

SP - (16097) - DEVELOPING ELEMENTARY SCHOOL STUDENTS' ABILITY TO MAKE SPONTANEOUS OBSERVATIONS ABOUT LIVING ORGANISMS IN CONTEXT

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Short Abstract

Many researchers' work draws on the theoretical assumption that learning is inseparable from the context in which it occurs, arguing that the more contextualized school science is, the more students engage in learning that can be mobilized in non-school contexts. To help students build bridges between their learning and their everyday surroundings, teachers could help students' developing scientific investigation abilities. The purpose of our research was to: compare elementary students' ability to make spontaneous observations about living organisms in their home environment at the end of a learning experience and two months later. Our study was carried out by an interdisciplinary team of specialists in science education, biological sciences, and teachers, who developed a citizen science research project designed to assess the effects of urban forest plant biodiversity on its functioning and resistance to defoliating insects. The research protocol required the installation of small artificial prey (clay caterpillars) in trees, then their collection a week later to observe them for marks that would indicate predation. It took place in the province of Quebec, Canada, during the first COVID-19 lockdown when students were not going to school (from mid-March until the end of the school year in June). We recruited fifth- and sixth-grade students aged between 10 and 12 years old ($n = 116$) from different classes of the city of Montreal and its suburbs. We divided students into 2 groups; Group A students were interviewed in June and Group B students in August. A preliminary result of this study was the development of three levels of spontaneous observations about living organisms: (level 1) leading to a factual description, (level 2) leading to context-specific inference, and (level 3) leading to inference in other contexts. During our presentation, we will also report the results from t-test between the two groups.