

Planning High Quality Fieldwork and Integrating GIS into Teaching



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BRINGING
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UNDERSTANDING TO ALL

What Is Geography?

In the past?

Now?

In the
future?



Here?

Somewhere Else?

Everywhere?

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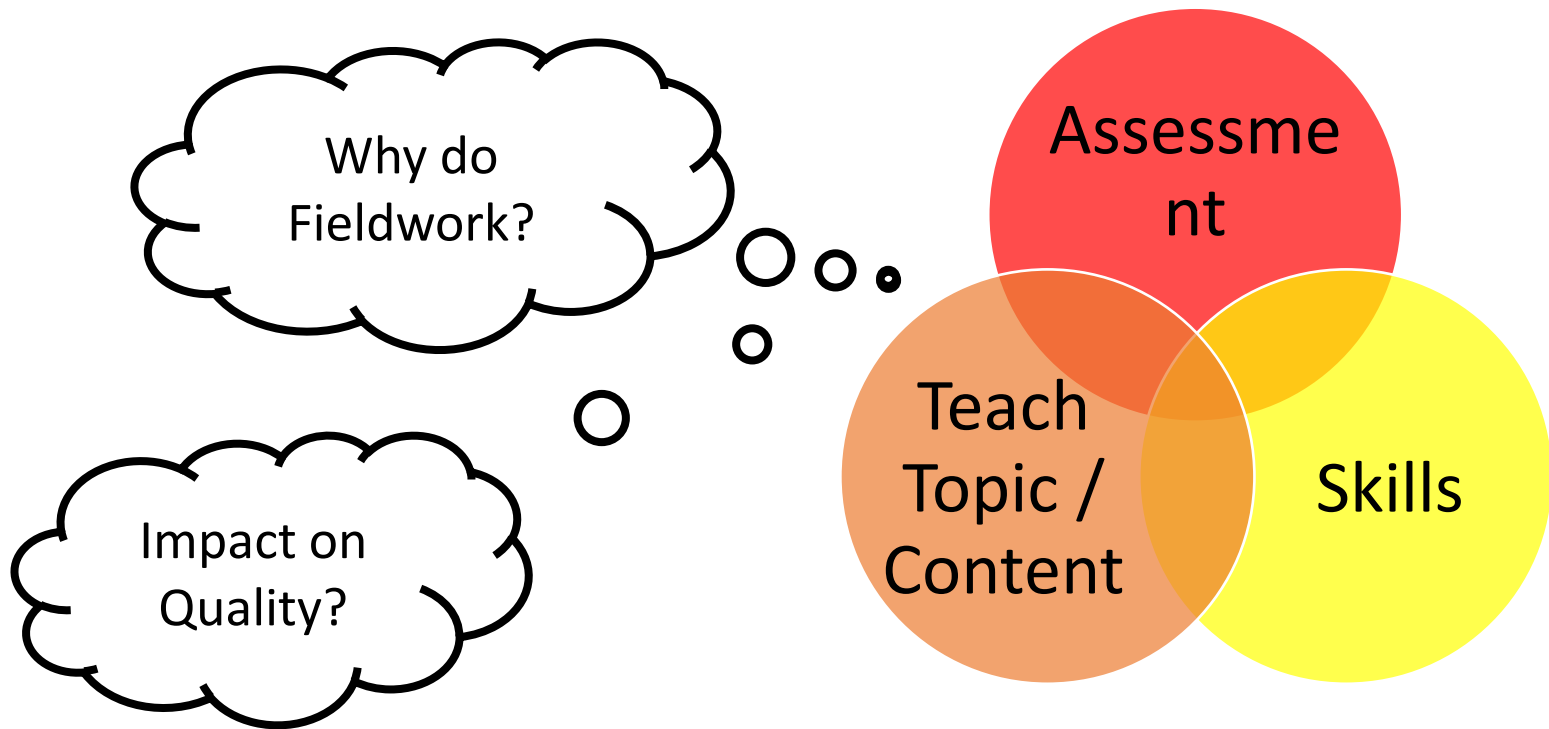
What Was The Last Fieldwork Experience You Led?

Find someone to tell about your last fieldwork experience.....

*When did you go? Where did you go? Why did you go? What did you do?
What did the learners do? Who did you take? What happened? What did
they learn? What did they find out? Who planned it?*

Was it the type of fieldwork you WANT to do?

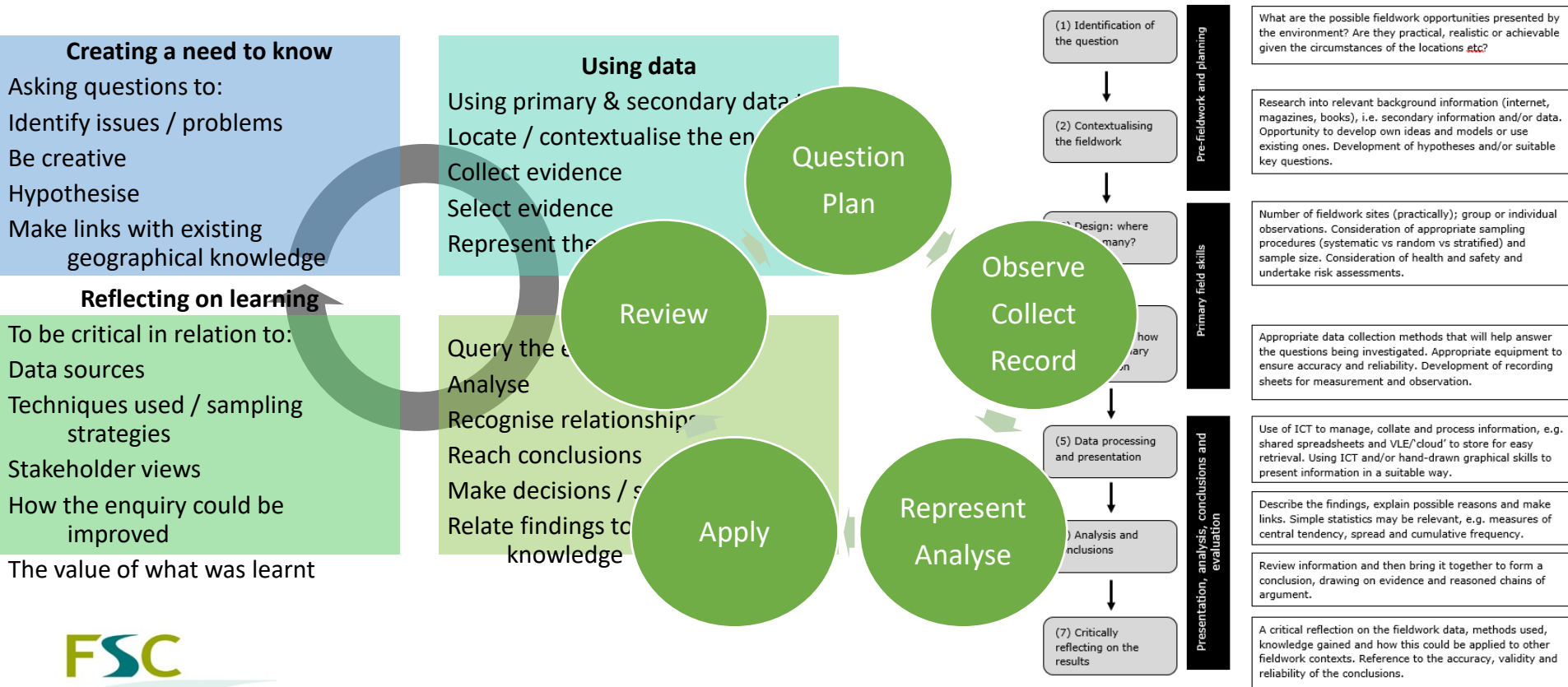
High Quality Fieldwork?



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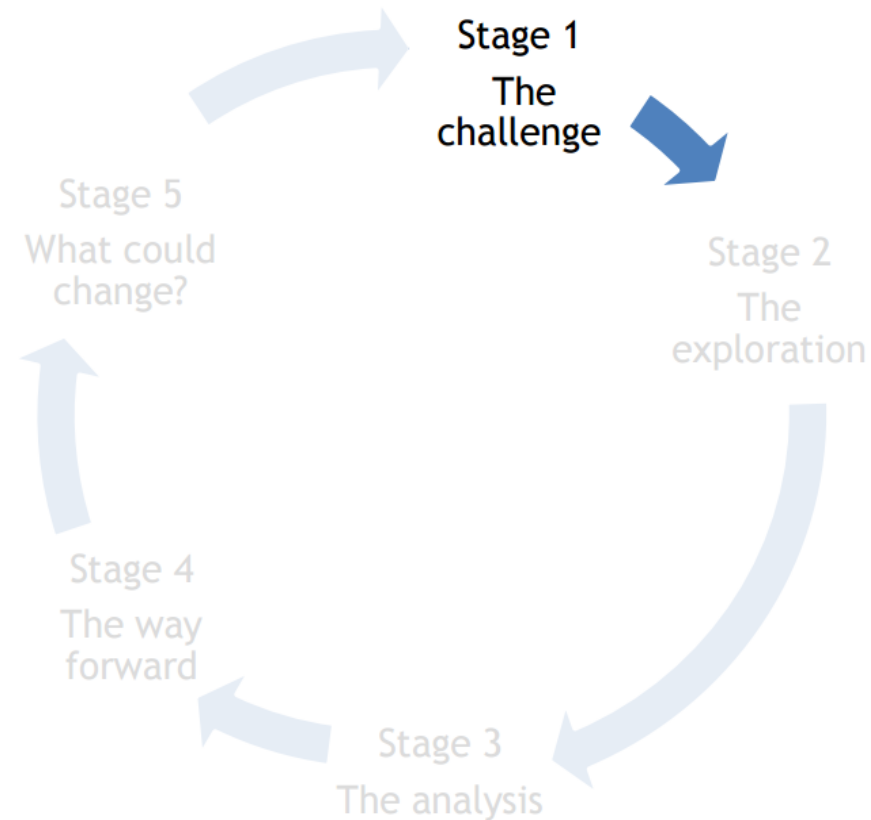
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High Quality Fieldwork? An Enquiry Approach



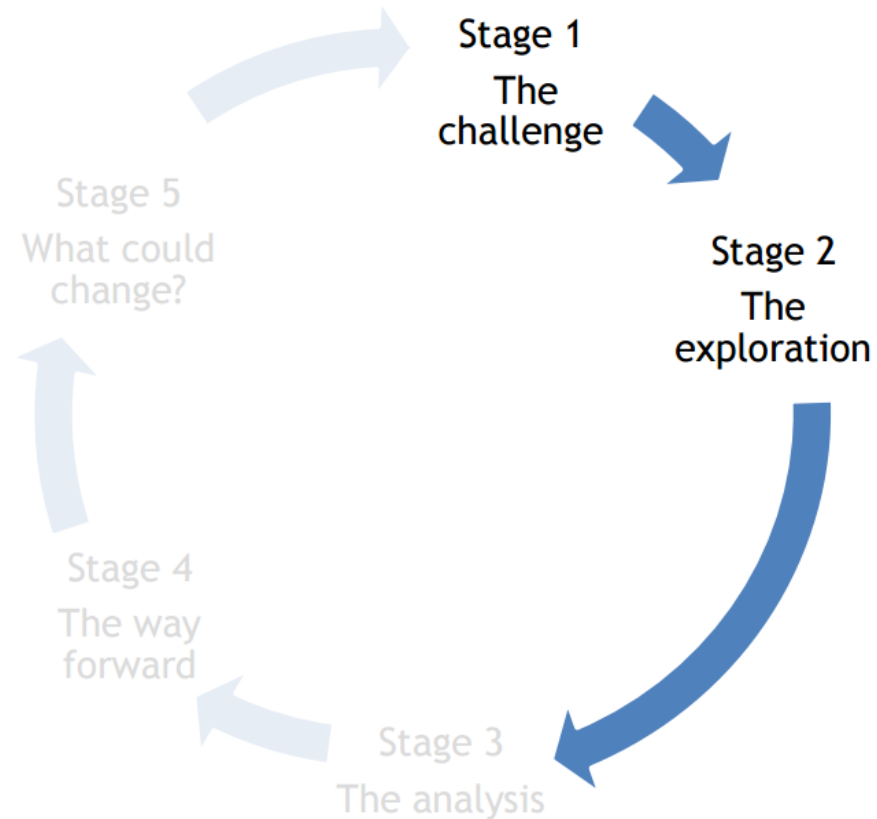
High Quality Fieldwork? A Learning Journey

The **Challenge** stage is about presenting learners with a situation which will lead them to have some questions to answer or investigate.



High Quality Fieldwork? A Learning Journey

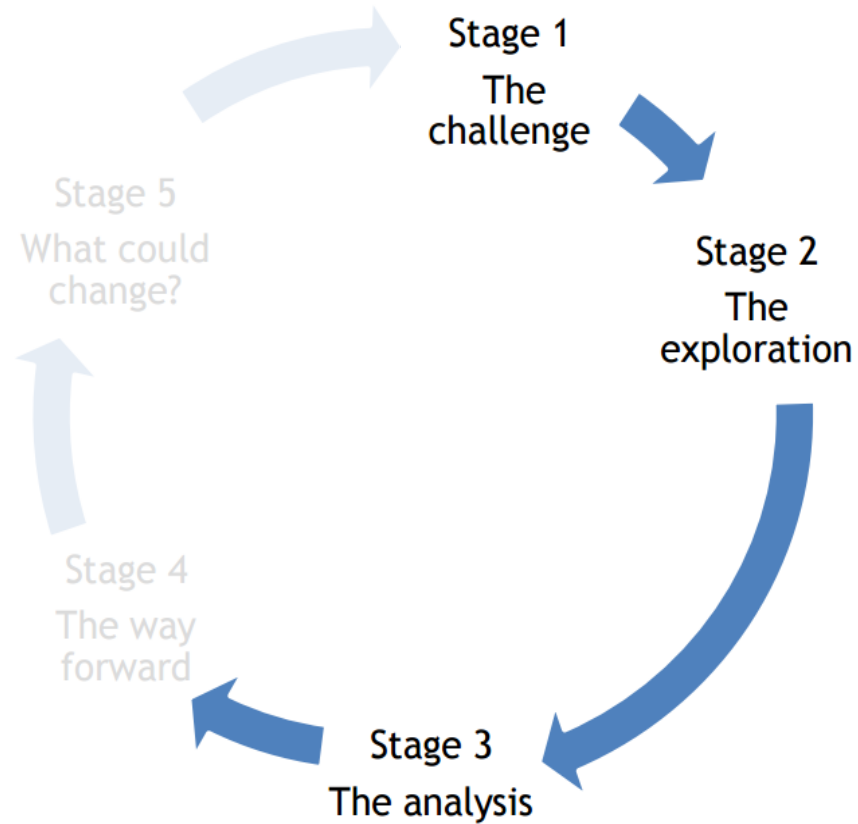
Exploring is about getting information to answer the question. So, it can involve practical work, use of secondary sources, direct instruction, collecting data, taking photographs, comparing emotional responses all focussed on the challenge identified earlier.



Grundtvig Project Sundial – Learning Journey

High Quality Fieldwork? A Learning Journey

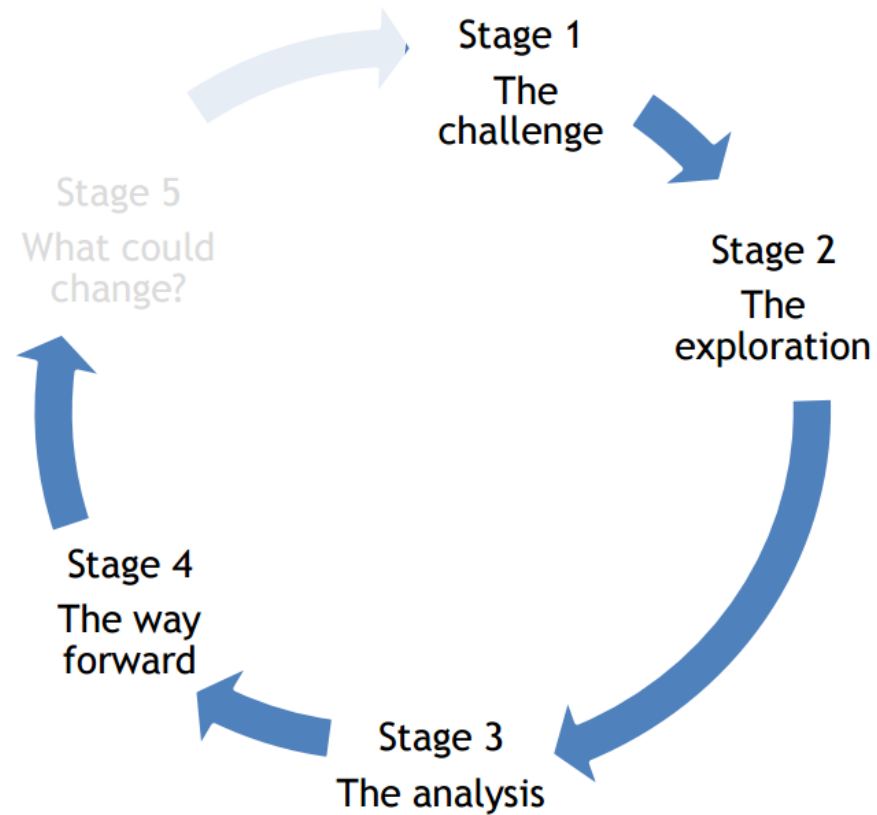
In the **Analysis** stage learners use the results of the exploration to come to some further understanding of the situation.



Grundtvig Project Sundial – Learning Journey

High Quality Fieldwork? A Learning Journey

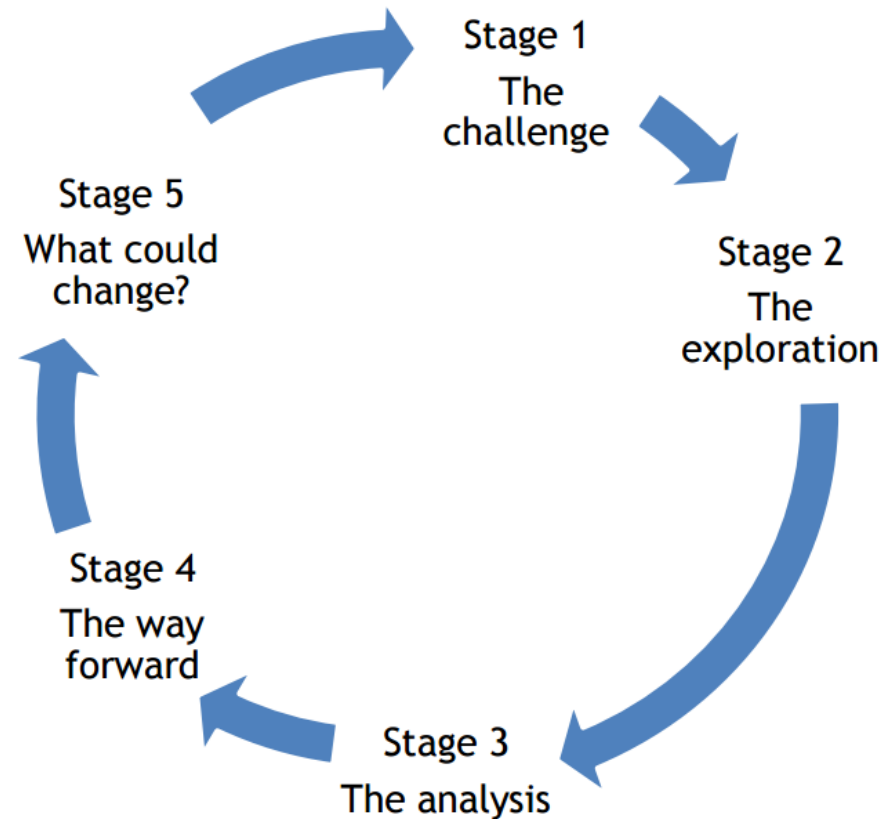
In the **Way Forward** learners revise and test their new view of the initial situation. They should also assess how confident they can be in their new understanding.



Grundtvig Project Sundial – Learning Journey

High Quality Fieldwork? A Learning Journey

What Could Change asks the learners to consider how the context for their solution could be different over time, in different places, for different people or as the learners change... it may raise a series of new questions which lead onto the next challenge stage and so the journey continues at a new level



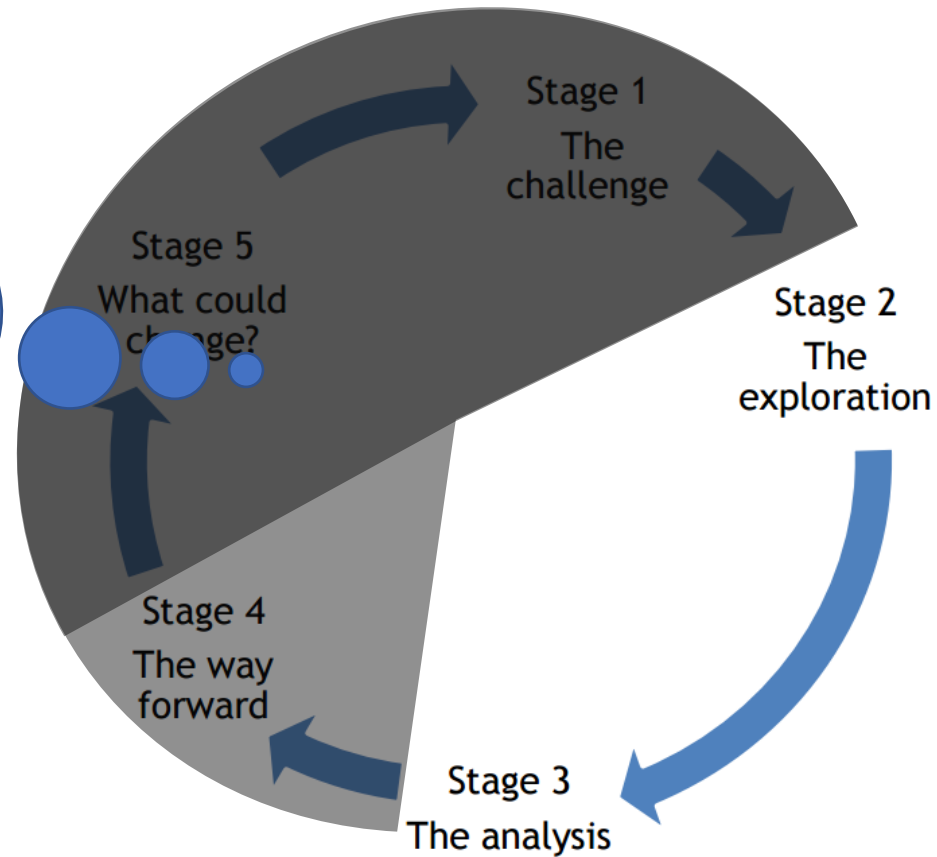
High Quality Fieldwork? A Learning Journey

Fieldwork
As
E
n
on the

Think back to the example of fieldwork you talked about at the start....

What aspects of this model did that fieldwork do well?

How might you change the experience to better cover these stages?



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High Quality Fieldwork?



**RISKY
FIELDWORK?**

Teaching Geography –
Summer 2012

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Bridging the gap.....

For most Geography departments a fully student led field trip at GCSE is not practical.

But students can be involved in the decision making processes, planning and given some freedom to do individual work.

The more ownership they have, the better the experience will be.

More ownership, more engagement, more enquiry = Better Outcomes

(Especially in 2 years time if they do A Level Geography!)

Integrating GIS into Better Fieldwork Teaching

Stage 1
The challenge



(1) Identification of
the question

and planning

What are the possible fieldwork opportunities presented by the environment? Are they practical, realistic or achievable given the circumstances of the locations etc?

- We are going on a field trip to -2.755710, 52.707541
- What Geography can I find there? General topics / themes for enquiry?
- How could students find out?

[Google Maps](#)

[Scribble Maps](#)

[ArcGIS Online](#)

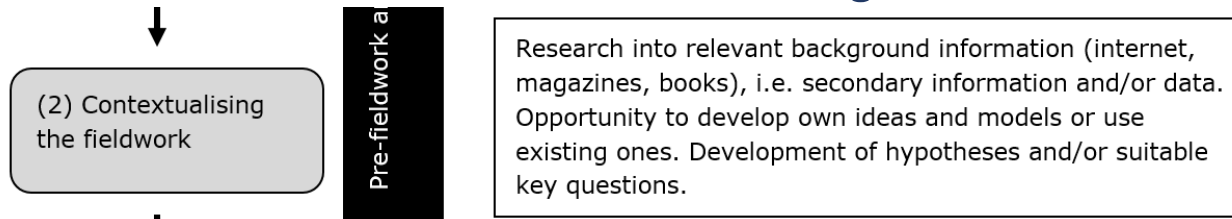
[Where's the Path](#)

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Stage 1
The
challenge



- Once general topic chosen background research, both topic and location. “Contextualising Research”

[ONS Interactive](#)

[NRFA](#)

[BGS Mapviewer /iGeology](#)

[Old Maps](#)

[Check My Flood Risk/EA Flood Risk Map](#)

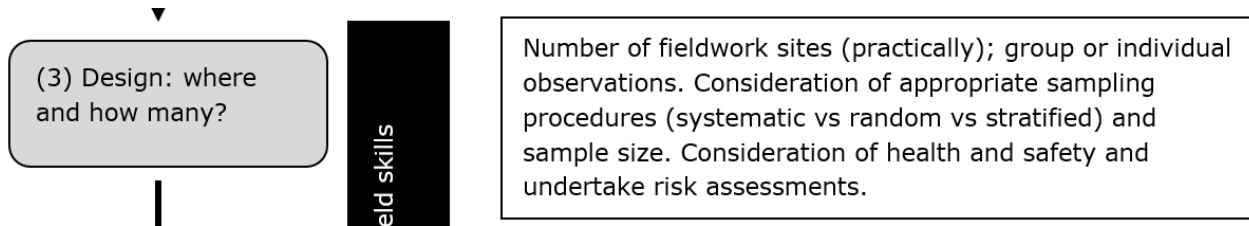
[IMD Data Mapper](#)

- Preparing ourselves with enough information to be able to ask sensible questions and make reasonable hypotheses, grounded in geographical theory and context of place.

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Hypothesis / Questions decided upon – allowing scope for students to ask individual questions in addition to group decisions.

- Contextualising research informs planning for fieldwork – identifying and justifying sampling sites, sampling strategies, categories, design methods.
- Students able to make assessment of possible risks.
- Allow opportunities for students to customise, adapt or invent own methods to answer class or their own questions.

Integrating GIS into Better Fieldwork Teaching

(4) Equipment considerations; how to record. Primary data collection

Primary

Appropriate data collection methods that will help answer the questions being investigated. Appropriate equipment to ensure accuracy and reliability. Development of recording sheets for measurement and observation.


Stage 2
The
exploration

- Smartphone GPS to collect location of measurements/observations.
- Geolocated photos via smartphone camera
- Data collection – may use GIS during data collection **ESRI Collector App**.
- **Video demonstration of Collector App for data collection here....**

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 Stage 3
The analysis

▼
(5) Data processing
and presentation

sions and

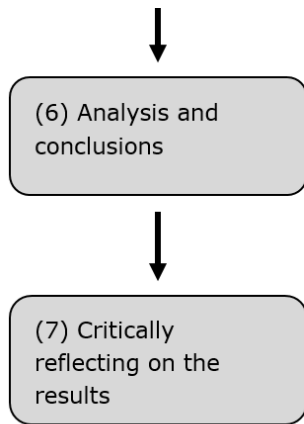
Use of ICT to manage, collate and process information, e.g. shared spreadsheets and VLE/'cloud' to store for easy retrieval. Using ICT and/or hand-drawn graphical skills to present information in a suitable way.

- Using GIS to display and present data
- ArcGIS Online – Drag and Drop .csv file **video demo**
- Data Collected in Collector App – Immediately available in GIS
- **Video**

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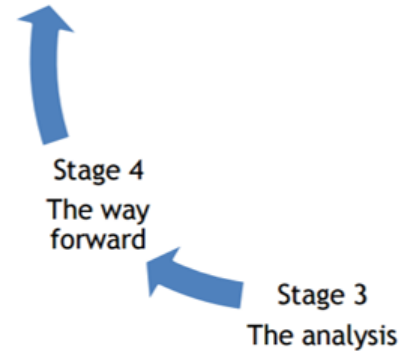


Presentation, analysis, conclusions, evaluation

Describe the findings, explain possible reasons and make links. Simple statistics may be relevant, e.g. measures of central tendency, spread and cumulative frequency.

Review information and then bring it together to form a conclusion, drawing on evidence and reasoned chains of argument.

A critical reflection on the fieldwork data, methods used, knowledge gained and how this could be applied to other fieldwork contexts. Reference to the accuracy, validity and reliability of the conclusions.



- Using GIS to view multiple pieces of primary and secondary data together and allow conclusions to be drawn more easily and based on a wealth of evidence.

Video example – Using GIS to view Primary and Secondary data together.

Creating the Spiral

- How are you going to take what you have learnt in this session forward into your teaching?
- What will be different about your next fieldwork visit compared to your last?

