

Fostering the Study of Scratch in Schools of Education through Seminars and Webinars

This article describes a set of experiences that took place over the 2012-13 academic calendar in three Spanish Schools of Education on the topic of the use of Scratch.

The goal of these experiences was to present the Scratch programming environment to future teachers of elementary school. These teachers will soon experience curricular changes in their future profession. These changes include the integration of the computer as part of the curriculum.

During these meetings we explored the current content of mathematics in the curriculum. This exploration revealed that the majority of problems studied in mathematics respond to a common structure. We called these problems type-A problems.

The Program for International Student Assessment (PISA) in its report of achievement levels in mathematics indicates a general low performance. In addition, type-A problems are found to be of little value in normal life.

Type-B problems are essentially different from type-A problems. They are part of our everyday life. These problems present a structure and type of solutions different from type-A problems. Type-B problems require an environment where we can experiment with designs and implement solutions.

We can explore type-B problems using Scratch. It provides us with an interactive environment where we can experiment with designs and implement solutions.

We collected feedback from the participating students. This feedback was collected through quizzes and questionnaires, and will be presented during the conference.

The students of the University of Alicante and the University of the Basque Country participated in face to face seminars, while the students of the University of Extremadura participated via webinars.

This experience has allowed us to discover the relative little value attached to type-A problems. Type-B problems on the other hand have been found to be of great value and interest. Scratch was the environment that allowed us to explore type-B problems.