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Secondary School Teacher's Awareness of Climate Change: a comparison of pre-service and in-service teachers from the Spanish North African city of Melilla

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The consequences of climate change present one of the most pressing issues of our time. It is important to have a well-informed population about the consequences of climate change in order to prepare them to make decisions about it. In this sense, along with the contribution of the media, climate change education (climate literacy) is crucial for the development of climate change knowledge and beliefs. A solid knowledge about climate change not only helps teachers to successfully meet the goal of climate literacy, but also influences student's attitudes regarding practical steps to reduce the impacts of anthropogenic climate change.

A sample of seventy-four pre-service teachers (Master's students – 'Master's Degree in Secondary Education, Baccalaureate, Vocational Training and Language Teaching' at the University of Granada, Melilla Campus), and sixty-nine in-service teachers (from Melilla), allowed to analyse: (1) knowledge, (2) beliefs, and (3) attitudes about climate change. Regarding the study of the first concept, the following items were assessed: (a) knowledge about the causes of climate change, (b) knowledge about the greenhouse effect, (c) knowledge concerning the expected consequences of climate change, and (d) action-related knowledge about climate change. The results presented in this study display that most of the pre- and in-service teachers (from both the scientific itinerary and other itineraries) believe in the existence of climate change and recognize its anthropic cause. However, they still respond to different misconceptions as well as distorted knowledge about the consequences of climate change, affecting their willingness to act on it. Consequently, the Secondary School Curriculum needs to be updated, since it is mainly focused on the scientific explanations of the phenomenon rather than on the social or practical aspects of the problem.