The contribution of Internet for the implementation of experimental science and mathematics in primary schools

(posters)

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Abstract

Our research group of science and mathematics education has been interested in the implementation of experimental science and mathematics in primary school. For this purpose we created an "Educational Resource Centre" in which pedagogical equipment and teacher's guide booklets are organised in kits for easy management for both the teachers' training and use by teachers in the classroom. In a pilot project we have been training teachers of a nearby primary school to promote experimental teaching; they are supervised by university science educators/researchers in order (i) to develop their scientific background on curricular topics, (ii) to carry out experimental activities similar to the ones envisaged for students, (iii) to plan their school experimental activities, (iv) to conduct similar experimental activities in the classroom, and (v) to communicate their experimental teaching in order to promote discussion, exchange of experiences and social reflection. It is expected that they increase their scientific background, develop their own experimental skills in science and mathematics activities, and promote their competencies on teaching science and mathematics in an experimental way. In addition to our local project, an Internet-based teaching and learning National Programme, named "Projeto Nomio" has been launched in 1997: out of 15 National "Competence Centres", the University of Minho has been awarded with one. To this Pop-UMINHO 187 schools (basic and secondary schools) of the Northern Region of Portugal (Minho) are about to be linked. This technocal infrastructure will allow soon the implemenation of the National programme for schools, named "Programa Internet na Escola ". We are now interested in combining our philosophy of experimental teaching and learning with the communnication opportunities given by the net Pop-UMINHO. For this purpose we are about to organise a WWW homepage displaying progressively more specialised information for primary school teachers in order to give them scientific and pedagogical support for experimental activities to be carried out with their pupils. In this poster we do not really present the results as our activities, on the contrary, we ask questions, we appeal for answers and suggestions for our future activities in educational uses of the Internet.

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