Photovoice: College students snap & chat what's intriguing about field trips

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BURD'S eye view
RESEARCH & EVALUATION

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my projects are in education, focused on stem and in Higher Ed

Foray into a methodology for 1st time. How worthwhile was the evidence I got

World of Snapchat

Young people, lots of us for that matter, are attached to our smartphones.
I myself follow AEA program with mobile apps, this year I'm finally ready to dump the printed program, thanks to smartphone
Young people, in particular, constantly snapping pictures.
My 15-year-old son at the dining room table would rather keep up with his Instagram feed than have a conversation with his parents.
Young people are constantly communicating through images

Photovoice

Watching my teenagers, they had this whole world of images, to Keep up with their friends
I was starting a new program about a year ago and I got inspired. It was evaluation for project with field trips, I came across an evaluation that used the method Photovoice. I was intrigued. I think I'd seen the term before.
I decided to dig deeper.

Photovoice is a method used to gather data whereby participants take photos of what they believe to be important, interesting, or significant to them.

Evaluators have used it as a form of action research.
Wang & Burris used cameras to Conduct a needs assessment and to give voice Poor, rural Chinese women to facilitate a discussion of basic resources needed in the community, such as clean water.
In public health researchers, in education, a colleague from NZ Indigenous people there

UTRGV SHIP-GEO

The project where I tested out Photovoice is
SHIP-GEO, *Stimulating Hispanic Participation in Geosciences*,
NSF funded informal science education project housed at the University of Texas Rio Grande Valley (UTRGV), that uses a set of activities, including field trips, with the goal to interest undergraduates in majoring in geosciences in the School of Earth, Environmental and Marine Sciences (EEM)
and in pursuing careers in geoscience

Note: The photos of slides 4, 7, 14, & 15 were downloaded from the SHIP GEO Facebook page. The project garnered permission to post these photos that include students through the UTRGV the IRB. The photo in slide 12 was shared by the student for reporting about the project.
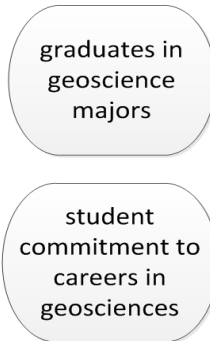
Theory of Change

Strategies

| Field trips |
| Alumni mentoring |
| Scholarships |
| Research opportunities |
| Recruitment events |

Results
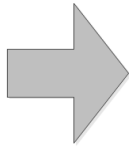
- graduates in geoscience majors
- student commitment to careers in geosciences

Results

1. Increase # of graduates from the school of Earth and environmental Marine Sciences from 20 to 40 and 5 years

2. Increase the commitment of students to careers in geosciences

		Evaluation Criteria
Outcomes	Student	• tightknit STEM cohorts
Processes	Student	• attend, socialize, engage, ask questions, & tell other students
	Faculty	• show enthusiasm for geoscience, teach, answer questions • build relationships with students • provide career education • advise students in academic pathways • connect students to the real-world environment & home through lens of geosciences

Jane Davidson's Evaluation-Specific Methodology 2005 Evaluation Rubrics

Set up criteria for the rubric with Key stakeholders

Question: How well does Photovoice help me assess the project on the basis of these criteria
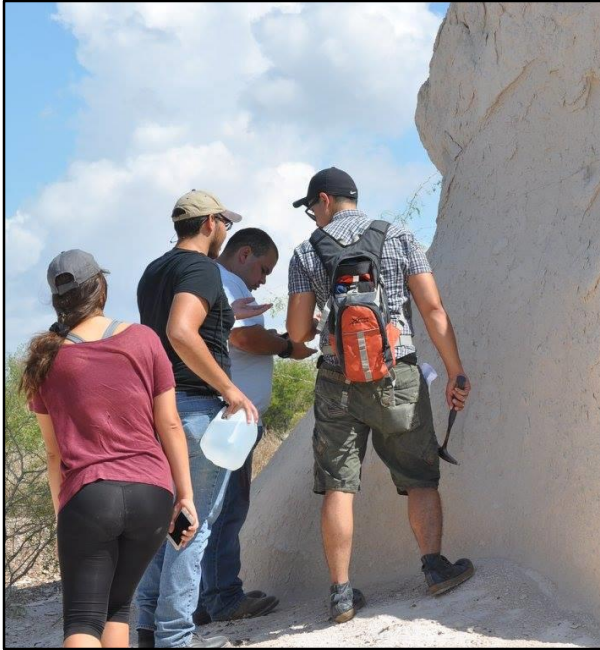
The Evidence

The data comes online surveys from to field trips the project occurred.

1. Camping in Choke Canyon State Park—

Lake and gypsum outcrop the sides of hills, where the rocks for students and professors to explore
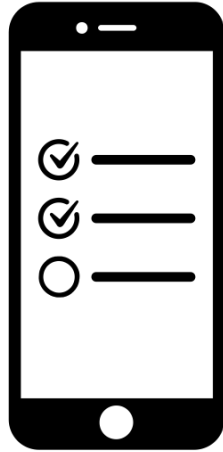
2. Day Trip to Volcanic Ash in Rio Grand City

Along the Rio Grande, the big River that defines much of the western side Texas. There are no live volcanoes in Texas as far as I know. This is a place where there's historical volcanic ash, and that is millions of

years old

Online Surveys

Created by Thomas Marijnissen

At the end of the field trips, students complete online survey - Did I mention there's a smartphone in every pocket?

The survey asked about, perceptions of impact on their interest and knowledge in geosciences, getting to know peers & faculty in the department, and learning about careers in geosciences.

significant
    interesting
        meaningful
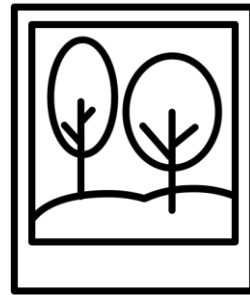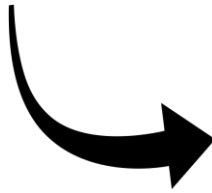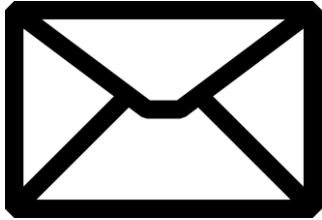
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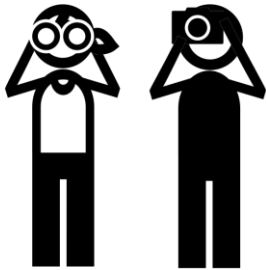
Created by Allyson Czechowicz   Created by Kate Maldjian

At the end of the survey, studs asked to share
 2-3 images that best capture the experiences you found most significant, interesting, or meaningful.

including people, location, event or activity, tools, and feelings that made each image **symbolic** or **noteworthy**.

Data

Created by Maria Kislitsina

"Gypsum"

"I don't usually find something I can name. And I feel satisfied that I can distinguish gypsum. Where I found this sample was actually among a bunch others because it was a gypsum outcrop. Professors were talking about it's mineral composition and the Calcium Sulfate. Also what it is mined for, fertilizer, plaster and wallboard. I hope more trips are like this with different types of outcrops."

In this quote – the students that the professors were teaching,
student experienced enthusiasm for learning about geology
and for more Trips

"Classroom #(N/A)"
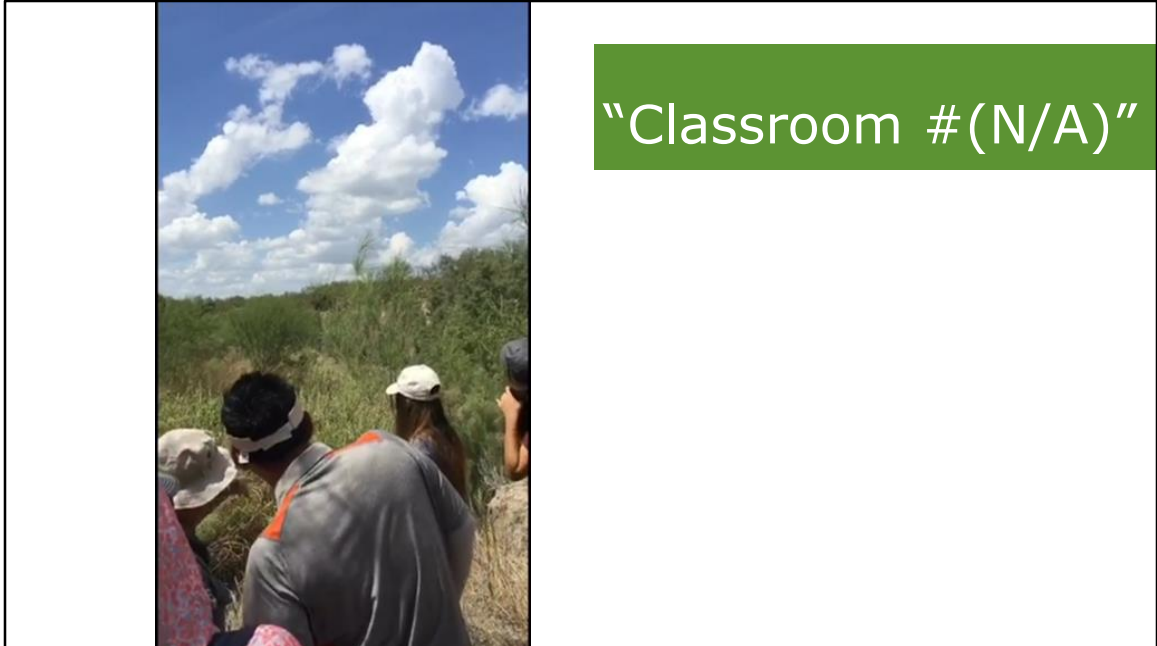
"[Our professor] schools us all on the lay of the land and how it likely looked millions of years ago. Not only are the students learning, but other professors that were with the group as well. Additionally, being able to turn to either faculty member throughout the trip when a question arose was very satisfying in terms of gathering questions that I needed answered and explained."

Here's a student calls out the informal learning something with the name – classroom #NA.
Makes reference to the faculty engaged in learning as well as the students→ community of geoscientists
expresses satisfaction getting answers to questions when asked

This is what the project team want to see happening – students getting involved in university geoscience community, asking questions and getting real answers about geoscience in the context
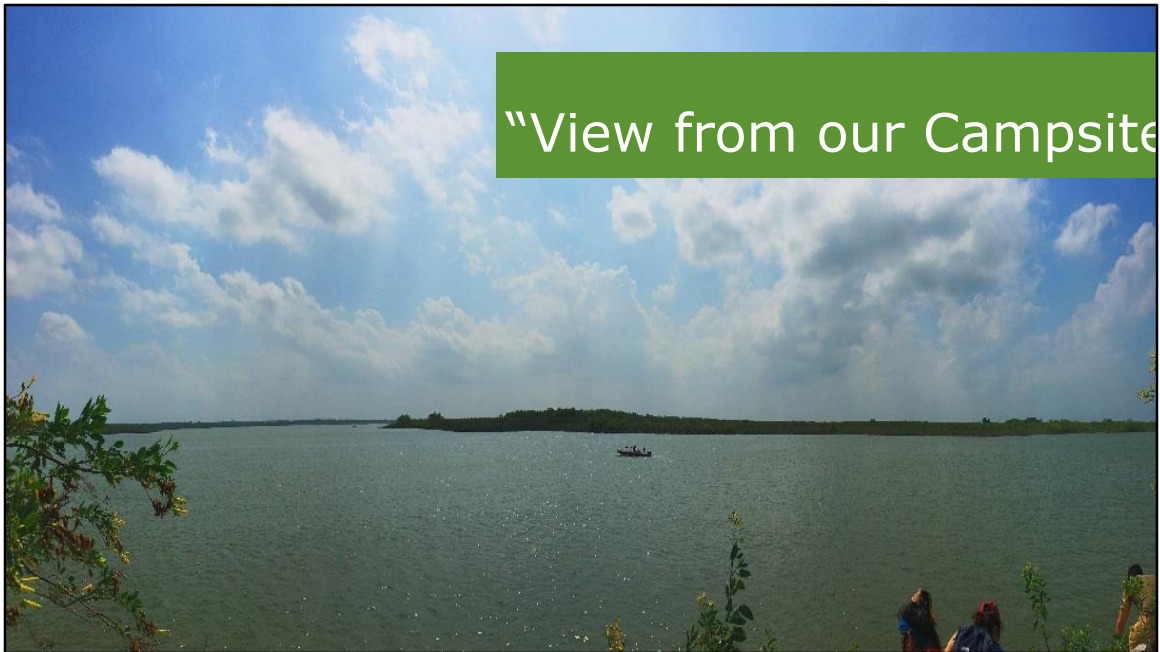
"View from our Campsite"

"It was a great view to wake up from and we were away from the other campers. Also, putting up the tent was fun and had many laughs trying to put it up."

We're looking out from the tent here.
In this quote, stud tells us about the camaraderie among studs on the camping trip.

This evidence is key to what the project leaders want for students, and to build a tightknit cohort of STEM majors

This evidence gathered the Photovoice allows me to evaluate whether or not the project is achieving it expectations

What's Missing?

To evaluate the method, ask: What did Photovoice miss?

In other places of the survey,
both explicitly in close ended items about impact did the trip have on: students' interest in geoscience majors or careers , connection with other students & faculty and so on,
open-ended items such as what was the most meaningful parts about the field trip for you, students wrote about decisions they were making about career choices
One student wrote, the Choke Canyon Camping trip "was the most meaningful to me because it sparked an interest in geology and I am now thinking of pursuing a career in geosciences."

Conversations they had with faculty, and sometimes alumni and other students, that inspired a career path or "what I want to do with my life."

Another wrote, "Resacas in Brownsville was the most meaningful to me because during that field trip I decided to change my major to environmental science. As I spoke to the faculty, alumni, and students I learned the importance of this field."

What else did Photovoice miss?

Relationships –setting up the tent, but get more concrete evidence in close-ended items

Not only Close ended items

one student described how the camping trip was most meaningful: "I enjoy exploring and that is what the group and I did, and everyone was very kind and social I got to meet new friends who are majoring in ENVR Science or something similar to it."

Another student wrote, "Highlights for me, being able to see different environments and form better relationships with faculty."

Important goals of project leaders

Key Findings

1. It's worth it!

2. It misses.

3. And logistics.

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1. Get rich meaningful data from college students about their experiences on trips
2. Misses cognitive decision making about careers
3. Logistics-how to get photo to you

Share Your Photovoice

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Paper on Elibrary