

SP - (16084) - COASTRO CITIZEN SCIENCE PROJECT: CONTRIBUTIONS TO TEACHING PRACTICES, ATTITUDES, AND BELIEFS TOWARDS SCIENCE

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Short Abstract

Attitudes and beliefs towards science are key factors for changing teachers' professional practices. However, structuring teaching professional development practices, considering all these domains, is as challenging as making its effects reach students. To respond to these challenges, CoAstro: @n Astronomy Condo emerged. This citizen science project intended, among other aspects, to understand how changing teachers' attitudes and beliefs influenced their teaching practices and affected the school community. To this end, nine primary teachers, without initial science training, were engaged in astronomy research, led by five astronomers and also engaging five science communicators.

Individual interviews and a focus group were carried out. Teachers were asked about their attitudes and beliefs and about how the project changed their practices and influenced the school community. Data analysis was made using data categories defined previously.

The CoAstro's results reveal that the engagement of teachers in astronomy research led to changes in their attitudes (interest and proactivity; understanding and use of scientific knowledge) and beliefs (about astronomers' work and the way science is built) towards astronomy. Those changes led to teaching practices modifications, in terms of methodologies and resources used, and in collaborative work with peers.

The CoAstro project allowed us to understand how participation in citizen science projects, and the appropriation of learning outcomes, can contribute to teachers' professional development, specifically related to their needs and the needs of their schools, having an impact on the surrounding school community.

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