Antarctic or Antarctica: How to introduce the polar sciences in the primary school curriculum?
Antarctica Project

More than 200 Brazilian Researchers Across the Country.

Distance Education
Videogames
Webconferences
Videoclasses
Digital TV
Learning Objects
Antarctic Project Goals

- To investigate ICTs uses, processes, methodologies for scientific education and popularization of science.
- To develop guidelines for communicative competences formation in actions to popularize science.
- To enable teachers and researchers to act in a dialogic and collaborative way by forming learning networks.
Motivation

- the polar theme is rarely explored in the Brazilian primary education.
- lack of teaching materials in Portuguese

Goals

- To Introduce polar science themes in the primary school curriculum
- To Popularize Antarctica Sciences to different audiences
- To produce teaching materials in Portuguese
Theoretical Foundations
Socio-interactionism, Verbal interaction, Dialogism

Dialogic Learning
Colaborative Learning

[Vygotsky]
[Bakhtin]
Methodology

Distance learning course for Primary school teachers
Antártica ou Antártida? (PROEC-ABC)

Course Structure

- 40 hours
- 1 face-to-face class
- Moodle
- 10 weeks
- 4 Modules
- Teaching material: texts, videoclasses, puzzles, learning objects

Teaching methodology

- Learning by research
- Project pedagogy
- Collaborative learning

Learning Activities

- Discussion Forum
- Social Media (Facebook)
- Didactical sequences
- Polar Project at School
- Experience report

24 Videoclasses in Portuguese, English, Spanish, LIBRAS
Results and Discussion
Students up to **four years** old discovering the feeling of the Antarctic coldness.

Adaptation of the Antarctic scenario for children up to **two years old**.

**Adult** students from the Education program of Youth and Adults took part of the activities.

More than 300 students had classes or activities about Antarctica.

Students up to **Nine years** old listen stories.
Sharing information on Facebook

More than 20,000 people reached by the Facebook group members sharing
Which of the following statements are true?

1. Antarctica (anti-Arctic) is an ice cap opposite to the Arctic.
2. Antarctica is in the South Pole.
3. There are several species of penguins and other birds resident in Antarctica.
4. Each country owns a territory in Antarctica.
5. The Antarctic residents are called Eskimos.
6. The exploration of Antarctica began in the nineteenth century.
7. Seals and sea lions are the only land animals in Antarctica.
8. Polar bears do not eat penguins because they prefer fish.
9. Krill is a species of shrimp found in Antarctica.
10. The emperor penguin lives in Antarctica.
11. Japan hunts whales in Antarctica.
12. The world's highest concentration of fresh water is in Antarctica.
1. Antarctica (anti-Arctic) is an ice cap opposite... TRUE
2. Antarctica is in the South Pole. TRUE
3. There are several species of penguins... FALSE
4. Each country owns a territory in Antarctica. TRUE
5. The Antarctic residents are called... FALSE
6. The exploration of Antarctica began in the... TRUE
7. Seals and sea lions are the only land animals... TRUE
8. Polar bears do not eat penguins because they... TRUE
9. Krill is a species of shrimp found in... TRUE
10. The emperor penguin lives in Antarctica. TRUE
11. Japan hunts whales in Antarctica. TRUE
12. The world's highest concentration of fresh... TRUE

Which of the following statements are true?

Previous knowledge.  After the course.
• The course helped participants to understand the importance of teaching about the continent in primary schools
• There was significant learning about basic knowledge of Antarctica
• Participants were able to contextualise that knowledge in their classes
• Producing Portuguese teaching material is crucial to introduce Antarctica in Brazilian curriculum
• a multidisciplinary team is necessary to have better results in science popularization actions

Conclusion
Thank you!
silviadotta@gmail.com

Thanks the financial support
SCAR CBET
CMCC/UFABC
PROPG/UFABC