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Towards Agile and Gamified Flipped Learning Design models: Application to the System and Data Integration Course

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Abstract

Education and learning have no limits. At all ages, people are willing to be engaged in new experiences and get additional knowledge, skills and competencies. In this paper, we propose a new learning model that is learner-centered, gives values to learners' preferences and competencies and encourages an engaging and motivating learning experience. Therefore, we discuss some of its pedagogical and technical aspects and requirements. We present the flipped classroom/learning, Agile methodology and Gamification as the basis of our proposed approach. We additionally, examine the possible support that the existing authoring tools could provide. We attempt to validate our proposal with a scenario intended to design the System and Data Integration course.

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Keywords: IMS LD; Flipped classroom; Flipped learning; Agile; Gamification; Authoring Tool; Domain Specific Language.

1. Introduction

With the benefits of Information and Communication Technology (ICT), implementing active pedagogical approaches is highly supported. For instance, the flipped classroom/learning, which encourages the shift from an

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