My El Nino Campaign Reflection
Data Collection - 2015 - 2016

Jeffrey R. Bouwman
GLOBE Webinar
Monday, June 13, 2016
8:00 p.m.
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Gibraltar School District

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Big #GettingScienceDone Shout Outs:

- David Bydlowski (Wayne RESA)
- Andy Henry (Wayne RESA)
- Brian Campbell (NASA SMAP/GLOBE)
- John Kay (Science Teacher SMS)
- Beth O’Neill (Science Teacher SMS)
- Sammy DeAngelo (Science Teacher SMS)
- Shawn Irwin (Science Teacher SMS)
- Els Ferguson (Principal SMS)
- Tracy Richardson (Assistant Principal SMS)
- Cindy Hoffman (Principal Weiss Elementary)
- Gibraltar School District Maintenance
2015 – 2016 – Beginning of the Year (Sept – Nov)

- My first year teaching at Shumate!
- 1 rain gauge for measuring precipitation for CoCoRaHS.
- 1 GLOBE site for seventh graders to take SMAP samples and surface and soil temperatures.
- My focus was on #DataSmashing precipitation and soil moisture data. “If precipitation increases, will soil moisture?”
- Weather was focused on in seventh grade (Michigan Grade Level Content Expectations).
- I took all of my seventh graders outside at the end of the hour (last 10 minutes of class). All data was put on the data board together.
2015 – 2016 – Middle of the Year (Nov – March)

- 3 rain gauges for measuring precipitation for CoCoRaHS. We measured snow too!
- Weather was moved to sixth grade (Michigan Science Standards) - New standards alignment.
- 5 GLOBE sites for sixth and seventh graders (one per hour).
- My focus was on setting up procedures for managing all of the GLOBE sites.
- Train-the-Trainer with a Site Supervisor.
- Students became responsible for data.
- We had a very gentle winter and El Nino was happening. Thank goodness!
2015 – 2016 – End of the Year (March - June)

- Continued to collect rain data for CoCoRaHS and occasionally GLOBE.
- 9 GLOBE sites for sixth and seventh grade.
- Collected approximately 2,400 samples during the 2015 – 2016 school year.
- My focus was keeping all of the data organized!
- Train-the-Trainer with a Site Supervisor method was working really well.
- Students collected and monitored all of the data. We had a lot of data!
- I found out about the new El Nino campaign and started adjusting the focus.
So El Nino is......

I asked a few students about El Nino:

• “A nickname for a student in third hour!”
• “Something funny my dad talks about (references)!” Chris Farley SNL Skit
• “The reason winter wasn’t bad this year in Michigan.”
• “Something to do with the ocean and it being warm.”
• “The what?!?”
• “We haven’t discussed this in Spanish class with Senora Brown yet.”

Reflection: I wish I would have put more emphasis on El Nino this year. I’m not sure this phenomenon is a big deal in Michigan.
Moving Forward at Shumate – Part 1

Continue to use the Data Board

- Precipitation (Rain and Snow)
- Rain pH
- Soil Moisture
- Soil Temperature
- Surface Temperature
- Clouds
- Add Temperature (including max. & min.)
- Add Biometry – Canopy & Ground Cover

Reflection: The Data Board worked really well this year! Students need to see the data on a daily basis. The data lead to great conversations about the weather.
Incorporate More Technology

- Chromebooks
- Naturebytes Cameras
- WeatherSTEM
Moving Forward at Shumate – Part 3

Organization is Key!
### GLOBE eTraining is AWESOME

<table>
<thead>
<tr>
<th>Module</th>
<th>Sphere</th>
<th>Completed On</th>
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<tr>
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<td>SMAP Soil Moisture</td>
<td>Pedosphere (Soil)</td>
<td>05/14/2016</td>
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Any Questions?

Jeff Bouwman @jeffbouwman · Apr 3
@CoCoRaHS @k12science Back from Branson, about to do my multi day report, and frozen. Only in PureMichigan

Jeff Bouwman @jeffbouwman · Apr 21
Day 4 @GLOBEProgram Data Entry Challenge at SMS! Our 7th Graders picked #RareUnicornRainbow today @Dutchgirl8161
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#GettingScienceDone

THANK YOU!