

# A Web-based Instructional Design System for E-course Development

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# E-learning: the revolution

- Education no longer requires students to go to learning locations, a revolution is taking place regarding the way people learn and the way instruction is delivered (Sun, 2001)

# E-learning

- The easy use of information and communication technology including the internet to learn and to teach ,

# Types of e-Learning

- Purely online - no face-to-face meetings
- Blended Learning - combination of online and face-to-face
- Synchronous
- Asynchronous
- Self-study
- Self-study with subject matter expert
- Web-based
- Computer-based (CD-ROM)
- Video/audio tape

# ICTP & NELC

- Information and Communication Technology Projects ICTP
- One project: “E-Learning”, has established the National E-learning Center (NELC) to transfer and distribute theories and practices of e-learning among Egyptian universities through its branching 17 Universities E-learning Centers (UELCC).

# The Goal

**The common goal is whether or not  
online instruction actually helps  
students learn what they're supposed  
to learn.**

# challenges facing the shift to e-learning

- The lack of an instruction design model that can be adopted for the development of an e-course.  
Instruction design as defined in the literature
  - (McGriff, 2000. Seels&Glascow, 1996 (;

# The Strategy

**Instructional design can be the unifying force that allows for all of these facets to be considered, incorporated and still produce effective, efficient and appealing instruction.**

# Instructional Design

Clark (2002) :

- **Systematic process that involves stages of planning, development and testing**
- **Scientific and technical principles in the design of products**
- **Products designed to be functional and appealing to users**

# Instructional Design

the essential and most important of e-learning is the courseware design since the processes of analysis, design and presentation of e-course results in the total impact of learning

(Eggers, 1999 )

# The Problem

- The majority of web-based instruction was designed following existing instruction design models
  - (Sun, 2001)

# *Defined scope of the study*

- Is there a model adopted by the team for e-course development?
- Is there a need for an instructional design system of e-courses?
- In what format should the model/system be produced to be accessible and easy to use ?

# The Problem

- A total of 15 UELC managers, 15 instructional designers, and 29 graphic designers were interviewed. ,

# The Problem

- a deep need for an instructional design model for e-course development (98%),
- (97%) this model should be presented in a web-based system available for all development team at UELC.
- (2%) preferred other electronic forms such as computer C.D. and printed format (1%).
- There was a general consent (99%) that a printed guide book should accompany the IDS to assist users in the implementation of the system .

# ***Problem statement***

- to develop a web-based instructional design system for e-course development based on a modified version of ADDIE model.

# Questions

- what are the steps involved in the proposed version of ADDIE model which suites the design of e-courses
- what are the components of an instructional design system for e-course development
- how can the proposed instructional system be developed as web-based application
- how does the web-based instructional design system for e-course development look like

# *Purpose of the study*

- to reduce e-course development effort, cost, and time, the effort required from instructional designer
- The communication between the instructional designer and the graphic designer will be more specific and positive,
- to provide support and encourage the development of e-courses.

# *Methodology*

- Developmental research methodology which involves qualitative inquiry .

# Methodology

A developmental cycle consisting of

- Design,
- Development,
- Implementation and
- Evaluation activities

# *IDS development process*

- literature review
- create an ID template in print format
- create a guide book in print format
- formative evaluation of template and guidebook using internal review and tryouts techniques

# *IDS development process*

- design web-based IDS based on the content of the template
- formative evaluation of IDS using internal review and prototyping techniques
- produce IDS and print template and guidebook in their final format
- publishing IDS on NELC website

# IDS

Home | Register



**IDS**  
Instructional Design System

[OVERVIEW](#) | [NELC WEBSITE](#)



## OVERVIEW

The IDS is provided by NELC to the University community to guide the subject matter experts when planning and authoring their courses to be developed as electronic courses

## INSTRUCTIONAL DESIGN SYSTEM (IDS) OVERVIEW

ID, is a systematic process of planning and producing effective instructional materials to ensure learners achieve established learning outcomes. ID is a framework for learning which is based on theoretical and practical research in the areas of cognition, educational psychology, and problem solving.

E-Learning is the marriage of technology and education, and most often, the instructional designer's greatest role is that of "bridging" concepts between the two worlds. This vital role ensures that a subject matter expert's concepts are properly developed by graphic designers and programmers. " George Siemens"

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## DETAILS

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## Login to ID System

User Name:

Password:



# Implications

- Online instructors need to spend considerable time learning how to analyze e-learning environments and its variables.
- Engaging faculty and SME to participate and collaborate in online teaching is a way to increase the effectiveness of e-courses design.
- Taking the pattern and history of student's course participation into account when assessing his performance is a good approach to increase the effectiveness of e-course development [4].
- Recommending IDS for use in e-learning center
- Recommending IDS for use as for the design of e-courses and CBI

