

MODES DE LA CONNAISSANCE | FORMAS DE CONOCIMIENTO
WAYS OF KNOWING

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Using Fieldwork to Enhance our Ways of Knowing

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Fieldwork vs. a “field trip”?

- Field trip = learning experiences outside the classroom walls
- Fieldwork (field study)
 - work outside of the classroom
 - students collect their own data
 - students analyze and use the data for a purpose
 - discussion continues as they answer a research question



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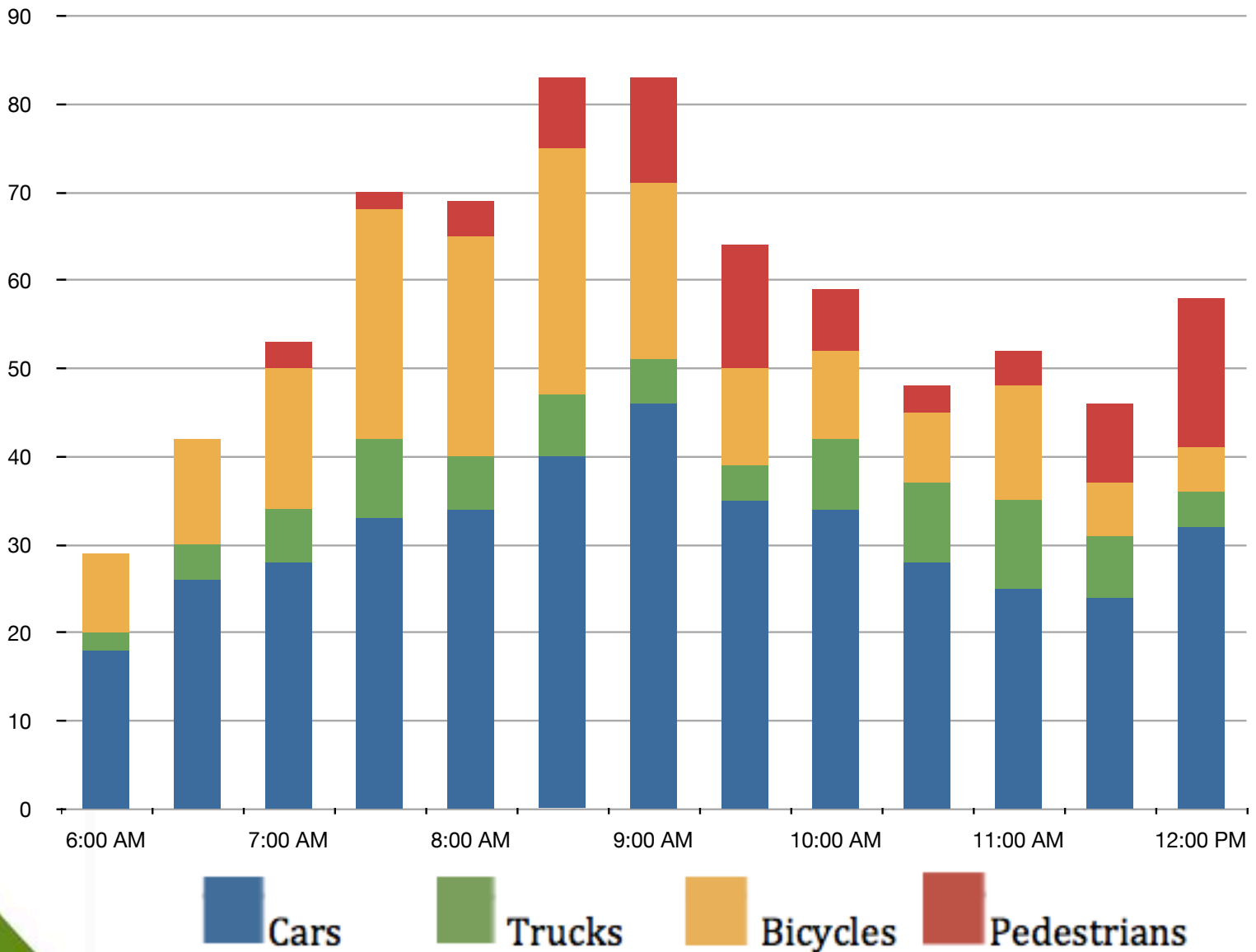
Examples of field trip vs. field study

- PYP example
 - Field Trip – Walk to local market and observe what is being sold
 - Field Study – Gather data about prices of groceries at the market. Compare prices of local to imported produce. Calculate the food miles, or distance the good travels.



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Traffic Count (timed for 5 min) at corner of 12th and N





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Fieldwork (virtual) simulation



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Why should schools dedicate time and money to fieldwork experiences?



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Field Study Timelines

- Teacher planning
- Student Prep
- Data Gathering
- Outcome



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Benefits of Fieldwork: Experiential Knowledge

- Experience the host country region
- Promote experiences of becoming internationally minded
- Offers chance to connect through interdisciplinary work





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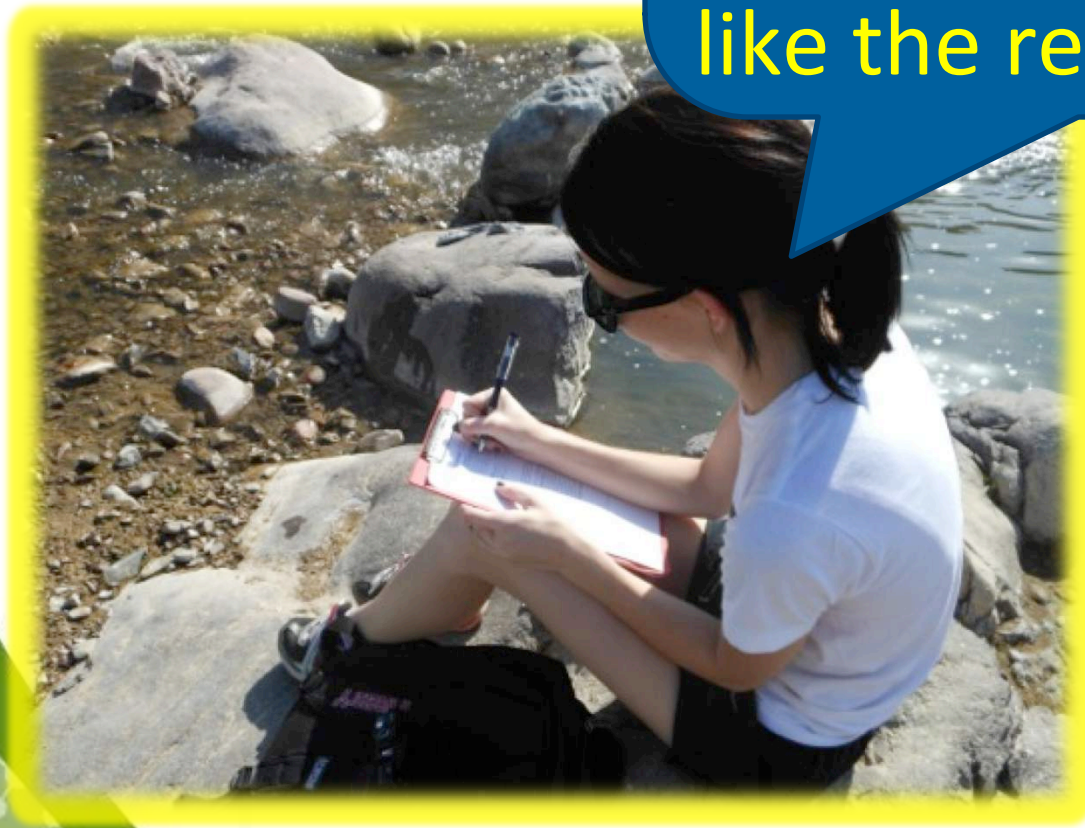
Benefits of Fieldwork: Affective Domain

- Challenge students to work in a new environment, sometimes out of their comfort zones
- Emotional responses strengthens memory
- The 'field-talk' effect
- See themselves as active Geographers, Physicists, Biologists, Economists, Social Scientists; not passive participants



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“I learned a lot about teamwork and collaboration during this experiment. I started to value how working in a team really does help. Two heads is definitely better than one. I also learned how the scientific process actually works, I mean in physics we always do labs, but the group 4 project was different, **it felt like the real thing.**”





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Student Quote

*“I think fieldwork teaches us how to connect what we do in the lab and what is done in more real experiments. **I was actually eager to write** a lab report about our Group 4 project because there was a lot to talk about for conclusion and evaluation, whereas labs are often monotonous.”*



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Benefits of Fieldwork: Skills Knowledge



Acquire experience
and confidence for
data-based DP
Extended Essays &
MYP Personal Project



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Benefits of Fieldwork: Skills Knowledge



Opportunities for authentic group work



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Benefits of Fieldwork: Reflection and Knowledge Claims

- Students gather *their own data*
 - Are able to make better connections to their work
 - Are able to identify weaknesses in their data gathering approaches



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Student discusses challenges

- 47sec 1:54



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Benefits of Fieldwork: Reflection and Knowledge Claims

Students **make mistakes** and **overcome** them
Recognize limitations in all data



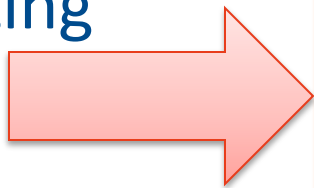


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Benefits of Fieldwork: Reflection and Knowledge Claims

- Students find **creative solutions** to unexpected problems

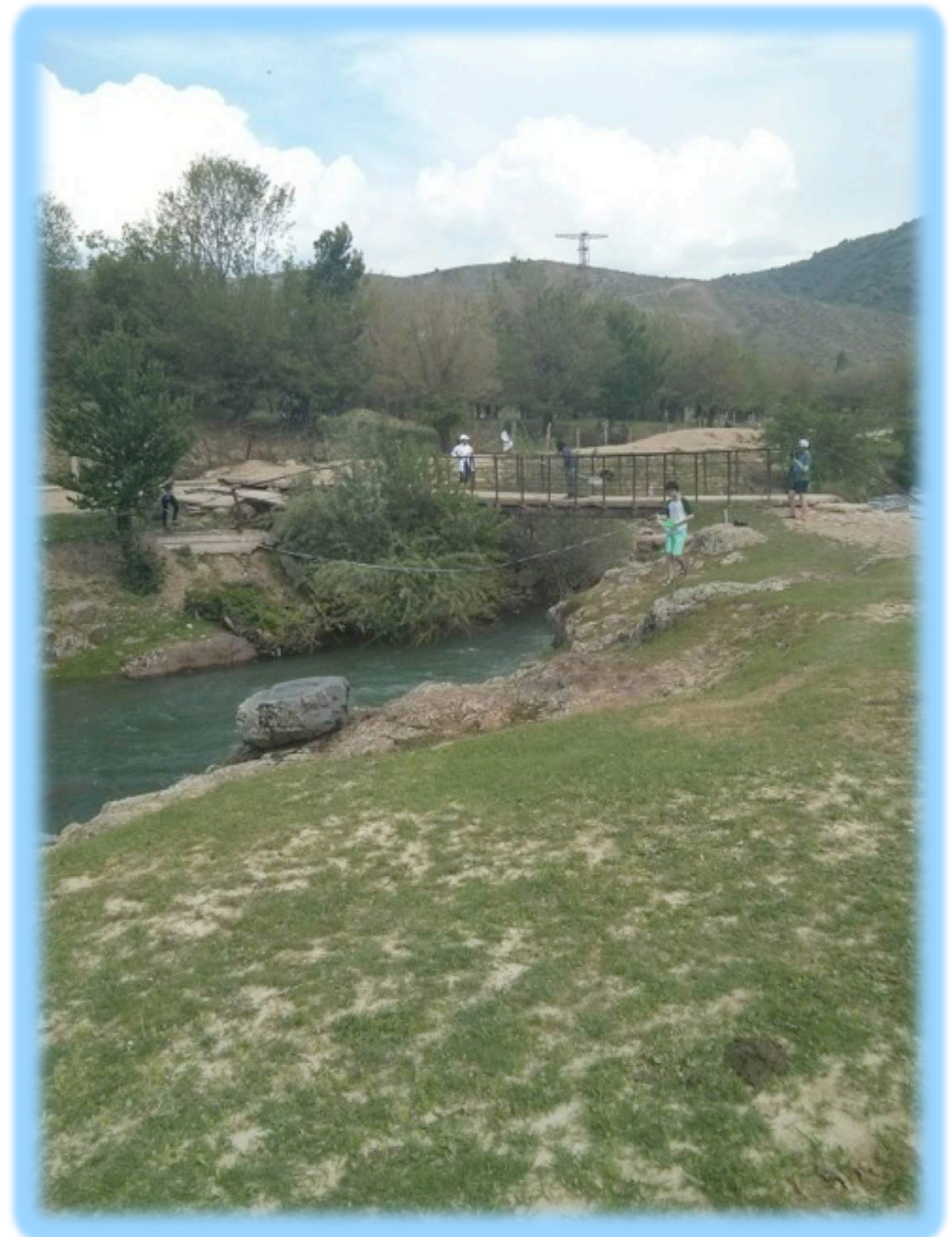
Cow is eating
Biology
student's
insect traps.





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Unexpected problem:
Due to spring
snowmelt, the river is
running too fast at this
site for students to
measure the depth
safely.





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Creative Solution:
Students work out a method to measure depth at the site by dropping a bag of heavy rocks to the river bed with a pre-measured rope.



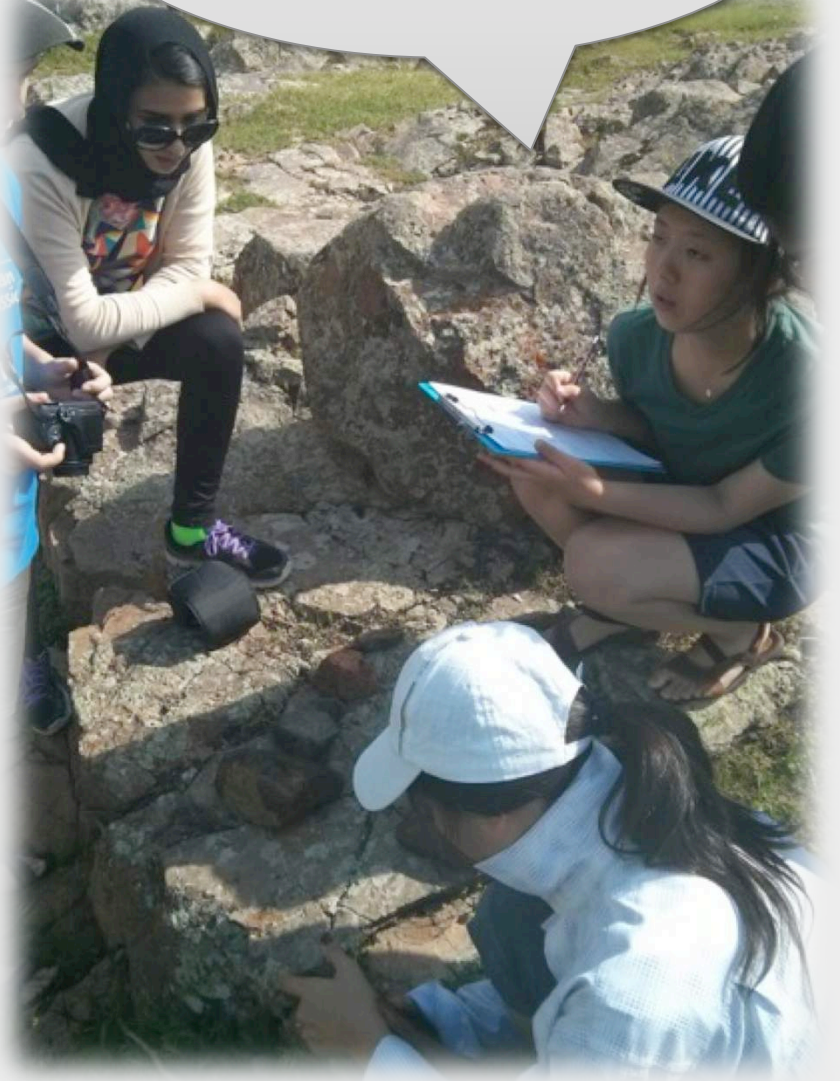


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Benefits of Fieldwork: Reflection and Knowledge Claims

- Students **question the model**
 - The picture painted by the data does not always match the theoretical models presented in class

Why is the discharge getting lower as we move downstream? Isn't it supposed to increase?





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“It shows you that sometimes the **assumption** you make in the class when you solve problems, **do not always hold true in the real world** and it makes you **more aware of the limitations** of these assumptions.”





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Notable Student Misconceptions

- *“This method works because the results that were collected were what we expected.”*
- *“The results that we have received make sense as well as prove our hypothesis. Thus another justification why the method is valid.”*



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Notable Student Misconceptions

- *“Instead of doing an experiment where the results are arguable, it is better to do an experiment that leads to one answer.”*
- *“Before I begin <my analysis>, I want to state that I will choose an experiment which has a clear relationship next time.”*



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Benefits of Fieldwork: Reflection and Knowledge Claims

- Fieldwork addresses the common misconceptions and forces students to think
- Breakthroughs occur:
 - “Field-talk” opportunities
 - Ownership (group too) of the experiment
 - Being outside the confines of the classroom
 - Lack of internet





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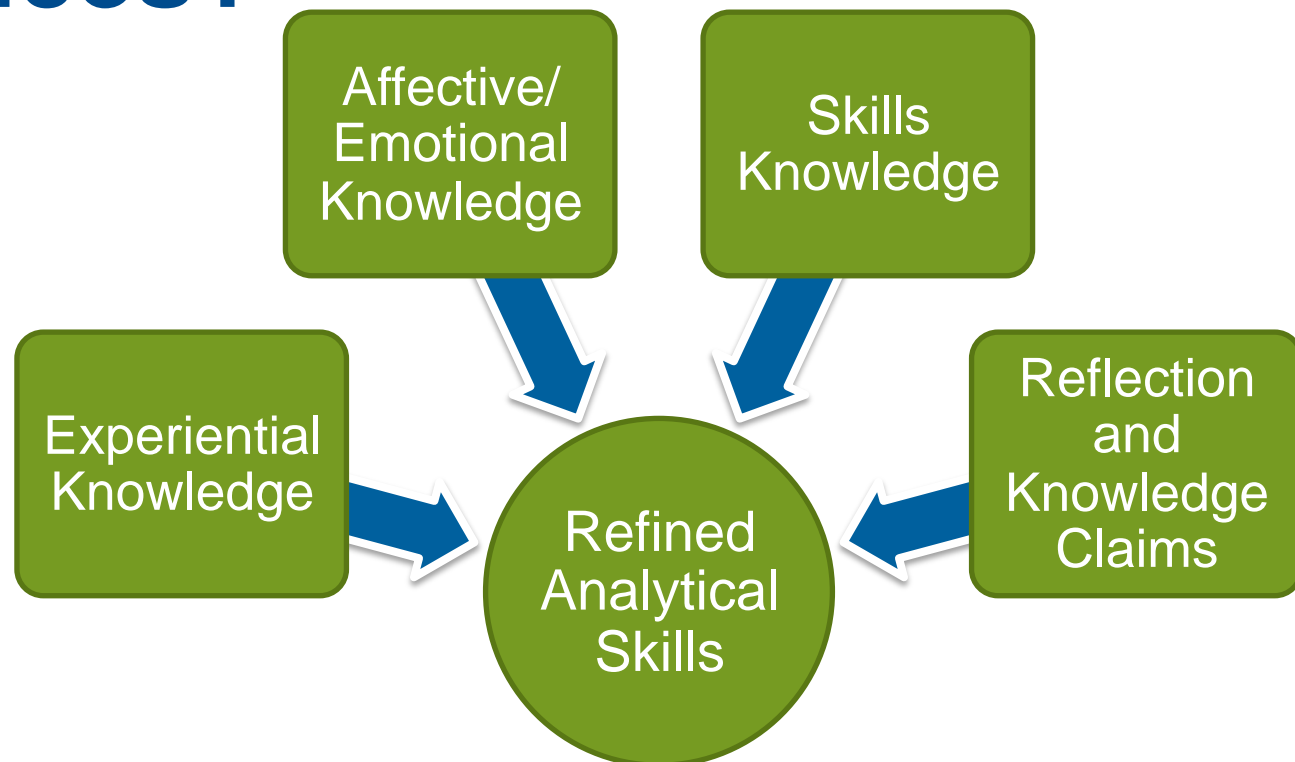
Challenges for School Administrators

- Financial constraints
- Safety concerns
- Students missing other classes
- Logistical concerns
- Parent Resistance
- Other?



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Why should schools dedicate time and money to fieldwork experiences?







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Planning Fieldwork for Your School

- Fieldwork
 - work outside of the classroom
 - students collect their own data
 - students analyze and use the data for a purpose
 - discussion continues as they answer a research question
- Resources



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