Albuquerque Public School's Vision Zero for Youth Initiative

Mapping Session Analysis

Student Engagement in Traffic Safety

Albuquerque Public Schools
Capital Master Plan
2021

ALBUQUERQUE
PUBLIC SCHOOLS

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Introduction

The APS Vision Zero for Youth Initiative adopts Vision Zero's objective to reduce the number of pedestrian and cyclist deaths and injuries to zero. The APS Vision Zero for Youth Initiative works concurrently with local Vision Zero and traffic safety initiatives to shift behaviors in student youth and community members to create safer streets.

APS Capital Master Plan conducted 11 Traffic Safety Mapping Sessions with 150+ students. In the Mapping Sessions, students drew maps of their pedestrian experiences, assessing various components of pedestrian safety.

The Mapping Sessions facilitate a community-informed process for the development of the APS Vision Zero for Youth Initiative. The student assessments of pedestrian safety were translated into qualitative and quantitative data, yielding valuable user knowledge. The student data and findings inform future engagements, outputs,and developments of the APS Vision Zero for Youth Initiative.

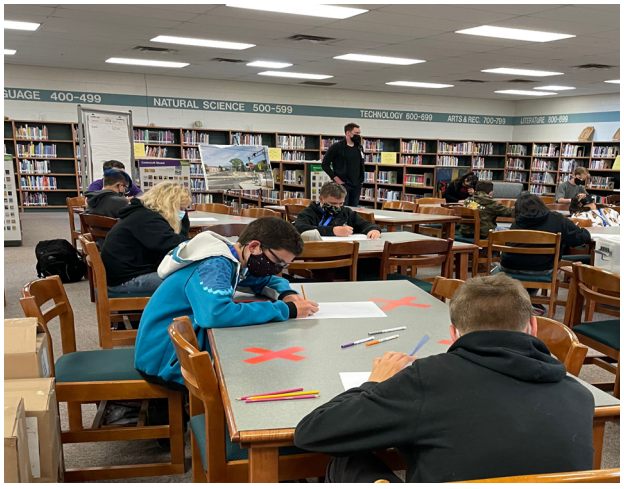
Mapping Session Schools

The Mapping Session participant schools were selected in a prioritization process, which identified schools that are high-priority for traffic safety. At each school, the Mapping Sessions took place with small groups of students (ranging from 6-30 students).

Participant Schools Prioritization Data

The following criteria identify schools of high priority:

- CABQ School Crosswalk Study (identifies schools previously ranked for crosswalk improvements)
- Top Pedestrian and Bicycle Crash Data from MRCOG (identifies schools in areas with high pedestrian and cyclist crash rates)
- School District Geography (representation from School Zones 1,2,3, and 4)
- Demographics (representation from schools from neighborhoods of varying socioeconomic status)

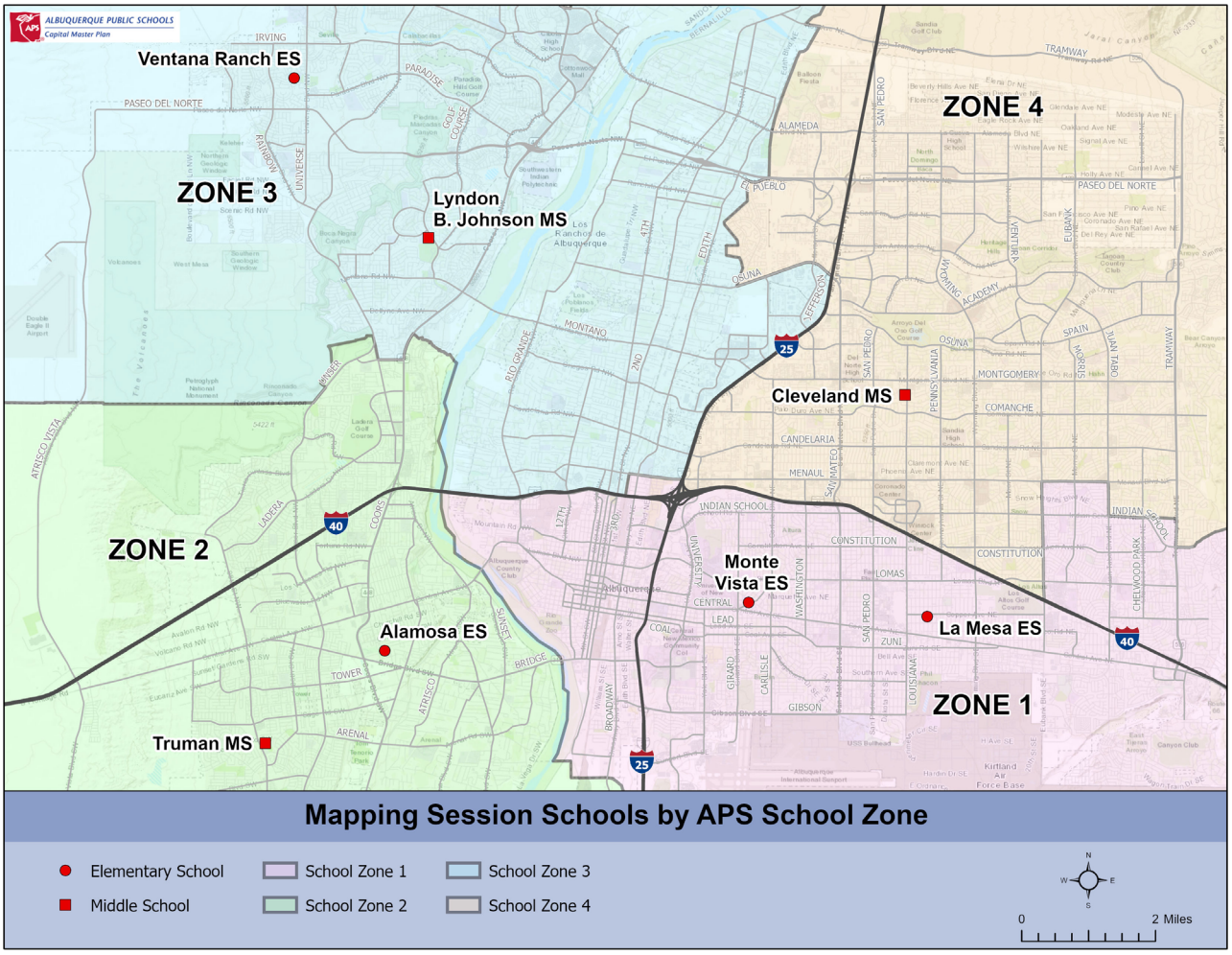


Participant Schools

Mapping Session Schools

The following schools were identified as high-priority for traffic safety and were selected for student youth engagement:

- La Mesa Elementary School (3 Sessions)
- Cleveland Middle School
- Monte Vista Elementary School
- Ventana Ranch Elementary School
- Truman Middle School
- Lyndon B. Johnson Middle School (2 Sessions)
- Alamosa Elementary School (2 Sessions)



Methodology

The following Mapping Session methods were designed to produce student knowledge of pedestrian safety. The knowledge the students produced from these sessions was collated and is the basis of this research.

Focus Group

Photographs were taken outside of each of the Mapping Session Schools. The photos featured traffic safety components such as Crossing Guards, Crosswalks, Traffic & Crossing Signals or people crossing the street. These photos were presented to the classes on a large board and oriented students around traffic safety. The students were guided with questions such as:

- Where was this picture taken?
- Who is in the picture?
- What things in the picture keep us safe?
- What are dangerous things about this photo?
- Why is it important that we have crosswalks?

Mapping Exercise

The Mapping Exercise contained three components: Walking Visualization, Map Drawing, and Presenting. The Focus Group grounded students in traffic safety concepts, enabling them to map their walk to school or in their neighborhood. On their maps, students drew:

- Good Things (what make students feel safe)
- Difficult Things (that make walking challenging)
- Threats (what students perceived to be dangerous or scary)

1) Visualization

The first component of the Mapping Exercise is Visualization. Closing their eyes, students utilized creative visualization techniques to imagine they were walking to school or in their neighborhood. The students were then guided through scenario-based situations that helped brainstorm good things, difficult things, and threats. Guiding phrases may have included:

- Where are you walking to?
- As you are walking, think about the good things you see and experience on your walk
- Imagine there places on your route that feel really difficult to walk.
- Imagine experiences might feel threatening or scary. What are they like?

Methodology

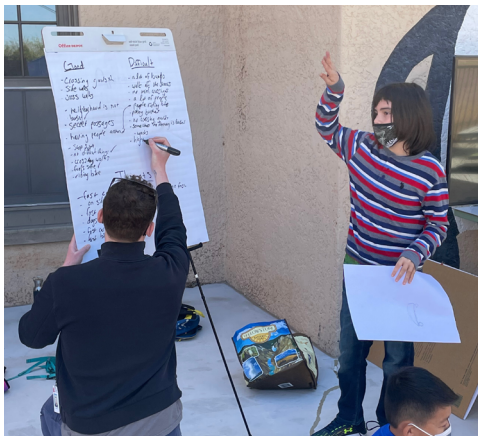
2) Map Drawing

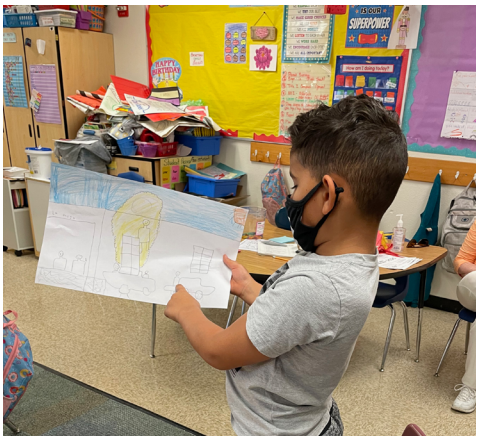
After the Visualization, students recalled their imagined pedestrian experiences, drawing maps that indicated their routes, infrastructure, people, or places, depending on student interpretation. As the students drew, the facilitators conversed with students about their maps about their experiences and guided anyone who felt stuck. Responding to this, facilitators may have asked:

- Where are you drawing?
- What are the good/difficult/threats on your map?
- Who is included in your map?

3) Map Sharing, Opportunities & Traffic Safety Solutions

When the students finished their maps, they volunteered and shared their maps with the group. As students shared their maps, we recorded their responses by categorizing them in the Good, Difficult and Threats categories.





As a session wrap up, students proposed opportunities, ideas, and solutions to make walking to school safer. They reflected on their maps and conversations to make recommendations.

Coding And Analysis

As the students discussed their maps and shared their ideas, their responses were categorized under the categories of Good, Difficult, Threats, and Opportunities. These responses were transcribed into matrices for each category. Each category was assigned a set of codes that represent recurrent student responses/themes. The coding process quantified student responses, bringing forward ideas, thoughts, and experiences widely accepted by the Mapping Session student sample.

Findings: Good Things

Top Responses From Students

The following codes are representative of traffic safety assets that make students associated with increased feelings of safety as pedestrians.

Top Good Things

- Other People or Community Members
- Sidewalks and Paths
- Stoplights and Signs
- Crosswalks and Speed Bumps
- Family Members

These codes indicate two major components of pedestrian safety that are important to students: the people in their communities and transportation infrastructure to regulate driver behavior.

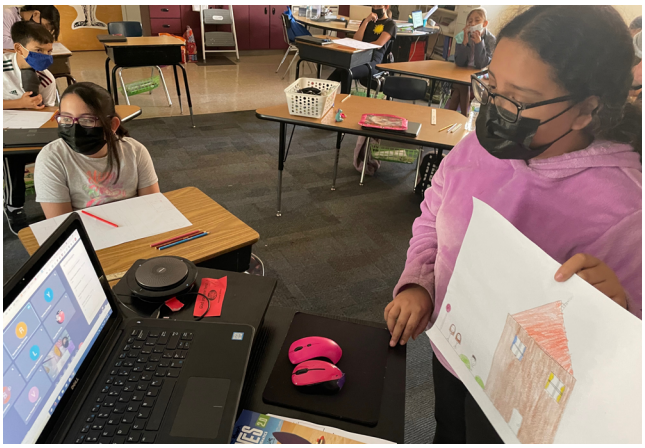
The "Other People or Community Members" and "Family Members" codes capture conversations with students where they indicated a person that was present in their commute who made them feel safe. These people were often parents or family members who walked to school with students, familiar neighbors, or school staff recognizable to students

The "Sidewalks and Paths," "Stoplights and Signs," and "Crosswalks and Speed Bumps" represent student responses where students discussed infrastructure as an asset they could rely on for regulating unpredictable driver behavior. Students looked for and identified these infrastructure components to determine if a route is safe to walk. A greater number of sidewalks, crosswalks, signage, or speed bumps create safer environments for student pedestrians.

Insights & Solutions

The Good Things identified by students are assets to utilize and expand by APS or partner stakeholders:

- Programs engaging staff or parents in walking to school with students.
- Evaluate the conditions of sidewalks, crosswalks, and routes used by students. Improve conditions to increase student and pedestrian safety.
- Evaluate the conditions of signage, signals, and stop lights. Improve conditions to increase student and pedestrian safety.



Findings: Difficult Things

Top Responses From Students

The following codes are representative difficulties and challenges faced by student pedestrians.

Top Difficult Things

- Missing Infrastructure
- Speeding Cars
- High Traffic Volume
- Paths, Routes, and Sidewalks in Disrepair
- Dangerous Drivers

These recurrent codes are indicative of two major challenges faced by student pedestrians, which are the behaviors of drivers and dysfunctional infrastructure.

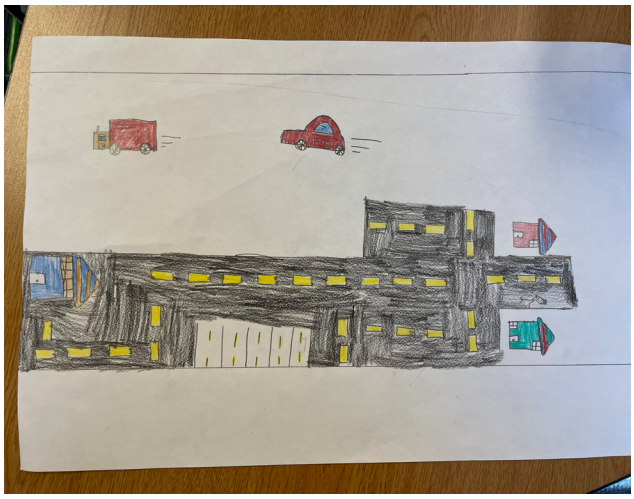
The "Speeding Cars," "Dangerous Drivers," and "High Traffic Volume" represent the discussion of driver behavior. Students often discussed witnessing drivers who sped, didn't yield to pedestrians, or were distracted as challenges to their commute. These behaviors prevented students from walking to school entirely, or encouraged students to take alternative routes with less traffic (which were sometimes more dangerous, i.e. arroyos, alley ways, fields.)

The "Missing Infrastructure" and "Paths and Disrepair" codes represent student discussions of dysfunctional infrastructure that students found difficult to use, or entirely unusable. Students often talked about tripping on broken sidewalks, or crosswalks that were missing or unmarked. These conditions also led students to seek alternative paths, or to use unsafe practices such as jaywalking.

Insights & Solutions

The Difficult Things identified by students are challenges to be addressed by APS or partner stakeholders:

- Employ strategies to mitigate traffic speed and increase driver attention.
- Increase driver awareness of pedestrian safety in campaigns, advertisements, etc.
- Evaluate infrastructure for missing pedestrian facilities.
- Utilize Complete Streets Design strategies in school neighborhoods.



Findings: Threats

Findings- Top Responses From Students

The following codes are represent top recurring themes from students when sharing their maps.

Top Threats

- Speeding Cars
- Dangerous Animals
- Dangerous People
- Cars That Fail to Yield
- Crime/Illegal Activity

These codes indicate experiences that are not only challenging, but are threats to the health, well-being, and safety of student pedestrians. The codes represents two major themes, bad drivers and dangerous people and situations.

The “Speeding Cars” and “Cars That Fail to Yield” represent students' perceptions that bad drivers are a direct threat to their well-being. Bad drivers, or poor driving behaviors, are discussed differently in the Threats category than the Difficulties category. Student responses in the Threats category discussed the concern of being hit, struck, or injured by drivers, and discussed drivers as an obstacle/challenge in the Difficulties category.

Student discussions of dangerous people, places, and situations were captured in the “Dangerous Animals,” “Dangerous People,” and “Crime/Illegal Activity” codes. Students described dangerous encounters with animals, witnessing or experiencing crime, or encountered people who made them feel unsafe as threats to their well-being and safety.

Insights & Solutions

The Threats identified by students are dangers to be mitigated by APS or partner stakeholders:

- Employ strategies to slow traffic and increase driver attentiveness.
- Create designated safe routes to school where students may have access to staff, facilities, or resources.
- Determine solutions to increase student and neighborhood safety.

Findings: Opportunities

Findings- Top Responses From Students

The following codes are representative of top recurring themes from students when sharing their maps.

Top Opportunities

- More Traffic Signs or Infrastructure
- Practicing Traffic and Pedestrian Safety
- Cleaning Up Walkways and Routes
- Walking With Others
- Make Paths More Pedestrian Friendly and Safer
- Additional Crossing Guards (ES&MS)

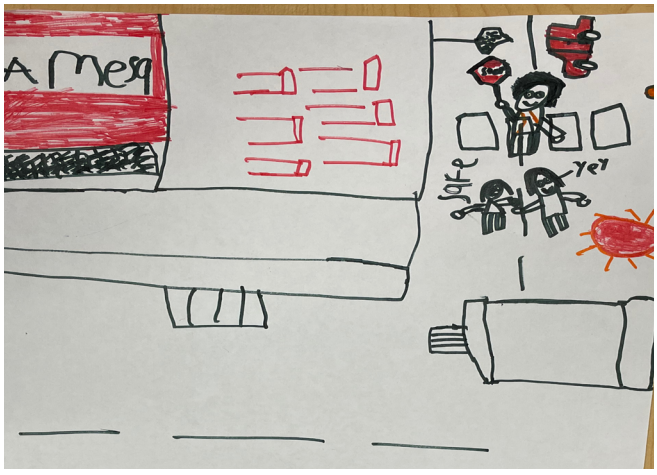
These codes indicate solutions proposed by students, suggesting ways that student pedestrian safety can be improved. The top codes represent two major themes, safer pedestrian behaviors and pedestrian infrastructure improvements.

The top codes, “Practicing Traffic and Pedestrian Safety” and “Walking With Others” are indicative of students’ behavioral solutions. Students suggested that adopting safer pedestrian practices can improve their safety by navigating transportation infrastructure mindfully and strategically, and according to pedestrian safety rules.

Insights & Solutions

The Opportunities identified by students are solutions and strategies to be considered by APS or partner stakeholders:

- Educate youth and community members about traffic safety practices.
- Create and culture of traffic and pedestrian safety.
- Improve pedestrian facilities to increase the number of student commuters.
- Increase the number of crossing guards, hire crossing guards for Middle Schools.



Conclusion & Next Steps

Student Impact on the APS Vision Zero for Youth Initiative

Students' knowledge of pedestrian safety is an integral component of the design framework for the APS Vision Zero for Youth Initiative. Student voices and stories were translated into valuable data, highlighting important aspects of pedestrian safety. The outputs of the Initiative are guided by this information, developing a traffic safety program that is relevant to students.

Traffic Safety Walk Survey

The Traffic Safety Walk Survey is an extension of the Mapping Sessions, expanding opportunities for youth and community engagement to influence the development of the APS Vision Zero for Youth Initiative. The Walk Survey integrates the Mapping Session findings into its' design.

APS Vision Zero for Youth Curriculum

Two traffic safety curriculum will educate students about traffic safety, navigating transportation infrastructure, and safe pedestrian behaviors. One curriculum will cater to K-8 students. The other will target High School aged drivers. The curriculum will inform students:

- How to use traffic safety infrastructure
- Traffic safety in urban, suburban and rural areas
- Traffic safety at different times of the day
- Bicycle safety
- Traffic safety self-evaluation
- Driver safety

Implications for APS Vision Zero Action Plan

The APS Vision Zero Action Plan will be a living document, creating actionable goals and evaluation frameworks for the APS School District to work towards safer routes to school. Mapping Session data and findings set valuable guiding principles for the Action Plan, resulting in effective outcomes.

Student Representation and Impact- Using Student Voices and Data

Students are main stakeholders in the APS Vision Zero for Youth Initiative, therefore, are key participants its' development.

Lessons Learned & Recommendations

The methods used in our research are replicable and can be conducted by organizations for a wide array of stakeholders and issues. We encountered unique situations in conducting the Mapping Sessions. The following list contains lessons learned throughout our process.

- Ensure a facilitator speaks Spanish (or relevant languages) in case translations are needed, someone who can engage and connect with students.
- Attain Photo Consent Waivers & ask students for consent.
- Plan ahead of time for adequate coordination time.
- Have three facilitators/assistants: a primary facilitator, a note-taker, and a photographer.
- Note taker and photographer can also act as assistants to the primary facilitator
- Ensure that students feel safe and have a trusted staff or adult who can help them if they feel triggered.
    - In our case, this was a classroom teacher. There were instances of students feeling triggered, and teachers were able to step in and provide them with love and support.
- Account for In-Person/Virtual/Hybrid formats.
- Allow for flexibility with participants.
- Allow for flexibility with dates and session processes and procedures according to participant needs & desires.
- Over communicate with participants and organizers.
    - Over communicate in sessions – ensure participants understand directions, context, etc.

Appendix A: Student Demographics

The following demographic statistics are from a sample of 108 students from a population of approximately 150 students. Data was sourced internally, from APS.

Race & Ethnicity

- 77% Hispanic (any race)
- 7% White (Non-Hispanic)
- 5% American Indian (Non-Hispanic)
- 6% Black or African American (Non-Hispanic)
- 4% Asian (Non-Hispanic)
- 1% Pacific Islander (Non-Hispanic)

SPED (Special Education)

- 83% Non-Special Education
- 11% Cross-Categorical
- 5% Gifted
- 1% SLP (Speech-Language)

ELL (English Language Learner)

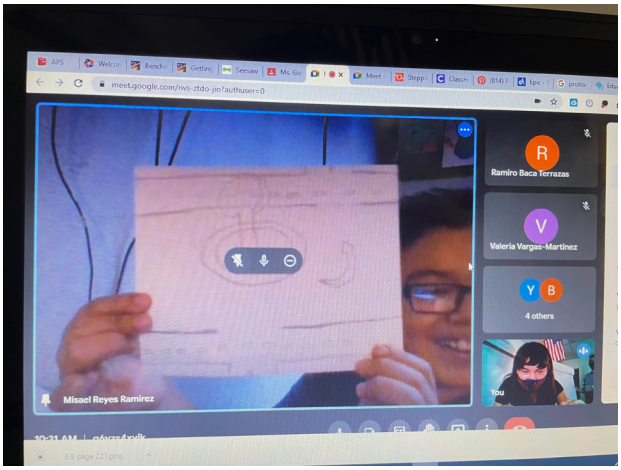
- 69% Non-ELL
- 31% ELL

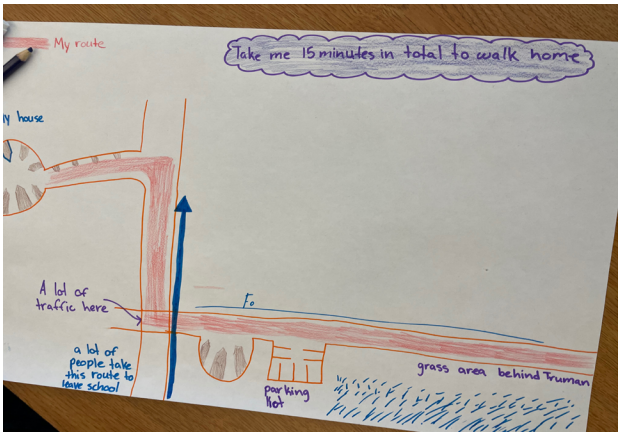
Gender

- 52% Male
- 48% Female

Home Language

- 57% English
- 31% Spanish
- 4% Swahili
- 3% Vietnamese
- 2% Kirundi
- 1% Navajo
- 1% Keres





Appendix B: Mapping Session Data

Good Things

Code Occurrences: Good Things		
Code Category	**Code Occurrence**	**Percentage**
Other People or Community Members	**16**	**17%**
Sidewalks and Paths	**10**	**11%**
Stop Lights and Signs	**10**	**11%**
Crosswalks and Speed Bumps	**10**	**11%**
Family Members	**7**	**7%**
Crossing Guards	6	6%
Pets Present	5	5%
Slow Speed Limits or few Cars	5	5%
Alternative Routes	5	5%
Nature and Scenery	3	3%
Easy Route to Walk	3	3%
Bike or Alt Infrastructure	3	3%
School Staff or Services	3	3%
Fun Things	1	1%
Quiet Neighborhood	2	2%
No Difficult Things/Neighborhood is Safe	2	2%
Good Drivers	2	2%
Using Traffic Safety Behaviors	1	1%
Riding in a Car	0	0%
Stores	0	0%
Total	**94**	**100%**
Top Code*		
Programmatic Intervention*		

Appendix B: Mapping Session Data

Difficult Things

Code Occurrences: Difficult Things		
Code Category	**Code Occurrence**	**Percentage**
Missing Infrastructure or Signs	**15**	**16%**
Speeding Cars	**13**	**14%**
High Traffic Volume	**12**	**13%**
Paths in Disrepair	**8**	**9%**
Dangerous Drivers	**7**	**8%**
Dangerous Litter [Glass, cigarettes, etc.]	5	5%
Dangerous People, Strangers, or Places	5	5%
Weather	4	4%
Dangerous Street Crossing Conditions	4	4%
Obstacles	4	4%
Lack of Supervision at School	2	2%
Unfavorable Biking Conditions	2	2%
Dogs or Animals	2	2%
Street Racing	2	2%
Broken Crossing Signals	2	2%
Car Crashes	2	2%
No Crossing Guards	1	1%
Distance	1	1%
Long Wait Times to Cross the Street	1	1%
Visibility	1	1%
Unmarked Crosswalks	0	0%
Total	**93**	**100%**
Top Code*		
Programmatic Intervention*		

Appendix B: Mapping Session Data

Threats

Code Occurrences: Threats		
Code Category	**Code Occurrence**	**Percentage**
Speeding Cars	**18**	**19%**
Dangerous Animals	**17**	**18%**
Dangerous People	**16**	**17%**
Cars That Fail to Yield	**7**	**7%**
Crime/Illegal Activity	**6**	**6%**
Busy Streets, Doesn't Feel Safe to Walk	5	5%
Homeless People	4	4%
Dangerous Litter [Glass, cigarettes, etc.]	3	3%
Almost Getting Hit By a Car/Car Crashes	3	3%
Big Vehicles	3	3%
Dangerous Paths in Disrepair	2	2%
Loud Noises	2	2%
A lot of Strangers	1	1%
Pedestrians Not Practicing Traffic Safety	1	1%
Paths With Few People	1	1%
People on Bikes	1	1%
No Infrastructure	1	1%
Low Car or Pedestrian Visibility	1	1%
Ditches	1	1%
Dangerous Places	1	1%
Total	**94**	**100%**
Top Code*		
Programmatic Intervention*		

Appendix B: Mapping Session Data

Opportunities

	Code Occurrences: Opportunities		
Code Identifier	**Code Category**	**Code Occurrence**	**Percentage**
19	**More Traffic Signs or Infrastructure**	**25**	**16%**
9	**Practicing Traffic and Pedestrian Safety**	**15**	**10%**
1	**Cleaning Up Walkways and Routes**	**10**	**6%**
6	**Walking with Others**	**10**	**6%**
3	**Make Paths More Pedestrian Friendly and Safer**	**9**	**6%**
10	**Additional Crossing Guards (ES & MS)**	**9**	**6%**
2	Repair Sidewalks and Paths	8	5%
14	Speed Reduction or Enforcement	8	5%
5	More Crosswalks (Where There Are None)	7	4%
15	New, Alternative Paths	7	4%
4	Better Enforcement for Traffic Rule Violators	6	4%
13	Drivers Practice Safe Driving Behaviors	6	4%
23	Making Sure Animals are not Loose	6	4%
27	School Staff to Help Students Feel Safer	6	4%
20	Separating Pedestrians from Roadways	4	3%
22	Fix Broken Crossing Signals	4	3%
16	Add HAWK Signals	2	1%
17	Add Stores to Walking Routes	2	1%
18	Addressing Drug Usage	2	1%
24	Keeping Students Safe from Dangerous People or Strangers	2	1%
28	Reducing Amount of Traffic	2	1%
7	Walking with Animals	1	1%
8	Riding in a Car	1	1%
11	Not Talking to Strangers	1	1%
12	No Drinking and Driving	1	1%
25	Buttons to Signal for Help	1	1%
26	Riding Your Bike	1	1%
21	More Bike Paths	0	0%
	Total Responses	**156**	**100%**
	Top Code*		
	Programmatic Intervention*		