



EDU-ARCTIC

What do youngsters know about the Arctic? results from the EDU-ARCTIC survey

Conference: Societal relevance of polar research

Agata Goździk, Institute of Geophysics, Polish Academy of Sciences (POLAND)



EDU-ARCTIC project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 710240.

The content of the document is the sole responsibility of the organizer and it does not represent the opinion of the European Commission, and the Commission is not responsible for any use that might be made of information contained.

www.edu-arctic.eu

ENGAGING STUDENTS IN STEM EDUCATION THROUGH ARCTIC RESEARCH

EDU-ARCTIC:

- Program for **secondary schools** in Europe (13-20 years old)
- To encourage interest in science, technology, engineering and mathematics (**STEM**) education
- To provide an innovative and supportive educational program, accessible to schools, educators and students across Europe and beyond
- To establish **strong links between the research and education** communities by connecting schools to scientists at Arctic research stations and research institutes throughout Europe

EDU-ARCTIC CONSORTIUM

Partners:



American Systems Ltd., Poland



Arctic Portal, Iceland



Institute of Geophysics Polish Academy of Sciences, Poland,
Project leader



Faroe Islands Nature Investigation, Faroe Islands



Norwegian Institute of Bioeconomy, Norway



Université de Versailles Saint-Quentin-en-Yvelines, France




EDU ARCTIC

Contact    


- HOME
 - ABOUT
 - NEWS
 - PROGRAM**
 - LIBRARY
 - PARTNERS
 - SUBSCRIBE TO NEWSLETTER
- LESSONS
 - POLARPEDIA
 - MONITORING
 - COMPETITIONS
 - WORKSHOPS
 - FAQ
 - EDU-GAME
 - LOG IN



ONLINE LESSONS



POLARPEDIA



MONITORING SYSTEM



ARCTIC COMPETITIONS



TEACHER WORKSHOPS
AND
TRAINING SESSIONS



THEMATIC COURSES

Thematic courses

Parallely to regular online lessons, we propose new type of webinars - THEMATIC COURSES. Each course offers a comprehensive series of complementary topics. Each course: ("Engineering ad technology", "The Arctic, people's land", "Secrets of glaciers", "Citizen science") has a fixed day of week and hour, in order to facilitate including our lessons into school practice, also within curriculum. For each course, lessons are conducted once a month. They last full



Mystery of glaciers

'Mystery of glaciers', organized on Wednesdays, 11:00 UTC, cover all information about how glaciers are formed, their importance and dynamics.



People in the Arctic

'People in the Arctic' focuses on social issues, indigenous people, economy, history of exploration and other 'human' aspects of region. Lessons take place on Thursdays, 09:00 UTC



Citizen science

Public participation in science is increasing, and citizen science has a central part in this. With this thematic course we propose a step by step guide how to introduce EDU-ARCTIC monitoring system into school practice.



Engineering and tec...

'Engineering and technology' is a thematic course dedicated to modern techniques of scientific research and environment management. On Tuesdays, 11:00 UTC we talk about technical issues.



FINISHED

🇬🇧 People in the Arctic - Introduction

The Arctic is the northernmost region of the Earth. Besides seals and white bears, there are people living there. On this lesson we are going to meet the Arctic as a space of human habitation, its society and politics. This lesson is an introduction to thematic course with the same title.



FINISHED

🇬🇧 Saami: the Reindeer People

Meet one of the most fascinating and oldest cultures in the world, Saami - indigenous, Finno-Ugric people. The Saami (Lapp) people have inhabited the northern portions of Scandinavia, Finland and eastward over the Russian Kola Peninsula since ancient times.



06 Dec 09:00 UTC

🇬🇧 Siberian people

Khanty, Nenets, Chukchi, Buryats, Yakuts... Indigenous people inhabiting one of the coldest territories on Earth - Russian Arctic. During classes we will travel through Siberia - region, which northern border reaches the Arctic Ocean, and in the west it borders with the Ural Mountains.



10 Jan 10:00 UTC

🇬🇧 Greenland: Kalaallit Nunaat in a nutshell

It's time to visit world's biggest island, go through its landscape, climate, meet its habitants, admire its history and culture. Enjoy another Arctic trip!

07 Feb 10:00 UTC



🇬🇧 Life and work at the Polish Polar Station Hornsund on Svalbard

Living away from civilisation, families and friends... Not for a week or two -for a whole year! During this lesson you will visit a real polar station. You will find out what responsibilities researchers have, how they spend free time and what inspired them to do the hard work every day...even during polarnight!

07 Mar 10:00 UTC



🇬🇧 Settlements in Svalbard

The Svalbard archipelago in the Arctic Ocean is located almost halfway between Norway (distant by 800 km South) and the North Pole (1,100 km North). On the largest island of the archipelago - Spitsbergen, there are two relatively large settlements: Norwegian Longyearbyen and Russian Barentsburg. In addition, there are also permanently inhabited research stations. One of them is the Polish Polar Station Hornsund, the other international

04 Apr 09:00 UTC



🇬🇧 Great polar expeditions

History of success and failure, determination and luck, unbelievable dreams and great organization. Meet polar explorers and their stories.

09 May 09:00 UTC

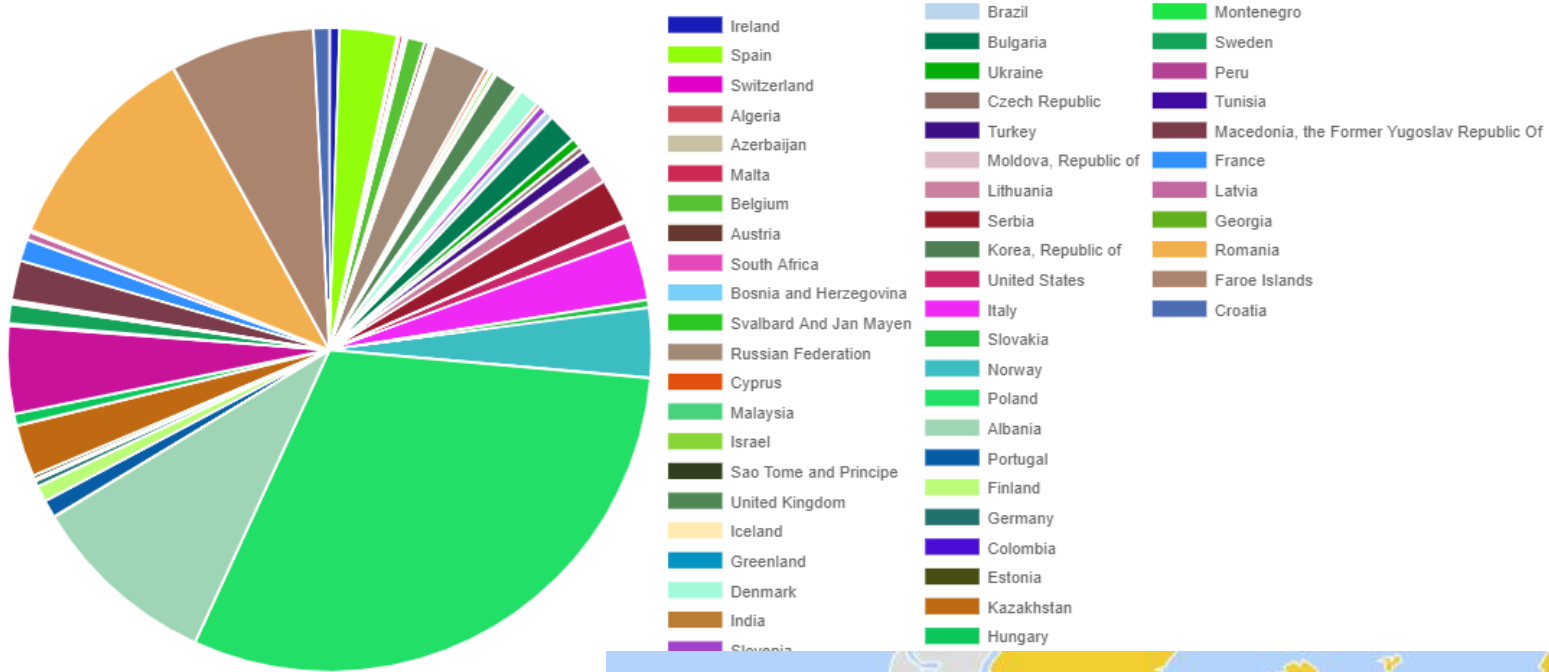


🇬🇧 Tourists in the polar station

Is it possible to buy a trip to the Arctic or the Antarctic, and visit the research station? How about "sightseeing" or "booking a room"? During the lesson we focus on some topics concerning tourism in polar regions.

SCHOOLS in EDU-ARCTIC

Registered Teachers by Country



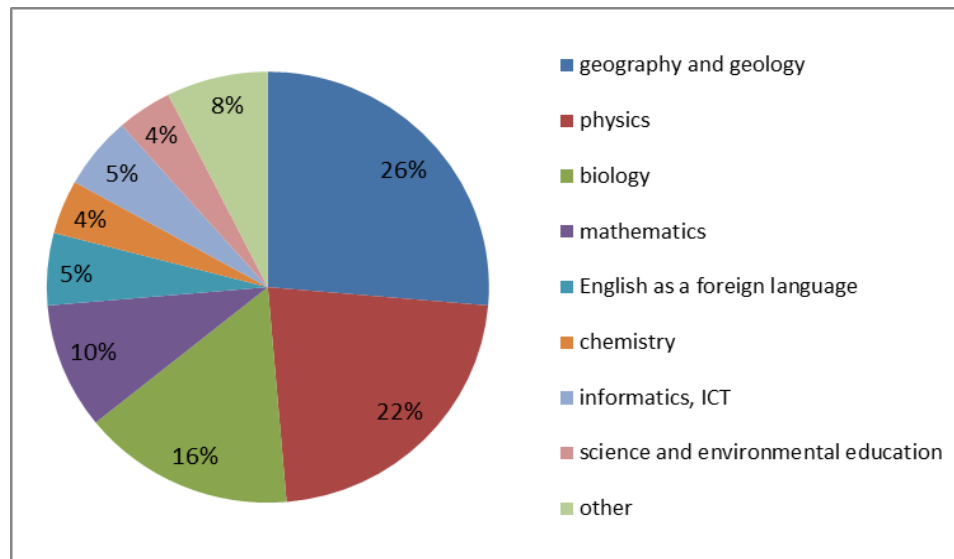
**ca. 1100
teachers from
56 countries**



ENTRY SKILLS ASSESSMENT

Evaluation studies:

- CAWI survey available to all registered teachers within 30 days from registration (not obligatory).
- From January 27 till July 1, 2017 **146** teachers from **26 countries** filled in the survey (Albania, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Denmark, Faroe Islands, Finland, Greece, Hungary, Israel, Italy, Latvia, Lithuania, Macedonia, Norway, Poland, Portugal, Romania, Russian Federation, Serbia, Spain, Sweden, Switzerland, United Kingdom).
- Geography, physics and biology teachers: 65% of all responders
- **12.310** pupils assessed (46,5% girls)



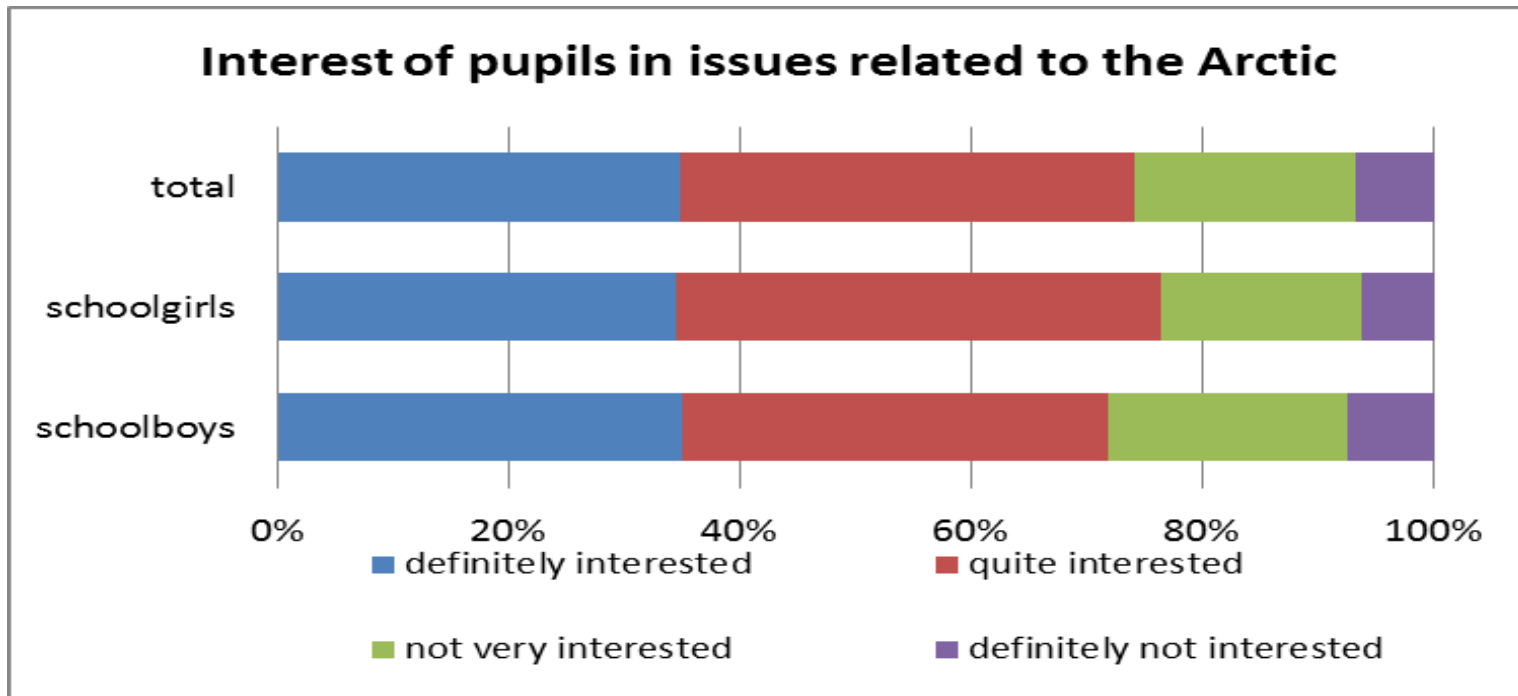
ENTRY SKILLS ASSESSMENT

Main aspects:

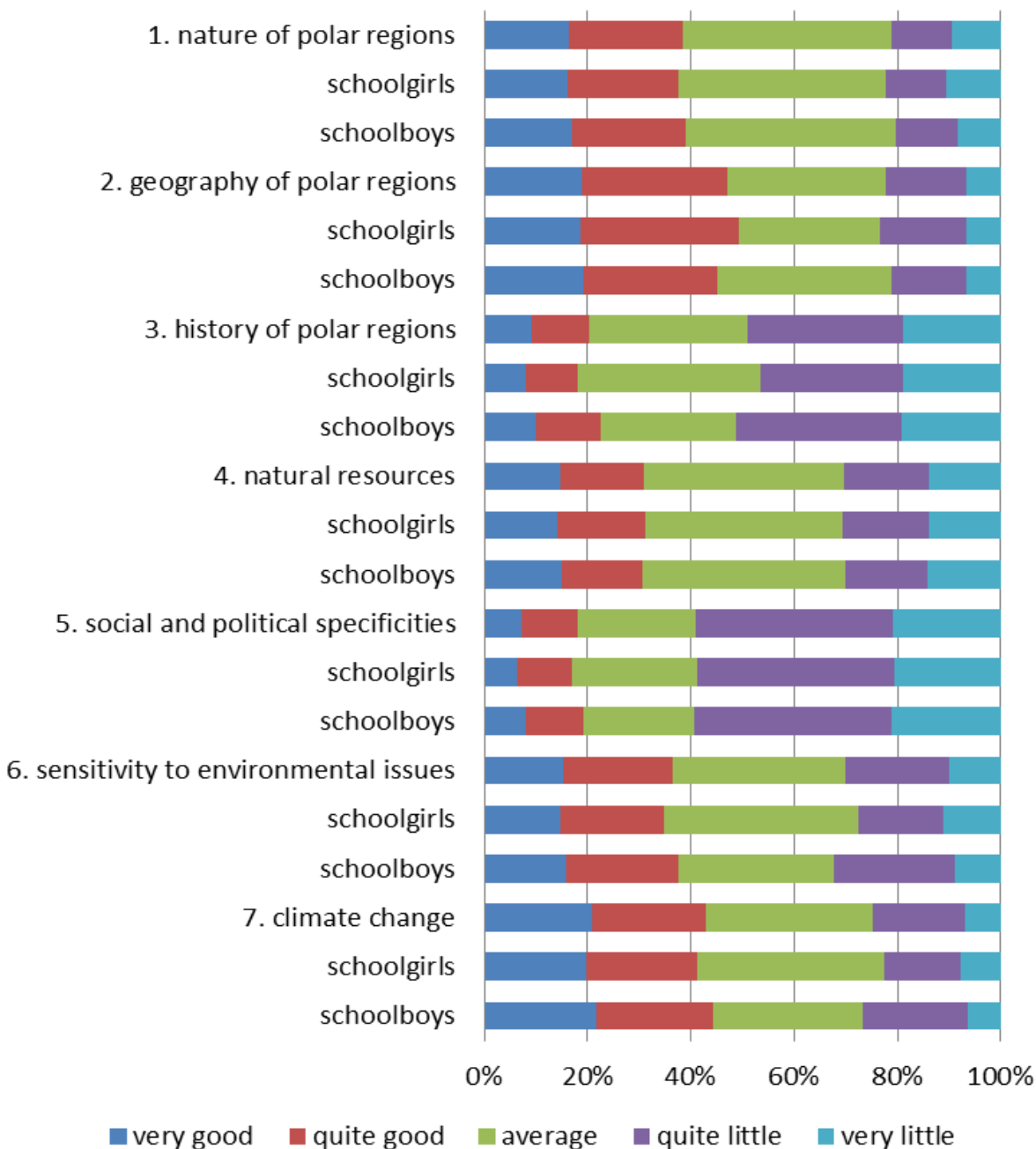
- pupils' interest in STEM
- pupils' interest and knowledge about scientific career
- ability to use scientific language
- interest and knowledge about the Arctic

ENTRY SKILLS ASSESSMENT

- 74% of pupils interested in issues related to the Arctic,
- 35% definitely interested. The numbers are higher for schoolgirls.
- Only 6% of girls and 7% of boys are definitely not interested in the Arctic issues.



Knowledge of pupils on issues related to polar regions



RESULTS

- Pupils have more knowledge about geography and climate change of polar regions (47%: very good or quite good knowledge on **geography** and **43% on climate change**) than on social and political specificities and history of polar regions (only **18% on social and political specificities** and **20% on history**). However, the results of the survey may be affected by teachers' areas of expertise (65% of responders are geography, physics and biology teachers).
- For **social and political aspects** the biggest group of pupils (**38%**) has only quite little knowledge, and here occurs also a big group with very little knowledge (**21%** of pupils).
- For 6 from 7 areas the biggest groups of pupils (30 to 40,5%) have only **average knowledge** on Arctic issues.

CONCLUSIONS

- 74% of pupils show **interest in the Arctic** (35% of all definitely big interest).
- The biggest groups of pupils (30 to 40,5%) have only **average knowledge** on Arctic issues.
- **2.6 times more** pupils have good knowledge on geography of polar regions than on social and political issues.

FINAL REMARKS

- **Registration for teachers is still open.** You may encourage STEM teachers in your countries to register on the portal: program.edu-arctic.eu
- Scientists interested in **dissemination their research results** via EDU-ARCTIC webinars are invited to contact us. Technical help, methodological support by educational adviser, promotion of the webinar, schools' enrollment process will be provided by EDU-ARCTIC.

THANK YOU

QUESTIONS?

GOZDZIK@IGF.EDU.PL

www.edu-arctic.eu

EDU-ARCTIC INTRODUCTORY VIDEO

