

HOW THE AMPLIFY SCIENCE CURRICULUM IMPACTS STUDENTS AND TEACHERS

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Background

In the Fall of 2019 the Lake Washington School District adopted the Amplify science curriculum. The Amplify Curriculum is aligned to all three components of NGSS. Prior to the Amplify Curriculum, students were learning science with FOSS science kits that were not aligned to NGSS. So, the purpose of this descriptive study was to understand how the new Amplify science curriculum impacted both students and teachers. Understanding how Amplify impacts students and teachers taught me how to best utilize the curriculum to promote student growth, what components of the curriculum are most engaging and how Amplify makes students curious about science. These results will be used to inform future teaching with Amplify, which will maximize student learning.

Research Question

Primary Question: How does the Amplify Science Curriculum impact both 4th grade students and teachers?

Secondary Questions:

1. How does the Amplify Curriculum impact student growth in the Science and Engineering Practice: Engaging in Arguments from evidence?
2. How does the Amplify Curriculum impact student behavioral and emotional engagement?
3. How does the Amplify Curriculum impact student curiosity?
4. How does the Amplify Curriculum impact the teacher?

Treatment

- For this study, I collected data on student growth, engagement and curiosity, along with teacher impact, while teaching the Amplify science curriculum
- The research period was November 6th 2019- February 5th 2020
- For this study, I taught Amplify's "Earth's Features" unit
- The study consisted of two fourth grade science classes, or 46 students
- The students received two to three hour science lessons a week
- The Amplify curriculum was taught with fidelity, no modifications were made

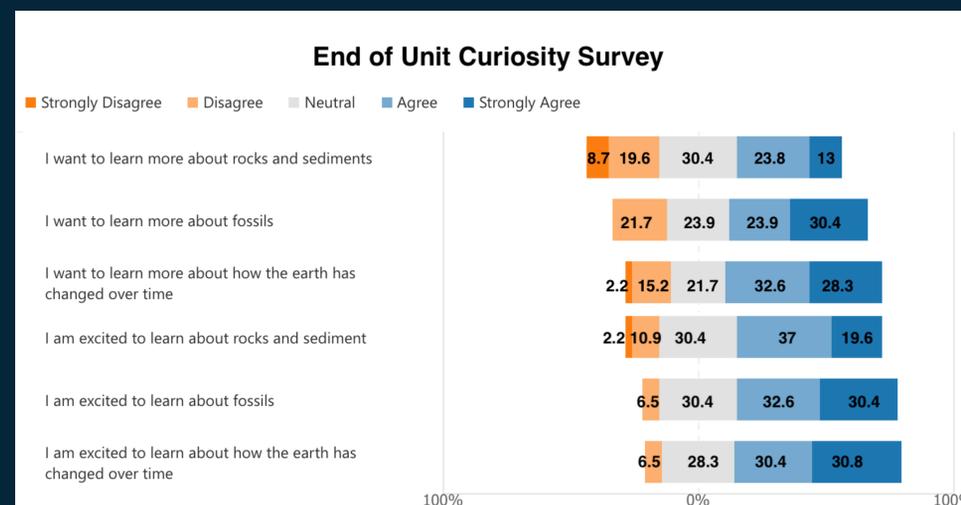
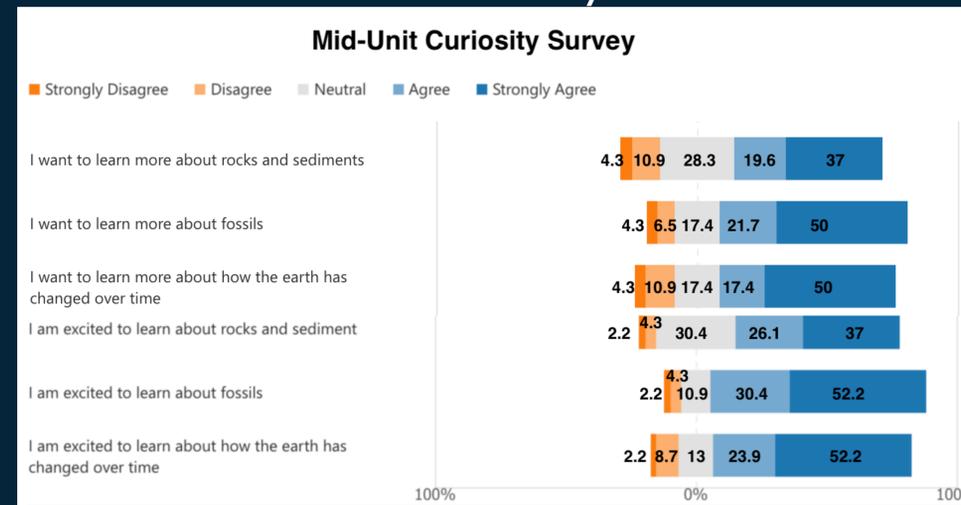
Demographics of Sample

Two 4th grade classes, a total of 46 students

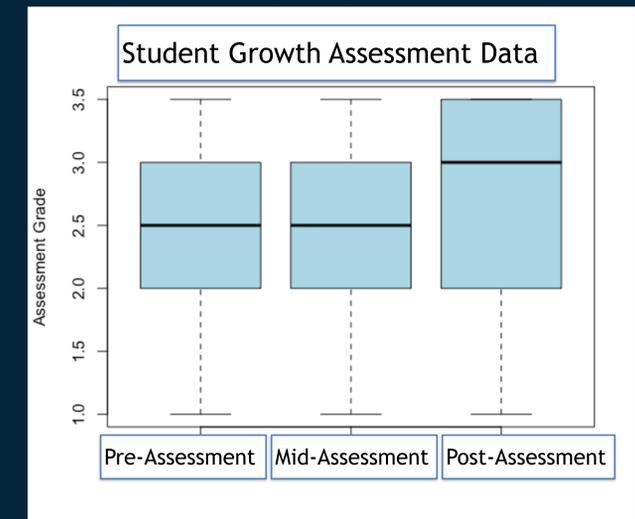
Of this sample there were...

- **Seven** Level 2 EL students
- **Three** Students receiving reading support
- **Eleven** Exited EL students
- **Four** Highly capable students
- **Two** social/emotional IEPs

Student Curiosity Results



Student Growth Results



Student Engagement Results

Off-Task Behavior Tally Chart

Lesson Date	Instances of Occurrence							
	11/21/19		12/4/19		1/9/20		1/23/20	
Class Section	Upp	Ob	Upp	Ob	Upp	Ob	Upp	Ob
Off Task Behavior								
Out of seat			3	2				
Playing with objects (e.g. pencil, toys etc.) and or other children	11	6	1	2	10	4	9	9
Calling out								
Talking to someone during listening time		4			1			8
Making Noise								
Eyes wandering around room	4	4	2	2	2	11	2	2
Laying Head on Desk or Laying Down on Carpet					3			1

Discussion

- **Student Growth:** Amplify did not provide students with enough practice to grow. So, teachers will need to add in additional lessons so students can practice the SEP, Engaging in Arguments from Evidence.
- **Engagement:** Most students were engaged, those that were not struggle to engage in all subjects or have attention deficits.
- **Curiosity:** Students were less curious at the end than the middle of the unit. By the end students learned enough to satisfy their curiosities.
- **Teacher Impact:** While I am excited to see students curious and engaged, creating supplemental lessons to help students grow will be time consuming.

Acknowledgments



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