

# Safer Better Driving Workbook



**DORSET  
POLICE**

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## Introduction

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You have been accepted to take part in the Dorset Safer Better Driving (SBD) course. Before you take part in this you must complete all sections and exercises in this workbook to prepare you for the course.

This workbook will take you through some background learning for the modules that you will cover during the course. The workbook gives you some information about the many human factors that affect your driving abilities, and you are asked to complete the activities to develop your understanding.

## Aim of the course

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To provide an understanding of the human factors in driving, to reduce the number of crashes, severity of injuries and number of fatalities amongst road users. By the end of the course you should be able to:

1. Understand how you use your eyes when you drive
2. Understand how you process information whilst driving
3. Understand how emotions and motivations affect your driving abilities and risk
4. Understand how biases in the way you think can affect your abilities and risk
5. Describe hazard perception abilities
6. Demonstrate strategies, techniques and goals for safer driving

## Your Driving Habits

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Most road traffic incidents are due to behaviour that can be changed. They include behaviours such as:-

- Failed to look properly
- Distracted driving
- Poor decision making
- Driving when fatigued or stressed

In all of these cases, you have the ability to change your approach to driving and reduce your risk of being involved in a crash.

For example driving and talking on a mobile phone will affect your ability to;

- Process information,
- Make decisions,
- Take action and
- Correct errors.

Focusing on developing safer driving habits will give you more time to anticipate hazards so that you can respond in good time and reduce your risk.

The next section of this workbook will help you to identify the stages of behaviour change as you develop safer driving habits.

## Stages of Behaviour Change

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Think about how your behaviour might have changed since your incident. You may not have changed your behaviour at all or you might be thinking of changing. You can discover which stage of behaviour change you're at by reading the following statements and deciding which one most applies to you. Tick yes to just **ONE** of the stages and then read the feedback below to find out what you need to do to develop and maintain safer driving habits;

Stages	Descriptor Statements	Yes
Precontemplation	"I have not tried to change the way I drive since my crash and I am not thinking of doing so."	
Contemplation	"I have thought about making a change but realise it will be difficult and need some help and guidance."	
Preparation	"I am planning now to develop a realistic goal and achievable timeline for making a change."	
Action	"I have set myself a personal goal and created an action plan in order to achieve this. I have already started to take steps towards that goal."	
Maintenance	"I have already changed the way I drive since my crash and I am now trying to keep it that way."	

## Feedback

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The stage of behavioural change that you're at shows your willingness to make changes to your unsafe driving habits. For you to progress through the stages of behaviour change, from pre-contemplation to action, you must first be aware of the way you are thinking about your intention to change.

### Precontemplation

This course aims to raise your awareness of how human factors can increase your risk of being involved in a crash. It is hoped that by taking part, you will begin to think about what you can do to improve your personal risk and move forward from this stage.

### Contemplation

This course aims to build on your positive intentions and help you to identify and overcome any barriers to achieving your goal.

### Preparation

This course aims to help you to develop some positive changes towards developing safer driving habits.

### Action

This course aims to support you with these new habits and develop them even further for maximum safety on the road.

### Maintenance

This course aims to support you with maintaining these new habits and how to get back on track if you find yourself slipping back into unsafe driving habits again.

## 1.0 Visual Attention and Perception in Driving

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As a driver, you are met with numerous elements that require your attention. The term “visual attention” refers to the ability to select relevant information from constantly changing road and traffic scenes. Visual attention also helps you to filter out irrelevant information such as billboards and shops. However, you may filter out relevant information by mistake or fail to pick up on relevant visual cues. For example, you may filter out a ball bouncing across the road which might suggest a child will follow.

You might think that your vision can be trusted but you may be surprised to learn that it is prone to error.

When driving you are not able to look at a road scene in fixed steadiness; instead, your eyes move around, locating parts of the scene and building up a mental, three-dimensional map of the scene.

Therefore: -

- It's easy to miss hazards if you don't focus directly on them
- Even if you look at the hazard, you may not process it.

Most road traffic collisions occur when critical information was detectable but went unnoticed (we look but don't see), because your mind or your eyes were elsewhere. In other words, you were distracted.

## 1.1 Recognition Errors

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There are three different types of recognition errors that we will now look at in more detail because they are implicated in a large percentage of road traffic incidents.

- Look but failed to see
- Change Blindness
- Distraction

### Look but failed to see

Our visual system has a preference for processing larger objects before processing smaller ones. For example, you might quickly glance down the road and see an approaching lorry or bus and miss an approaching motorcycle.

### Looked but failed to see at junctions

About every third road crash occurs at a junction with cyclists and motorcyclists being particularly at risk. Many collisions are caused by a failure to correctly judge the speed of oncoming vehicles or allow for a sufficient gap to join the traffic on a main road.

Junctions are places that can be particularly challenging for your attentional capacity. At a junction, you have to hold in memory a number of different streams of information:-

- assessment of the speed and distance of oncoming vehicles, possibly from both directions
- assessment of the behaviour of pedestrians crossing in front of you
- cyclists and motorcyclists that may be in your blind spot
- other vehicles queuing behind you with drivers becoming impatient
- making a decision about what is a safe gap

Yet, studies have shown that on average, drivers may spend just 0.5 seconds visually searching at junctions before emerging.

### Change Blindness

Change blindness is when you fail to notice changes that occur in a scene – even large changes that occur in clear view. Changes in what’s going on around you can also happen during an eye movement or an eye blink so you will not notice the change at all.

Take a look at these two photographs. What’s changed?



You may notice that the bus stop road marking has disappeared in photograph number 2 but how many times did you need to look at each photograph before you noticed? Imagine you're driving at 30 mph and the scene is changing rapidly, would you have time to notice the change and process what it means?



Many traffic and road events are in play during a typical journey, but you can only attend to a few at any one time. All others pass by unnoticed. This is Change Blindness.

**SELF-REFLECTION POINT:**

Taking change blindness into account, how confident can you be in your ability to spot everything in your visual field of view?

**Distraction**

Complete this questionnaire by ticking the box that most applies to you.

You believe you can drive well even when you:

		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
1	Hold phone conversations					
2	Manually interact with a phone (e.g., sending text messages)					
3	Adjust the settings of in-vehicle technology (e.g., radio channel or song selection)					
4	Read roadside advertisements					
5	Continually check roadside accident scenes if there are any					
6	Chat with passengers if you have them					

Generally, drivers think they can do other tasks not related to driving and still drive as safely. Doing other things not essential for driving requires you to split your focus, and this reduces the amount of information you have available for safe driving. That’s why research has shown that distraction is a factor in the majority of crashes and near crashes.

Distraction can arise from;

1. Things outside of the vehicle
2. Things inside the vehicle
3. What’s going on in your head

These three sources of distraction can affect you independently, but they can result in driving impairments from one, two, or all three sources. Your visual attention and perception are therefore critical components of safe driving but these processes are under great demand when....

- Your information flow becomes a torrent (for example, you're driving fast)
- Your information is low quality (for example, your visibility is poor)
- Your attention has been captured (for example, you are distracted)
- Your mental capacity is reduced (for example, you are stressed or fatigued)

Drivers engaging in distractions tend to underestimate the risk. This means that you may feel that the risk is relatively high, but not high enough to avoid engaging in the distraction.

## 1.2 Emotions and Distraction

Stress when driving causes you to be distracted. Complete this questionnaire to find out how anxious you feel when driving. Mark the number that indicates how much the statement applies to you.

I find myself worrying about my mistakes and the things I do badly when driving



I feel more anxious than usual when I have a passenger in the car



I feel tense or nervous when overtaking another vehicle



I feel more anxious than usual when driving in heavy traffic



Take a look at your scores. Are you surprised?



No matter how many years you've been driving for or the length of your journey, stress can affect your abilities and distract you.

## 1.3 Driver Fatigue

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How alert you are is a factor in how much information your brain can process. A low level of alertness such as when you're tired will mean that you are more likely to lose concentration. Typical signs are slower reaction times, squinting and yawning.

Think about how you feel when you have to drive for more than two hours, with no breaks from driving. Do your feelings change during the course of the drive? Mark the number on the line that indicates how much the statement applies to you.

I am more uncomfortable physically (e.g. headache or muscle pain)



I am more drowsy or sleepy



Overtaking becomes increasingly risky and dangerous



Take a look at your scores and how driving fatigued can increase your risk.

Think about the occasions when you have found yourself driving when you're tired. Tick which of the following statements applies to you.

I maintain speed of reaction	
My reactions to other traffic becomes increasingly slow	
I maintain attention to road signs	
I miss a lot of road signs	
I am aware of my speed	
I find it increasingly difficult to judge my speed	

Perhaps you have a tendency to;

- Get annoyed with other road users and this distracts you
- Break the rules and drive too fast because you're annoyed with road users getting in your way
- Use coping strategies that are not effective for managing driver stress
- Continue to drive even when you know you are tired or sleepy
- Drive too close to other vehicles due to stress or fatigue
- Experience slower reaction times when driving for long periods or make silly mistakes because you're tired

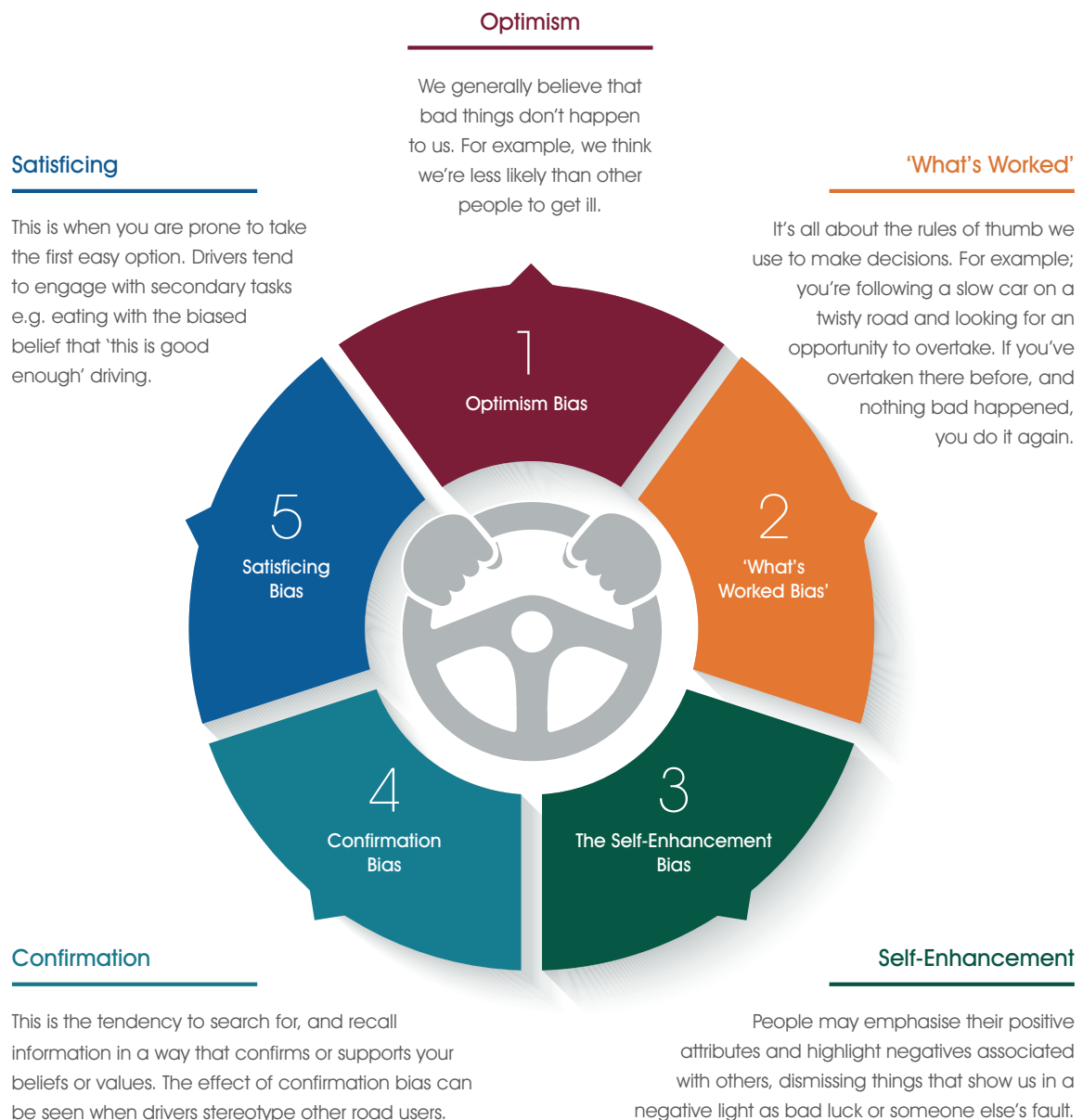
Consider how your levels of stress and fatigue affect your visual attention and perception and increase the probability of being involved in a crash. How can you manage your emotions and reduce your risk on future journeys?

**SELF-REFLECTION POINT:**

When you've thought about these different situations that can be stressful and tiring, it is the first step to find out how to reduce your risk. Make a note of things you can do to reduce your levels of stress and fatigue. To be a better and safer driver, recognise how your emotions can affect your decisions and how to make safer decisions on future journeys.

## 2.0 Risk Perception

If you ask people to rate their own driving in relation to other drivers on a scale of 1 - 10, then most people mark themselves 7, 8 or 9 out of 10. That's because just about everyone thinks they are better than average. Here are five biases in the way we think. Think about how these biases might have affected your decisions as a driver.



Biases in your beliefs about your driving skills are a common human tendency that we are mostly unaware of. It's because that's how humans are programmed to think. Put these five biases together and we generally underestimate the risk and overestimate our own ability.

### SELF-REFLECTION POINT: How biased is your view of your driving skills?

Next time another road user is aggressive towards you for making a mistake, instead of automatically defending your actions and retaliating in a way that increases your risk, consider what element of your driving needs to be improved.

#### Ask yourself:

- Were you driving too close?
- Did you force another rider or driver to brake quite harshly?
- Were you driving too fast for the conditions?
- Did you fail to look in the mirror or see another road user in good time?

#### Test yourself

As a driver, how likely do you think you are of being involved in a crash over the next 12 months?



Where did you place yourself?

Whether your self-rating is realistic or unrealistic is difficult to determine but most people judge themselves to have a low probability of being involved in a crash. The fact is that by committing violations, your risk of being involved in a crash is much higher.

## 2.1 Summary

Look again at the ratings you gave yourself in this section. How can your visual attention and perception limitations affect your risk?

Perhaps you have a tendency to;

- Emerge from junctions without looking long enough for fast moving or smaller vehicles in the far distance
- Drive too fast for the circumstances and fail to notice hazards
- Be distracted by technology in your vehicle and drive too close to other vehicles in a traffic queue

Consider whether your beliefs about the probability of being involved in a crash is overly optimistic. Have you underestimated your risk in certain situations? How can you reduce your risk?

### SELF-REFLECTION POINT:

Make a note of things you can do to reduce your risk in the future. To be a better and safer driver, recognise your mistakes and think about how to make safer decisions every time you drive.

## 3.0 Coping Strategies

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Safer driving means scanning the road, keeping your eyes moving, including using mirrors and regularly checking blind spots. You can then build up an understanding of the intentions of other road users and you can anticipate what they might do next. Scanning like this gives you time to prepare for an evasive manoeuvre in case you need to avoid a collision.

It is important to scan the full width of the road, especially when approaching junctions. This may be helped by the use of body and shoulder movements, as well as head and eye movements.

### 3.1 Say it out loud

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One of the best ways to keep up your concentration is to say out loud what you can see as you're driving along e.g. junction ahead, pedestrian, and road signs. Saying it out loud or commentary driving will help you to stay focused and help you to re-adjust your priorities as a situation develops. With practice you can learn to concentrate on the priorities.

### 3.2 Summary

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You need to maintain your attention at all times and physically adapt your position to the changing environment, even in normal driving conditions.

Practise saying it out loud for developing your focus on the hazards and maintaining levels of alertness.

- Notice how eye scanning improves your levels of concentration
- If you find that you are distracted say out loud the hazards you are anticipating to help you to focus
- Notice how this improved your focus of the unfolding hazards

## 4.0 Life Choices and Planning

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Life choices are important decisions that you make about your life. By taking on board the information covered in this workbook, you will have seen the important link between your life and how this influences your behaviour on the road. You should also recognise the importance of visual attention and how we use our eyes. Remember that most drivers have an unrealistic perception of their abilities and that you are probably no different. A lot of energy and brain power is wasted defending old habits and behaviours. Our brains actually like new ideas.

### 4.1 Summary

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Think about your life choices every time you drive. Ask yourself - how can I be safer? Think about your motives, emotions, alertness levels and the context for each journey. For example, are you running late? Are you feeling tired or stressed?

#### **Action Plan**

Make a commitment to change the way you think and feel about your driving so that you can manage the risks you've identified and start with a personal goal.

#### **MY GOAL IS:**

To achieve this, I will...;

My plan might not work because...;

The coping strategies I will use to help me overcome these barriers are...;

I will review my progress every...;

Keep reviewing your action plan to see how well you have achieved your goals and share it with someone you know to help you succeed. Remember only you can meet the challenge of changing your driving behaviour if you believe you can. Once you understand how your beliefs about risk and your own driving abilities influence your driving behaviour, then you can take steps to recognise this tendency when you're next on a journey. It's at this point that you have the opportunity to make safer decisions.