Editorial

Dear Reader

The focus of this issue of CEPSj is mainly devoted to the PROFILES (Professional Reflection-Oriented Focus on Inquiry-based Learning and Education through Science) project. The PROFILES project is a four-year Framework Program 7 (FP7) project funded by the European Commission of the EU. PROFILES is one of several European FP7-funded projects in the field of "Science in Society" promoting IBSE (Inquiry-Based Science Education) and does so through raising science teachers' self-efficacy and promoting a better understanding of changes in teaching science in schools and the value of stakeholder networking. It is also based on 'teacher partnerships' implementing existing, exemplary, context-led, science teaching materials, guided by long-term teacher training, reflecting on challenges identified by participating teachers, in order to raise their skills in developing creative, scientific problem-solving and socio-scientific related learning environments; learning environments that embrace students' intrinsic motivation to learn science and enhance their competence in undertaking scientific inquiry and socio-scientific decision-making.

The first paper by Jack Holbrook and Miia Rannikmäe, entitled "The Philosophy and Approach on which the PROFILES Project is based," sets out to describe the PROFILES project on which subsequent papers in this issue are based. This paper presents the philosophy and teaching and learning strategies that are part of the PROFILES project. It discusses the theoretical three-stage model on which teaching is based and describes the learning modules used in teaching in relation to the PROFILES philosophy.

The second paper, entitled "Promoting Societal-Oriented Communication and Decision Making Skills by Learning about Advertising in Science Education," by Nadja Belova and Ingo Eilks presents the meaning of advertising in our lives and how this topic is appropriate to include within PROFILES-style science education. The authors connect advertising to the PROFILES philosophy as a socio-scientific approach befitting the three-part PROFILES model. They also emphasize the importance that students, as consumers, should understand the science in and behind advertising as a necessary educational component in becoming a critical consumer. Learning about the ways science is used in advertising also allows educationally desirable societal-oriented communication and decision making skills to be promoted in the science classroom.

The paper by Susanne Walan and Shu-Nu Chang Rundgren presents a pilot study. Its title "Investigating Preschool and Primary School Teachers'

Self-efficacy and Needs in Teaching Science: A Pilot Study" indicates how the authors adapted the PROFILES teacher needs instrument to the preschool and primary school level. In Sweden numerous teachers lack educational training in science subjects. Therefore, this study aims to investigate teachers' self-efficacy and needs in relation to science teaching. Presented results show that the participating teachers had relatively high self-efficacy and no significant differences were identified between the three groups of preschool, 1-3 and 4-6 grade teachers. However, even though the teachers had high self-efficacy, teachers still expressed the need for further education.

The third paper by Marc Stuckey, Marianne Lippel and Ingo Eilks from the University of Bremen group, is entitled "Teaching Chemistry about 'Stevia' – A Case of Cooperative Curriculum Innovation within PROFILES in Germany." This paper discusses a basic aim of PROFILES, which is implementing innovative science teaching practices, incorporating a socio-scientific context and inquiry-based science education. The authors present a chemistry teaching module, created around sugar and sweeteners and incorporating the use of advertising in science education. The paper also includes results regarding evaluation of the module in the classroom environment.

The last paper in this PROFILES CEPSj issue is an article by Finnish authors Sirpa Kärkkäinen, Jari Kukkonen and Tuula Keinonen, entitled "Scaffolding in a Medicine Education intervention for Student Teachers based on the PROFILES Three Stage Model." They attempt to transfer the PROFILES philosophy to medical education for pre-service primary school teacher education and explain the impacts of the effects of scaffolding on the pre-service teachers' learning process. The scaffolding is based on using information and communication technology within the PROFILES Three Stage Model of socio-scientific scenario, inquiry-based learning followed by decision-making. Two groups of students participate in the research – one scaffolded and the control, unscaffolded, during learning within the chosen topic. Findings show that the scaffolded group is quite effective in searching for information for their end presentation, whereas the unscaffolded group has difficulties in finding relevant information, suggesting that scaffolding, by structuring the activity, allows students to better focus when preparing their presentation.

This issue ends with two non-PROFILES papers, which nevertheless interrelate. The first on "The (Un) Attractiveness of Vocational and Technical Education: Theoretical Background" by Miha Lovšin, considers the problem of the lack of attractiveness of vocational and technical education. This is undertaken via a review of legislation on counselling practices, implementing documents, and the social factors by means of which the education system can

influence the individual's decision. It is apparent that legislation regulating the organisation and content of career counselling services in educational sector is inadequate. The or-ganisation of career counselling at the level of implementation is also inadequate. Counsellors advise individuals on the basis of their academic results and the results of aptitude tests. Counselling practices deriving from theories, which place career planning and management skills in the foreground, are more rarely represented. Theories, which treat career decisions as a social process, show that, at the level of the student population, the choice of the type of school is a rational decision based primarily on the economic position and level of education to which a specific educational pathway is generally supposed to lead. The lower attractiveness of vocational and technical education coincides with the fact that repre-sentatives of lower social classes have a weaker economic position and more frequently have vocational and technical education qualifications than representatives of higher social classes. Nevertheless, the trend of high unemployment among young people with academic qualifications, which is opposite to the traditional situation, indicates that it will be necessary to include career planning and management skills in the educational provision of institutionalised and formal education as a whole. This last point clearly interrelates with the 'education through science' aspects of PROFILES and its promoting of a context-based, career awareness, approach to science teaching.

The last paper by Dubravka Maleš, Barbara Kušević, and Ana Širanović, entitled "Child Participation in Family-School Cooperation," discusses the cooperation between families and schools from the perspective of the UN Convention on the Rights of the Child (1989). Given that the principal purpose of the cooperation between families and schools is children's well-being, it is reasonable to expect the child's participation in situations of direct parent-teacher cooperation. The theoretical part of this paper is grounded on contemporary scientific findings in family-school cooperation and the role of the child in the process, while the empirical part seeks to determine whether the requirement for child participation is being fulfilled in family-school cooperation in Croatia. While PROFILES focusses more on student self-determination than family-school cooperation, the society context promoted through PROFILES science teaching and the development of decision-making argumentation skills, puts relevance and students' interests and hence brings students' rights firmly into focus.

This CEPS issue ends with a review of the book "Critical Analysis of Science Textbooks: Evaluating instructional effectiveness" by Khine Swe, M. (Ed.), Dordrecht: Springer, 2013. ISBN 978-94-007-4167-6, written by Miha Slapničar.

The book review presents a recent publication in the series of Springer monographs covering different aspects of science education. This book deals with the analysis of science textbooks showing different aspects influencing science education internationally.

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