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Instructional Design in an Online Environment

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Abstract - In this manuscript the authors describe the basics of the instructional design and the potential of the instructional design framework online learning environment, further, it highlights the possibilities of student motivation on MOOCs with planned activities. These activities help to motivated the students involved and thereby lower the drop-out ratelevel.

I. INTRODUCTION

The following basic concepts can be found in each instructional design model: student, teacher, educational content, organization of learning, methods, the process of teaching, feedback, evaluation and difference between students. These basics concepts and their relationships have been studied in the 100-120-year-history of education theory. Education design is a specific field of education theory. Conversely, instructional design looks back on approximately 40 years of history as a science. Educational design models are based on the following basic concepts: learning outcomes and educational goals, learning process, performance goals, education and learning events and evaluation of achievements. The essential questions of education theory and instructional design have not changed significantly even with the emergence and spread of the digital educational culture. With the development of knowledge about learning, these models have been somewhat modified, but are equally true in traditional and online learning environments.

Among the instructional design models, the first significant ADDIE model was released in 1975 (Analysis, Design, Development, Implementation, Evaluation) (Branson, 1975). The model focuses on the content development process and its general principles and general process of digital content development remain current even today. Shortly thereafter, in 1978, Walter Dick and Lou Carey created an instructional design model that applicable to development and education theory (Dick, W. - Carey, L. 1978). The general steps and elements of these models were the formulation of goals, analysis of the education, input characteristics, success criteria, measurement of

success criteria, educational strategy, content development, formative evaluation, summative evaluation, revision and correction. After the emergence and advancement of cognitive psychology, education design also came to a new definition: “A systematic process that is employed to develop education and training programs in a consistent and reliable fashion” (Reiser & Dempsey, 2007). Nowadays digital content development is now a common and widespread technical solution. We pay more attention to the efficiency and effectiveness of development in digital and online learning. In 2016 the NEXIUS model appeared, which is a new educational design model, intended as an answer to new expectations (Ollé et al. 2016.). In this model, the following steps define the content development process: curricular synopsis, manuscript, student activity plan, scenario, development of electronic curriculum, correction.

II. INSTRUCTIONAL DESIGN IN AN ONLINE ENVIRONMENT

Developing an online course that is engaging, promotes interaction, motivates learners, and above all facilitates learning is easier said than done. It's even more challenging when trying to modify a face-to-face course for the online format (Morrison, D., 2013b).

In traditional education settings, classroom walls act as boundaries for instruction and learning. But online education has no walls and uses a delivery method that shifts the course development process entirely. This shift suggests instructional design principles and models are critical, are needed to address the complexities inherent to the web as a delivery mode. Following instructional design principles for online courses ensures the focus is on student learning and not on the technology or platform (Morrison, D., 2013b).

A primary criticism of MOOCs is that their completion rate is very low, approximately 10% (Wilkowski , Deutsch & Russel M., 2014). According to other authors (Jordan, 2014) the

majority of courses have been found to have completion rates of less than 10%.

Appropriate instructional design and MOOC developing, where the users' activities were planned, leads to lowering the level of the drop-out rate in the framework of online courses. According to Krippendorff (2006): design brings forth what would not come naturally and it is essential to provide each participant with the opportunity to gain practical, relevant knowledge about course design that can be applied to work or personal education projects. The ultimate goal of course design is to develop effective, sound courses that focus on learning, not teaching (Morrison, D., 2013a).

In terms of (online) learning, the students can be motivated with: 1. educational contents and 2. potential activities. The activities can be planned according to instructional design principles. These activities are: learning using educational contents, such as: text, presentation and multimedia, forum activities and quizzes. The authors' principle is based on the following intentions: 1. there are limited possibilities for changing contents and structures after starting the online course 2. for learning and teaching purposes the authors mostly use educational videos 3. the aim is intensive communication, using more channels (messages in

learning environment, e-mails, Facebook groups etc.) 4. contents and activities divided into obligatory and recommended groups 5. intensive communication with the teacher and in student groups, frequent feedback information.

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