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**Title**

**Mapping a new era for Science Education in early childhood: Expansions and resistances"**

**Abstract**

Early childhood education is considered as a new paradigm of its own. Consequently, the learning process during the early ages is a unique pathway within the Science Education basic research. At the same time, teachers need many of the 21<sup>st</sup> century teaching skills to act effectively within the system of Activity.

Internationally, the UNESCO scopes lead to an expansion of the system of Activity within the frame of the 2030 Agenda for Sustainable Development in which transforming the world is a priority. Locally, the Activity Theory in Formal and Informal Science Education researching group (@fise group) of the University of Ioannina, Greece, has developed a new research model named SCOPES in order to address the different needs of the early childhood Science Education. SCOPES includes the key research terms that have been used for the design and the analysis of scientific activities, that is, Systems of activity, Contradictions, Outcomes, Praxis, Expansive learning, Science education. Within this frame, the @fise group has published research focusing on establishing the connection of Cultural Historical Activity Theory (CHAT) and Science Education as a substantial paradigm in Science teaching. As a next step, Science Education was expanded so as to include Environmental Education, Sustainable Development and Health through the development of a series of teachers' training projects. This way, a synthesis of the old named "hard sciences" with the humanities is more than suitable for mapping a new era in early childhood education. Simultaneously, many forms of resistance arise as obstacles to the new mentality. The traditional curricula and many common operations and actions prevent the development of the new activity. During the presentation we will present research work that can mediate the process of mapping a new science for early childhood education.