Visiting GLOBE schools in Slovenia

So many trees! As a forest ecologist, I felt right at home in Slovenia. It is a truly special place where I spent many hours on foot climbing mountains, walking through forests, and enjoying the beauty of nature.

We visited Slovenia in November 2022 on our <u>sabbatical journey to get inspired about</u> teaching for <u>sustainability</u>. On this occasion, I visited two schools in Domžale, close to the capital Ljubljana, together with the country coordinators for GLOBE, Zoran Petrov, and his deputy, Jasmina Mlakar. Zoran works for the Centre for Outdoor Education (<u>Center šolskih in obšolskih dejavnosti</u>) that coordinates the outdoor education programme that is part of the national curriculum in Slovenia. As part of the first 14 years of their education, I learned that students are required to spend a minimum of two weeks being taught in the outdoors. For this purpose, 30 outdoor education centres with a permanent staff have been set-up across Slovenia. One of the goals of this outdoor education programme is that students develop and maintain a connection with nature. Teachers are also trained in outdoor teaching techniques so they can take their students outdoors as much as possible during normal teaching hours. If only the Netherlands would have such a requirement in the curriculum! You can read this blog, if you want to learn a bit more about this.

What strikes me is that the GLOBE programme fits in really nicely in the outdoor education programme. It is therefore not surprising that the Centre for Outdoor Education is responsible for the rollout of GLOBE across Slovenia. Slovenia only joined the GLOBE programme in 2020, but already 30 schools and 10 of the outdoor centres have adopted several of the research projects in their teaching.

The first school we visited was Domžale secondary school. We were shown around by Alenka Lenarčič a chemistry teacher who runs the programme in the school. It was a rainy day, so what better time to go out and do some water quality measurements with two of her students in the nearby river. The students demonstrated some of the work they had been doing the year before, taking a sample from the river and measuring pH and water temperature.



Student taking the water sample from the Kamniška Bistrica river.

Alenka told us that she tries to integrate GLOBE activities where she can in her classroom, but that there has to be a clear link with the curriculum to do so. The water quality project lend itself well for tshis, where she combined it with teaching about the water cycle, pH, and conductivity.



Students at work measuring water temperature and pH with from left to right: Zoran, Alenka, and Jasmina.

In the primary school 'Venclja Perka', where we were warmly received by Katarina Vodopivec Kolar. I learned here that students in Slovenia stay in primary school until they are 14-years old.



Students emptying the rain gauge to measure rainfall for the day we visited.

First, we joined two students that showed us where and how they recorded daily rainfall, and, when possible, pH, which was measured in the chemistry lab.



Students performing the pH measurement in the chemistry lab.

What was interesting was that Katarina teaches one of the elective subjects, Environment, that students can choose in their final two years in primary school. These elective subject leave room for the teacher to organise original projects every term. One of the projects that Katarina adopted for the whole class was the GLOBE phenology campaign. During our visit, the students showed us how they were recording the greening down measurements on a linden and birch tree in the school yard.



The 'Environment' students measuring the greening down of linden leaves using the colour coding.



The 'Environment' students with Katarina second on the left under the birch tree they also monitored.

Different from the school I visited in Lithuania, in Slovenia the teachers mainly integrated GLOBE in their normal teaching in the classroom. They can do this, because there are clear links with the curriculum content, but also because outdoor education is an important aspect of the Slovenian curriculum. Zoran and Jasmina, are working very hard to roll out the programme by using their networks and organising regular training sessions for teachers. It is clear to me that GLOBE activities are likely to become fully integrated in the outdoor education curriculum and therefore GLOBE has a bright future in Slovenia.