**Intro (Slide 1)**: Hello, my name is Andres. I am doing psychology research in the CARVE lab, headed by Dr. Macuga. The focus of the research I am a part of is to see the influence of pedestrian walking speed and group size on exiting behavior.

**Purpose (Slide 2):** With this research, we hope to better understand pedestrian decisions in collective behaviors because it is widely useful in understanding and planning for crowd disasters and evacuation. In practice, adequately understanding what environmental visual cues pedestrians look for when following a crowd can allow for better evacuation systems that use knowledge of crowd movement. To circumvent the constraints of studying crowds in person, we have a virtual environment of the lab space that allows for simulating crowds using motion trackers and cameras. So far, experiments have been conducted both in the real world and virtual reality to see if a virtual environment is indeed a valid way to continue studying this in the future.

**Experiments (Slide 3):** The research being done is broken up into a set of experiments. At this point there have been two, both of which have focused on the effects of pedestrian speed on a participant’s exiting choice using only two pedestrians. For the third experiment, which has recently been moved online, we are now adding the factor of group size to see if our results from the first two experiments hold with varying numbers of pedestrians.

**What we know so far (Slide 4):** From the previous two experiments, we have found that participants tend to follow the faster of two pedestrians. This can be seen with the graph on the left, which shows a fairly linear relationship between the speeds of the pedestrians and the probability of the participant following the pedestrians. On the right are two gifs that show the two different environments the experiments were conducted in. Each participant did the same set of trials in both environments, where the differences between the speeds of the pedestrians on either side were above or below average. The top one is in the real world with confederates acting as pedestrians, and the bottom one is the virtual environment with avatars as pedestrians. The results of the experiment showed that there is no significant difference between the decisions made in the real world or virtual environment.

**What is to come (Slide 5):** Now onto my research focus: the addition of group size. We want to see if increasing the number of pedestrians, evenly on both sides, affects the decisions made when confronted with varying group pedestrian speeds. My hypothesis is that larger group sizes strengthen the relationship we found between pedestrian speed and the probability of following the pedestrians. Now that the experiment stimuli for the online study is complete, we will soon begin to see the results. Moving forward, there are other variables that we want to test; for example, we will test the effects of varying group sizes within each trial, such as having two pedestrians on the left and four on the right. Another variable we want to test is the level of order of the pedestrians. This will all in turn provide more research to note the complex behavior of pedestrian movement in crowds.

**Acknowledgements (Slide 6):** I would like to take a moment to acknowledge Dr. Macuga, my URSA mentor; Dr. Boone, the post-doc fellow I have been working with; the entire CARVE lab I am a part of; and URSA for making this all possible. And to everyone tuning in, thank you for listening.