

Earth Course Large-Scale Pilot: Knowledge Acquisition and Learner Motivation Case Study

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Abstract

The European Horizon 2020 NEWTON Project designs, develops and deploys innovative Technology Enhanced Learning (TEL) solutions which are validated through Small and Large-Scale educational. The Earth Course is one of its Large-Scale pilots and it is designed for primary and secondary level institutions. It focuses on four separate modules in Earth science: Astronomy, Atmosphere/Physics, Biosphere and Geosphere. Each module contains TEL applications developed by NEWTON project partners, gamification and game-based learning. This pilot is designed for 8 separate sessions and was carried out in two primary schools in Dublin, Corpus Christi Girls National School (GNS) and St. Patrick's Boys National School (BNS). Two 5th classes participated in each school, one assigned as the experimental class and one as control. In Corpus Christi GNS 30 girls were part of the experimental class and 27 girls were part of the control class. In St. Patrick's BNS both classes had 30 boys in each. The experimental class learners were provided the educational content employing the NEWTON approach and the control class learners were provided the educational content in a classic approach manner, by their usual teacher. On a separate assessment strand, the control group was also exposed to the NEWTON approach, 4 to 10 weeks after the classic approach lessons, as a revision tool. The assessment procedure employed throughout this pilot focused on Knowledge Acquisition, Usability, Learner Satisfaction, Learner Motivation and Affective State. This poster will present the Earth Course Pilot set-up, applications employed and obtained results.