

Spreading the Inquiry Based Mathematics Education in Bulgaria within the Fibonacci European Project

Petar Kenderov, Evgenia Sendova

Institute of Mathematics and Informatics

Bulgarian Academy of Sciences

Kenderovp@cc.bas.bg, jenny@math.bas.bg

Abstract

The notion of *Inquiry Based Mathematics Education* (IBME) is used to describe a process in which the students (under the guidance of a teacher) are “constructing” or “discovering” the knowledge themselves by carrying out experiments, by posing relevant questions, by searching for answers in the existing information resources, by formulating and investigating conjectures, by discussing and working with peers. The authors argue that developing and disseminating inquiry based education as a major transversal competence will contribute to the building of a knowledge/creativity society.

The talk will focus on the recent developments in Bulgaria in the field of IBME related the *Fibonacci European project* (Disseminating the inquiry based science and mathematics education in Europe) which is entering its third (final) year[1, 2].

Two-level activities (national and local) will be described as main promotion and support instruments for enhancing the IBME in twelve Bulgarian regions involving more than 500 teachers: workshops, seminars, special sections of national conferences, multiple training and presentation sessions [3, 4].

The importance of developing dynamic computer learning environment in support of a new type of relationship among students and teachers (as members of a research team) will also be illustrated together with the basic design principles behind their development.

The impressions of the impact of the Fibonacci project activities will be shared.

References

1. The Fibonacci project
<http://www.fibonacci-project.eu/>
2. The Fibonacci project in Bulgaria
<http://www.math.bas.bg/omi/Fibonacci-en/index.htm>
3. Kenderov, P. 2010, *Innovations in Mathematics Education: European Projects InnoMathEd and Fibonacci*, Proceedings of the 39. Conference of the Union of the Bulgarian Mathematicians, April 6-10, Albena, Bulgaria pp. 63-72
4. Chehlarova, T. 2012, *If Only I had Such a Math Teacher...*, in E. Sendova (ed.) *Proceedings of the UNESCO International Workshop QED: Re-Designing Institutional Policies and Practices, to Enhance the Quality of Rducation through Innovative Use of Digital Technologies*, June 14-16, 2011, Sofia, Bulgaria, pp. 135-139