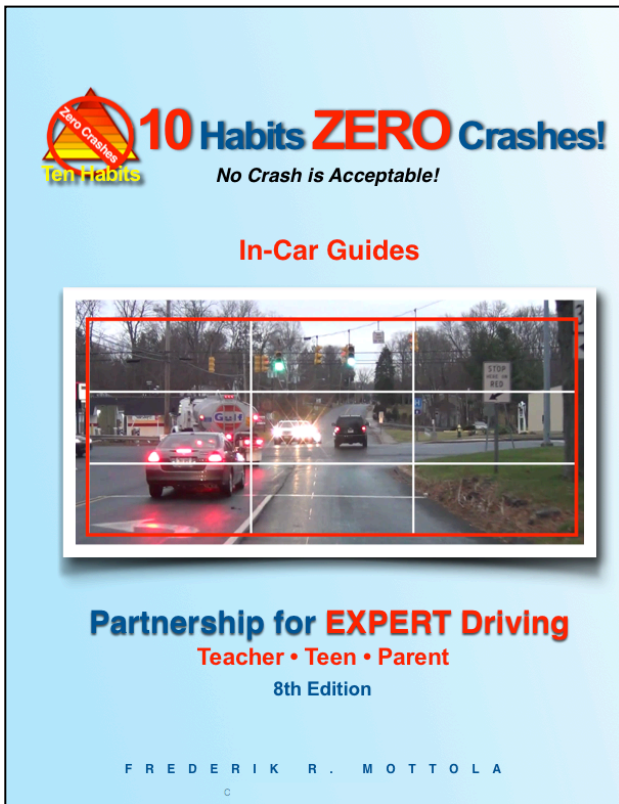


Lesson Seven

Partnership for Expert Driving

Preparation for In-Car Success



by

Professor Frederik R. Mottola
National Institute for Driver Behavior • NIDB.org

Lesson 7 Tips for Parents/Mentors

THE DRIVING SETTING: Use residential roadways, rural two and four lanes, urban areas, and open secondary highways with two to six lanes of traffic.

OBJECTIVES of this LESSON: This lesson presents a set of life-saving behavioral patterns that can help a teen avoid the major cause of single vehicle fatalities, which is when a teen drives with excessive speed into a curve and loses control of the vehicle. No other vehicle is involved. The teen makes a wrong decision that cannot be undone. This lesson helps the teen respond effectively to laws, signs, signals and markings, and learn what makes speed excessive on an approach to a curve. The teen learns how to reduce speed while there is still adequate time before entering the curve to maintain car control. Use of vision, lane positioning and speed control are practiced.

A second type of crash that teens are involved in is rear-ending a vehicle. This lesson provides practice in how to keep 4-seconds of separation time from the vehicles ahead. Separation space can put the teen in control and eliminate surprises from others' wrongful actions.

Objectives for Lesson Seven

At the completion of Lesson Seven's activities you should be able to successfully explain, demonstrate, or perform the following actions.

Lesson 7 Tier Two: Building the House of Habits



Review Habit 4: Use Reference Points

1. Approaching a curve, demonstrate use of fringe vision for Lane Positions.



Review Habit 6: Turn Decisions into Zone Control Actions

2. With open B window, use LP2 on approach to right curve, exit in LP1.



Review Habit 6: Turn Decisions into Zone Control Actions

3. With open C window, use LP3 on approach to left curve, exit in LP1.



Review Habit 3: Keep the Car in Balance

4. Use transition peg to make a smooth transfer from brake to gas exiting curve.



Review Habit 8: Get Rear Zone Control

5. Before moving the vehicle to either side, check the outside mirror.



Guide 24 (Repeat each at least three times)

6. Find a Warning Sign. Explain what actions you should be prepared to take.



7. Use Warning sign as a cue to: Check rear, Find LOS-POT, Find Escape Path.



Guide 25 (Repeat each at least three times)

8. See Curve in A Window. Test road surface for Tire Grip.



9. As the Curve enters B or C Window, direct your vision in that Window.



10. Explain "slide space" and demonstrate how to use it.



Guide 26 - Habit 9 (Repeat each at least three times)

11. Demonstrate how to measure space from your car to the vehicle ahead.



12. Demonstrate a controlled Closure Rate on approach to vehicle ahead.



13. Demonstrate 4-seconds of separation space and explain its value.



Guide 27 (Repeat each at least three times)

14. Look in the A Window for a Critical Second to be controlled.

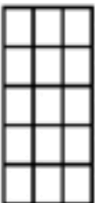


15. Evaluate LOS-POT in the B or C Present Window.

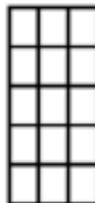


16. Evaluate the A, B, and C windows. Demonstrate and explain the best Speed, Lane Position, Communication.

Key Behavioral Patterns

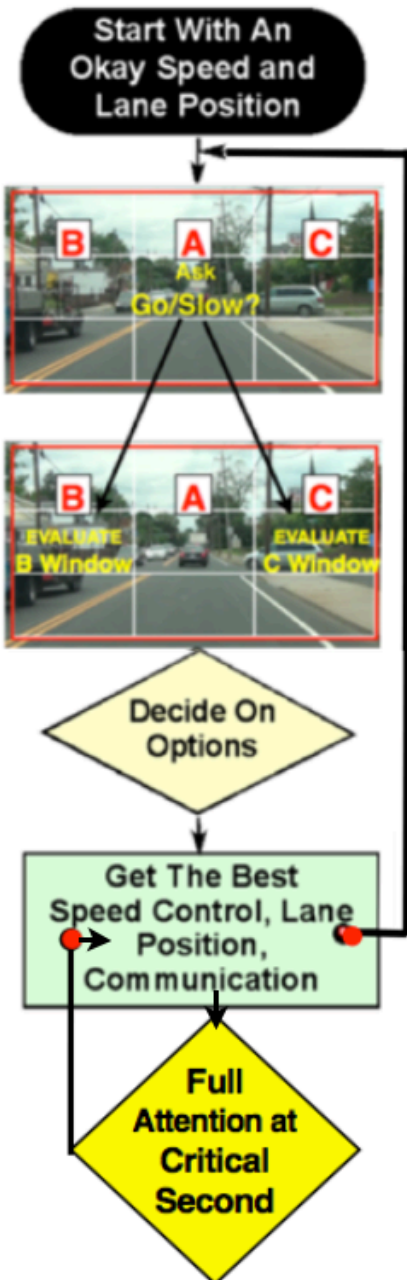


- Responds to Signs, Markings
- Applies Right Of Way laws
- FINDS Curves in Target Area
- Evaluates Traction
- Gets Best LP, Speed Control



- CONTROLS 4 sec Danger Zone
- Looks into Curves/Hill crests
- 4 Seconds Following Space
- Adjusts Closure Rate
- CONTROLS Rear Zone

Selective Attention Matrix Practice Commentary



Practice Commentary for Increased Attention & Control

You do not need to speak out loud.

1. Look to your A window and ask yourself, "do I have a go or slow?"
2. Ask, "are there LOS-POTs?"
Where are the "Critical Seconds?"
3. When A Window is closed: Adjust Speed. Evaluate Rear Zone.
4. When B and/or C Window will have LOS-POT, get best Speed Selection, LP and Communication.
5. Control Critical Second within the Four-Second Danger Zone.
6. Full attention at Critical Second as the A, B, or C Window becomes full.

Which space would you want to have as the bus applies its brakes?



Empower Yourself With 4 Seconds

- You have time to become conscious when you are closing in too fast on stopped vehicles.
- Your eyes can search beyond the vehicle in front.
- You're not victimized. Eliminate surprises from the actions of the first vehicle. Removes the stress that occurs when you are surprised by sudden braking actions of vehicles ahead. You're more conscious of the disadvantages of keeping a lesser amount of time.

Point-Of-No-Return (PONR)

is that point at which you are not able to stop without entering the "critical second."

Yellow Changing Lights

The purpose of a yellow light is to clear the intersection. By knowing where your point of no return is, you'll see the light changing and be able to make your best decision.

Right-of-Way Laws

- **Must yield to pedestrians** at all times, especially when a pedestrian is in crosswalk with no traffic light.
- **When you are turning left turn**, you must yield to oncoming traffic.
- **Drivers on a minor road** must yield to any vehicle on a main road.
- **On two equal roads**, drivers coming from the left must yield to vehicles coming at the same time from the right.
- **At 4-way stop sign**, the driver reaching the intersection first gets to go first. When arrival is equal, the driver on the left yields to car on right.
- **At Roundabouts**, entering vehicles must yield to vehicles that are in the roundabout.

• See Curve In A Window for best speed management.

• **See a Left or Right Curve** to get an effective drive line curve.

• **See Radius Of Curve** to determine an effective speed selection. More crashes occur at slightly curved roads, rather than very sharp curves, because drivers don't see them as a danger to their control.

• Test Tire-Road Grip

When roads are wet from rain, dew, snow, ice, apply the brakes to test the tire-road grip before entering the curve. If the tires slide you want "Slide Space" and speed reduction on the straightaway.

• Control Speed Before Apex

The most demand placed upon the grip of your tires to the road comes at the Apex. Reducing speed before the Apex will give you best control.

Red Light and Right Turn On Red

When you see a red light, reduce speed to time your arrival into an open zone with a green light.

When making a right turn with a red light, make a complete stop and check the intersection for open zones before entering.

When making a left or right turn with a green light, turn your head before turning your tires to look for pedestrians that may be in the crosswalk.

For Speed Control in Curve, See 4 Seconds

Keep 4 seconds of road visible. When you have less than 4 seconds of road visible, brake before going into the curve to see more road. When braking, hold partial brake pressure until you're at the transition peg.

Find Oncoming Traffic - Get Best Lane Position

If there are no oncoming vehicles, the approach into a right curve could be in lane position two. If there is oncoming traffic, take lane position one. For a left curve, the approach begins in LP3 if the right-front zone is open. If closed, take LP1.



Look into the curve much as you look into a turn, by turning your head before you turn the steering wheel. Attempt to see if your exiting path is open. For right or left curves, exit in lane position one.

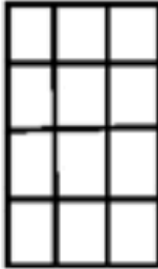
Look for the option of moving into lane position three if there is a problem caused by oncoming traffic in the left-front zone.

24: Laws, Signs, Signals & Marks

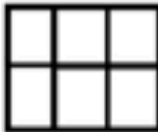


1. Respond To Stop/Yield Signs

2. Respond To Signal Lights



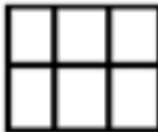
- Point Of No Return
- Red Light & Right Turn On Red
- Yellow Changing Lights
- Green Light, Search Inter



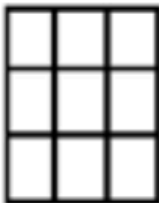
3. Signal Arrows: Gr, Yel, Red

4. Flashing Signal Lights

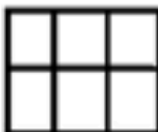
5. Respond to Traffic Signs



- Regulatory Signs
- Warning Signs
- **See Sign As Traffic Cue**



- Check Rear Zone
- Check LOS-POT
- Check Escape Path



6. Respond To Pave Markings

7. Demo Right-of-Way Laws

25: Approaching Curves and Hills

1. See Curve In Target Area
2. Check Rear Zone
3. Test Tire-Road Grip
4. See A Left or Right Curve
5. See 4 Seconds of Road
6. Get Best Speed Control
7. Look For Cars/Get LP
8. See LOS-POT at Apex
9. Look Into Curve For POT
10. Evaluate New Target Area
11. Evaluate Targeting Path
12. Hill Approach LP 1
13. At Hillcrest, Evaluate POT
14. Hillcrest LP 1

26. Separation from Vehicles

			1. Adjust Front Closure Rate
			2. Become Alert Slower Vehicle
			3. Keep 4 Seconds Of Space
			4. Try To Improve LOS
			5. Read Traffic 12 Seconds Ahead
			6. Control The Rear Zone
			7. Respond To Communications
			8. When Front Car Slows
			9. Explain Benefits

27: Use of Selective Attention Matrix

1. Start Evaluation of Future Window

- Is it a Go or Slow?
- Will there be LOS-POTs?

--	--	--

2. Look For Critical Second

3. Evaluate B and C Present Windows

- See an LOS-POT Blockage
- Check The Other Zones

4. Get The Best Control Action

- Speed Control
- Lane Position
- Communication

5. Verbalize Conditions of the Windows

- Control Critical Second at PONR
- Full Attention - Adjust Speed & LPs

6. Practice For 10-20 Minutes

--	--	--

- Successful results achieved