

## Effectiveness of using a mind map and their relationship to the level of performance skills women fashion design students at the fashion design department

presented by

**Prof. Asst. Dr. / Sahar Ali Zaghloul Ali**

Asst. Professor at Clothing and Textile Department

Faculty of Home Economics, Helwan University

**Dr. / Rania Saad Mohammed**

lecturer at Clothing and Textile Department

Faculty of Home Economics, Helwan University

### Keywords

**Performance skills - Mind maps- Department of fashion design- Fashion design for women**

### Introduction:

The huge expansion in the volume of the scientific and humanity knowledge, and what happens of revolution in the information field has extended to all branches and fields of the various sciences, which made us keep pace with this expansion and development, and live with it and emulate it even we be an integral part of the modern societies life. The educational process has occupied a prominent place within priorities of this development as an inclusive process. So, the current period is witnessing serious attempts to develop the education for the purpose of the human development and the inclusive quality. Therefore, we should look for the best and the latest means and methods that we can follow in teaching to pursue this progress, also the educational process creates a new conditions require the innovation of the educational modern methods to be able to face these pressures and challenges, which can't be achieved by conventional methods.

(Diya Zaher, Kamal Eskander: 1984:11)

Women's fashion design considers one of the important fields in the clothing and textile industry, also it is one of the curricula that rely on the development of the skill aspect for the clothing and textiles students, so it needs to an efficient teacher who is known more of the teaching methods and various inspiration sources to be able to present everything new constantly to be the positive attitude to the learner to be able to interact during the learning process , and that to help him to form the creative mental for the students not in order to store and retrieve information.

Mental map has emerged from the teaching means for what it produces of organizing and motivating to the brain by using colors and drawings, also the map depends on forming a main concept in the center of the map , where branching from it several sub-concepts, these sub-concepts can be identified either by words , symbols or images and in this way it reflects the style of the human's brain work , and invests its energies completely by its halves the right and the left, as well as it provides the students with fun new ways to save and recall the information and use it to improve the memory and increase the focus and creativity by reviving the imagination. Thus it provides the best ways to use the student mental resources. (Tony, Buzan: 2005: 89)

Previous studies and research have recommended to procedure further of research and studies to develop skills of the innovative thinking in the fashion design curricula because of its effectiveness in developing the creative aspects for the students. Hence, the problem of the current research has launched to measure **the effectiveness of using the mind map and its relation to the level of the skill performance to design women's fashion for the students of the clothing and textiles department. Thus, the research problem is summarizing in the following questions: -**



1. What is the proposed visualization for an educational unit in women's fashion design, where teachers can teach it by using a mind map for the students of the fifth level at the fashion design department?

2. What is the effectiveness of using a mind map in women's fashion design for the students of the fashion design department in terms of: -

A - Developing the students' level in terms of the skill aspects?

B- Forming a positive trend toward the use of a mind map in teaching?

### **Research objectives:**

#### **This research aims to:**

1. Making an educational unit in women's fashion design, where teachers can teach it by using a mind map for the students of the fifth level at the fashion design department.

2. Identifying the effectiveness of using a mind map in women's fashion design for the students of the fifth level at the fashion design department in terms of:

A- Developing the skill aspects for them.

B- Measuring students' trends toward studying a curriculum of women's fashion design by using a mind map.

### **Research importance:**

1. The results of this research may provide the benefit to the planners of the fashion design curricula to design other study units by using mind maps.

2. Keeping up with developments that are happening in the field of the teaching strategies and what that requires from development and gain the inspiration skills in women's fashion design.

3. The current research may contribute to raising the skill and knowledge level for the students, it is also interested in measuring two directions toward the learning by using mind maps, and this is conforming the state policy that calls for the development and modernization of education.

### **Research limits:**

#### **The current research was limited to the following:-**

1- The students of the fifth level at the Fashion Design Department, Faculty of Designs and Home Economics, the first semester of the academic year 2014/2015 AD.

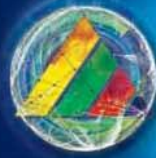
2- Development of the innovative aspect to the women's fashion for the garment piece (Tonic), for the age phase from (20-40) years.

3- Resorting to the inspiration sources during the construction of mind maps, and these are represented in the clothes supplements (buttons, tapes, appliqués)

4- The application period was (4) weeks, three hours per week. So, the whole application period was (12 hours).

### **Research hypotheses:**

#### **The research is testing the truth of the following hypotheses:**



1-There are no statistically significant differences between the mean scores of the control and experimental groups in the pre-test of the skill performance.

2-There are significant differences among the mean scores of the experimental group students in the pre and post- test of the performance skill in favor of the post-test.

3-There are significant differences among the mean scores of the students of the control and experimental group in the post-test of the performance skill in favor of the experimental group.

4-Students' opinions were positive toward studying the curriculum of the women's fashion design by using a mind map.

Models of the mind maps that were presented during learning:

### **Research methodology and procedures:**

**The current research has followed two methods:**

**1- The semi-experimental method:** by using the design of the two groups "control and experimental" in order to identify the impact of the independent variable "teaching using mind maps", on the dependent variable (skill aspects in the women's fashion design , trends and the students) .

**2- The analytic descriptive method:** is used to analyze the theoretical framework in the form of mind maps to develop the skill aspects for the students "measuring students' trends through the trends scale".

### **Research sample:**

The sample of research consisted of (30) student , all of them from the fifth level after excluded the students who repeating a year because their previous experiences differ from the experiences of the research sample, and they have divided randomly into two groups as follows: -

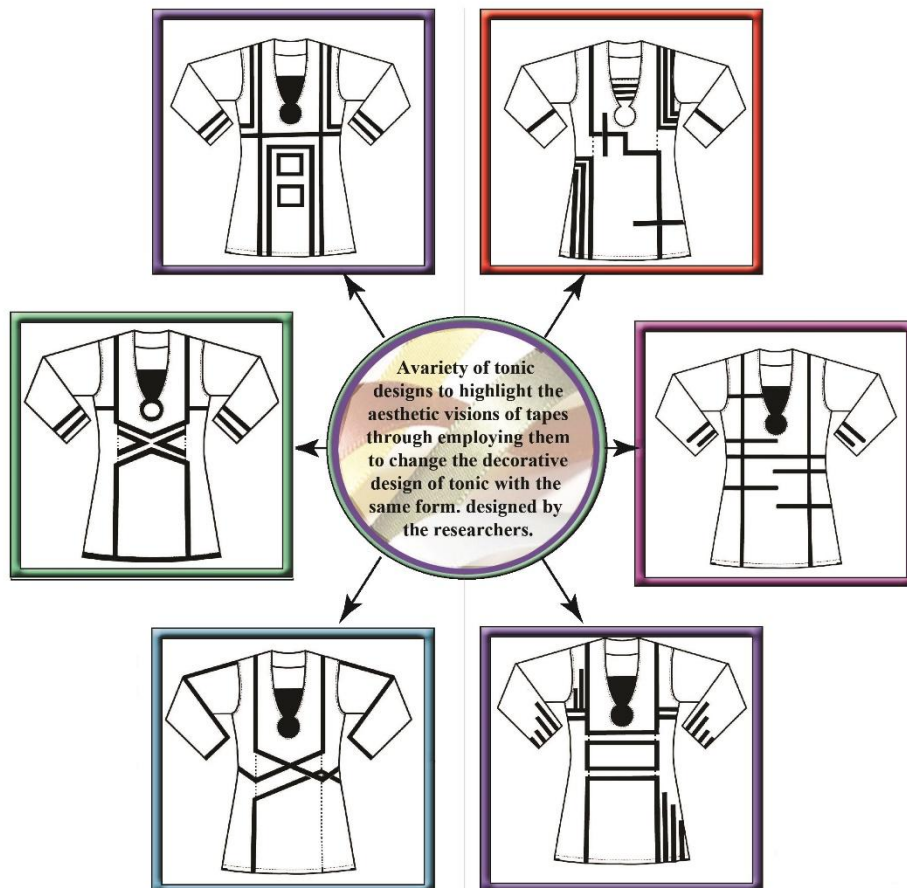
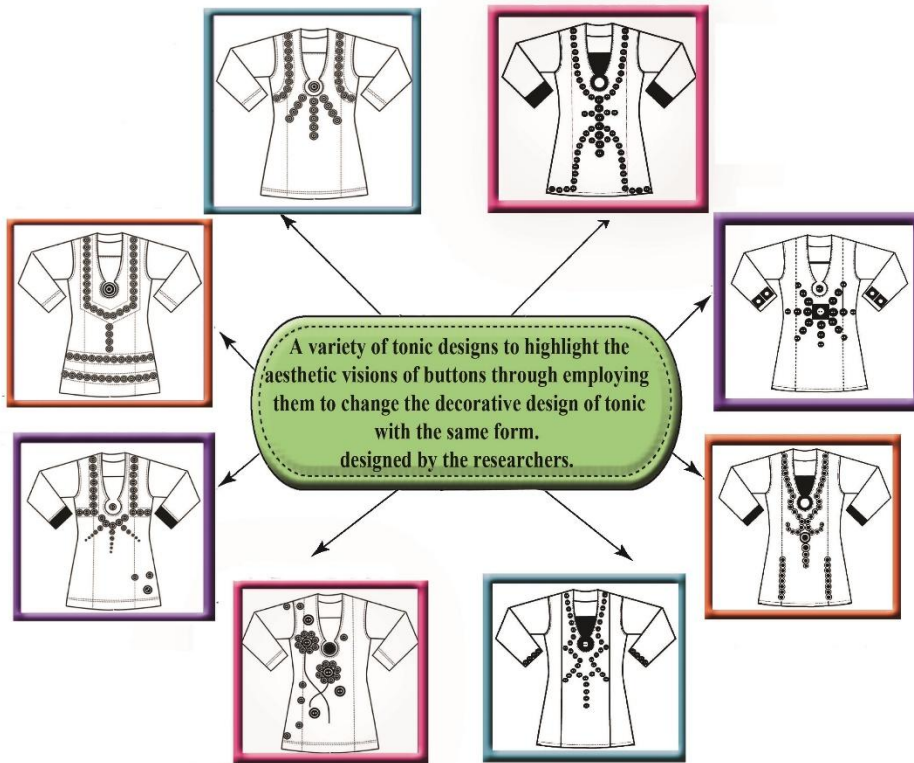
**A- The first group (control):** its number was (15) student. They had studied the research subject in the traditional way (the practical explanation and demonstration). And in this group the students do not make any effort in receiving the educational situation.

**B- The second group (experimental):** its number was (15) student. they had learned by using a mind map, and the aim of the basic experiment is the comparison between the two methods of learning (traditional, use of mind map) in terms of the skill performance "creative thinking", and measuring students' trends toward learning by using the mind map.

### **Research tools:**

1- Educational unit in the women's fashion design is taught by using a mind map for the students of the fifth level at the fashion design department.

2- Evaluation tools of the proposed unit (performance skill test, estimate measurement for the level of the skill performance, the students' trends measurement).





### **Research results:**

**First hypothesis: there are no statistically significant differences between the mean scores of the control and experimental groups in the pre-test of the skill performance.**

To investigate this hypothesis, the "T" test has been applied to the significance differences among the mean scores of the students in the experimental and control group in the pre-application of the skill test. And results were as follows: values of "T" for axes and total were (2.458, 0.00, 0.75, 0.802, 0.260) respectively. And these values are not statistically significant, which means there are no real differences between the pre and post applications, which show the equalization of the two groups. This result is consistent with studies results of both (Sahar Zaghoul: 2010), (Sahar Zaghoul, Rania Saad: 2014), which their studies results proved that there are no statistically significant differences between the control and experimental groups in the pre-test of the skill performance. And so, the first hypothesis has been achieved.

**Second hypothesis: There are significant differences among the mean scores of the experimental group students in the pre and post- test of the performance skill in favor of the post-test.**

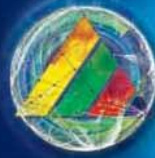
To investigate this hypothesis, the "T" test has been applied to the significance differences among the mean scores of the students in the experimental group in the pre and post- test of the performance skill. And results were as follows: values of "T" for axes and total were (12.64, 12.64, 33.21, 48.16, 32.04) respectively. And these values are statistically significant at the level of (0.01), which means there are real differences between the pre and post-applications in favor of the post-application.

The interpretation of this result may be relates to the use of the mind map, which considers one of the constructive strategies and which is based on organizing the skill construction by the learner in an effective way through his previous experiences or work with companions through collaborative learning. Also, the mind maps emphasize the active role of the learner in the presence of the facilitator teacher who helps in building the skill by right way through the environment that help to learning, and this is consistent with what mentioned by (BUZAN: 2005: 198) where he said that the mind maps are an intellectual effectively educational tool for organizing and classifying the ideas and lead to facilitate learning. This result is consistent with studies results of both (Hisham Ibrahim Ismail: 2011), (Anouar Ali Abd Elsayed: 2012), which their studies results proved that there are real differences between the pre and post- applications for the experimental group in favor of the post-application.

**Third hypothesis: There are significant differences among the mean scores of the students of the control and experimental group in the post-test of the performance skill in favor of the experimental group.**

To investigate this hypothesis, the "T" test has been applied to the significance differences among the mean scores of the students in the experimental and control group in the post-application of the skill test. And results were as follows: values of "T" for axes and total were (17.16, 9.917, 7.45, 8.15, 14.64) respectively. And these values are statistically significant at the level of (0.01), which means there are real differences between the experimental and control group in the post-application of the skill test in favor of the experimental group who has studied the subject of the proposed unit by using the mind map.

The reason for this may be the mind maps method, which considers one of the strategies that the mind works with it as an integrated unit, where the right half of the brain is in harmony with the left half. And this for what the maps include from words, drawings and images. The mind map helps the two halves of brain to



be contributed together because it uses pictures, colors and imagination, where all of this element represent the skills of the right half of the brain. Also, the way of drawing this mind map motivates the thinking to innovate more ideas which are related to each other, and that helps the mind on leaps of imagination through the mental correlation. and this is consistent with what mentioned by (Buzan: 1993: 64) where he said that the mind maps give free rein to the mental capabilities and reflect what inside the mind, and this result is consistent with studies results of both (Sahar Zaghoul: 2010), (Sahar Zaghoul, Rania Saad: 2014), which their studies results proved that there are statistically significant differences between the mean scores of the students of the control and experimental group in the post-test of the performance skill in favor of the experimental group, and that because of the effect of mind maps in learning the skills of the innovative thinking for all of " fluency, flexibility, originality, details". And so, the third hypothesis has been achieved.

#### **Fourth hypothesis: students' opinions were positive toward studying the curriculum of the women's fashion design by using a mind map.**

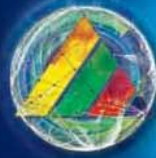
To investigate this hypothesis, the duplicates and percentages has been calculated for the students' opinions about learning by using the mind maps, and results showed the positive opinions of students about learning the women's fashion design by using the mind maps, where (100%) of the students has approved learning by using a mind map because these maps helping them to understand how to use the inspiration sources in an innovative way and they do not feel bored during putting design proposals for a women's tonic, and (93%) of the students who used the mind maps in learning the women's fashion design had achieved an improvement in their skill performance, through using these mind maps also (87%) of the student strongly attracted to the curriculum's professors during presenting the mind maps. While (80%) of the students have got an innovative vision of design after they studied the women's fashion design curriculum, as they are accepting the professors' instructions with happiness during presenting the mind maps of the tonic that inspired from the clothes supplements, and (73%) of the students did not find it difficult to draw design ideas for women's tonic through using the mind maps method, and their study to the fashion design curriculum by using the mind maps has a positive effect than the skill performance of the other fashion design curricula. Finally, (60%) of the students turned away from the traditional pattern in putting designs for women's fashion and they trended completely behind the design ideas that presented during the learning.

This result can be interpreted to the learning by using a mind map that leads to transfer the concepts to skill schemas can deal with it by the understanding and comprehension to make the students use the high thinking skills to perform the innovative process for the different skills.

#### **Recommendations:**

In light of the previous results, researchers recommend the following: -

- 1- Use of the mind maps must be included in the fashion design curricula at the Home Economics colleges and the counterpart colleges.
- 2- Procedure further research about the use of the mind maps in the other study curricula.
- 3- Turning away from the traditional manner of the lecture, and use a strategies that interested in developing the high levels of the skill collecting "innovative thinking" including the mind maps.



## References

- Anouar Ali Abd Elsayed (2012): effectiveness of using a mind map in developing the collecting and innovative thinking among students in the Faculty of Specific Education, the research published in the Faculty of Specific Education journal at Mansoura, No. (78), Part III.
- Khayer Soleiman Shawahen , Shahrzad Saleh Bedndy (2010): Thinking and what behind thinking (the use of the mind maps and diagrams organizations to methodological thinking, Elmasyrah Publishing house for publication , distribution, and printing, Amman.
- Sahar Zaghoul (2010): "the effectiveness of brainstorming strategy to develop the innovative thinking skills in children's fashion design", the research published in the Home Economics magazine, No. 26.
- Sahar Zaghoul, Rania Saad( 2014 ):"the effectiveness of the method of brainstorming to develop the skills of the innovative thinking in women's fashion design at the third year students of the Clothing and Textile Department ", the research published in the ninth Arab annual conference and the sixth International "specific education and the development of creativity in Egypt and the Arab world, Visions and Strategies ", Faculty of Specific Education at Mansoura, Mansoura University, in the period from 7 - 8 May.
- Mansour Nayef Aletaibi, Ali Ahmed Alrabaiy (2015): The impact of teaching by using the mind maps in the academic collecting for the students of the Faculty of Education at Najran, the research published in the journal of Arabic studies in education and psychology, in Saudi Arabia Kingdom, No. (59).
- Hisham Ibrahim Ismail (2011): the effectiveness of a training program based on the mind maps and skills of what behind the knowledge in improving the skill of solving the verbal mathematical problems for the pupils with learning difficulties, the research published in the Faculty of Education journal , Banha, No.(88), the second folder.
- Brown, patty(1992 ) : Ready to wear Apparel analysis , Macmillan publishing co., printed in, U.S.A.,
- Buzan , Tony ( 1993 ): The mind Map Book “ How to use Radiant thinking to Maximize your Brains un tapped potential , New York ,
- Buzan , Tony ( 2005 ) : The Ultimate book of mind maps . in Greate Britain by Martins the printers limited , Berwick ., upon tweed .
- Toll Free ( 2005 ) : Concept Mapping , Journal of technology and learning , 25 .8,1.
- Tony , Buzan ( 2005 ): The Uitimate book of mind maps .in Great Britain by Martines the printers limited , Berwick upon Tweed .
- Goodnough ,K & Wood ,R ( 2002 ) : Student and teacher perceptions of mind mapping , A middle school case study , paper presented at the Annual Meeting of the American Educational Research Association ( AERA) , New Orleans , LA , April , ERIC DON , ED 470970 .