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Educating for Science and through Science

1st-5th July 2013

Pavol Jozef Šafárik University

Košice, Slovakia

The Hands-on Science Network

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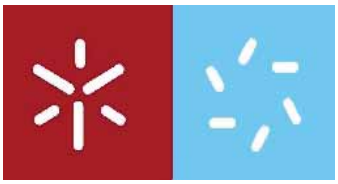

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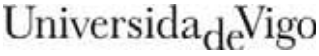

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provide invaluable opportunities to tie students' daily lived-experiences directly to classroom applications of science. Phenomenology has a considerable potential as a tool for science education. The role phenomenology might play in connecting students' everyday lived-experiences to abstract and conceptual scientific knowledge by providing a rich contextual and experiential learning environment is something that we should not overlook.

A VIEW OF PROBLEMATIC OF FISHERIES AND AQUACULTURE IN EUROPE

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Abstract. *EU citizens are consuming far more fish than European seas can produce by catches and aquaculture, this conducts in importation of 60% of it fish consumption. Some studies also showed that the consumption of fish in EU countries was below the recommended values for human health, so the level of consumption tends to rise. By other hand almost of the fish stocks is fully exploited and can conducts to environmental problems. Some examples were mentioned. The sustainability of fisheries is an EU priority today, as demonstrated the new Common Fisheries Policy. In last two years several recommendations and rules have been done to achieve this objective. By other hand is important educate the consumers to change mentality and conduct them to consume fish catch by sustainability fisheries. Also was implementing several certifications, regional (origin certification) and international. At this point aquaculture is considered a solution to provide fish to EU but some problems are constricts their rise, such as consumer mentality, tourism competitive for coastal areas, environment problems, etc. Several examples were mentioned. In all these problem education of different actors is a big concern. So Aquatnet project, an EU Erasmus project (actually in third edition), study the pr0oblem and try to contribute to the solution of this problem.*

OVERVIEW OF THE IMPACT OF IBSE TRAINING COURSES ON LEARNING STEM IN PRIMARY AND SECONDARY SCHOOLS

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Abstract. *This paper presents an overview of the impact study realized in five Romanian counties in order to assess the effectiveness and effects of IBSE training courses implemented in last 3 academic years on the quality of STEM learning. The study was realized both on STEM teachers which attended and implemented IBSE lessons as well as on their pupils by means of focus groups, interviews and questionnaires. Also, by means of schools' inspection (the quality of curriculum aspect and, respectively, quality of teachers' teaching and quality of pupils' learning results and products), we gathered data about IBSE learning activities useful in order to obtain the most complete and realistic image of learning quality improvement as a function of pupils' age. An other perspective came from the analyze of training courses implemented during last 3 years: SCeTGo, KLiC, Pathway, MaST Networking courses that induced important changes in the ideas and behavior of STEM teachers in their classrooms, changes that influenced the pupils attitude toward learning these generally considered "difficult subjects". We noticed that, both in formal learning activities designed in school environment or in non-formal learning environments, when pupils have to verify or prove a scientific statement by means of scientific investigation or team project work in order to solve specific problems, they learn more effectively and became more self confident in order to explain, argument, justify their answers, solutions or opinions. Also, an other important aspect is that during the academic year while preparing to attend the next science festival edition (organized by Science on Stage - Romania), every year, there is an improvement of the quality and complexity of the research themes, scientific projects and devices presented by primary, secondary and upper secondary school pupils. Last, but not least, teachers' attendance at workshops and specific*