



Learning Science in the 21st century - a shared experience between schools

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Problem Based Learning is considered an innovative teaching and learning inquiry methodology that is student centered, focused in the resolution of an authentic problem and in which the teacher acts like a facilitator of the work in small groups. In this process, it is expected that students develop attitudinal, procedural and communication skills, in addition to the cognitive typically valued. PBL implementation also allows the use of multiple educational strategies, like laboratorial experiments, analogue modeling or ICT (video animations, electronic presentations or software simulations, for instance), which can potentiate a more interactive environment in the classroom. In this study, taken in three schools in the north of Portugal, which resulted from the cooperation between three science teachers, with a 75 individuals sample, were examined students' opinions about the main difficulties and strengths concerning the PBL methodology, having as a common denominator the use of a laboratorial experiment followed by an adequate digital software as educational resource to interpret the obtained results and to make predictions (e.g. EarthQuake, Virtual Quake, Stellarium). The data collection methods were based on direct observation and questionnaires. The results globally show that this educational approach motivates students' towards science, helping them to solve problems from daily life and that the use of software was relevant, as well as the collaborative working. The cognitive strand continues to be the most valued by pupils.