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Plenary Panel 1
Actors for Math Teacher Education: Joint Actions versus Conflicts

Angel Ruiz (Costa Rica)

ABSTRACT

When designing this panel, the first observation from which we start is that there are many actors with different roles and impacts on Mathematics Teacher Education: Mathematicians, Mathematics Educators, Pedagogues, Teachers, Mentors, Policymakers, Curriculum Developers, School Principals, Administrators, Parents and Students. The actions and interactions of these actors and their impacts depend on different factors such as institutional and social contexts, curricula, available resources, etc. Sometimes collective elements weigh more, in others the individual ones. Much also depends on the historical moment, for example, its role and meaning in the middle of a curricular reform is not the same as in "normal" times. It would certainly be of interest to calibrate all these roles. However, including all of them for this panel would be neither relevant nor possible. So here we are going to focus on the interaction of mathematicians and mathematics educators as they relate to the preparation of prospecting teachers and also their professional development.

In the dichotomy between conflict and collaboration, we are going to privilege collaboration. And so that this is not an abstraction or just a good wish, it will be necessary to understand collaboration in many concrete dimensions, niches and with various levels. Promoting this *collaborative perspective* in various specific contexts is crucial within a planet where conflict, crisis and uncertainty dwell heavily. The COVID-19 pandemic has multiplied the evidence for this in multiple ways. We know that in the preparation of teachers there are numerous knots of conflict that are due to divergences of personal or collective interests, professional approaches and traditions, ideologies, and that constitute challenges and obstacles. Without a doubt, gauging them is important. However, for this panel we have decided to emphasize collaborative experiences and show how much can be gained with close collaborations. For this, we are going to describe some examples and point out various factors that have made collaboration possible in certain institutional, cultural and political environments, and thus draw some lessons. It is not intended to state "laws" applicable in all contexts.

In many countries mathematicians and mathematics educators participate together in teacher preparation programs (initial and in-service), especially in the design of courses, but also in the enactment of them. However, based on the literature review, we suggest that research on collaboration between mathematicians, mathematics educators, and in-service math teachers is rather scarce. Perhaps one of the dimensions in which the greatest research interest in collaboration among mathematicians, mathematics educators, and teachers who teach mathematics can be found is that of teacher professional development. In general, although we did not find systematic strong research on the collaboration of mathematicians and mathematics educators in the context of

teacher professional development, this does not necessarily mean that such efforts do not exist in different countries. This panel will document some of those experiences.

The issues that the panellists will address aim to show the importance of expanding research efforts on this area, something that we consider relevant for the development of mathematics teaching and learning.