Oral Presentation HPM IN MAINLAND CHINA: AN OVERVIEW

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Primarily five themes on HPM are discussed in Mainland China: 1) Discussion on "Whys" & "Hows". The "whys" are categorized corresponding to three mathematics teaching objectives, and four approaches to using the history of mathematics in teaching are identified based upon teaching practice. 2) Education-oriented researches on the history of mathematics. The history of specific topics on school mathematic is studied, for example, the history of the concept of ellipse, the history of using the letters to represent the numbers, etc. 3) Empirical studies on the "historical parallelism". For example, students' understanding of the concept of the tangent line is surveyed, and the historical parallelism id examined. 4) Integrating the history of mathematics into mathematics teaching: classroom practice or experiments. Many teaching experiments are carried out and many teaching materials have been built so far. 5) HPM & mathematics teachers' professional development. In this presentation, we mainly focus on the four approaches to using history in teaching based on some lessons, such as the linear equation with one unknown, the application of similar triangles & congruent triangles, the concept of complex numbers, etc.