

What, how and for what to teach science in the XXI century?

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In a society and economy based in the knowledge education based on the memorization of facts and procedures is no longer enough. On the contrary, in our globally and continuously technologically updated world, we need to learn differently in order to make people capable of understanding complex concepts, of working creatively and of generating new ideas, theories and products. Citizens must be able to critically evaluate what they read, express themselves clearly and understand scientific and mathematical thinking. Their training must also enable them to take responsibility for their own learning, continuous and permanent. An analysis of the panorama of the European educational system at large, as far as higher education is concerned, shows that profound curricular, organizational and focus changes are required in which science and scientific thought are presented as a way of knowing. Changes that must be informed by the results of research in the sciences of education and neurosciences. We will review some aspects that, in light of these considerations, should inform the what, how and for what we teach.