Citation: *Heba Youssef et al. (2021), A Program for The Maintenance of an Overlock Machine for Students of Ready-made Clothes Department in Technical Institutes, International Design Journal, Vol. 11 No. 5, (September 2021) pp 61-70*

A Program for The Maintenance of an Overlock Machine for Students of Ready-made Clothes Department in Technical Institutes

Heba Rezkallah Shaker Youssef
Instructor, Industrial Technical Institute in Shubra, College of Technology, Al-Matariyah, hoba_rezk@yahoo.com
Research organization, Department of Home Economics, Specialization of Clothes and Textile, Faculty of Specific Education, Ain Shams University.
Dr. Heba Assam El Desouki
Professor, Faculty of Specific Education, Ain Shams University, Dr.heldessouki@yahoo.com
Dr. Ihab Fadel Abu Musa
Professor, Faculty of Home Economics, Menoufia University, ih_fashion20@yahoo.com

Paper History:

Paper received 6th June 2021, Accepted 26th July 2021, Published 1st of September 2021

Abstract:

Maintenance is an essential function in all activities that contribute to controlling costs and avoiding dangerous consequences that can be attributed to a technical system failure or human error. Various scientific departments in universities as well as research centers have begun to pay special attention to the basics of maintenance management, so we find that maintenance is one of the most important activities accompanying for the production process in any industrial establishment. Hazem Abdel Fattah, Sarah Mahran (2016-174)
Hence, the research problem was extracted in the following question: What is the possibility of preparing a computer program for the maintenance of an overlock machine for students of ready-to-wear clothes in technical institutes? What is the effectiveness of teaching a computer program for overlock maintenance in developing the knowledge and skills of students of the ready-to-wear department at technical institutes? Therefore, the research aimed at preparing a computer program in the field of maintenance and also measuring the effectiveness of the program's teaching in terms of developing students 'knowledge and skills on overlocking machine maintenance and measuring the program's effectiveness in terms of knowledge and skill achievement, as well as raising the level of the graduate's competence in maintenance specialization within the industrial sector, where the proposed program was applied (Before, after) on the research sample,

The research problem:
1- What is the possibility of preparing a computer program (for overlock maintenance) for students of ready-made clothes at technical institutes?
2- What is the effectiveness of teaching a computer program (for overlock machine maintenance) in developing the knowledge and skills of students of the ready-to-wear department at technical institutes? Preparing a computer program in the field of (maintenance

Objectives:
Determining the effectiveness of teaching a computer program in developing the knowledge and skills of students of the ready-to-wear department, majoring in maintenance at technical institute and Raising the level of efficiency of a graduate of the ready-made clothes department, specializing in maintenance, within the industrial sector.

Research Methodology:
The research follows: the descriptive method and the experimental method.
1- Descriptive Approach: To describe and analyze the content of the course "Maintenance of Overlock Machine" for the Second Division, Readymade Garments Department, specializing in maintenance to prepare the proposed program.
2- The experimental approach: to apply the program for "maintenance of the overlock machine" on the sample members to verify the effectiveness of the program.

Results: The results are summarized in the presence of statistically significant differences at a significant level (0.05) between the mean scores of the students in the pre and post applications to measure the effectiveness of the proposed program in the field of maintenance of industrial knitting machines (overlock machine) for the benefit of the post application and thus the first hypothesis was verified. There are statistically significant differences When the significance (0.05) between the average scores of the students in the pre and post application of the cognitive achievement test in favor of the post application and thus the third hypothesis has

been verified, there are also statistically significant differences at the significant (0.05) between the mean scores of the students for the pre and post application of the skills for maintenance of a machine Overlocking skill levels in favor of the post application, and thus the program assumptions were verified.

Keywords:

Maintenance, Overlock Machines , Program, Technical Institutes

References:

1. Al-Mujam al-wages, The Brief Dictionary of the Arabic Language Academy, a special edition of the Ministry of Education, GP, 2003.
2. Ahmad Hussein Al-Laqani, Curricula between theory and practice, fourth edition - Allam Al-Kotob - Cairo 1995.
3. Aisha Muhammad Saleh, Effectiveness of a Multimedia Program in the Techniques of Implementing the Classic Women's Jacket" Master Thesis - Faculty of Home Economics - Department of Clothes and Textiles - Helwan University 2019.
4. Ghada Ismail Muhammad Al-Jamel, building a training program to develop the skills of individuals in ready-to-wear factories "- PhD thesis - Faculty of Applied Arts - Helwan University - 2009.
5. Hatem Yahya Yamen, designing, producing and producing educational software, and its educational applications, I want, The National Library, 2003.
6. Hazem Abdel-Fattah, Sarah Ibrahim Mohamed Mahran, The Effectiveness of an Educational Unit on Total Productive Maintenance (TPM) in the Ready- Made Garments Industry, Fourth International Conference of the Faculty of Home Economics" (Activating the role of home economics in citizenship and community development) pp. (1174-1193) Helwan University2016.
7. Hind al said Muhammad Ali Aref, designing an educational unit programmed by the collage method through the use of the educational bag and its effects on the artistic production of middle school students "- Master Thesis - Faculty of Art Education - Helwan University - 2002.
8. Ibrahim Abdel-Wakeel Al-Fare, Education of 21st Century Technology, Cairo Technology, Delta for Computer Technology, University Book House, Al Ain 2012.
9. Maryam Nabil Nazeer, teaching unit CD in the field of designing and printing ready-made clothes with the aim of developing some methods of printing in specialized institutes "Master Thesis - Faculty of Home Economics - Department of Apparel and Textile - Menoufia University 2013.
10. Maureen, C.W" Selected Resources on Developing Vocational Programs for individuals, u's, national for Research in vocational Education 1998, Eric No: 317834. 22.
11. Medhat Mohamed Hussein, the link between product design and technology of machinery and equipment in the garment industry, "PhD thesis - Faculty of Home Economics - Department of Garments and Textiles - Helwan University, 2005.
12. Rham Zakaria Kamel, Effectiveness of a training program for advanced students of the Garment and Textile Department on the industrial knitting machine" - Master Thesis - Faculty of Home Economics - Helwan University 2019.
13. Samer Mazhar Qantakji, Some Basics in Maintenance Management, EUT Model of Maintenance Work, 2011.
14. Sawsan Abdel-Latif and Medhat Mohamed, machines and equipment for technical basic clothing - World of Books.
15. Shaimaa Mustafa Mubarak Ibrahim, Maintenance of industrial knitting machines using the strategy of participatory education via the web and measuring its effectiveness", his PhD thesis - Faculty of Home Economics - Helwan University 2019.
16. Sherine Ahmed El-Sayed, to benefit from the technology capabilities of machines and equipment to raise the efficiency of functional performance and the aesthetic value of school clothes. Master Thesis - Faculty of Home Economics - Department of Clothes and Textiles - Menoufia University 2010.
17. Sherine Badry Ahmed, designing a flexible system of labor standards for atypical production in ready-to-wear factories to meet the requirements of the local market - PhD thesis - College of Applied Arts - Helwan University - 2012.
18. Tasneem Yahya El-Sayed, Effectiveness of an educational unit in machinery and equipment for students of the clothing and textile department", Master Thesis - Faculty of Home Economics - Department of Clothing and Textile - Helwan University 2014.

19. Trentex-5 (traiantex-E), Principles of Maintenance of Knitting Machines" The Working Group of the Sectoral Partnership for Ready-made Garments, affiliated to the Tvet Project, the Training and Technical Education Reform Program Project in Egypt, Egypt 2010.
20. Zainab Abdel Hafeez Farghaly, Machines and Equipment in the Ready-Made Garments Industry", Dar Al Fakir Al Arabi, 1st Edition, Cairo 2003.
21. Zurki Ammar Zurki, undertaking to manage maintenance, maintenance as a strategic choice for the industrial enterprise," Introduction to improving production - Master Thesis - Qasida Maryia University of Ouargla - Algeria 2012.

