ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΜΑΚΕΔΟΜΙΑΣ
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ΠΡΟΣΚΛΗΣΗ

Η οργανωτική επιτροπή του 10th International Conference on Conceptual Change, που θα πραγματοποιηθεί στη Φλώρινα 9-12 Ιουνίου 2016 σας προσκαλεί στη διάλεξη του

Professor Haim Eshach

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με θέμα:

«KINDERGARTEN A GARDEN FOR SCIENCE EDUCATION: The Israeli Curriculum for Science and Technology in the Kindergarten»

Τρίτη 01/03/2016, 7μμ

Μεγάλο Αμφιθέατρο της Παιδαγωγικής Σχολής

Περίληψη:
There are those who argue that science is not appropriate subject content for kindergartens. Even when science is taught it is often a caricature of science that is presented to the children in many places around the world. My book, Science Literacy in Primary Schools and Preschools, which was published by Springer in 2006, offers a vigorous, reasoned argument against the perspective that science doesn't belong in the kindergarten. The book goes beyond that in offering a view of science that is both appropriate to the early years and at the same time faithful to the nature of the scientific enterprise. The book served as a basis for the development of a new compulsory national curriculum in science and technology in Israel.

In the lecture I will first discuss the question: Should science be taught in the early years? (See chapter 1 in the book), I will then present the Israeli national curriculum in science and technology for kindergarten. I will discuss the rational for the curriculum (for instance, why science and technology are combined? What topics where chosen? Why? etc.), the difficulties we confronted with, and the barriers we are facing in its implementation. I will also discuss possible solutions for one of the barriers in implementing the curriculum, namely, the lack of the kindergarten teachers' scientific knowledge and pedagogical content knowledge. I will argue, in this regard, that in the case of kindergarten, one should take into account not only the needs of the children, but rather, also, the needs of the kindergarten themselves. I will present the Inquiry Events method that I developed for that purpose (see chapter 4 in the book). I will also show how science can be learned via technology, which, I will argue, is a relatively easy way for kindergarten teachers to teach scientific content (see chapter 3 in the book). Other solution which I will discuss is how informal learning environments might contribute to the implementation of the curriculum (see chapter 5 in the book). Especially, I will present the Children's Scientific Centers which were developed especially in the purpose of enhancing children's conceptual understanding as well as inquiry and design skills. Finally, if times allows, I will present another informal learning project we run for kindergarten on marine life. This project took place in the city of Eilat, which, because of its rich coral reef, underwater observatory, and dolphin reef, allows a unique opportunity for young pupils to have true concrete experiences well-known to be essential for inquiry learning.

In spite of the fact that much is done, I will point out new directions that should also be taken into consideration in further development of the curriculum like including metacognitive activities, new subject matter (such as environment preservation), etc.