for designing and implementing applied Projects at apparel technology and fashion department**

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### **summary**

Preparing the applied project is an important part of the educational process for the student, who needs to make effort to prepare and present it in the right way. The application project of Apparel Technology and Fashion Department is the preparation of a piece of clothing, and this piece goes through a set of stages starting from the design stage through the pattern and selecting the appropriate materials for implementation, weaving them, then the way the project is presented. A study has been made on the problems that students face during each stage of preparation and it has been addressed by the researcher by developing a set of plans for each of its stages and presenting them through an electronic system prepared by the researcher and this system includes diagrams illustrated with pictures and videos for these stages that facilitate the process. Students have to learn the process, and a handbook of materials has been prepared, a description of the materials has been made, and a concrete sample of the material has been put in place in order to help the student in the process of choosing the appropriate material for the implementation of the piece of clothing. The schemes and the system were evaluated by specialized professors before their implementation. The application was carried out on students of the Department of Clothing Technology and Fashion, Faculty of Applied Arts, Banha University, where the students were divided into two groups, a control group and an experimental group.

### **The first Door:**

#### **Chapter One: (Introduction, Research Plan, and Previous Studies):**

The introduction and a comprehensive idea about the research topic, the research problem, the aim, the importance, the research hypotheses, the research tools, the limits, the search terms, and the previous studies were presented.

#### **Chapter Two: (stages of preparing the implementation project \* the piece of clothing \*):**

In it, the stages of the application project (the piece of clothing) are presented, which is the design phase, and the steps involved in choosing the source of inspiration, analyzing it, preparing the mood board, drawing and coloring the model, as well as the flat drawing of the

model to prepare the design for the model in a correct manner. Then going through the pattern stage, where methods of preparing the pattern, methods of taking measurements, methods of controlling it, and the process of cutting and preparing for it.

Then the stage of raw materials and the presentation of the types of fibers in general in terms of being natural and synthetic

, as well as the properties of fabrics, then the stage of techniques, in which the techniques were classified in terms of being design techniques and implementation techniques. Design techniques include functional, decorative and constructive techniques, and implementation techniques included manual knitting techniques and automatic weaving techniques. Then the presentation stage, in which the methods of sketch presentation and model presentation methods are covered.

### **Chapter Three (E-Learning and Learning Methods):**

In it, the concept of e-learning, its types, characteristics, and importance, as well as multimedia learning methods and mental maps, their importance in the learning process, and how they were used in the preparation of the system.

### **The second chapter:**

#### **The first semester: (an analysis study of the existing fabrics in the market)**

The study that was carried out by the researcher in analyzing the fabrics present in the market in terms of description, weaving composition, features, usage and shapes in the market were presented.

#### **Chapter Two (System Preparation and Presentation)**

In it, the stages of preparing and designing the system in terms of design and programming, as well as showing the plans prepared by the researcher for all stages of preparing the application project, as well as showing some of the system screens.

### **Chapter Three (statistical analysis of the study, discussion of results)**

In it, the procedures of the applied part were presented, the results were presented and discussed, and the most important results were as follows:

- There is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the main scores of the students of the experimental and control groups in the post application of the cognitive test as a whole and in each of its sub-levels, in favor of the experimental group in the post application, and this indicates the acceptance of the first hypothesis of the research hypotheses. The size of the effect of the experimental treatment  $2\eta$  on the cognitive test as a whole and at each level of it ranged between (0.375 - 0.951), which is a large and appropriate value, and this indicates that a large proportion of the differences are attributed to the experimental treatment, which indicates the effectiveness of the experimental treatment in the test.

There is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the main scores of the students of the experimental and control groups in the post application of the observation card as a whole and in each of its sub-levels, in favor of the experimental group in the post application, and this indicates the acceptance of the third hypothesis of the research hypotheses.

- The size of the effect of experimental treatment  $2\eta$  on the observation card as a whole is 0.446, which is a large and appropriate value, and at each level it is also large, and this indicates that a large proportion of the differences are attributed to the experimental treatment, which indicates the effectiveness of the experimental treatment in the observation card as a whole and at each level of it.
- There is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the main scores of the students of the experimental and control groups in the post application of the observation card as a whole and in each of its sub-levels, in favor of the experimental group in the post application, and this indicates the acceptance of the third hypothesis of the research hypotheses.
- The size of the effect of experimental treatment  $2\eta$  on the observation card as a whole is 0.446, which is a large and appropriate value, and at each level it is also large, and this indicates that a large proportion of the differences are attributed to the experimental treatment, which indicates the effectiveness of the experimental treatment in the observation card as a whole and at each level of it.
- There is a statistically significant difference at the level ( $\alpha \leq 0.01$ ) between the main scores of the experimental group students in the pre and post applications of the observation card as a whole and in each of its sub-levels, in favor of the post application in the post application, and this indicates the acceptance of the fourth hypothesis of the research hypotheses.
- The size of the effect of experimental treatment  $2\eta$  on the observation card as a whole 0.920 is a large and appropriate value and in each sub-level it is also large, and this indicates that a large proportion of the differences are due to the experimental treatment, which indicates the effectiveness of the experimental treatment in the observation card as a whole and at each level of it.

## Recommendations

In light of the research results, the researcher recommends the following:

- 1- Inclusion of the system of designing and implementing applied projects in the clothing technology and fashion department to the course of practical materials in which the pieces of clothing are executed.
- 2- Mainstreaming the system's teaching methodologies in other colleges and specialized institutes.
- 3- Using multimedia technology in building educational programs for practical courses in the Department of Clothing and Fashion Technology.
- 4- The application of e-learning in an environment mixed with traditional learning.

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