

Abstract

This paper examines a computer program in mathematics that helps the teacher to base teaching on a constructivist perspective. It analyses one pilot project involving this program in a secondary school 1998.

The project shows the experiences of using a dynamic geometry program called CABRI. The result focuses mainly on how conceptions in geometry can be made both understandable and fortified.

The following are the main questions in my project:

Can this program help the students to understand basic concepts in Euclidean geometry? How might teachers best employ computer assisted learning? Does the computer program help the teachers to teach from a constructivist perspective?

This project is based on the belief that there are computer programs that can help the teacher to teach from a constructivist perspective. I concentrate on one program, CABRI, which deals with Euclidean geometry. This program is not yet well known in Sweden. I describe it and give some examples. Geometry, which from the beginning was a subject of its own, exclusively for boys, is now a minor part of the mathematics curriculum. I will give the history of geometry in the Swedish curriculum as a background as to why I chose geometry. The project with the CABRI program has been carried out in classes of 13- and 15-year-old students. This project will be used as an illustration of the possibilities and will give information on my reflections. I report on interviews with some teachers and a half-day work I had with student, who have used CABRI finding was that concepts in mathematics become easy to understand and remember. My conclusion is that when students have a chance to formulate their own facts, found from experimentation they learn and find the work interesting.

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