



Girls on Ice Switzerland – using immersion to inspire interest in science

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Girls on Ice Switzerland runs tuition-free wilderness science expeditions for young women from diverse backgrounds. The glacier expeditions interweave science (e.g. glaciology, geomorphology, environmental aspects), art and mountaineering. *Girls on Ice Switzerland* does not only intend to transfer scientific knowledge, but also aims on a general understanding of the scientific process, on a mediation of nature experiences and on an enhanced self-confidence and self-evaluation. A combination of inquire-based teaching, experiential learning, and the tangibility of climate change science in the alpine environment provide a unique teaching environment. This particular framework allows to communicate science to non- and potential not-yet-peers, to facilitate insights into the scientific work through hands-on experiences, and to enhance the participants' general interest in science.

Between 2017 and 2019, *Girls on Ice Switzerland* organised four glacier expeditions, which were evaluated in detail by pre- and post-inquiry of the participants. Through both quantitative and qualitative methods, the evaluation focused on the (i) perception of science, (ii) scientific knowledge, (iii) critical thinking, (iv) interest in science, (v) self-assessment and self-efficiency and (vi) connection to nature. It showed that the programme overall reached its initially set aims and that it particularly fosters critical thinking, increases physical and intellectual self-confidence and strengthens confidence in women.

Here, we will present the programme *Girls on Ice Switzerland*, its link to *Inspiring Girls Expeditions* and the overall philosophy, but also highlight evaluation results that help to optimize the science communication by demanding a clear set of goals for different characteristics of the programme. The unique women-only environment is ideal to encourage young women to start studies within the field of natural sciences and strengthen young female scientists to pursue their academic career.

