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Google expeditions and fieldwork: friends or foes?

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 **FSC**
BRINGING ENVIRONMENTAL UNDERSTANDING TO ALL

 The Association
for Science Education
Promoting Excellence in Science Teaching and Learning

 Geographical Association

 Google Expeditions




Google expeditions and fieldwork: Friends or foes?


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FSC: Steve Tilling and David Morgan
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Agenda

- What is virtual reality?
- Google Expeditions
- Our research goals
- Demo
- Individual activity
- Group discussion

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What is virtual reality?

A simulated environment on a **computer** or mobile platform (e.g., smartphone, tablet):



Second Life



Virtual Skiddaw:
3D Geology Field
Trips (Unity 3D)

Mobility

4

What is virtual reality?

A simulated environment on a computer or **mobile platform** (e.g., smartphone, tablet):



5

Google Expeditions



6

Google Expeditions

- Photospheres (360° view)
- Three-dimensional representation
- Real places or simulations
- First person exploration

7

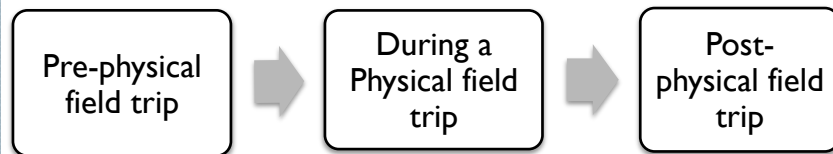
Our research goals

- Whether and how virtual reality-based Google Expeditions (GEs) can be integrated in the Science curriculum (classrooms)
 - Teaching science concepts and phenomena
 - Support inquiry-based learning and students' curiosity
- Whether and how virtual reality can support CPD of teachers
- Recommendations for the user interface design of GEs

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Our research goals

- Whether and how virtual reality-based GEs can support physical field trips



9

How you could help us?

- Trying it out today (**Demo**)
- Thoughts on fit with the curriculum and with physical fieldwork

10

Individual activity

Think of one of the difficult concepts in Science:

How could Google Expeditions (or Virtual Reality, in general) help you to teach that concept?

11

Group discussion

How could Google Expeditions support the development of fieldwork skills?

12

Group discussion

Pre-physical
field trip

How could you use Google Expeditions before a physical field trip?

13

Group discussion

During a
physical field
trip

For which scenarios would you use Google Expeditions during a physical field trip?

14

Group discussion

Post-physical
field trip

How could you use Google Expeditions after a physical field trip?

15

Group discussion

What are the challenges that you would face in integrating Google Expeditions in your curriculum?

16

Details:

Survey:

<https://www.surveymonkey.co.uk/r/role-of-virtual-reality-in-fieldwork>

or <http://bit.ly/2ijMghv>

Project website:

<http://www.shaileyminocha.info/google-expeditions/>

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