**TITLE:** Multi-modal representations and meaningful learning of students in elementary school about global warming: A Teaching Strategy.

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**ABSTRACT:**

This research aims to investigate the construction of the student’s meaningful learning, the types of content involving global warming (GW) by a teaching strategy that employs multi-modal representations. Study participants were the researcher teacher and fifteen students from elementary school. The results were presented from the readings of images and from the student’s conceptual maps, collected before and after multimodal strategy developed by the researcher teacher. The data were categorized and analyzed according to qualitative textual analysis. By definition, the above data were divided into: a report of a first and a final knowledge that occurred in phases I and II respectively. It was found that the subsequent conceptual maps of all students, showed an increase in the amount of concepts and propositions, demonstrating the integration of new knowledge into their conceptual network. The structural relationships and hierarchical organization of these concepts could be observed based on comparison of the first maps and the final maps in order to demonstrate cognitive reorganization, which also were found in all the subsequent maps of the students. Through comparison between the readings of images at first and after the strategy it was found that there was a decrease no knowledge and devoid of content about global warming and increased direct and indirect connotations to the central concept in hindsight. These facts imply that, after multimodal strategy, the images have been shown to have more relations with global warming, due to learning that students constructed from multi-modal representation. By the previous reports, it is considered that the teaching strategy with multi-modal representations for meaningful learning of students on global warming presents relevant contributions to the teaching of science with regard to scientific training of students and ecological and has improved conditions for using the continuity of this research.

**Keywords:** multi-modal representations, learning, significant global warming, teaching strategy.