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Increasing the quality of student outcomes by using e-learning system in computer programming courses

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INCREASING THE QUALITY OF STUDENT OUTCOMES BY USING E-LEARNING SYSTEM IN COMPUTER University of PROGRAMMING COURCES HUDDERSFIELD Aisha Othman Email:u1050030@hud.ac.uk **Supervisors : Dr Crinela Pislaru** The Computer Science ASSURE model E-learning Package For User-Centered Design Computer Course (UCD) Programming Course **User analysis** Content Development It is key to understand the following about fte ffttfff Courseware Development the users: (AX) Analyze Learners Mental specifications (e.g. willingness to learn, mental and Design Features developmental stages of language, reading level, learning Content Delivery strategies, language, culture, attention, orientation). Evaluate and Revise tate Objectives Physical specifications (e.g. health and age). Emotional specifications. Choice of Platform Prototype Development-(Course site organisation) **Design.** This is the stage for preparing a prototype, to describe how the e-learning package will work and look. It will contain a description of use and a designed model to best 00; suit the goals of the users. Courseware Software Development **Prototype Testing** Pre-evaluating Development **Prototype.** This stage concerns the development and completion of an e-learning application that can be piloted. Cequire Learner **Evaluation.** The application must be reviewed by the **Evaluating the Prototype** elect Instructional Participation designer and by other experts in the field of design for Methods, Media, and Materials web-based learning and e-Learning. Students Test of the first The LMS experts, the computing tilize Media and department academic staffs prototype Materials Omar Al-Mukhtar University THE ASSURE MODEL INSTRUCTIONAL PLAN ASSURE model 1 THE ASSURE MODEL INSTRUCTIONAL PLAN **Final Product** Heinich et al. (1999) proposed the use of the ASSURE User Center Design 3 model for planning and delivering teaching sessions that Understand E-learning Package CS Context of Use integrate technology and media and for providing an Development and integration the final authentic assessment of student learning . "The ASSURE Conclusion model allows for the possibility of incorporating out-of-class resources and technology into the course materials. This Upload the e-learning package and Delivery model will be especially helpful for instructors designing of the computer programming course online courses." Develop Establish System Creative Approach Scope The goal of the model Plan and Manage •This process or template for planning can help students Content Conclusion make better usage of technology, in order to facilitate the learning process and the completion of further progress to achieve their goals. **Example for use Aurasma Application:** Develop This study has shown that the use of computer animations Requirements Information can assist students to better understand complex and difficult Creativity and Innovation Architecture concepts in various computer courses. The LBL course training will allow the incorporation of sound, moving pictures, and animation into lessons, which extends instructors' capabilities to deliver materials that increase Computer learners' interaction with the subject matter. hink Creatively SBL LBL Science Course Implement Innovations Prototype and Evaluate Work Creatively with User Interface Others Originality and inventiveness in work

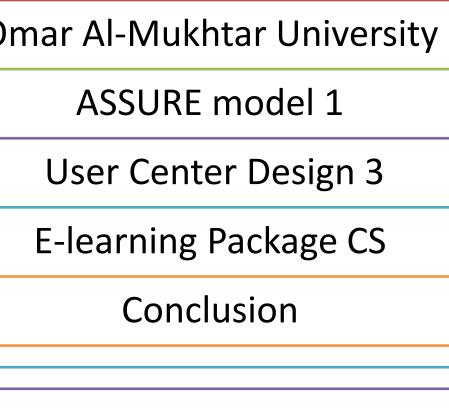


at Omar Al-Mukhtar University, Libya

Aim

Teaching computing courses is a major challenge for the majority of lecturers in Libyan higher learning institutions. These courses contain numerous abstract concepts that cannot be easily explained using traditional educational methods. This paper describes the rationale, design, development and implementation stages of an e-learning package (including multimedia resources such as simulations, animations, and videos) using the ASSURE model. This training package can be used by students before they attend practical computer lab sessions, preparing them by developing technical skills and applying concepts and theories presented in lecture through supplementary study and exercises.





INTRODUCTION

In the early 1990s, Omar Al-Mukhtar University established its Department of Computer Learning to provide BSc degrees in Software Engineering and Computer Science.

- The course material has traditionally been delivered through lectures (also known as school-based learning, or SBL)
- and subsequently reinforced in lab sessions (laboratory-based learning, or LBL).





