Using Social Development Environments in Introductory Computer Science Classrooms: a Case Study on SCI

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Abstract—This paper presents our experience of using a social software development environment called SCI to support teaching programming for software engineering and computer science courses. It describes the benefit from using a Social Development Environment (SDE), particularly the effect of integrating the social side on students for the computer science classroom.

This paper presents a study that tests the usability of the SCI social development environment. Also, it contributes to a test of the hypotheses that discuss 1) the effect of using collaborative virtual environments, and 2) the benefits from integrating social networking within the SCI development environment.

It presents both qualitative and quantitative evaluations of the SCI’s environment effectiveness in a computer science classroom. User observation, informal discussions and feedback via a questionnaire gave promising facts about the system. Students have reported that the tool eases communication between them and their project partners, and that the tool presented them with passive awareness information that prevented them from affecting other’s work and conflict changes while working on the project artefacts.

Keywords—Classroom; Collaborative Virtual Environments (CVEs); SCI; Social Development Environments (SDEs); Classroom; Communication.