

Safer Better Driving Workbook



**DORSET
POLICE**

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Introduction

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 & Objectives of the Course

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 techniques
6. Give examples of strategies, techniques and goals for safer driving
7. Recognise absolute personal responsibility for Road Safety

Your Driving Habits

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

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

In all these cases, you can 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.

Multi-tasking and other distractions – such as talking on the mobile phone or using a music system – makes the task of driving even harder. The fact is that a lot of us overestimate our driving ability and we underestimate the risks we face on the road.

As human beings, we tend to make basic mistakes in our thinking. These mistakes happen without thinking, but if we're aware of them, then we can make sure they don't put us at risk on the road.

The next few sections will cover some biases in the way we think. These are mental shortcuts the brain uses based on our beliefs and values which influence our decisions or judgements about different driving and traffic situations.

1.0 Unconscious Bias

1.1 Optimism Bias



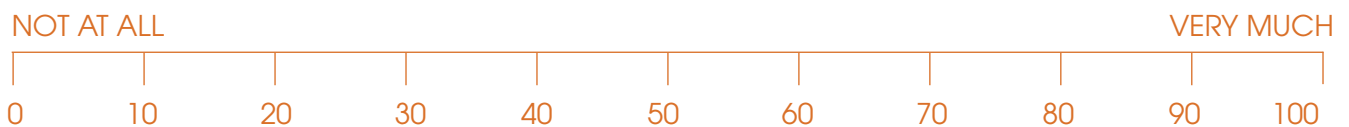
As humans we generally believe that bad things don't happen to us. For example, we think we're less likely than other people to get ill and we are overly optimistic about the outcome of our decisions.

The same applies to things like being stopped by the police if we break a traffic law or crashing if we take a risk. We think we're more likely than others to get away with it.

We don't want to believe something bad will happen to us. It's a kind of defence mechanism. In life, optimism bias is quite a good thing. It helps us get through the day!

Test yourself

Compared to other drivers, how likely do you think you are of being involved in a crash when you are driving?



Where did you place yourself? If you believe there's little chance that you'll have a crash, then you're more likely to take risks and increase your statistical risk by the way in which you choose to drive.

Typically, you will have shown some optimism bias if you score yourself as anywhere below 50. This means that you believe you are safer than other drivers. Whether your self-rating is realistic or not is difficult to determine but most people judge themselves to have a lower probability of being involved in a crash compared with others – and they can't all be right.

- Your self-rating should be like that of your rating for your peers.
- If there is a big difference between your rating for yourself and your rating for others, ask yourself whether this difference is realistic.
- Is your driving that much better than your peers?

IMPROVE YOUR RISK

Through self-reflection, make a note of how you could be more realistic about your risk in future.

1.2 Self-Enhancement Bias



When we compare ourselves to other people, we naturally pay more attention to things that show us in a positive light and dismiss the things that show us in a negative light – we say they are “bad luck” or “someone else’s fault”. This is called ‘self-enhancement bias’. For drivers, one of the effects is the belief that they are skilled and experienced enough to take risks.

Assess your Driving Skills

Have a look at the following questionnaire and estimate how much skill you have in each aspect of driving. Tick the box that best represents your judgement of your skills using the following scale:

1 = Well below average 2 = Below average 3 = About average 4 = Above average 5 = Well above average

		1	2	3	4	5
1	Tolerating other drivers’ blunders calmly					
2	Perceiving hazards in traffic					
3	Conforming to the traffic rules					
4	Prediction of traffic situations ahead					
5	Fast reactions					
6	Paying attention to other road users					
7	Driving in the dark					
8	Keeping sufficient following distance					
9	Adjusting your speed to the conditions					
10	Overtaking					
11	Conforming to the speed limits					
12	Avoiding unnecessary risks					

How did you do?

Look carefully at those areas where you have scored yourself as above average. Are you sure your skills are above average all the time? Under what circumstances are you less likely to perform these driving tasks competently? You might rate yourself differently when you are in a hurry or in a bad mood?

There are several reasons that will have influenced how you rated your skills as a driver:

1. You only focus on times when your driving was skilled and ignore times when you were not driving well.
2. A belief that bad outcomes are because of other drivers' decisions and not yours
3. You tend to see what you expect to see.
4. The tendency to overestimate your control in risky situations.
5. A hindsight bias that means safe outcomes are interpreted as the result of actions you took as a driver rather than due to good fortune.

Whatever your perception of your driving skills, there is often a difference between what you think and your actual driving skills. This is due to the way humans think.

Even the best drivers make mistakes, do foolish things or bend the rules sometimes. Some of these behaviours are trivial, but some are potentially dangerous.

Errors (mistakes) and Violations (breaking the law)

There is no such thing as a perfect driver. Below, make a mental note of how often you commit errors and violations. An error is when you make a mistake or have a failure in your concentration. A violation is a deliberate action which breaks the law.

Statement	Error or Violation
Attempt to overtake someone that you hadn't noticed to be signalling a right turn	Error
Fail to notice that pedestrians are crossing when turning into a side street from a main road	Error
Drive especially close to the car in front as a signal to its driver to go faster or get out of the way	Violation
Cross a junction knowing that the traffic lights have already turned against you	Violation
Disregard the speed limits late at night or very early in the morning	Violation
Fail to check your rear-view mirror before pulling out, changing lanes, etc.	Error
Become impatient with a slow driver in the outer lane and overtake on the inside	Violation
Underestimate the speed of an oncoming vehicle when overtaking	Error
Brake too quickly on a slippery road, or steer the wrong way in a skid	Error
Drive even though you realise you may be over the legal blood-alcohol limit	Violation

How did you do?

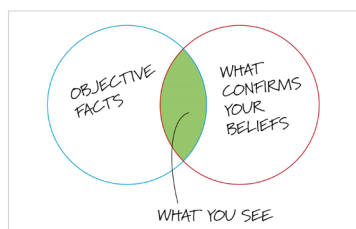
Look carefully at those areas that apply to you most often.

If you assessed yourself honestly, you'll know that thinking about why you have made a mistake or committed a violation is the first step to finding out how you can avoid this in the future.

Ask yourself: What are the circumstances under which I am more likely to commit errors and violations? Every time you make a mistake or commit a violation there is an opportunity to be a better driver by reflecting on the reasons why it happened. These are the triggers for self-reflection – the first step in developing safer driving habits by acknowledging your mistakes - not necessarily due to poor driving skills - but due to the belief that taking a risk is OK because your driving skills are above average.

When you understand how your beliefs about risk and confidence in your driving skills might influence your driving behaviour, then you can take steps to recognise this tendency when you're behind the wheel and you can make safer decisions.

1.3 Confirmation (What's Worked Before) Bias



Confirmation bias is the tendency to search for, and recall information in a way that supports your beliefs and values. Are you prone to confirmation bias when driving? Think carefully about the following driving scenarios and rate whether confirmation bias has affected any of your driving decisions in the last 12 months.

Driving Scenario

Yes / No

You believe it is OK to drive faster than others around you because nothing bad happens and everyone else does it.

You think it is OK to overtake on a bend because you know the road and there's hardly ever any oncoming traffic.

You drive really close to the car in front because this always gets them to move out of the way.

You cross a junction knowing that the traffic lights have already turned against you because there's plenty of time to make it across before the waiting traffic moves.

You don't stick to the speed limits late at night or very early in the morning because there's no police around and hardly any traffic.

How did you do?

Could you identify which scenarios might lead to confirmation bias? Think about the potential consequences of confirmation bias in this scenario. When you make decisions based on past experiences, you are taking a calculated risk. A risk is an event that “may” occur. The probability of something going wrong with your decision can range anywhere from just above 0% to just below 100%. The question is – do you feel lucky? The law of probability means that eventually, your luck will run out.

IMPROVE YOUR RISK

Confirmation bias increases your risk of being involved in a crash.

- Be aware of the different scenarios where you are most likely to make a decision based on confirmation bias.
- Consider the potential risks in these scenarios.
- Attend to information that might run contrary to your beliefs.
- Allow for a high chance that the scenario may not unfold as safely as you think it will.

1.4 Good Enough Bias



This is a bias in which you choose the satisfactory ‘good enough’ option, when choosing from different paths of action. Driving is a complex and difficult task at times, and you may develop a habit of putting in less effort and consider this to be acceptable. However, you take more risk when you are influenced by the Good Enough bias.

Think about each of the different examples below and honestly rate yourself for how frequently you do these things: -

	Not at all		All the time		
	0	1	2	3	4
Staying in the same lane when you should move left.					
Following the speed of the vehicle in front when you should be looking ahead to make your own decisions about speed.					
Not checking your mirrors as often as you should or when you should.					
Accelerate to get through traffic lights before they turn red to avoid the effort of having to stop.					
Cut across the corner rather than turn at right angles into a junction because it's less effort.					

	Not at all			All the time	
	0	1	2	3	4
Staying in the same gear when you should change up or down.					
Pay little attention to road signs.					

How did you do?

Look carefully at those areas where you have recognised that you may not drive to the best of your ability and think about the potential consequences. For example, staying in the same lane might mean putting in less effort, but it may also result in other road users becoming frustrated and overtake you at risk.

IMPROVE YOUR RISK

- Thinking your driving is good enough means you may not put in the required effort in driving. Reflect and acknowledge how this bias can affect your risk.
- Next time you have a near miss, consider what element of your driving needs to be improved.

For example

- Should you have changed lanes earlier?
- Should you have been checking your mirrors more?
- Should you have followed the road signs better?

Summary

Look again at the responses and ratings you gave for each of the four biases. Consider whether your probability of being involved in a crash is optimistic. Have you underestimated your risk?

Think about what the errors and violations you are likely to commit. For example, you tend to,

- Drive too fast for the circumstances and you may lose control of your vehicle.
- Use your mobile phone whilst driving and become distracted.
- Drive too close to other vehicles in a traffic queue and narrowly miss going into the back of another car.
- Emerge from junctions without looking out for fast moving vehicles in the far distance.

Once you have thought about these different kinds of scenarios, it is easy to discover how to reduce your risk. To be a better and safer driver, recognise your mistakes and think about how to make safer decisions every time you drive.

IMPROVE YOUR RISK

Biases in your beliefs about your driving skills are a common human tendency that we are mostly unaware of. Reflect and acknowledge how biased is your view of your own driving?

Next time another driver is aggressive towards you because you made a mistake, instead of automatically defending your actions, consider what element of your driving needs to be improved.

For example

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

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?

The next section of this workbook will help you to work out the stage of behaviour change you think you're at.

2.0 Changing Driver Behaviour

2.1 Changing Your Behaviour

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.

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."	

Read the next section to find out how the course will help you to develop and maintain safer driving habits.

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.

If you've had a relapse to old ways, it's because you are only human. Reflect, refocus and think positively about improving different aspects of your driving.

2.2 Visual Attention and Perception in Driving

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.

So 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.

2.3 Recognition Errors

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 prefers 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

Studies have shown that on average, drivers may spend just 0.5 seconds visually searching at junctions that we are familiar with, before emerging. Ask yourself, 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

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?

2.4 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.

2.5 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.

2.6 Driver Fatigue

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;

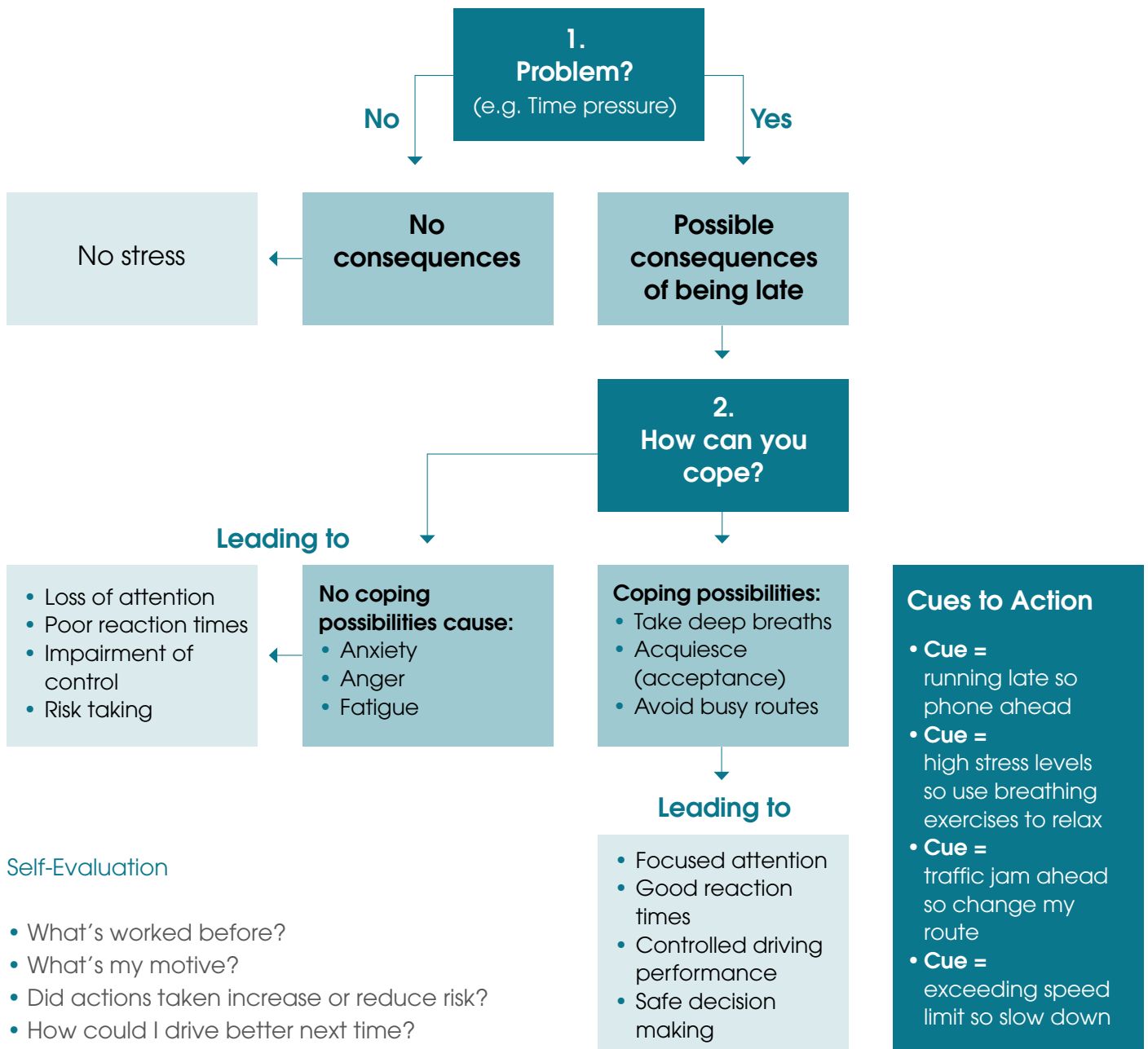
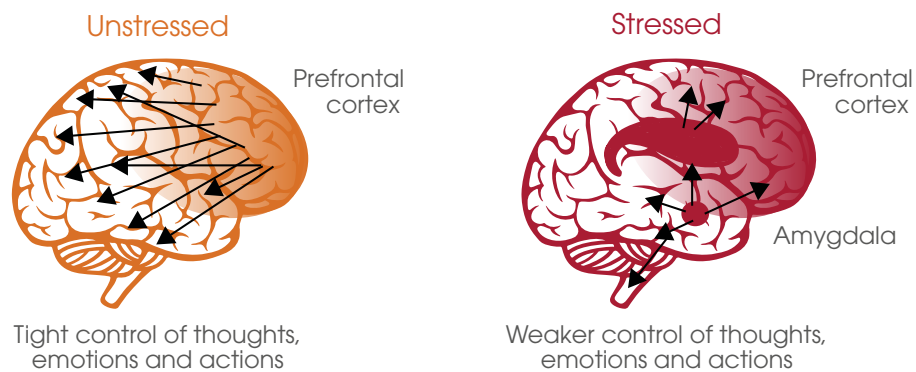
- Get annoyed with other road users and this distracts you
- Break the rules and drive too fast because you're annoyed with road users getting in your way
- Use coping strategies that are not effective for managing driver stress
- Continue to drive even when you know you are tired or sleepy
- Drive too 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.

2.7 Driver Stress



Self-Evaluation

- What's worked before?
- What's my motive?
- Did actions taken increase or reduce risk?
- How could I drive better next time?

3.0 Safer Driving Solutions

3.1 Coping Strategies - Keep Looking

Drivers looking for different kinds of hazards generally have a much lower risk of a crash than drivers who concentrate on one area. Effective observation helps you to spot more hazards, process information and stay aware of the traffic situation as it changes.

Effective observation is a continuous process and requires high levels of concentration. On every drive, a new view opens out in front of you constantly. You will need to look far, middle and near view, the sides and rear. This means that you will know where the areas of risk are all around you. Check and re-check these risk areas as the scene changes. Try not to focus too long on particular risk areas because this means that you might miss other areas that are also risky.

3.2 Commentary Driving

As a driver, you must process information from several different sources through different senses at the same time – assessing road conditions and traffic as well as navigating. Keeping your eyes moving is essential for situational awareness but sometimes the next step in being in control is required – especially when you're driving in a high-risk road environment in dense traffic. When your brain is required to process a lot of information, it can discard or forget new information from the road scene before it can be stored. If important information is filtered out, you might miss an unfolding hazard that can turn into a dangerous situation very quickly. Processing complex information can slow down your reaction times and you may fail to notice hazards. Distractions divert your attention from important driving-related information to other non-driving related matters.

One of the best strategies for concentrating and therefore being in control is to do a commentary drive. A commentary drive will help you to stay focused and to re-adjust your priorities as the situation develops. With practice you can learn to concentrate on the priorities. A running commentary means that you briefly say out loud the hazards you can observe and how you plan to deal with them. Hazards include road features such as junctions, other road users and road signs. Hazards should be prioritized according to their danger including how close it is to you, whether the hazard is stationary or moving and how fast you are approaching it.

By taking on board the information covered in this workbook, you can meet the challenge of changing your driving behaviour and improving your driving abilities. Imagine how good you will feel when you are driving safer with the confidence of knowing that you are driving within the law. All you must do is become more aware of your errors and violations and the circumstances under which you are taking risks due to stress and/or frustration. If you can do this you can change your driving habits.

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

SUMMARY:

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

3.3 Life Choices and Planning

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.

SUMMARY:

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?

3.4 Your Action Plan

MY GOAL IS:

.....

To achieve this, I will:

.....

My plan might not work because:

.....

The coping strategies I will use to 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.