



UiO : **Department of Geosciences**
University of Oslo

Rie Hjørnegaard Malm

Integrating first year geoscience bachelor students in academia



The Geological Society of London
Higher Education Network AGM 2017
Teaching excellence in the geosciences

New students

What is geoscience?

Is this how research is conducted?

What is going on in this teaching?

Ohh, they want us to work in groups – what do I do?

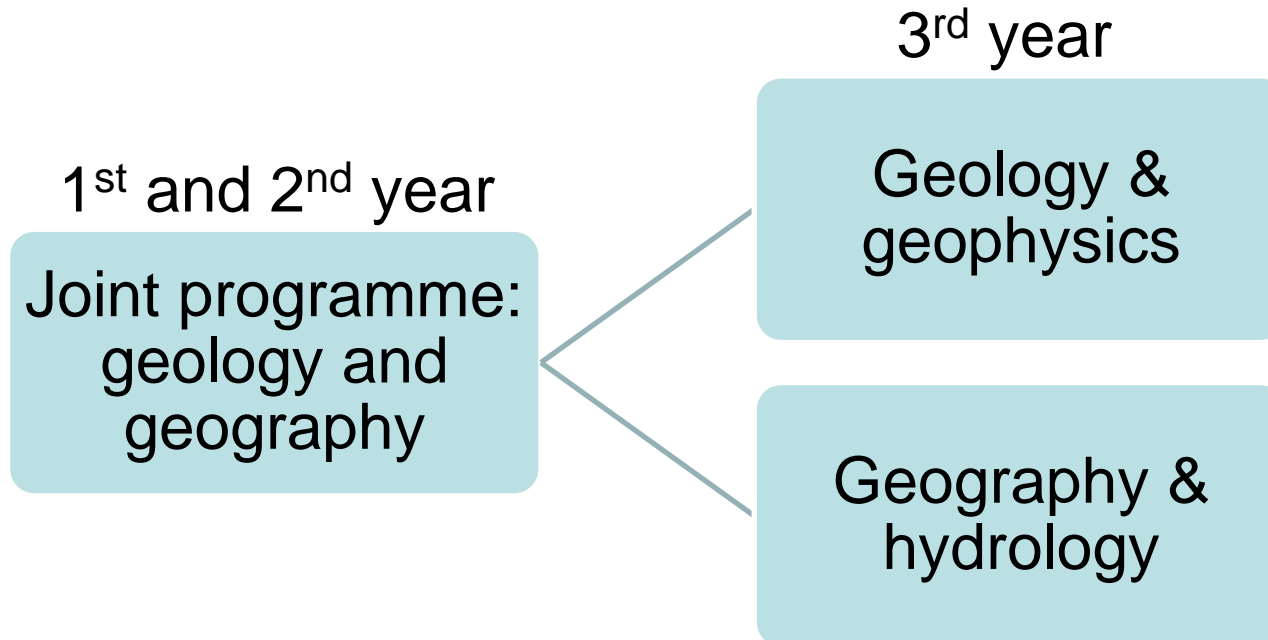
Am I good enough to be her?

Do I see myself working with this in the future?



Geoscience in Oslo - Norway

- 3-year bachelor's programme
- 2-year master's programme



Staff-student interview project



Staff-student interview project 1980-2017

	Oxford Polytechnic 1981 >	University College London 1998 >	University of Oslo 2015 >
Published	Cosgrove 1981	Dwyer 2001	Malm (in prep)
Main aim	To teach geographical methodology in a new way	“...to give students some insight into the process of doing research”	Introducing new students to research and the researchers
Secondary aim	<div style="border: 1px solid black; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> <p><i>“The course has been unpopular regardless of the staff teaching it”</i></p> </div>	“...this project enables students to better understand their lecturers as individuals”	Create a sense of belonging and geoscience identity
Evaluation	Oral presentation + written report	Written report	Oral presentation in groups

Aims

1: introduction to research

3: integration in academia
- geoscience identity

How do we research this?

a. **Survey before** 39

b. **Observation** of presentations

c. **Survey after** 34

d. **Interview** with students 6

Students in total
by December 2016 57



Aim 1: introduction to research and meeting a researcher



“Before, when I thought about a **researcher**, I thought about someone in the **laboratory**, but perhaps that is more like a **chemist**, so getting a picture of how they are in **geoscience**, to learn how they work, that was interesting”

Aim 1: introduction to research

Insight into the research process

“I got a better understanding of how a scientist work and how a research paper is created. And the education that is required”

“I didn't think that there were so much data collecting and mathematics.

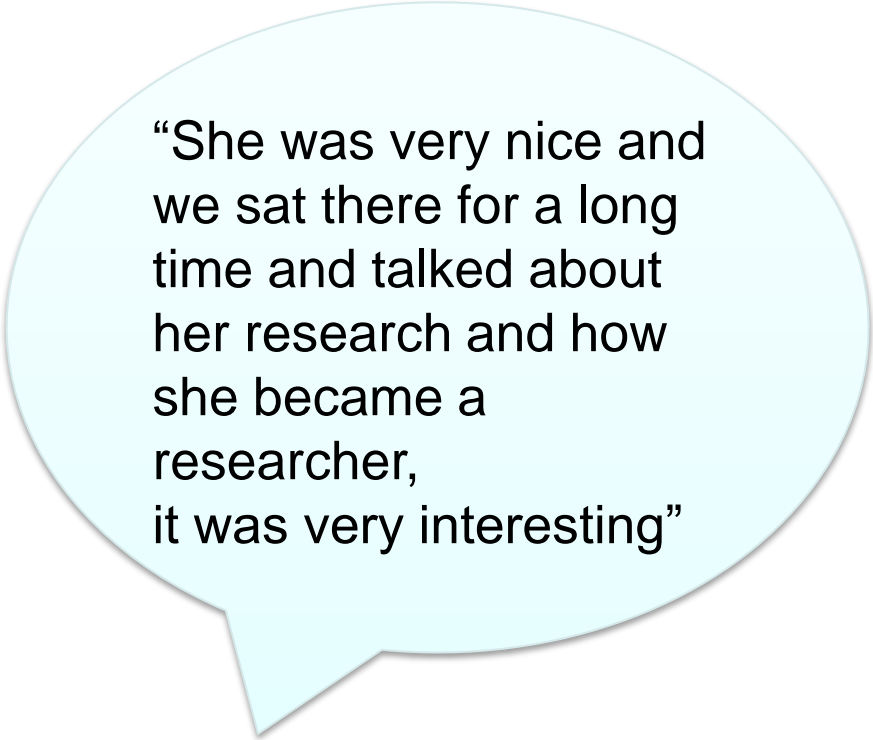
I thought you had a hypothesis first and then sometimes you collected a few data”

Aim 2: meeting the researchers

“What surprised me the most was that the researcher really wanted us to thrive and do well.

He encouraged us to ask questions in class – also the “stupid” ones.”

“Now I know more specifically what you should do if you want to do research“



“She was very nice and we sat there for a long time and talked about her research and how she became a researcher, it was very interesting”

Aim 3: integration in academia and geoscience identity

“It seems like you can do research about almost everything in geoscience. Now I am more keen on finding something that suits me”

Interview

Meeting
passionate
researchers



Presentation

Seeing the
diversity of
research in
geoscience

“Now I see that
research could be
a possibility in the
future – if I find
something that is
interesting,
something I want”

Future work

- Geoscience identity development across the bachelor's programme
 - Follow students during a 3-year period
- Special focus on the effects of field work
 - Observing all teaching in the field for 6 courses





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