Institute for Quality Science Teaching 2017-2018 Experience Sampling

Research and Evaluation Executive Summary

Goal

To measure change in teachers' attitudes and behaviors associated with science instruction and practices aligned to the Next Generation Science Standards (NGSS).

Why

We wanted to see how impact of the Institute for Quality Science Teaching (IQST) program changes throughout the course of the school year and whether the changes are related to specific IQST course sessions.

Who

4th- through 8th-grade teachers who chose to participate in the All About You or Our Place in Space professional development (PD) courses during the 2017-2018 academic year.

How

Text messages were sent to teachers. In each text, they were asked two questions. One question was taken from each of these tool pools. All texts were prefaced with "On a scale from 1 (low) to 7 (high), rate this statement."

Pool A

- I was nervous while teaching my first science class/section of the day.
- I am tense about the next PD session hosted at the Museum.
- I know I can build an expertise around teaching science aligned with NGSS.

Pool B

- In my first science class of the day, students engaged in 3-dimensional learning.
- I devised or prepared a 3-dimensional lesson for my first science class/section of the day.

When

Messages were sent from December 2017 to May 2018.

Results

Overall, we did not find major changes in responses over the course of the study. What change we did find was consistent for the most part, meaning it was not associated with specific PD days. Anxiety dropped and the frequency teachers reported creating their own 3D lessons increased consistently. We did find that "tension" around their upcoming PD session showed more variability towards the end of the year than the beginning. This may reflect traditional end-ofyear fatigue affecting PD as well as teaching.

the **welcome to science** initiative



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