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## Evaluation report on students' knowledge and interest in the topic of climate change Summary

Educational workshops on meteorology and climatology were planned in ten schools by Météo France, as part of the "Weather school" project. To assess students' knowledge and interest in climate change issues, in April 2019, the LIEPP team administered a questionnaire in five of these schools: two middle schools (Gréard and Alviset), two primary schools (Jeanne d'Arc and Maryse Hilsz) and one kindergarten (Tandou), with classes ranging from the last level of kindergarten, 4<sup>th</sup> grade, 5<sup>th</sup> grade, and 7<sup>th</sup> grade. The evaluation protocol initially included a second questionnaire, aimed at capturing the evolution in the knowledge of the students after their participation in the workshops. Due to the pandemic, the protocol was modified: interviews were carried out with the teachers responsible for these workshops instead.

The analysis of the questionnaires offers three main results. Firstly, students have little understanding of a scientific conception of temperature (concept and measurement); they also have little control over the elements influencing the temperature. Secondly, the notion of climate change is often vague. This is particularly the case in elementary schools and at the Octave Gréard college. For example, in the latter, a third of the pupils do not indicate their disagreement with the proposition: "climate change is that seasons alternate". Finally, a significant number of students are unaware of the dangers of climate change leads to an increase in sunny days. Thus, if the notion of "climate change" has already been understood by the pupils (including, to a certain extent, by the youngest), it nevertheless appears that the definition of climate change and its issues are poorly understood by the respondents of these questionnaires. Undoubtedly the ignorance of climatic phenomena implies a certain climatic fatalism, or at least, an low awareness among the respondents of their ability to act. Indeed, only 64% of them believe that "we can all do something to reduce the effects of climate change".

The results illustrate a logical difference according to the level of the classes: the pupils of the middle school gave correct answers much more often and estimated having a greater capacity to act. Within the same school level, the differences between schools are significant. The responses seem to be influenced by socio-economic factors, but the school project and the interests of the students are also likely to explain the variation in results between schools.

For the second phase of the evaluation, the LIEPP team contacted six schools participating in the OASIS programme: the Gréard and Alviset middle schools, the Keller and Jeanne d'Arc elementary schools, and the Jeanne d'Arc and Maryse Hilsz nursery schools ; telephone interviews were conducted for three schools (Alviset, Keller and Hilsz). Despite the health context that disrupted the organization of the workshops, they did take place in certain establishments. The schools had received tools and an educational booklet provided by Météo France. In kindergarten, the themes proposed by Météo France served as a guideline, with an additional search for ideas for activities to do with the pupils around temperature or meteorology. There was a more decisive use of the tools offered by Météo France in elementary school and middle school, and the teachers relied on these resources to work with their pupils, and help them to clarify certain points of confusion regarding global warming and learn new vocabulary. The interviews included the question of recommendations from students and educational staff who took part in these workshops, or in activities inspired by these workshops. These recommendations suggest adapting the Météo France resources for different levels of learning as well as working to adjust the workshops depending on the different constraints which weigh on the time of the teachers and the pupils.