Submission for an invited session, organized by João Araújo

Essential cognitive principles of learning - and why math teachers should care about them?

Efrat Furst[1],

[1] Teaching and Learning Center, the Hebrew University of Jerusalem, Israel

What are the basic cognitive principles that underlie the human capacity to learn and remember? And how they can support effective and evidence-informed mathematics teaching? We will present a model for the process, highlighting key stages, the known limitations, and the best known strategies to overcome them. Specifically, we will discuss the value of practice, and how to design it to supports meaningful learning, flexible thinking, and the ability to apply learned material in a new context.