Creative Design of Interactive eLearning Activities and Materials (IEAM): A Psycho-Pedagogical Model

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ABSTRACT

The research objective was to develop a psycho-pedagogical model for designing creative Interactive eLearning Activities and Materials (IEAM). To achieve this purpose, the developmental research methodology was implemented through three main stages: systematic design, systematic development, and evaluation. In the systematic design phase, a list of educational and creative design standards of interactive eLearning activities and materials was developed. In the systematic development phase, the main components of the proposed model were created. The main components (domains) of the proposed model that should be implemented in developing eLearning activities and materials were: Knowledge Domains and Classifications, Pedagogical Techniques and Strategies, eLearning Tools and Media, Pedagogical Standards of Interactive Activities, Creativity Processes, and Mental Knowledge Structure. In the evaluation phase, a mixed approach of Focus Group Interview (FGI) and Case Study was implemented to validate the proposed model on a micro level. The final model was refereed by three full professors specialized in: Curriculum and Instruction, Instructional Technology and eLearning, and Cognitive Psychology. The findings of this study revealed that the proposed model could be a supporting metaphor for creative design of interactive eLearning and distance learning activities and materials. This model is also a starting point for studies, which intend to understand and apply creative design of eLearning activities and materials. It is recommended to have online instructors and e-Courses’ instructional designers get trained on implementing this model to increase the quality of designing eLearning courses.

Keywords: Creative Design, Distance Learning, eLearning, Interactive Activities, Knowledge Generation Skills, Writing eLearning Materials

1. INTRODUCTION

Digital information technology has been a new resource for teaching and learning. Internet-based learning, mobile sets, and social media networks are some of the age constants and claimed to replace the traditional classroom, and alter methods of teaching and assessment. They enable students to learn whatever they want, whenever they want and as much as they want. Most importantly, students will be able to assess what they learn. No doubt, the shift from

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the traditional classroom to internet-based learning or virtual classrooms will change the shape and type of human interaction, communication, educational approaches and evaluation methods.

eLearning is regarded as an innovative way that provides an interactive well pre-designed learner-centered environment; accessible to every person everywhere and every time, using the characteristics and sources of the internet and digital technologies consistent with the principles of appropriate instructional design and e-teaching (Khan, 2005). With the growing role of knowledge economy which is based on the information revolution, it has become necessary to focus on the preparation of learners’ generations able to spread, generate, distribute and use knowledge in order to serve the ambitions of human development.

Abdelaziz (2012a) states that e-learning allows for the development of brainstorming options because the internet, information and communication technology and social media networking tools are working to make information sources and conversations with peers and experts available any time day or night. And students can benefit from this feature to overcome academic difficulties and develop creative tendencies. That is the model of the teacher as the sole source of knowledge will disappear with the availability of e-Learning, where the ideas of many experts in various areas are easily accessible. This type of instruction will eliminate the phenomenon of schools receiving textbooks supporting curricula from the concerned ministry to be transferred to students by teachers. On the contrary, eLearning allows easy access to primary knowledge sources where all teachers and students within the electronic environment can become publishers and producers of knowledge and are not merely recipients of knowledge.

Out of what previously mentioned, it is clear that instruction based on the techniques of digital communication tools is an important approach to activate digital age learners. It transcends the limits of time and space to provide opportunities for instructional and training needs growing in a rapidly changing world, whether the target audience is students of public education or higher education institutions. The growing reliance on e-learning is actually due its following characteristics:

- Increasing opportunities for learning by permanently providing learning materials outside the classroom and educational sites, which allows individual’s realization of thought and interaction with learning materials anywhere and anytime;
- The ability to cope with different learners according to methods, speed of learning and educational needs, allowing for students with high competence to study more advanced or more abstract topics without depriving others from progress at their own pace;
- Providing the possibility of using effective methods such as learning in small groups, project-based learning, electronic modeling, simulation and electronic games (Aldrich, 2009);
- Increasing interaction opportunities between the learner and learning materials in its different forms, and social interaction among humans in educational situations (Ally, 2008);
- Increasing learner’s responsibility for his/her own learning; which supports the trends of continuing education and lifelong learning;
- Easiness of the reuse of e-learning materials for long periods of time with numerous groups of learners;
- Easy sharing of knowledge and learning outcomes by building knowledge communities (Jonassen, Peck, & Willson, 1999);
- Easy application of multiple alternatives for assessing learner’s performance and retention of evaluation and electronic feedback materials and sources for long periods; these can be retrieved for teaching and learning quality assurance (Horton, 2001; Palloff & Pratt, 2009);
- Increasing the intra-classroom collaboration and inter-classroom collaboration (Guhlin, 2001);
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