

Objective (MCQ) Questionnaires

Road Infrastructure

1. Are there any obstructions on the road, such as debris or fallen objects? ['Yes', 'No']
2. Are there any road barriers or blockades in the overall scene? ['Yes', 'No']
3. Are there any visible road detours or diversions? ['Yes', 'No']
4. Are there any visible road dividers or medians? ['Yes', 'No']
5. Are there any work zones in the vicinity? ['Yes', 'No']
6. Are there proper road markings indicating lanes? ['Yes', 'No', 'Not Applicable']
7. Are there proper road signs indicating turns and intersections? ['Yes', 'No', 'Not Applicable']
8. Are there proper warning signs for curves or bends in the road? ['Yes', 'No', 'Not Applicable']
9. Does the ego vehicle adjust speed when approaching a construction zone? ['Yes', 'No', 'Not Applicable']
10. Is the road condition safe to drive in terms of potholes? ['Yes', 'No']
11. Is there a potential for a collision between the ego vehicle and any other object in the scene? ['Yes', 'No']
12. Is there a visible shoulder or emergency lane on the road? ['Yes', 'No']
13. Is there a visible speed bump or hump on the road? ['Yes', 'No']
14. What is the condition of the road surface? ['Smooth', 'Potholes Present', 'Uneven Surface', 'Not Clear']

Vulnerable Road Users

15. Are there any cyclists on the road? ['Yes', 'No']
16. Are there any pedestrians present on the road? ['Yes', 'No']
17. Are you in a low-speed limit area speed limit with pedestrians on the street, school zones, or residential neighborhoods? ['Yes', 'No']
18. Is there a designated bicycle lane? ['Yes', 'No']
19. Is there a designated pedestrian crossing? ['Yes', 'No']
20. When approaching a crosswalk, did the ego-vehicle slow down and prepare to stop, as recommended for pedestrian safety? ['Yes', 'No', 'Not Applicable']

Human Factors & Driver Behavior

- 21. Are there any erratic lane changing behavior? ['Yes', 'No']
- 22. Does the ego vehicle follow traffic signals and signs appropriately? ['Yes', 'No']
- 23. Does the ego vehicle interact with emergency vehicles with lights and sirens? ['Yes', 'No']
- 24. Is the driver's current trajectory putting them at risk of a near miss or accident? ['Yes', 'No']
- 25. Is the ego vehicle aware of and reacts to school/hospital/vulnerable zones? ['Yes', 'No', 'Not Applicable']
- 26. Is the ego vehicle driving within its lane? ['Yes', 'No', 'Not Applicable']
- 27. Is the ego-vehicle driving (too) fast compared to other traffic? ['Yes', 'No']
- 28. Is the ego-vehicle driving (too) slow compared to other traffic? ['Yes', 'No']

Vehicle-Vehicle Interactions

- 29. Are there any emergency vehicles with lights or sirens? ['Yes', 'No']
- 30. Are there any visible road maintenance vehicles? ['Yes', 'No']
- 31. Are there instances where ego vehicle is following too closely or engaging in tailgating behaviors? ['Yes', 'No', 'Not Applicable']
- 32. Does the ego vehicle give way to other vehicles when required? ['Yes', 'No', 'Not Applicable']
- 33. Is there a large vehicle (like a truck, bus, etc.) in the vicinity? ['Yes', 'No']

Other Environmental Factors

- 34. Are there any animals on the road? ['Yes', 'No']
- 35. Are there any roadway obstructions or wildlife that could be dangerous? ['Yes', 'No']
- 36. Are there any visible fire hydrants along the road? ['Yes', 'No']
- 37. Are there any visible fuel stations along the road? ['Yes', 'No']
- 38. Are there any visible police officers directing traffic? ['Yes', 'No']
- 39. Are there any visible road-side distractions (e.g., billboards)? ['Yes', 'No']
- 40. What is the general weather condition in the video? ['Clear', 'Rainy', 'Foggy', 'Snowy'].

Subjective (descriptive) questionnaires

For descriptive questionnaires, we prompted the model with following question. Our objective was to investigate how model answers for different categories.

“For five given categories, describe the given sequence of images within the context of those categories. The categories are 1. road infrastructure 2. vulnerable road users 3. Human Factors and Driver Behavior 4. Vehicle-vehicle interaction 5. Other environmental factors. Enumerate your responses according to categories.”

