

# The Driving ScoreCard System

## In 4 Steps, 10 Stages and 80 Exercises

Step 1: Move-off

Step 2: Drive

Step 3: Stop

Step 4: Secure a Car

For Explanation, Demonstration and Practice

The Driving ScoreCard System Research

**By**  
**Frank Cullinane**  
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The aim: To Eliminate Road Crashes Worldwide

Submitted as supporting evidence for RSA Government Public Consultation Strategy 2021 – 2030.

*Frank Cullinane Road Crash Investigator and Researcher*

## Introduction

**The Driving ScoreCard System** based on VBOX measurements in 4 Steps, 10 Stages and 80 Exercises is designed so that driving may be taught by demonstration and without the aid of dual controls from an early age. The Observation, Anticipation and Reaction required by road users to use public roads safely should begin no later than 4 years of age rather than waiting until a Learner Driver Permit is obtained at 17 years of age.

**According to the RSA the following are the 10 most common reasons why people fail driving tests:**

1. Inadequate observation moving off, at junctions, at roundabouts and when changing lanes.
2. Failure to anticipate the actions of other drivers.
3. Incorrect road position on the straight, on bends, turning left, turning right, at roundabouts, and when overtaking.
4. Inadequate progress at junctions, roundabouts, on the straight, and when overtaking.
5. Incorrect or inadequate use of mirrors and signals.
6. Non-compliance with traffic controls, e.g. road signs and markings and traffic lights.
7. Incorrect, inadequate or inappropriate use of vehicle controls, including gears, clutch, accelerator, steering, handbrake, footbrake, and secondary controls.
8. Excessive speed for the road or traffic conditions.
9. Failure to yield the right of way to others.
10. Lack of competence in the reverse and U-turn manoeuvres

This is part of my Supporting Evidence for the RSA Road Safety Strategy Consultation 2021 to 2030. I took into consideration the 10 most common reasons for failing the driving test and designed the exercises accordingly.

***Frank Cullinane***

**The Driving ScoreCard System**

The **4 Step Driving ScoreCard System** is designed so that Steps 1 and 4 may be taught in accordance with the Rules of the Road and Road Traffic Act in a stationary car and Steps 2 and 3 may be taught by demonstration to maximum speed limits in any country worldwide as follows:

The Driving ScoreCard System	In Seconds	In Metres	Demonstration	Demonstration
Step 1: Prepare to Move-off	3			
Step 2: Drive to each 10 km/h	3			
Step 3: Stop each 10 km/h	1			
Stop in Emergency each 10 km/h	0.5			
Step 4: Secure a car	3			

**The Driving ScoreCard System 10 to 120 km/h**

**Step 2 Drive normally** is at a rate of 10 km/h each 3 seconds, while Stop or Brake normally is 3 times faster than Drive. **Brake in emergency is 6 times faster than Drive** but not required for normal driving.

When speed doubles the Time required to Drive or Stop doubles, but the Distance required to Drive or Stop increases 4 Times as follows:

Step 1 Prepare to Move-off	Step 2 Drive Normally to Each 10 km/h in 3 seconds			Step 3 Brake Normally 3 times faster		Or Step 3 Brake in Emergency 6 times faster		Step 4 Secure the Car
	In Seconds	To Km/h	In Seconds	In Metres	In Seconds	In Metres	In Seconds	
3	10	3	4	1	1	0.50	1	3
3	20	6	17	2	6	1	3	3
<b>3</b>	<b>30</b>	<b>9</b>	<b>37</b>	<b>3</b>	<b>12</b>	<b>1.5</b>	<b>6</b>	<b>3</b>
Demonstrate								
3	40	12	67	4	22	2	11	3
3	50	15	104	5	35	2.5	17	3
<b>3</b>	<b>60</b>	<b>18</b>	<b>150</b>	<b>6</b>	<b>50</b>	<b>3</b>	<b>25</b>	<b>3</b>
Demonstrate								
3	70	21	204	7	68	3.5	34	3
3	80	24	267	8	89	4	44	3
3	90	27	337	9	112	4.5	56	3
3	100	30	417	10	139	5	69	3
3	110	33	504	11	168	5.5	84	3
	<b>120</b>	<b>36</b>	<b>600</b>	<b>12</b>	<b>200</b>	<b>6</b>	<b>100</b>	<b>3</b>
Demonstrate								

**Summary**

**Rules that cannot be taught nor demonstrated** MUST not be allowed. There are 1.3m road fatalities worldwide each year with approximately 200m injuries despite many rules and safety features.

**Engineers** should establish the car roadworthiness; Medical Profession should establish a driver’s medical condition to drive while ability to control a car should be established based on **VBOX** measurements.

- **Training drivers with the aid of dual controls and conducting driving tests on 30 km/h roads with ramps is a misunderstanding of the time and distance required to control maximum speeds.**
- **All tuition and Sponsors cars used for tuition and practice should be fitted with VBOX.**
- **VBOX records the standard which may then be emailed to each pupil, doctor, tester, or rule maker.**

Frank Cullinane

The Driving ScoreCard System

Stage 1: Learning to Observe and Coordinate the Eyes, Hands and Feet by Watching Others

Exercises	The Driving ScoreCard System Exercises				
	Stage 1				
	No Crashes, No Deaths, No Injuries, No Damage	In Seconds	In Metres	Demonstrate	Demonstrate
<b>1</b>	<b>Observation – Demonstrate and allow Practice for 3 years from early age</b>				
	Demonstrate Commentary Driving for young people by Reading Maps, Satellite Navigation Systems, Roads, Signs, Lines and Markings for children on journeys from 12 years of age until they learn to do it automatically. Demonstrate Observation by Scanning, including the Mirrors and in the Near, Middle and Far Stopping Distances				
<b>2</b>	<b>Demonstrate the Checks for a driver before and on entering the car</b>				
	Eat, Drink, and make and receive phone calls before entering a car				
	Be rested, licensed, and medically fit to Drive				
	Purchase and use Alcohol and Drug testing devices for testing limits before driving				
	Read a car number plate at 20 metres				
	Tax, Insurance, and necessary discs in order and displayed				
	Sufficient oil, fuel, and water at necessary locations in car				
	Tyres, Wipers and Shock Absorbers in roadworthy condition				
	Windows, windscreen, and rear window Glass clean				
	Lights, indicators working, and lenses clean and undamaged				
	<b>Demonstrate the Checks for a driver on entering the car</b>				
	Doors opened and closed safely				
	Seats adjusted with headrest in line with top of ears				
	Mirrors adjusted for best eye view without moving the head				
	Safety Belts on to protect drivers and passengers, remember				
	Pedestrians, cyclists and motorcyclists do not wear safety belts				
	70% of road fatalities in cities do not benefit from safety belts				
	<b>Total Time Required – Get it right and understand what you are doing</b>				
<b>3</b>	<b>Demonstrate Co-Ordination of the Eyes, Hands and Feet</b>				
	With car secured, engine running, accelerator and clutch pedals covered				
	Steer Left 1.5 revolutions while Observing Forward	1.5			
	Steer Right 3 Revolutions while Observing Forward	3			
	Steer Left 1.5 Revolutions while Observing Forward	1.5			
	<small>Most people cannot rotate a right foot and left hand in opposite direction simultaneously</small>				
	<b>Slow Steering or accelerating in error leads to road crash risk later</b>				
	<b>Total Time Required</b>	<b>6</b>			
<b>4</b>	<b>Demonstrate Co-Ordination of the Eyes, Hands and Feet</b>				
	With car secured, engine running, accelerator and clutch pedals covered				
	Steer Left 1.5 revolutions while Observing Backwards	1.5			
	Steer Right 3 Revolutions while Observing Backwards	3			
	Steer Left 1.5 Revolutions while Observing Backwards	1.5			
	<b>Total Time Required</b>	<b>6</b>			

The Driving ScoreCard System

Stage 2: Learning to Move-off, Drive 1 to 4 Car Lengths, Stop and Secure a Car

5	Demonstrate First Gear Clutch Control	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 1 car length under clutch control	11	4		
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>4</b>		
6	Demonstrate Reverse Gear Clutch Control				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 1 car length under clutch control	11	4		
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>4</b>		
7	Demonstrate First Gear Clutch Control and Steering Simultaneously				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 1 car length under clutch control	11	4		
	Steer Left 1.5, Right 3 and Left 1.5 Revolutions on the move				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>4</b>		
8	Demonstrate Reverse Gear Clutch Control and Steering Simultaneously				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 1 car length 4m under clutch control	11	4		
	Steer Left 1.5, Right 3 and Left 1.5 Revolutions on the move				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>4</b>		
9	Demonstrate Driving Straight in a 16 metre Space				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Straight 4 car lengths 16 metres	11			
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>16</b>		
10	Demonstrate Reversing Straight in a 16 metre Space				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse Straight 4 car lengths 16 metres	11			
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>16</b>		

The Driving ScoreCard System

Stage 3: Learning to Move-off at an Angle, Drive, Reverse 4 to 7 Car Lengths, Stop and Secure a Car

11	Demonstrate Angle Move-off, Drive, Steer and Stop	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 4 car lengths 16 metres around a parked car	11	16		
	Steer Right 1.5, Left 3, R 1.5, L 1.5, R 2 and L 0.5 Revolutions				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>16</b>		
12	Demonstrate Angle Move-off, Reverse, Steer and Stop				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 4 car lengths 16 metres around a parked car	11			
	Steer Right 1.5, Left 3, R 1.5, L 1.5, R 3 and L 1.5 Revolutions				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>20</b>	<b>16</b>		
13	Demonstrate Driving 7 Car Lengths around a Corner				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 7 car lengths 28m around a corner	21	28		
	Steer Left 1.5 and Right 1.5 Revolutions at correct time				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>30</b>	<b>28</b>		
14	Demonstrate Reversing 7 Car Lengths around a Corner				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 7 car lengths around a corner	21	28		
	Steer Left 1.5 and Right 1.5 Revolutions at the correct time				
	Stop accurately 30cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>30</b>	<b>28</b>		

Stage 4: Learning to Move-off, Position, Park, Stop and Secure a Car

15	Demonstrate Positioning to Parallel Park on the Left	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 2 car lengths from a position behind a parked car	6	8		
	Steer Right 1.5 and Left 1.5 Revolutions on the move				
	Stop accurately 60cm from parked car in adjacent space	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>15</b>	<b>8</b>		
16	Demonstrate Parallel Parking on the Left	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 2 car lengths	6	8		
	Steer Left 1.5 and Right 1.5 Revolutions on the move				
	Stop accurately 30 cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>15</b>	<b>8</b>		
17	Demonstrate Position to Perpendicular Park on the Left	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 2 car lengths – From rear to kerb to Front of parked car	6	8		
	Steer Left 1.5 and Right 1.5 Revolutions at correct time and speed				
	Stop accurately 60 cm from front of parked car in adjacent space	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>15</b>	<b>8</b>		
18	Demonstrate Perpendicular Park on the Left	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 2 car lengths	6	8		
	Steer Left 1.5 and Right 1.5 Revolutions at correct time and speed				
	Stop accurately close to the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	<b>Total Time Required in Distance</b>	<b>15</b>	<b>8</b>		

Stage 5: Learning to Perform a Turnabout or 3-point Turn

19	The 3 Point Turn Demonstration	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	<b>Point 1</b>				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 2 car lengths	6	8		
	Steer Right 1.5 and Left 3 Revolutions at correct time and speed				
	Stop accurately 30 cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Time Required in Distance	15	8		
	<b>Point 2</b>				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Reverse 2 car lengths	6	8		
	Steer Right 3 Revolutions at correct time				
	Stop accurately 30 cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Time Required in Distance	15	8		
	<b>Point 3</b>				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive 6 car lengths	6	24		
	Steer Right 1.5 and Left 1.5 Revolutions at correct time				
	Stop accurately 30 cm from the kerb	3			
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Time Required in Distance	15	24		
	Total 3 Point Turn Time Required in Distance	45	40		



The Driving ScoreCard System

Stage 6: The Control of Speeds of 30 and 40 km/h on One and Two-way Roads

20	Demonstrate Normal Control of a Speed of 30 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 30 km/h	9	37		
	Stop Normally 3 times faster than Drive	3	12		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	18	49		
21	Demonstrate Lane Changing at a Speed of 30 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 30 km/h	9	37		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	25		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	25		
	Stop Normally 3 times faster than Drive	3	12		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	24	99		
22	Demonstrate Emergency Braking from a Speed of 30 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 30 km/h	9	37		
	Stop in Emergency 6 times faster than Drive	1.5	6		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	16.5	43		
	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

26	Demonstrate Normal Control of a Speed of 40 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 40 km/h	12	67		
	Stop Normally 3 times faster than Drive	4	22		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	22	89		
27	Demonstrate Lane Changing at a Speed of 40 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 40 km/h	12	67		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	33		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	33		
	Stop Normally 3 times faster than Drive	4	22		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	28	155		
28	Demonstrate Emergency Braking from a Speed of 40 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 40 km/h	12	67		
	Stop in Emergency 6 times faster than Drive	2	11		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	20	78		
	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

The Driving ScoreCard System

Stage 7: The Control of Speeds of 50 and 60 km/h on One and Two-way Roads

32	Demonstrate Normal Control of a Speed of 50 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 50 km/h	15	104		
	Stop Normally 3 times faster than Drive	5	35		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	26	139		
33	Demonstrate Lane Changing at a Speed of 50 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 50 km/h	15	104		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	42		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	42		
	Stop Normally 3 times faster than Drive	5	35		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	32	223		
34	Demonstrate Emergency Braking from a Speed of 50 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 50 km/h	15	104		
	Stop in Emergency 6 times faster than Drive	2.5	17		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	23.5	121		
35	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
36	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
37	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

38	Demonstrate Normal Control of a Speed of 60 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 60 km/h	18	150		
	Stop Normally 3 times faster than Drive	6	50		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	30	200		
39	Demonstrate Lane Changing at a Speed of 60 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 60 km/h	18	150		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	50		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	50		
	Stop Normally 3 times faster than Drive	6	50		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	36	300		
40	Demonstrate 60 km/h Overtaking 40 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 60 km/h	18	150		
	60 km/h at 17 mps overtakes 40 km/h at 11 mps Requires	9	150		
	Stop Normally 3 times faster than Drive	6	50		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	39	350		
41	Demonstrate Emergency Braking from a Speed of 60 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 60 km/h	18	150		
	Stop in Emergency 6 times faster than Drive	3	25		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	27	175		
42	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
43	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
44	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

The Driving ScoreCard System

Stage 8: The Control of Speeds of 70 and 80 km/h on One and Two-way Roads

45	Demonstrate Normal Control of a Speed of 70 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 70 km/h	21	204		
	Stop Normally 3 times faster than Drive	7	68		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	34	272		
46	Demonstrate Lane Changing at a Speed of 70 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 70 km/h	21	204		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	58		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	58		
	Stop Normally 3 times faster than Drive	7	68		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	40	388		
47	Demonstrate Emergency Braking from a Speed of 70 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 70 km/h	21	204		
	Stop in Emergency 6 times faster than Drive	3.5	34		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	30.5	238		
48	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
49	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
50	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

51	Demonstrate Normal Control of a Speed of 80 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 80 km/h	24	267		
	Stop Normally 3 times faster than Drive	8	89		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	38	356		
52	Demonstrate Lane Changing at a Speed of 80 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 80 km/h	24	267		
	Observe, Signal, shoulder check – Change to the right-hand lane	3	66		
	Observe, Signal, shoulder check – Change to the left-hand lane	3	66		
	Stop Normally 3 times faster than Drive	8	89		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	44	488		
53	Demonstrate 80 km/h Overtaking 60 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 80 km/h	24	267		
	80 km/h at 22 mps overtakes 60 km/h at 17 mps Requires	13	286		
	Stop Normally 3 times faster than Drive	8	89		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	51	642		
54	Demonstrate Emergency Braking from a Speed of 80 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 80 km/h	24	267		
	Stop in Emergency 6 times faster than Drive	4	45		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	34	312		
55	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
56	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
57	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

The Driving ScoreCard System

Stage 9: The Control of Speeds of 90 and 100 km/h on One and Two-way Roads

58	Demonstrate Normal Control of a Speed of 90 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 90 km/h	27	337		
	Stop Normally 3 times faster than Drive	9	112		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	42	449		
59	Demonstrate Lane Changing at a Speed of 90 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 90 km/h	27	337		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	75		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	75		
	Stop Normally 3 times faster than Drive	9	112		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	48	599		
60	Demonstrate Emergency Braking from a Speed of 90 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 90 km/h	27	337		
	Stop in Emergency 6 times faster than Drive	4.5	56		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	37.5	393		
61	Deal with Ramps & Traffic Lights with Amber light time set at 3 seconds				
62	Deal with Roundabouts, Yield Signs, Stop Signs, Yellow and White Lines				
63	Drive Straight, Turn Left and Right at Traffic Lights and Roundabouts				

64	Demonstrate Normal Control of a Speed of 100 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 100 km/h	30	417		
	Stop Normally 3 times faster than Drive	10	139		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	46	556		
65	Demonstrate Lane Changing at a Speed of 100 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 100 km/h	30	417		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	84		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	84		
	Stop Normally 3 times faster than Drive	10	139		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	52	724		
66	Demonstrate 100 km/h Overtaking 80 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 100 km/h	30	417		
	100 km/h at 28 mps overtakes 80 km/h at 22 mps Requires	17	476		
	Stop Normally 3 times faster than Drive	10	139		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	63	1,032		
67	Demonstrate Emergency Braking from a Speed of 100 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 100 km/h	30	417		
	Stop in Emergency 6 times faster than Drive	5	70		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	41	487		
68	Deal with Passing Cars, Cyclists and Pedestrians while Meeting Traffic				
69	Deal with joining and Exiting Roads from Slip Roads at Junctions				
70	Drive Straight, Turn Left and Right at Cross Roads and Roundabouts				

The Driving ScoreCard System

Stage 10: The Control of Speeds of 110 and 120 km/h on One-way Motorway Roads

71	Demonstrate Normal Control of a Speed of 110 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 110 km/h	33	504		
	Stop Normally 3 times faster than Drive	11	168		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	50	672		
72	Demonstrate Lane Changing at a Speed of 110 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 110 km/h	33	504		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	83		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	83		
	Stop Normally 3 times faster than Drive	11	168		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	56	838		
73	Demonstrate Emergency Braking from a Speed of 110 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 110 km/h	33	504		
	Stop in Emergency 6 times faster than Drive	5.5	84		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	44.5	588		
74	Deal with joining and Exiting Motorway Roads from Slip Roads				
	Read the Signs, Lines and Road Markings on Motorways				

75	Demonstrate Normal Control of a Speed of 120 km/h	In	In	Demonstrate	Demonstrate
		Seconds	Metres		
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 120 km/h	36	600		
	Stop Normally 3 times faster than Drive	12	200		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	54	800		
76	Demonstrate Lane Changing at a Speed of 120 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 120 km/h	36	600		
	Observe, Signal, shoulder check - Change to the right-hand lane	3	100		
	Observe, Signal, shoulder check - Change to the left-hand lane	3	100		
	Stop Normally 3 times faster than Drive	12	200		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	60	1,000		
77	Demonstrate 120 km/h Overtaking 100 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to 120 km/h	36	600		
	120 km/h at 33 mps overtakes 100 km/h at 28 mps in	22	730		
	Stop Normally 3 times faster than Drive	12	200		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	76	1,530		
78	Demonstrate Emergency Braking at a Speed of 120 km/h				
	Move-off – Observe, gear, clutch biting point, signal, shoulder check	3			
	Drive Normally to a speed of 120 km/h	36	600		
	Stop in Emergency 6 times faster than Drive	6	100		
	Secure the Car – Park brake on, out of gear and cancel signal	3			
	Total Time Required in Distance	48	700		
79	Deal with joining and Exiting Motorways, Lines Signs & Markings				
80	Judge Distance, Speed and Following Others in Time and Distance				

## Summary

**Learning to Drive a car to a safe standard and maximum speed limits is a 3-year course** to be taught without the aid of dual controls by teachers who qualified in a teacher training college during a 3-year course and achieved the Driving ScoreCard System standard.

**The 1.35m road fatalities** annually with 200 injuries for each fatality and 1,000 damage crashes for each injury crash is sufficient evidence to show that the previous training system has not worked worldwide since 1869.

**The Driving ScoreCard System based on VBOX measurements** is accurate to within 2cm and records in both time and distance the standard and speed limitations of **rule makers, roads cars and their drivers**.

**The Time, Distance and Space** required by Driving Instructors to teach the driving syllabus as outlined by the RSA is not available due to Clearways, Bus Lanes, Cycle Lanes, Yellow and White Lines, Stop Signs, Traffic Lights and on Country Roads where 100 km/h may be allowed on two-way crooked roads by the Local Councillors.

- **The Driving ScoreCard System allows Rule Makers an opportunity to demonstrate their Rules.**

**VBOX** is the world's most accurate recorder of speed in time and distance and the aim of my research is to eliminate road crashes resulting in death, injury and damage worldwide.

- **The UK Government TRL stopping formulas are incorrect for 75 years since 31 07 1946.**

*Frank Cullinane Road Crash Investigator and Researcher.*