

## Chapter 38

# Instructional Design Technology in Higher Education System: Role and Impact on Developing Creative Learning Environments

**Lakshmi Sunil Prakash**  
*Sohar University, Oman*

**Dinesh Kumar Saini**  
*Sohar University, Oman*

### ABSTRACT

*Higher educational Institutions all over the world are grappling with increased student population, several domains of learning and varied disciplines and instructors with varied experiences in using instructional design technologies. The chapter focuses on how it is possible to facilitate instructional design experiences for the stakeholders in higher education for creative learning. The chapter addresses the emergence of Instructional Design Technology (IDT). The role of IDT and its importance in higher educational institutions is studied with current practices in the field. The impact that this field had made in the evolution of instructional frameworks across the different layers of tertiary educational system is studied especially with regard to improving the teaching and learning experiences of educators and students respectively. The role of Creative Learning technologies' is discussed based on the success that these systems have enjoyed in improving instructional design.*

### INTRODUCTION

Research in the area of Instructional Design technology has revealed several gaps in the theory and applied practice. Instructional Design technology implies creating and delivering content for educational purposes using technology driven tools. The aim of using instructional design technology is to capitalize on the available resources, people and time besides also to support creativity, flexibility and archiving of learning materials and artifacts. However most of the learning environments in the educational institu-

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tions while being successful in providing all round the clock support to the learners and educators, in terms of availability of resources and feedback on assessments have not been able to support the creative facets of a learner. Emergence of IDT as a field of study

- IDT as a tool of developing creative learning environment
- Importance and Impact of IDT in institutions
- Adaptive Instructional Design Technologies
- Role of adaptive Instructional Technologies
- Match between Instructional Design and Learning Design Technologies

## **BACKGROUND**

The chapter addresses various issues faced by instructors while preparing instructional material keeping in mind the tools they will be utilizing to disseminate knowledge in order to develop a creative learning environment. The chapter provides the perceptions and expectations that a student has of the education that he will receive and the learning experiences that he undergo, need to match the perspective of the instructor and the program learning outcomes. The gaps that are emerged during this process reflect negatively on the students' performance in the course of his academic career and after. Therefore it is essential that the experiences are formulated with the right amount of instruction and judicious of supporting technology for achieving the goals of the program that the student has enrolled in.

The main focus of the chapter is on the following topics which are covered in detail. Modern learning management platforms face the similar challenges as their traditional counterparts, in that need to be able to involve several challenges as faced by the traditional learning management systems. Integration of creativity in the curriculum is challenging task for the higher education institutions. Cross disciplinary and inter disciplinary curriculums also face the same problem because there is no proper definition of creativity and no proper policy formulations in HEIs. (McWilliam 2007a). Amabile (1997) identified three major components of creative performance which are domain relevant skills; creativity relevant processes; and task motivation. There is systems approach given by Csikszentmihalyi's (1999) which categorizes domain relevant skills like facts, principles, skill sets and opinions. These skills are needed for the learner and help him to get proper response or possible judgements (Dewett 2003). As illustrated in Figure 1, modern learning environments foster interaction and learning on the go with real world learning environments.

A productive learning environment must have the following characteristics.

- Significant and meaningful interaction between the academic and the learner.
- Inquiry based learning activities.
- Learning activities based on group discussions, project –based activities.
- Emphasis on understanding the learning content.

Several types of learning environment have evolved and institutions are experimented which include Adaptive personalized Learning Management Systems.

Context aware ubiquitous learning is very beneficial for the students for solving problems and acquiring real world knowledge Chu et al. (2010), Rogers et al. (2005). Ogata and Yano (2004) proposed

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