

**Τίτλος:** What do people do when they do mathematics?

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When asked about what people do when they do mathematics, the most obvious answer seems to be given in terms of mathematics itself: seeking out patterns, formulate conjectures, studying shapes and motions, or modelling real life phenomena. Recent developments in mathematics education, however, have been showing how there is more at stake when dealing with mathematics, especially when the place of activity is the teaching and learning of mathematics in schools. Through school mathematics, people also learn to position themselves in a given social hierarchy (Bishop & Forgasz, 2007; Stinson, 2004); they learn the ideological values of science and reason that characterise Modernity (Lundin, 2011); they learn how to be obedient and perform routinary exercises (Skovsmose, 2006); they learn the economic rules for the production and seizure of surplus-value (Baldino & Cabral, 2013; Pais, 2013); they learn to delegate responsibility and accountability to technological devices (Straehler-Pohl, 2014). The first aim of this course is to discuss some of the implications of the teaching and learning of mathematics that cannot be explained in terms of mathematics alone. Moreover, we shall go a bit further, and also ask what do people learn when they actually learn mathematics (beyond routine exercises or dumb word problems). That is, if we could exempt mathematics from all the negative vicissitudes that characterise and often undermine what is considered a good mathematics instruction, what will students be learning?

On the other hand, in spite of a century of efforts dedicated to mathematics education, the following questions have not yet received a satisfactory answer: Why do some like and learn mathematics while others, the majority, find it difficult and often even hate it? What form of knowledge is this, “mathematics”? How is it transmitted from one generation to another and why does it create so many traumatic experiences for students? Answers to these questions are the Holy Grail for researchers, teachers and politicians alike: to find both an explanation for the problem of failure in mathematics and a “formula” that could be applied so that everyone could become mathematically proficient, thus assuring the constitution of a truly enlightened society. As a result, mathematics education research has typically sought to construct cumulative and replicable scientific models. The singular character of educational experience, however, resists and thwarts the kind of encyclopaedic endeavour carried out by researchers to exhaust the field. The second aim of the course will be to re-think, through intellectual inquiry, the problem of failure in school mathematics. We are going to explore not only why such a formula does not exist, but why it remains so seductive for researchers, teachers and politicians to think of mathematics as a discipline in need of such a formula.