

ALTO LOA SENSE: School Scientific-Environmental Research Kit.

An experience in the Atacama Desert

Zanetta, N.¹; Machuca, J.¹; Céspedes, A.²; Arenas, A.³

¹ Estudios Versus Sole, Santiago, Chile; ² Sysmos SpA, Santiago, Chile; ³ Laboratorio Geografía, Educación y Actores Sociales, Pontificia Universidad Católica de Valparaíso

versus@versussole.cl



Introduction

The city of Calama and the area of Alto Loa, northern Chile, are territories that have been impacted by the effects of climate change and also by the mining industry, which has generated great interest and concern to local communities about the future consequences to which they will be confronted.

To face this scenario, the communities of Alto Loa and Calama has the opportunity to develop together a citizen science project focused on school education, which aims to build a **School Scientific-Environmental Research Kit** that can be used to develop research and experiments linked to the socio-environmental context.

Objetives

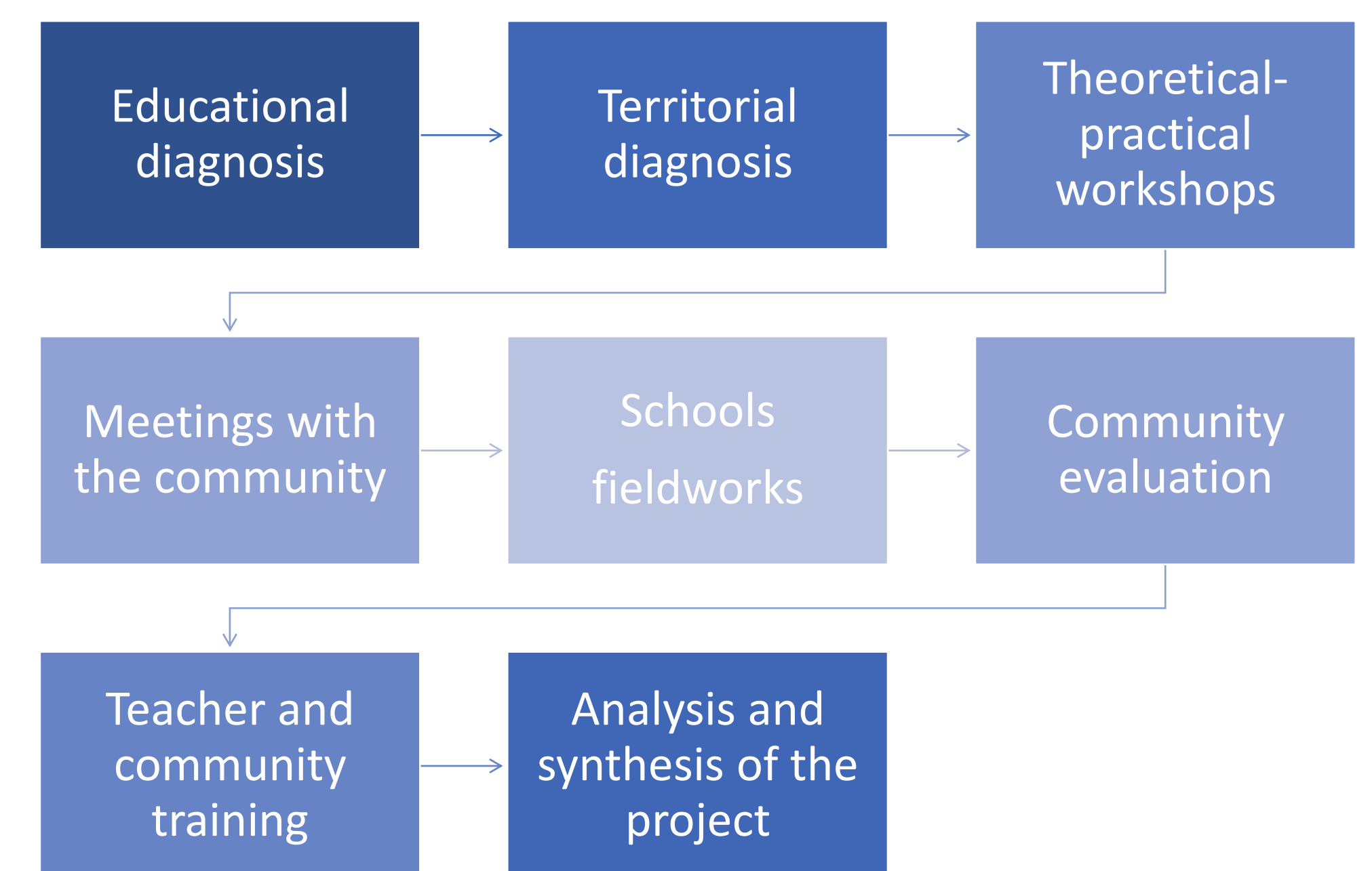
Participatory elaboration of a **School Scientific-Environmental Research Kit** for the development of research that allows to bring the whole school community to the process of gathering information on environmental variables.

- ❖ Train the school community about environmental variables, the study and monitoring of them, their use and functionality in the daily life of their territory;
- ❖ Design a School Environmental Scientific Research Kit, covering a selection of environmental variables and exercises for its application in the territory;
- ❖ Link the use of the kit with the school curriculum of the corresponding level, and with the socio-environmental problems;
- ❖ Train the beneficiary school community to be future Monitors and Trainers.

Kit Structure



Methodology



Images: (1) Workshop at Pedro Vergara Keller School, in Calama. (2) Field work in Pukará de Turi. (3) Student of San Antonio de Padua de Ollagüe School measuring the temperature in the Salar de Caspana. (4) View of the Caspana ravine.

Expected Results

- ❖ Project participants improve understanding of the environment and change factors by developing research and field experiments using the Kit in the local context.
- ❖ The use of the Kit is integrated into the school curriculum by linking the objectives of the project with the curricular objectives of the different assignments and with the problems and opportunities of the local context.
- ❖ The project participants will have the tools to train and transmit knowledge of the use of the Kit to their peers and other groups within and outside the educational community.
- ❖ An educational community empowered and active in the search for answers to their environmental questions, able to dialogue with other actors in society for the sustainable development of the territory.
- ❖ A local experience in the desert with great versatility to be implemented in other territories of the country.

