

Effectiveness of Highway Safety Public Education at Montana Motor Vehicle Division & Vehicle Registration Stations by Streaming a Variety of Safety Content

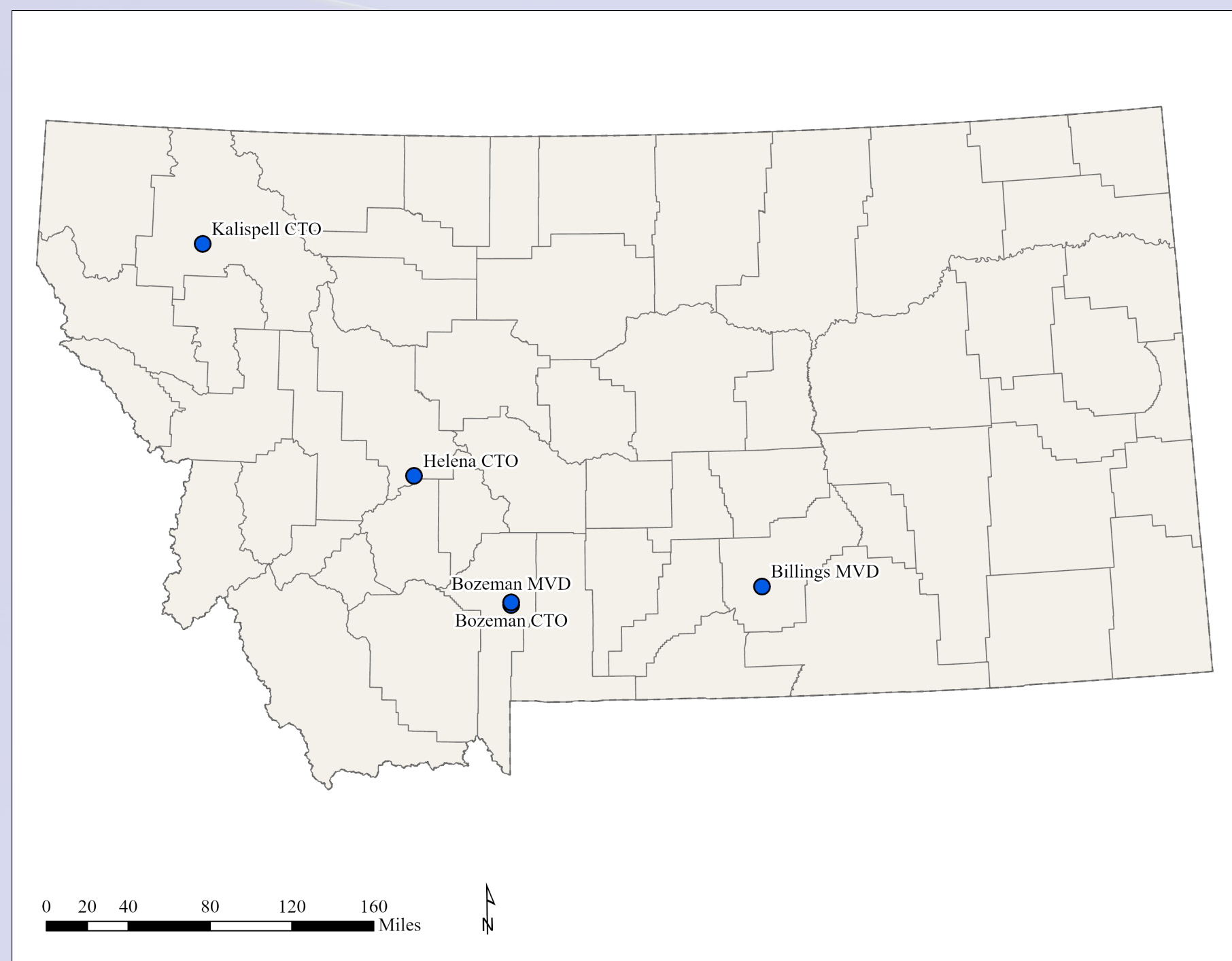
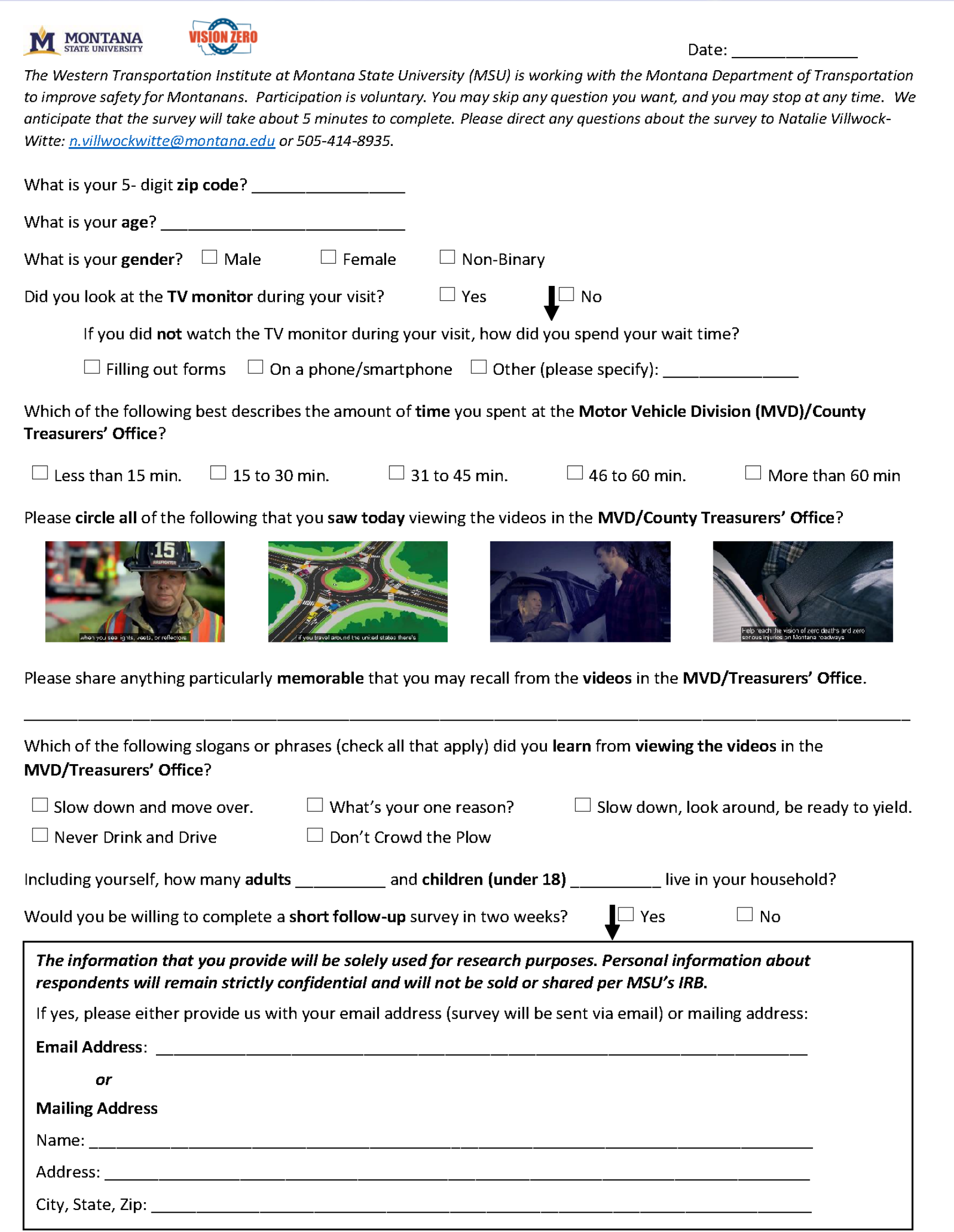
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Abstract

State departments of transportation, including the Montana Department of Transportation (MDT), focus on eliminating fatalities and serious injuries on our roadways. To accomplish this, MDT employed several strategies including an emphasis on improving traffic safety culture. Traffic safety culture strategies, including public awareness campaigns and traffic safety videos, are an important way to educate the public and possibly change their beliefs and influence their behaviors related to traffic safety. This paper details the outcomes of a project aimed at improving traffic safety culture through displaying traffic safety videos in waiting areas at motor vehicle division driver license stations and county treasurer offices.

Methodology

- Identify where the video sequences would be displayed on the TVs
- Develop storyboards and subsequent video sequences
 - Focused on MDT's Comprehensive Highway Safety Plans's goals
 - Video sequences are composed of: traffic safety campaign videos, trivia questions, infographics
- Evaluate effectiveness of method by conducting intercept and follow-up surveys
- Sound was not used for the videos
- Coronavirus pandemic impacts
 - Collection of intercept surveys was delayed twice due to the surges in the number of COVID-19 infections
 - Some locations had reduced seating or rearranged waiting areas to accommodate social distancing or implemented "wait in your vehicle" policies

The Western Transportation Institute at Montana State University (MSU) is working with the Montana Department of Transportation to improve safety for Montanans. Participation is voluntary. You may skip any question you want, and you may stop at any time. We anticipate that the survey will take about 5 minutes to complete. Please direct any questions about the survey to Natalie Villwock-Witte: n.villwockwitte@montana.edu or 505-414-8935.

Date: _____

What is your 5- digit zip code? _____

What is your age? _____

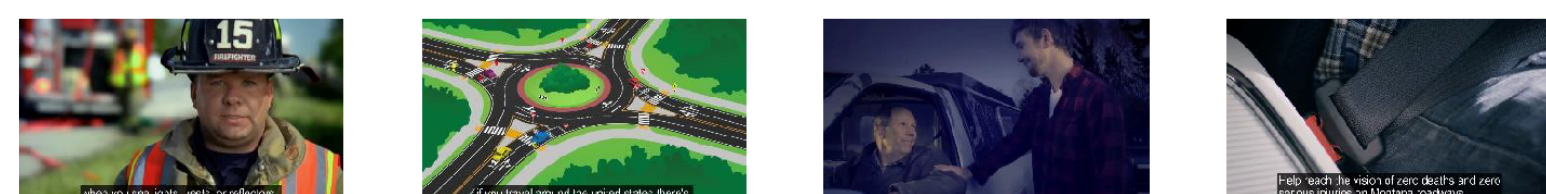
What is your gender? Male Female Non-Binary

Did you look at the TV monitor during your visit? Yes No

If you did not watch the TV monitor during your visit, how did you spend your wait time?
 Filling out forms On a phone/smartphone Other (please specify): _____

Which of the following best describes the amount of time you spent at the Motor Vehicle Division (MVD)/County Treasurers' Office?
 Less than 15 min. 15 to 30 min. 31 to 45 min. 46 to 60 min. More than 60 min

Please circle all of the following that you saw today viewing the videos in the MVD/County Treasurers' Office?



Please share anything particularly memorable that you may recall from the videos in the MVD/Treasurers' Office.

Which of the following slogans or phrases (check all that apply) did you learn from viewing the videos in the MVD/Treasurers' Office?
 Slow down and move over. What's your one reason? Slow down, look around, be ready to yield.
 Never Drink and Drive Don't Crowd the Plow

Including yourself, how many adults _____ and children (under 18) _____ live in your household?

Would you be willing to complete a short follow-up survey in two weeks? Yes No

The information that you provide will be solely used for research purposes. Personal information about respondents will remain strictly confidential and will not be sold or shared per MSU's IRB.

If yes, please either provide us with your email address (survey will be sent via email) or mailing address:
 Email Address: _____
 or
 Mailing Address
 Name: _____
 Address: _____
 City, State, Zip: _____

Data & Results – Intercept Surveys, Continued

- Location of TV significantly impacts conspicuity (i.e. Billings)
- Length of video impacts recall; videos seeking empathy of user appear more impactful
- Special mention of trivia questions by survey respondents
- Survey respondents ranged in age from 18 to 90 years old, with an average of 46 and a median of 44 years of age



Billings: original TV location (left); updated TV location (right)



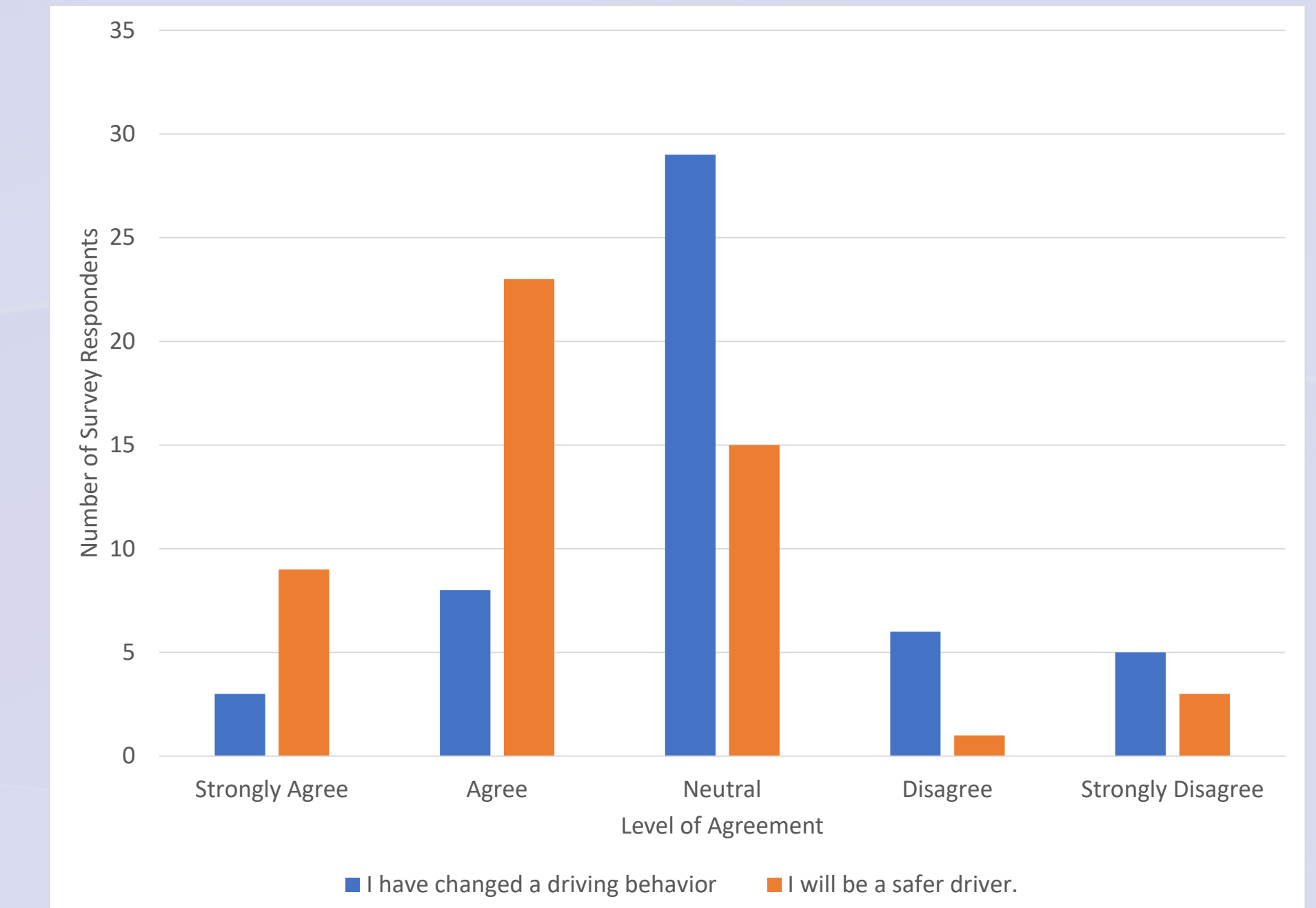
First video sequence: The roundabout video was by far the longest and was recalled by 83.3% of individuals (next closest was 30.8%).



Second video sequence: All videos were similar in length, but the empathy type video had the greatest recall (69% vs. 52.8%).

Data & Results – Follow-Up Surveys

- Limited data (67 survey respondents)
- Generally reported having longer wait times
- Limited impact to change in beliefs reported, consequently, limited impact to traffic safety culture
- Respondents reported that they would be safer drivers
- Respondents reported sharing the videos more than slogans



Conclusions & Future Research

- A wide variety of age ranges viewed the TVs
- The method demonstrated the ability to reach all genders
- Limited effort was needed from staff to run the developed video sequences
- Strategically locating the TVs was very important; locating them behind an employee entering data was found to be one of the best locations
- Follow-up surveys suggested that survey respondents would be safer drivers as a result of viewing the video sequences; however, behavior changes were not reported suggesting minimal impact to traffic safety culture
- Several survey respondents reported that the video content triggered them to recall a "close call" they have had
- Future Research:
 - Determining the impact of adding sound to the videos
 - Including youth (15-17 year olds) in evaluation of effectiveness
 - Add the traffic safety videos to the website where appointments are made

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Questions: Natalie Villwock-Witte: n.villwockwitte@montana.edu

Data & Results – Intercept Surveys

| | Data Collection Period | Billings | Bozeman MVD | Bozeman CTO | Helena | Kalispell | Total |
|--------------------|------------------------|----------|-------------|-------------|--------|-----------|-------|
| Video Sequence One | Aug/Sept | 7 | 23 | 38 | 21 | 21 | 110 |
| | Oct/Nov | 9 | 42 | 29 | 19 | 29 | 128 |
| Video Sequence Two | April/May | 49 | 16 | 29 | 27 | 22 | 143 |
| | June/July | 44 | 14 | 37 | 28 | 14 | 137 |
| TOTAL | | 109 | 95 | 133 | 95 | 86 | 518 |