

HoPE - Observation Data, student group

When: July 20, 2017

Data at different timescales

Technical Experience:

- Did they learn how to use the tools to control the variables?
 - “Slide and more things come up”

Content:

- Did they seem to understand temperature anomaly?
 - “It’s getting colder, and go hotter”
 - “Go farther to see, go farther through time”

Reaction:

- Surprising/delightful response?
 - When the trend of getting hotter appears, students shouted “oh my god” “really cool” “wow, hotter” “really bad” “people are suffering”
- Frustrated/confused response?
 - “What year is it?”

Temperature around the world

Technical Experience:

- Did they learn how to use the tools to control the variables?
 - When asked, the girl said: “left: up, region moves, right: temperature get higher”
 - “Don’t know what the right part is for”

Content:

- Did they seem to understand that warming is unevenly distributed around the world?
 - No.
 - When asked “where the temperature changes most”, one student answered “north, because red mostly stays there”

Reaction:

- Surprising/delightful response?
 - “Ohh...” after the facilitator explained;
 - “Oh, my god!” when moving the time controls
- Frustrated/confused response?
 - “Explanation helps a lot. Cannot finish this by oneself” (since required the facilitator to help make sense of it)
 - “Confusing but like it”
 - Compared with the first one:
 - “The first one shows years, and more evidence”.
 - “The second one show you where, tell you where it’s getting hotter.”
 - “It is confusing, cannot understand the part on the right. Hard to put all information together”

Climate forcings

Technical Experience:

- Did they learn how to use the tools to control the variables?
 - The student answered “press the button, looking for highest change”

Content:

- Did they seem to understand that humans are driving temperature warming not natural factors?
 - “When you click, it shows the one *polluting* earth more”
 - When asked, “What’s the one factor causing the global warming?” a student answered “greenhouse gas”

Reaction:

- Surprising/delightful response?
 - “I like the sound *beeb*”
 - “Wow” after they tried CO₂, and saw the trend.
- Frustrated/confused response?
 - “Don’t understand what the grey line is”
 - “I also don’t understand what the green line is”
 - “The idea would be better if it explains what grey/blue lines are”
 - “Why are human factors represented in orange lines?”
 - “Why are the first and second human factors going down?”

Notes (meeting after the session):

- Overall comments
 - “Students have more pre-knowledge than expected, quite surprised”
 - “In the hall, there is more noise. ”
 - “In the museum, no one guide them and help people to go through the experience. ”
- Data at different timescales
 - “The first one is fairly clear. Students are well responded to the sound. But they are confusing why is this a particular color?”
 - “The first one is more linear”
- Temperature around the world
 - “The second one is confusing. They are looking for confirmation. The connections between two parts are loose. The second one need more time. They need to get the right location on the left graph and then look at right which shows time. ”
 - “The right part shows average of the whole region. ”
 - “The second one has more information and need to play more to figure out. ”

- “If students are given specific questions and goals they can know.”
- Climate forcings
 - “I am surprised that they didn’t understand the third one initially. They are confused what the grey line is. ”
 - “Should be more explicit. ”
 - “Do a call out.” (Sarah)
 - “Once the line goes up, they start to figure out. There may be text explaining positive and negative sides. We can have three nature factors combined with one human factor.”

Transcript:

Brian: Students have more pre-knowledge than expected, quite surprised

Sahra: the first one is fairly clear. Students are well responded to the sound. But they are confusing why is this particular color?

Barry: The second one is confusing. They are looking for confirmation. The connections between two parts are loose. The second one need more time. They need to get the right location on the left graph and then look at right which shows time.

Brian: The right part shows average of the whole region.

Barry: The first one is more linear but the second one has more information and need to play more to figure out.

Sahra: If students are given specific question and goals they can know.

Barry: In the hall, there is more noise.

Sahra: I am surprised that they didn’t understand the third one initially. They are confused what the grey line is.

Brian: Should be more explicit.

Sahra: Do a call out.

Brian: Once the line goes up, they start to figure out. There maybe text explaining positive and negative sides. (?) We can have three nature factors combined with one human factor.

Sahra: But in the museum, no one guide them and help people to go through the experience.