MTI Research Snaps Presents “Advancing Transportation Equity”

The Central Valley Transportation Challenge

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CSU Fresno Associate Professor
February 14, 2023 | 1:30-2:00p.m. (PT)
The Central Valley Transportation Challenge (CVTC) aimed to provide underserved minority students primarily from rural areas with high quality transportation related educational experiences, so that they learned about transportation related topics and become more aware of transportation related careers opportunities.
Participants

K-12

University

Community

Non-profit

Industry
Engineering Students

• Arun Selvamani
• Utsav Shah
• Subhadip Sarkar
• David Ryman
Challenge: How can we make biking to school safer?
## Sample Schedule for the Challenge

<table>
<thead>
<tr>
<th>Session</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Session 1</td>
<td>Engineers present overview of various modes of transportation</td>
</tr>
<tr>
<td>Session 2</td>
<td>Students identify their school on google maps and their house, identify different modes of transportation for getting to school</td>
</tr>
<tr>
<td>Session 3</td>
<td>Students focus on their on ways of getting to school</td>
</tr>
<tr>
<td>Session 4</td>
<td>Engineers explore with students what safe and unsafe bike lanes look like</td>
</tr>
<tr>
<td>Session 5</td>
<td>Students do a bike safety audit of their way to school</td>
</tr>
<tr>
<td>Session 6</td>
<td>Students do a bike safety audit of the surroundings of their school</td>
</tr>
<tr>
<td>Session 7</td>
<td>Students design a model to improve the surroundings of their school in regards to bike safety</td>
</tr>
<tr>
<td>Session 8</td>
<td>Students prepare showcase of their school and present record video</td>
</tr>
</tbody>
</table>

Table 6. Gloria sample schedule
Session 1

What kinds of transportation do you use?

What modes of active transportation can you see?

Car  Bus  Boat  Walk  Row boat  Walk  Biking  scooter

roller blade  skateboard
Session 2

Can we categorize the modes of transportation?
Session 3 Biking from Home to School
Session 4: Advantages and disadvantages of biking to school

- **You get exercise**
- **You can ride to get fast food**
- **Bikes have no gas**
- **Bike are better for the environment because they are good for your body and they don't leave any chemicals that could hurt the air and affect that people breathe**
- **A skateboard does not need gas**
- **What are some of the good things about riding a bike to school?**
- **What are some challenges about riding a bike to school?**
- **You could fall off your bike**
- **You get to work hard so to work the bike**
- **You don't need a license to drive**
- **I don't know the way or get lost**
- **You could also break your bone**
Session 5: Learning to see safe or unsafe biking environments.
Session 6: Conducting a virtual bike to school safety audit.

<table>
<thead>
<tr>
<th>Step 1</th>
<th>Step 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Find BOA on Google Maps</td>
<td>Try your own home address on</td>
</tr>
<tr>
<td>Address: 28050 Road 148,</td>
<td>Google Maps</td>
</tr>
<tr>
<td>Visalia, CA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 3</th>
<th>Step 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drop the little yellow guy at a</td>
<td>Use this tool to VIRTUALLY</td>
</tr>
<tr>
<td>starting point!</td>
<td>travel from your home to our</td>
</tr>
<tr>
<td></td>
<td>school!</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Step 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Take a screenshot if you can!</td>
</tr>
<tr>
<td>What looks safe or not so safe</td>
</tr>
<tr>
<td>on your bike ride to school?</td>
</tr>
</tbody>
</table>
Session 7: Learning to see safe or unsafe biking environments around the school.
Session 8: Ideation

What are some of the good things about riding a bike to school?
- It is eco-friendly
- You don't need a license
- They have breaks
- It's safer
- Anyone can drive bikes
- They are cheaper
- You can get to school faster than walking
- You don't need oil, gas, or fuel
- Kids can afford them
- You can get exercise and you can be outdoors
- Everyone can afford to buy a bike
- Bike lane is only a foot away from cars
- A screen can come off and the bike can fold apart
- You can hurt yourself
- The cars make it dangerous to ride near the school
- You have to stay in the bike lane
- The cars can run you over
- You could get kidnapped
- It could get stolen
- You might not have breaks
- They get flat tires
- Your bike could break
Session 9: Proposed Changes for the School
Students designing safety improvements (e.g., a green island as a buffer to protect the student pick-up zone).
Students in school and from home demonstrating their prototypes.
CSU Transportation education Hub

**CSU Transportation Education**

The online transportation resource repository is a collection of lesson plans for single-lessons or lesson sequences guiding students through the Transportation Challenge. This project was supported by the California State University Transportation Consortium.

**Challenges**

**Walking to School Challenge**

**Description**

The walking to school safety challenge is asking: How might we make walking to school safer? This challenge takes 4-6 lessons and guides students through a problem-based learning experience.

**Objective**

The objectives are: students become more aware of walking safety; students become more aware of different modes of transportation; students become more aware of transportation-related careers; students develop a sense of civic engagement.

**Quality Standard**

Related Activities
Conclusion

There were 8 key research findings that can be summarized with the following three professional practice recommendations.

• 1. create an agile program that has a solid structural foundation with enough flexibility to be responsive to the needs of the students.

• 2. provide flexible asset-based support, that allows for the experience and expertise of the participating teachers to come through and leverages the existing technology resources.

• 3. Align the transportation outreach with academic standards that the teachers and educational leaders are focused on, so that they value the transportation related content as high-quality educational experiences that support and align with their other efforts.

• Teacher A: “I feel much better about the project. I handle the steps and the university brings the process and content expertise. I learn together with my elementary students.”
Thank you for joining us for:

*Advancing Transportation Equity Series*

The Central Valley Transportation Challenge

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