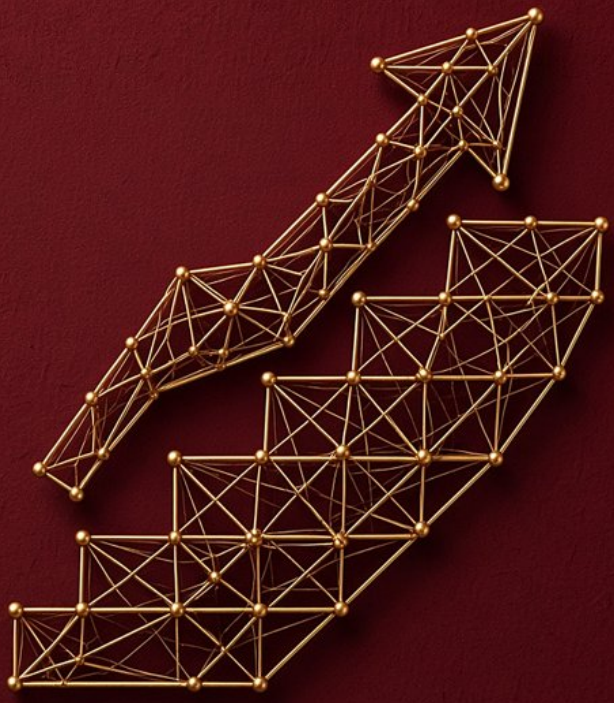
CLEVERINI SERIES

ACTION
PRACTITIONER GUIDE



Understanding, Developing and Improving Your Ability to Act

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MINDCRAFT INC.

Action Practitioner Guide

Understanding, Developing and Improving Your Ability to Act

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About This Book

Most of us know the feeling. You decide to do something, the day fills up, and by evening it is still not done. Or you make a good start, and then the task sits half finished for weeks. **That gap between meaning to act and acting** is common (Sheeran, 2002; Webb & Sheeran, 2006), and it is where this book works. It helps you understand your ability to act and make it stronger.



A kitchen table with a handwritten to-do list, a pen and a mug, with one line on the list ticked off.

Who this book is for

This book is for anyone whose plans stall between the idea and the deed. **Students, people at work, parents and older adults** can all use it, because you practise every method on your own tasks. You need no special background, only one real thing you want to get done. Along the way you will practise getting started, keeping going when a task gets hard, changing course when something is not working and seeing a task through to the end.

How to use the methods, exercises and practical challenges

Each module teaches methods you can use on almost any task, such as deciding in advance exactly when and where you will start. A short exercise follows, so you can try the method straight away in a few minutes. The practical challenges then ask you to use it on real tasks from your own week. If you like a steady plan, the twelve-week program and the practitioner levels in Module 10 give you an order to work in and a way to see how far you have come.

The first method deals with the moment of starting. A plan such as "I'll do my revision this week" leaves the real decision for later, and later the moment slips past. An if-then plan makes that decision now. It names a moment and the first thing you will do when it comes, such as "If it's 7 pm, then I'll sit at my desk and open my notes." When 7 pm arrives, you already know what to do and do not have to decide all over again.

> Science Says:
>
> Across 94 tests of if-then plans, **people who made a plan reached their goals more often** than people who only meant to act (Gollwitzer & Sheeran, 2006).

> Exercise:
>
> Try it. Pick one task you have been putting off. **Write one if-then plan for it** that names the time, the place and the first small step (Gollwitzer, 1999). Use the form "If [this situation happens], then I will [take this first step]."

Try each method on your own tasks and keep the ones that work for you.

Keep a written record as you go. An analysis that combined many experiments found that **checking your progress towards a goal helps you reach it** (Harkin et al., 2016). A notebook or a page at the back of this book is enough.

Give new routines time. In one study of daily health habits, **a routine came more easily the more often a person repeated it** (Lally et al., 2010). Some routines settled in under three weeks, and others took more than eight months, depending on the person and the habit. So if a new routine still takes effort after a few weeks, keep repeating it and keep marking it in your record.

How ACTION connects with the other basic mental abilities

In Cleverini, we believe **our mental abilities work together**, and strengthening one can support the others. Cooking a new recipe is a good example. You read the recipe, keep your eyes on the pan, remember how hot your oven runs, work out the order of the steps and swap in an ingredient you lack. These abilities work together while you prepare the meal.

Each of those steps draws on a different mental ability. Reading the recipe uses extractivity, watching the pan uses attention, remembering your oven uses memory, working out the order uses intellect and swapping the ingredient uses creativity. Action means carrying out the steps: measuring, mixing and cooking.

This series covers six basic mental abilities, and **action is the sixth**. Each of the other five has its own book, with a definition in that book's own words. The table gives each definition and the section of Module 2 that links it to action.

Table: The other five basic mental abilities

Ability	Definition in its own book	Where Module 2 links it to action
Extractivity	"taking in information fast, clearly and systematically, whether visual, audio or text"	2.1, gathering information for action
Attention	"Attention means choosing what is important and staying with it."	2.2, selecting and controlling actions
Memory	"Memory is the thinking ability to take in, keep and bring back information and experiences."	2.3, using experience, knowledge and learned procedures
Intellect	"Intellect: solving tasks where the variables are identified."	2.4, planning, deciding and solving problems
Creativity	"Creativity is solving tasks where the variables are not identified."	2.5, finding new ways to act

Module 2 follows each link in turn, and **section 2.6 combines all six abilities**. The book's own definition of action comes in section 1.1.

You can read the other books in any order. **Each one trains its own ability**, and this book shows where that ability feeds into what you do

next. Start here with one real task, and bring the other abilities in as Module 2 introduces them.

Key idea:

Practise on your own real tasks, keep a record of your progress and give new routines time.



Module

1

Understanding Action

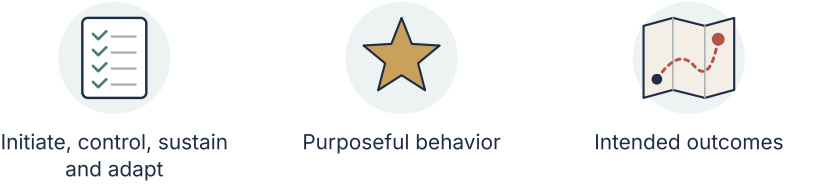
1.1 What We Mean by Action: From Intention to Result

On Sunday night you decide to fix your bike's flat tyre this week. On Friday the bike is still in the shed, and the tyre is still flat. You had the plan, but **the job never got done**.

This whole book is about that gap between a plan and a finished job. The ability to get across it is what I call **action**.

> 🔑 **Key Concept:**
>
> The working definition. **"Action is the ability to initiate, control, sustain, and adapt purposeful behavior to achieve intended outcomes."**

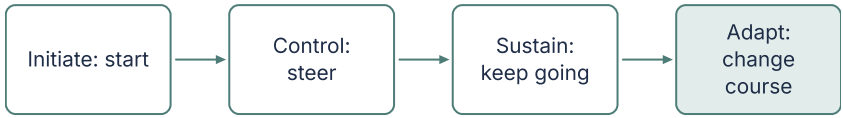
The working definition



ACTION = The ability to turn intentions into results. An intention is a plan in your head, like fixing the bike this week. A result is what really happens, like riding the bike to school on Monday.

The long definition has four doing words. **Initiate, control, sustain and adapt** are longer ways to say start, steer, keep going and change course.

Four doing words



The bike job takes **all four**. You start by getting the tools out. You steer the patch on straight and keep going while the glue dries. If the hole is too big to patch, you change course and buy a new inner tube.

Action is one of six basic mental abilities in this series. Each ability has **its own main job**.

Table: What makes ACTION a separate basic mental ability?

Ability	Fundamental function
Extractivity	Acquire information
Attention	Select and focus
Memory	Store and retrieve information
Intellect	Solve problems with identified variables
Creativity	Solve problems with unidentified variables
Action	Execute intentions and produce results

All six help with the bike. You watch a how-to video (Extractivity) and keep your eyes on the hole (Attention). You hold the steps in your head (Memory) and work out which patch fits (Intellect). With no patch at all, you would invent a fix (Creativity). These abilities work together while you do the job, and action means **carrying out the steps**: taking off the wheel, pressing on the patch and pumping up the tyre.

Action itself has **five parts**. The first is self-regulation. It means keeping yourself in check and pushing past the part of you that does not want to. It is what switches off the TV and sends you out to the shed.

Table: The five components of action

Component	What it does
Self-regulation	Control behavior and overcome internal resistance.
Execution	Perform actions accurately and efficiently.
Persistence	Sustain effort despite difficulties.
Adaptation	Correct behavior based on feedback.
Completion	Bring actions to their intended conclusion.

The other four parts carry the job through. Execution is doing each step well, without wasted time. Persistence keeps your effort up when the tyre will not come off the wheel. Adaptation is trying something else when a step is not working, and completion takes the job all the way to the end.

Even a job done well can miss the result you wanted. The doing and the result are **two different things**.

> 🗝 **Key Concept:**
>
> Important distinction. **"Action is not the result itself.** A person can act effectively and still fail because of circumstances beyond their control."

You patch the tyre well and ride off on Monday. Ten minutes later you roll over a nail, and the tyre is flat again. Your patch was still a good patch. **Judge yourself by what you did**, and use the result as a clue for next time.

Action and its result

	The action	The result
Flat tyre	You patch the tyre well	You roll over a nail, and the tyre is flat again
How to use it	Judge yourself by what you did	Use the result as a clue for next time

In the opening example, the tyre was still flat on Friday. A whole week passed between the Sunday plan and the job that never happened, and that week is the gap between meaning to do something and doing it. Wanting the job more gets you **only part of the way**.

> **Science Says:**
> In 47 tests, people were encouraged to want to do something more. **What they meant to do changed a lot**, but what they actually did changed less (Webb & Sheeran, 2006).

Heckhausen and Gollwitzer (1987) described two states of mind on the way from wishing to doing. They are like the two banks of **a river**. On the near bank you are still choosing, for example between fixing the bike and going to football. Once you choose, you cross the river. On the far bank your mind turns to how and when.

A river with two banks (Heckhausen & Gollwitzer, 1987)

The idea		What it is like
You are still choosing	≈	The near bank
Your mind turns to how and when	≈	The far bank



A small footbridge over a stream, with a walker's boots on the near bank.

Your bike plan crossed the river on Sunday night, when you chose to fix it. Then it got stuck on the far bank, because it had **no when and no where**.

An if-then plan gives it both (Gollwitzer, 1999). It ties one moment to one thing you will do, such as "If it's Saturday after breakfast, then I'll take the patch kit to the shed." When breakfast is over, you already know what comes next.

An if-then plan (Gollwitzer, 1999)



You wrote one of these plans in About This Book, for a task you had been putting off. The exercise below looks at all of last week's plans and what became of them.

> Exercise:
>
> From plan to result.
>
> 1. Starter. **List last week's plans** and tick the ones you did.
> 2. Middle. Pick one plan you missed. Write what you want and the day it will be done by.
> 3. Advanced. Write the best outcome you hope for. Then write what stands in your way today. Then decide if you will go for it.
>
> Ideas from Locke and Latham (2002) and Oettingen and colleagues (2001).

From plan to result

- [x] Starter: list last week's plans and tick the ones you did
- [x] Middle: write what you want and the day it will be done by
- [x] Advanced: the best outcome, what stands in your way, then decide

Pick the plan you have put off the longest. Then **give it a when and a where**, the way the bike got Saturday after breakfast in the shed.

Key idea:

ACTION = The ability to turn intentions into results, and an if-then plan gives each plan its when and where.

1.2 The History, Psychology and Science of Action

A small act, like getting out of bed, can feel hard on some mornings and happen by itself on others. Psychologists have tried to explain that difference for more than a century. Their ideas begin with the thoughts in your head and move out to your surroundings, the people around you, your belief in yourself and what keeps you going.

In 1890, the psychologist William James wrote, **"We know what it is to get out of bed on a freezing morning in a room without a fire"** (James, 1890). He noticed that **the struggle often ends without any decision**. In his words, "we more often than not get up without any struggle or decision at all. We suddenly find that we have got up" (James, 1890).

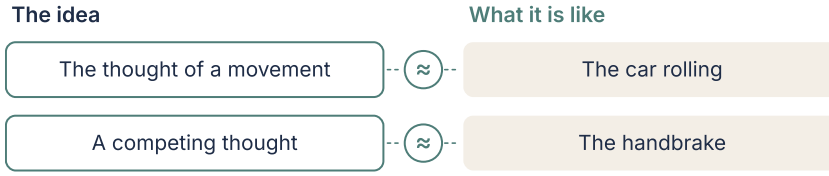


A cold bedroom at dawn, with a duvet thrown back and a pair of slippers waiting on the rug.

James called this **ideo-motor action** (James, 1890). When you think of a movement, the thought alone can start it straight away.

It works like a car on a slope. **The thought of a movement sets the car rolling**, and it keeps rolling unless a competing thought holds it back (James, 1890). That competing thought is the handbrake. On a hard morning, thoughts of the cold room keep the handbrake on.

The car on a slope (James, 1890)



> Exercise:
>
> Try it. Tomorrow morning, **notice the moment the thought "I must get up" arrives, and get up on that thought** before a second thought joins it. This exercise is adapted from James (1890).

James looked inside the mind. Later thinkers looked at the person's surroundings as well. In 1936, Kurt Lewin argued that **what a person does depends on the person and on their surroundings at the same time**, and that the balance between the two changes from case to case (Lewin, 1936). He wrote it as a short formula, B = f(PE), where B stands for behaviour, P for the person, E for the environment and f for "depends on".

Lewin's B = f(PE)



B: behaviour



P: the person

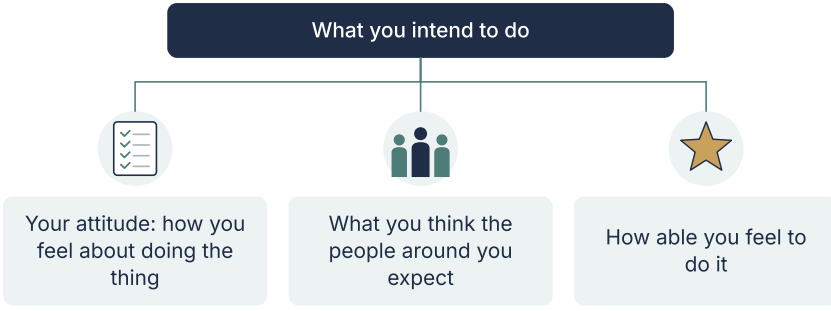


E: the environment

A plan to go for a run depends on you, and also on **the rain and where your shoes are**. Some days the person side weighs more, and some days the surroundings do (Lewin, 1936).

Your surroundings include other people. In 1991, Icek Ajzen set out the **theory of planned behaviour**, which says three things shape what a person intends to do (Ajzen, 1991). The first is **your attitude**, how you feel about doing the thing. The second is what you think the people around you expect. The third is how able you feel to do it. Ajzen (1991) added that your intention, together with how able you feel, goes a long way towards explaining what you actually do.

Theory of planned behaviour (Ajzen, 1991)



How able you feel had already been studied by Albert Bandura, who called this belief in your own ability **self-efficacy** (Bandura, 1977). He argued that it affects whether you start, how much effort you put in and how long you keep going when things get hard.

Bandura (1977) named four places this belief comes from. They are **your own past successes**, watching others succeed, encouragement from other people and how your body feels.

Four sources of self-efficacy (Bandura, 1977)

Where the belief comes from
Your own past successes
Watching others succeed
Encouragement from other people
How your body feels

Ryan and Deci (2000) asked what keeps people acting of their own accord. Their **self-determination theory** says people stay motivated from within when three needs are met, **feeling able, feeling that the choice is yours and feeling close to others**. Meeting these needs also goes with better mental health (Ryan & Deci, 2000).

Three needs (Ryan & Deci, 2000)



Self-control, the ability to steer what you do, matters over a whole life as well as on one morning. A study that followed 1,000 children from birth to the age of 32 found that **children with more self-control tended to grow into adults with better health and finances**, and with fewer problems with drugs, alcohol and crime. The more self-control a child had, the better the adult outcomes tended to be, step by step along the scale (Moffitt et al., 2011).

Exercise:

Look at one action you keep putting off.

1. Starter. **List what belongs to you and what belongs to your surroundings**, as in Lewin's person and environment (Lewin, 1936).
2. Middle. Rate from 1 to 5 your attitude, what others expect and how able you feel (Ajzen, 1991).
3. Advanced. Write one past success, one person who did it, one encouragement and one note on your body's state (Bandura, 1977).

Pick the part with the lowest score or the weakest line, and change that one first. Then see if the action starts more easily.

Person or surroundings?

- [x] Starter: list what belongs to you and what belongs to your surroundings
- [x] Middle: rate from 1 to 5 your attitude, what others expect and how able you feel
- [x] Advanced: one past success, one person who did it, one encouragement, one note on your body's state

Key idea:

Behaviour depends on the person and on the environment (Lewin, 1936), so when an action stalls, change one part of either and try again.

1.3 Types of Action and What Makes Action Effective

Making a cup of tea can be described as one action or many. You could say you are filling a kettle, making tea or looking after a guest. **The same action can be described at different levels**, and each level tells you something different about it.



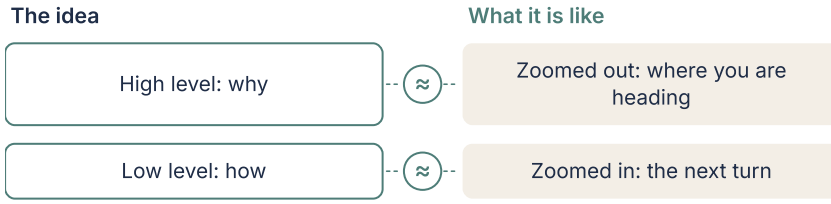
A kettle on a kitchen counter beside two mugs and an open box of tea bags.

Vallacher and Wegner (1987) pointed out that **any action has many names**. Some sit at a low level and describe how you do it, like filling the kettle. Others sit at a high level and describe why, like looking after a guest.

It works like the zoom on a map. **Zoomed out, you see where you are heading, and zoomed in, you see the next turn.** They also found that when an action becomes hard to keep up, people tend to drop to

the lower level and think about how they are doing it. When a task gets hard, look at the next small step.

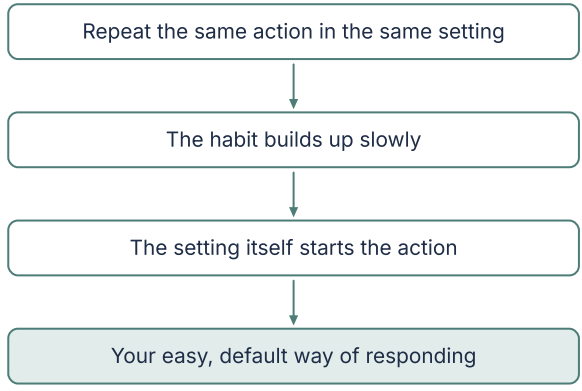
The zoom on a map



A second way to sort actions is by **habit and choice**. A choice is something you decide each time. A habit forms when you repeat the same action in the same setting, such as the same place, the same time of day or straight after the same activity, until the setting itself starts the action (Wood & Neal, 2007). In time it becomes your easy, default way of responding (Wood & Rünger, 2016).

It works like a path across a lawn. The more often you walk the same line, the clearer the path. Habits build up slowly in the same way (Wood & Neal, 2007).

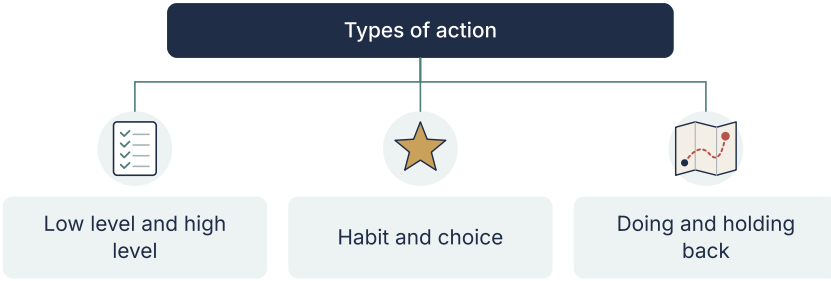
How habits form (Wood & Neal, 2007; Wood & Rünger, 2016)



> **Science Says:**
> In two studies where people noted what they were doing every hour, **people doing habitual things often thought about something else**, and they felt less stressed than when they were doing things that were not habits (Wood et al., 2002).

A third way to sort actions is **doing and holding back**. Saying no to a second biscuit is an action too. A large review of 102 studies with more than 32,000 people found that people with more self-control did somewhat better at both, doing the things they meant to do and holding back from the things they meant to avoid (de Ridder et al., 2012). The link was strongest for actions that run without much thought, such as habits.

Three ways to sort actions



Those three ways of sorting describe what kind of action you are taking. The rest of this section turns to how well an action goes. It looks at five things that make a difference, starting with the balance between speed and care and moving on through goals, tracking, feedback and practice.

Speed and accuracy pull against each other. Heitz (2014) calls this one of the most common patterns in how people behave.

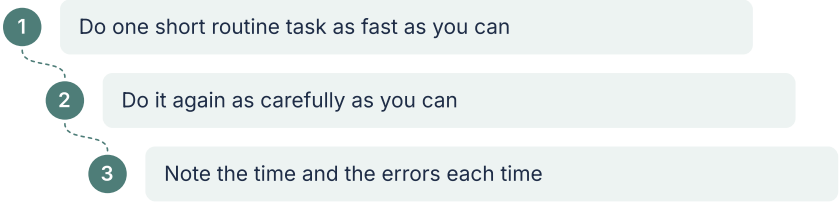
The speed-accuracy tradeoff (Heitz, 2014)



Speed and care sit at two ends of a seesaw, so when one goes up the other tends to go down (Heitz, 2014). **When you push for more speed, expect more errors**, as anyone who has typed a quick text message knows. Each task needs its own balance of the two.

> Exercise:
>
> Try it. Do one short routine task twice, **once as fast as you can and once as carefully as you can**, and note the time and the errors each time. This exercise is adapted from the speed and accuracy tradeoff in Heitz (2014).

Fast, then careful



A clear goal is the next tool. Locke and Latham (2002) found that **specific, hard goals** led to better work than simply telling people to do their best. The pattern held across many studies.

A specific goal names a clear target, such as ten pages by Friday. Locke and Latham (2002) also set limits, since a goal helps when you have the ability for it and are committed to it.

Specific, hard goals



Led to better work than simply telling people to do their best



The pattern held across many studies



Helps when you have the ability for it and are committed to it

Tracking keeps the goal in view. About This Book asked you to keep a written record, and the experiments behind that advice found that **checking your progress helps you reach a goal** (Harkin et al., 2016).

Feedback is less simple. On average it helps people improve, yet in a large review **more than a third of feedback attempts made performance worse** (Kluger & DeNisi, 1996). The same review found that feedback tends to help more when it keeps your attention on the task, and less as it turns towards you as a person.

> Exercise:
>
> Try it. After your next task, **write or ask for one piece of feedback that names a step of the task** and says nothing about you as a person. This exercise is adapted from the feedback review by Kluger and DeNisi (1996).

Practice is the last part. Ericsson and colleagues studied **practice set up on purpose to improve**. They argued that many abilities once put down to natural talent come from intense practice over at least ten years (Ericsson et al., 1993).

A later review that combined many studies tested that claim. **Practice explained about a quarter** of the differences in how well people played games, about a fifth in music and less than one per cent in jobs

(Macnamara et al., 2014). Practice matters a lot in some fields, and other things play a part too.

Practice explained about a quarter (Macnamara et al., 2014)

	Games	Jobs
Practice explained	About a quarter of the differences	Less than one per cent

In Cleverini, we organise the practice in this book around eight core skills of action. Speed and precision, the two sides of the balance you met earlier, are two of them.

> **Key Concept:**
>
> The eight core skills. **Module 3 trains initiation, self-control, persistence, courage, speed, precision, adaptability and completion.**

> **Exercise:**
>
> Pick one goal you want to reach this month.
>
> 1. Starter. **Write one task at the how level and at the why level**, and drop to the how level when it gets hard (Vallacher & Wegner, 1987).
> 2. Middle. For one day, note each hour whether what you were doing ran on habit or by choice (Wood et al., 2002).
> 3. Advanced. Once a week, record your progress on the goal (Harkin et al., 2016).

Use the hourly log to notice which parts of your day run on habit.

Your goal this month

- [x] Starter: one task at the how level and at the why level
- [x] Middle: for one day, note each hour: habit or choice
- [x] Advanced: record your progress on the goal once a week

Key idea:

Set a specific goal, record your progress each week and drop to the how level when the task gets hard (Locke & Latham, 2002; Harkin et al., 2016; Vallacher & Wegner, 1987).



Module

2

How Action Works with the Other Basic Mental Abilities

Module 1 described action as the ability to turn intentions into results. Few real tasks use action alone. Booking a trip, fixing a bike or finishing a school project also means finding information, keeping your mind on the right step, remembering how things were done before and working out a plan. **Module 2 shows where each of the other five basic mental abilities feeds into what you do**, with one practical method for each link.

The first five sections take one ability each. Section 2.1 covers Extractivity and how to gather only the information an action needs. Section 2.2 covers Attention, which picks the action to do now and keeps it going. Section 2.3 turns to Memory, which brings what you already know and the routines you have learned into a new task.

Section 2.4 covers Intellect, which you use to plan and decide, and section 2.5 covers Creativity, which helps when the usual way of acting does not work. Section 2.6 then puts all six abilities together on whole tasks, since real work rarely uses one ability at a time.

Each ability has its own book in this series, and this module uses only the part of each that helps you act. Each section has a worked example, an exercise you can try on a task from your own week, and a description of what a successful attempt looks like.

2.1 Extractivity: Gathering Information for Action

Sam is twelve and wants to join a summer swimming club. Sign-up closes on Friday. The club's website has a twenty-page information pack, a price list and a news page, and a quick search also turns up a forum post saying the pool will shut in July for repairs. Sam could try to read all of it before deciding. To act well, **you need the information your next step depends on**, and you can stop gathering once you have it. This section shows how Extractivity, the ability to take in information, helps you find that information quickly and check it before you act.

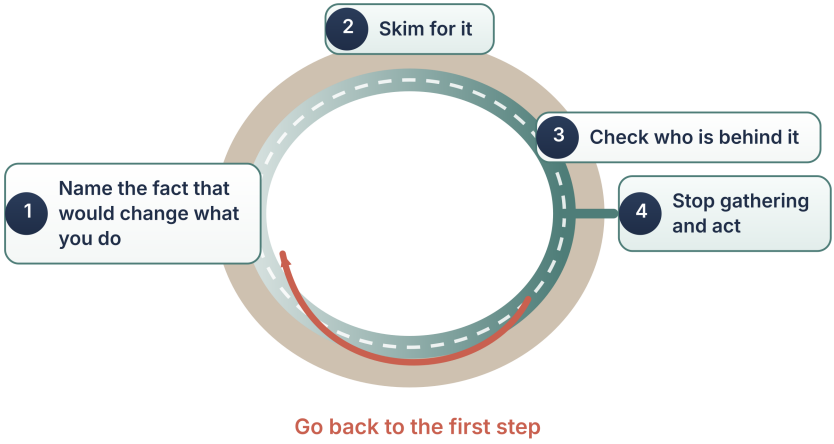


In the six basic mental abilities, Extractivity is the one that takes information in, and Action is the one that turns intentions into results. The Extractivity book describes extractivity as taking in information quickly, clearly and in an orderly way, whether you see it, hear it or read it. When you are about to act, the job is narrower. Sam only needs

enough to decide whether to sign up for the weeks he is free, which are the first three weeks of July.

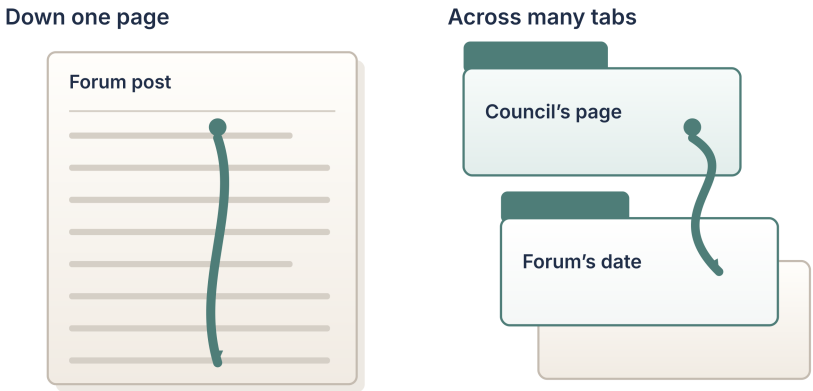
Gathering more is tempting because it feels safe, yet every page has a cost. Herbert Simon (1971) made this point about organisations: when information is plentiful, attention is what runs short, so people have to choose where to spend it. Eppler and Mengis (2004) later reviewed research on information overload from several fields, including accounting and marketing, and gathered what is known about its causes and effects and the ways people try to reduce it. For Sam the cost is simple. Each extra page he reads is time taken from deciding, and Friday is coming.

The method has four steps, and each one keeps the gathering tied to the action. The first step is to **name the one fact that would change what you do**, before you look anything up. For Sam that fact is whether the pool is open during his three weeks in July. If it is open, he signs up. If it is closed, he looks for another club. The colour of the swimming caps and the history of the club can wait.



The second step is to **skim for that fact and read closely only the part that holds it**. Rayner and colleagues (2016) reviewed research on reading and found that speed and depth trade off, so reading faster costs understanding. Skimming still gives moderate understanding of a text when full understanding is not the goal. Sam's goal is one fact, so skimming suits it. He runs his eye down the headings of the pack, stops at "Summer timetable" and reads that page slowly. It lists sessions on every weekday in July.

The timetable and the forum post now disagree, so Sam needs the third step, which is to **check who is behind a claim before you act on it**. Wineburg and McGrew (2019) studied how professional fact checkers judge information on the web. The fact checkers left the page and opened new tabs to see what other sources said about who was behind it. This habit is called lateral reading, because you read across many tabs instead of down one page. Students can learn it in a short time. Two 75-minute lessons improved university students' checking (McGrew et al., 2019), and so did an online course (Breakstone et al., 2021).



Wineburg and McGrew also noticed that the fact checkers looked over the whole list of search results before they clicked anything, a habit they

called click restraint. It has not been tested on its own, so treat it as a sensible habit taken from experts. Sam tries both. In the results he sees the forum post and, further down, the local council's page for the pool, which runs it. The council page shows the pool open all summer, and the forum post turns out to be two years old.

The fourth step is to **stop gathering and act**. Sam now has the fact his choice depended on, and it comes from the people who run the pool. Reading the remaining nineteen pages would not change what he does, so he fills in the form on Thursday evening. Stopping is part of the skill. Gathering that goes on after the deciding fact is found delays the action and spends attention the next steps will need.

The exercise below trains these steps on a real choice you have coming up. Its purpose is to make the steps quick enough that you use them without a list. Pick something small, such as which bus to take, whether a shop is open or which of two games to buy with your own money, and work through it once this week.

> Exercise:
>
> Gather for the action.
>
> 1. Before you look anything up, **write the one fact that would change what you do.** Gather that fact, then stop gathering. Adapted from Simon's (1971) point that attention has to be shared out among sources.
> 2. Skim the material for that fact, then read only the part that holds it closely. Adapted from the review of skimming and reading speed by Rayner et al. (2016).
> 3. If the fact comes from a web page, open a new tab and check who is behind the source before you act on it. Adapted from **lateral reading** as described by Wineburg and McGrew (2019).

4. Act, and note how long you spent between starting to look and acting.

You can tell the attempt worked when you can say in one sentence which fact your action depended on, where you found it and who stands behind that source. A second sign is that you stopped reading once you had the fact, even though more material was left. Over several tries, the time you noted in the last step should get shorter while your choices stay sound. If you keep reading after the fact is found, or open the first search result without looking at the others, go back to the first step and write the fact down again.

Key idea:

Name the fact that would change what you do, skim for it, check who is behind it and then act (Simon, 1971; Rayner et al., 2016; Wineburg & McGrew, 2019).

2.2 Attention: Selecting and Controlling Actions

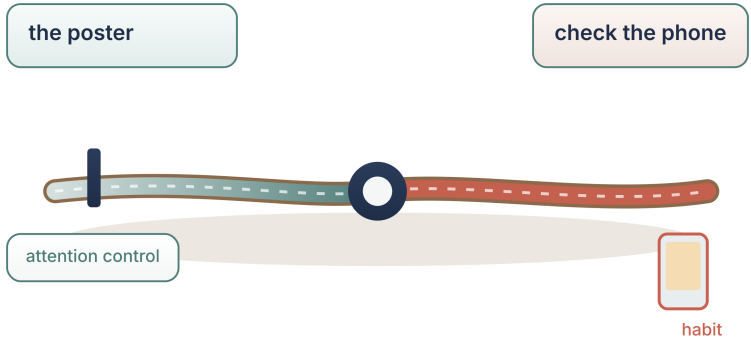
Lena is thirteen and has one Saturday afternoon to finish a science poster about how plants carry water. Her phone lies beside the glue stick, her younger brother keeps coming in with questions, and at five o'clock she has to cycle to a friend's house to print the title. At any moment she could glue a label, check the phone, help her brother or set off early. **Attention decides which of those actions happens now and keeps it going** until it is done or until she chooses to stop. This section shows how attention selects and controls actions, and it gives three short plans for the moments when that control slips.



The Attention book defines attention as choosing what is important and staying with it. Both halves matter for action. Choosing is selection, so of everything Lena could do at three o'clock, the poster gets her hands. Staying is control, so the poster keeps her hands when the phone buzzes. In section 2.1, Extractivity brought in the information an

action needs. Attention works on the next stage, picking which possible action gets carried out and guarding it while it runs.

Control is needed most when an old habit points one way and the task points another. Burgoyne and Engle (2020) describe attention control as what lets people keep to a goal despite distractions and temptations, and step away from what they would usually do. Engle (2002) had argued earlier that this kind of control matters most when a habitual response clashes with the task in hand. Lena's habit is to pick up her phone whenever it lights up. Gluing labels takes little effort while the phone is quiet, and **control is needed at the moment the screen lights up and the habit pulls her hand towards it**.



A common answer to that pull is to do both at once. In one study of adults, the people who multitasked most often tended to be worse at it when tested, and people on average rated their own multitasking skill higher than it was (Sanbonmatsu et al., 2013). It was a single study that measured links, so it describes a tendency in that group. For Lena, gluing with one hand while texting with the other would leave two actions half done.

The cost is easiest to see when the action is moving through traffic. Caird and colleagues (2014) combined 28 experiments, most of them in driving simulators and labs, and found that typing or reading text messages while driving harmed nearly everything they measured, from where drivers looked and how fast they reacted to how often they crashed. Lena does not drive, but on her ride at five o'clock the same rule applies. The first plan is to **put the phone out of reach before you move**, so Lena replies only after she has stopped.

The second plan is for a distraction you can see coming. Gollwitzer and Sheeran (2006) combined many studies of if-then plans, which name a situation and the action you will take when it arrives. Such plans helped people start on their goals, and they also helped shield a goal from distraction. Lena expects the phone to buzz, so she writes, "If my phone lights up, I will turn it face down and glue the next label." When the buzz comes, the decision has already been made, and her hand has somewhere to go.

The third plan is for an interruption you cannot or should not refuse. Her brother asks for help with his spelling, and helping him is the right action at that moment. Leroy and Glomb (2018) ran four studies on interrupted work. People who wrote a brief ready-to-resume plan, noting where they had stopped and what came next, were less distracted by thoughts of the unfinished task and did better on the task that interrupted them. All four studies come from one paper, so the result is a good lead that other researchers have still to repeat. Lena writes "Stopped at: roots label. Next: stem arrow" on a sticky note, gives her brother her full attention and then picks up the poster at the stem arrow.



The exercise below trains the three plans on one task of your own. Its purpose is to make each plan ready before the moment it is needed, because the moment itself is when attention control is hardest. Choose a task of about an hour that usually gets broken up, such as homework, a work report or tidying a room, and try the exercise on it this week.

Exercise:

Protect one action.

1. Before you start, name the distraction most likely to pull you away and **write an if-then plan for it**: "If [the distraction] comes, I will [the step that takes you back to the task]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).
2. If you have to switch away, first write one line saying where you stopped and what the next step is. Adapted from the ready-to-resume plan in Leroy and Glomb (2018).
3. If the task includes driving or cycling, put the phone out of reach before you set off and reply only after you stop. Adapted from the texting and driving meta-analysis by Caird et al. (2014).

You can tell the attempt worked when the distraction you named arrived and you followed your if-then plan without having to decide again. A second sign is that after an interruption you restarted from your note without searching for where you had been. Over a week, count how often you followed each plan and how often you did not, and rewrite any if-then plan you keep breaking so that it names a smaller, easier step back to the task.

> **Practice in play:** *The Cleverini games Goalkeeper, Figures and Lighthouse practise self-control, and Switcheroo practises switching between rules. Their scores show progress in the game only and are neither a test of ability nor a diagnosis. A large review found good evidence that brain-training programs improve the trained tasks and little evidence that the gains reach everyday life (Simons et al., 2016), so use the three plans for real tasks.*

Key idea:

Before a task, decide how you will handle its most likely distraction and interruption, and keep the phone out of reach while you move (Gollwitzer & Sheeran, 2006; Leroy & Glomb, 2018; Caird et al., 2014).

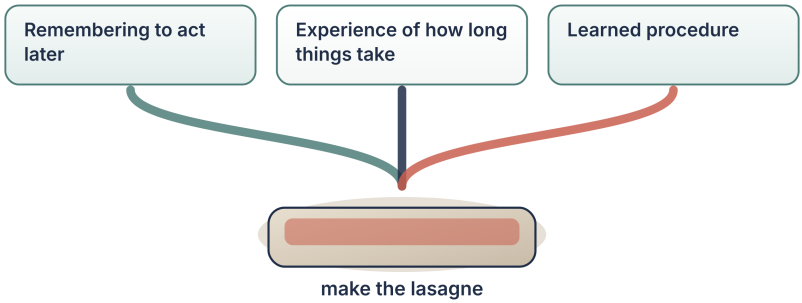
2.3 Memory: Using Experience, Knowledge and Learned Procedures

Omar is twelve and has offered to cook dinner for his family on Sunday. He plans to make the lasagne his uncle taught him a month ago, and he has done it once. To pull it off he has to remember to buy cheese on Friday, guess how long the cooking will take so dinner is ready at seven, and get the steps in the right order without his uncle beside him. Each of those jobs runs on memory, and **each can be prepared before the moment you need it**. This section shows three ways memory feeds an action, with a method for each.



The Memory book defines memory as the thinking ability to take in, keep and bring back information and experiences. In section 2.1, Extractivity gathered new information for an action, and in section 2.2, attention chose the action and kept it going. Memory brings what you already have, which for Omar means what he saw his uncle do, how long it took them, and the plan to shop on Friday. Those three kinds of

stored material are used in different ways, so this section takes them one at a time.



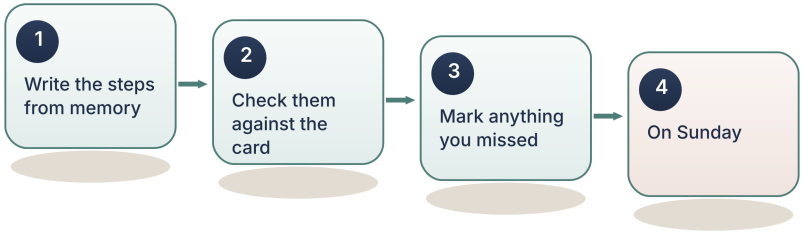
The first is remembering to act later. Omar decides on Wednesday to buy cheese on Friday, and on Friday the decision has to come back by itself at the right moment. Psychologists call this prospective memory. Einstein and McDaniel (2005) argue that people often notice an event around them and recognise it as the cue for something they meant to do, and that some of this recall happens by itself when the cue appears. For action, the useful part is the cue. An intention is easier to carry out when it is **tied to something you will see at the right time**. Omar ties the cheese to the corner shop he passes on the walk home from school. In section 2.2, an if-then plan shielded a task from distraction, and the same format works here (Gollwitzer & Sheeran, 2006): “If I reach the corner shop on Friday, I will go in and buy the cheese.”

The second kind of stored material is experience of how long things take. Buehler, Griffin and Ross (1994) asked people to predict when they would finish tasks. Across five studies, the guesses were too hopeful. People thought mostly about how the task would go in future and paid little attention to how similar tasks had gone before. In one of the studies, people who were asked to connect their past experiences to the new prediction no longer showed the optimistic bias. The studies

are all from one paper, so treat the fix as a strong hint and keep checking it against your own record. Omar's first guess is an hour. When he recalls the first time, he remembers that the sauce alone took forty minutes and the whole meal close to two hours, so he starts at five.

The third kind is learned procedure, the steps you know how to do. Some steps become habits. Wood and Rünger (2016) describe habits as responses people repeat in the same setting while pursuing a goal, until the setting starts the response and it becomes the easy default. Omar already washes his hands and turns the oven on as soon as he walks into the kitchen to cook, so those steps take care of themselves. Experience also changes what a person sees. Chase and Simon (1973) found that chess masters recalled real game positions far better than weaker players, while for pieces placed at random the masters did no better. Their stored experience let them see a real position as a few meaningful groups, and later researchers disputed some details of how big those groups are. Omar's uncle looks at the counter and sees the next step. Omar, with one attempt behind him, still sees separate jars and pans.

Steps you have done only once fade, and there is a way to keep them ready. Roediger and Karpicke (2006) had students either reread a passage or test themselves on it. On a test a few minutes later rereading did better, but after a delay the students who had tested themselves remembered much more, even though rereading had made the other group feel more confident. The result comes from one paper and was tested on reading, so applying it to a procedure is the book's own step. On Saturday evening Omar writes the lasagne steps from memory without looking at the card. Then he checks them against the card and finds he had left out salting the pasta water.



On Sunday the three preparations meet. The cheese is in the fridge because the corner shop reminded him, the start time came from his memory of the first attempt, and the recall test on Saturday caught the missing step. Dinner is on the table at seven.

The exercise below puts the three methods on one real task you have coming up. Its purpose is to prepare memory before the action, while there is still time to fix a gap. Choose something you do only now and then, such as a recipe, a bike repair or a weekly report, and start the exercise a day or two before you need it.

> **Exercise:**
>
> Prepare memory for one task.
>
> 1. For one thing you have to do later, **name the place or event where you will meet the cue**, and write it as a plan: "If [the cue], I will [the action]." Adapted from Einstein and McDaniel (2005) and the if-then plans of Gollwitzer and Sheeran (2006).
> 2. Before you estimate how long the task will take, write down how long the last similar task took. Adapted from Study 4 of Buehler, Griffin and Ross (1994).

3. The day before, write the steps of the task from memory, then check them against your notes and mark anything you missed. Adapted from the self-testing study by Roediger and Karpicke (2006).

You can tell the attempt worked when the cue reminded you and you did the task without a phone alarm or someone telling you. A second sign is that your time estimate, built from the last attempt, came within a few minutes of the real time or at least closer than your first guess. A third is that the recall in step 3 caught a step you would otherwise have missed, or showed you knew them all. If the cue failed, choose one you are sure to meet and that is easy to notice, and if the estimate was still short, add the gap to your record for next time.

Key idea:

Tie each intention to a cue you will meet, plan time from your last attempt and recall the steps before you start (Einstein & McDaniel, 2005; Buehler et al., 1994; Roediger & Karpicke, 2006).

2.4 Intellect: Planning, Deciding and Solving Problems

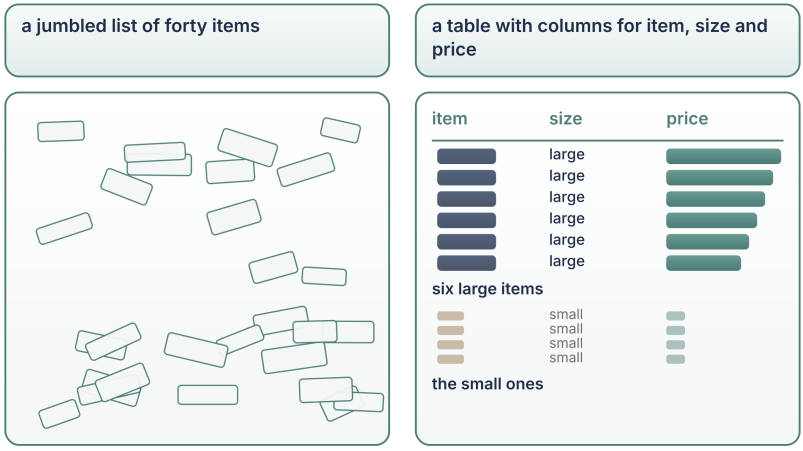
Priya is fourteen and wants to raise money for a school trip by holding a yard sale with her neighbour on Saturday morning. She has forty items, two folding tables, four hours and a target of £120. Everything she needs to work with is known, and the hard part is arranging it into a plan she can carry out. Intellect is the ability that **turns a clear goal and known facts into a plan you can act on**. This section shows four ways to use it before you start, so that the action follows a plan you have checked.



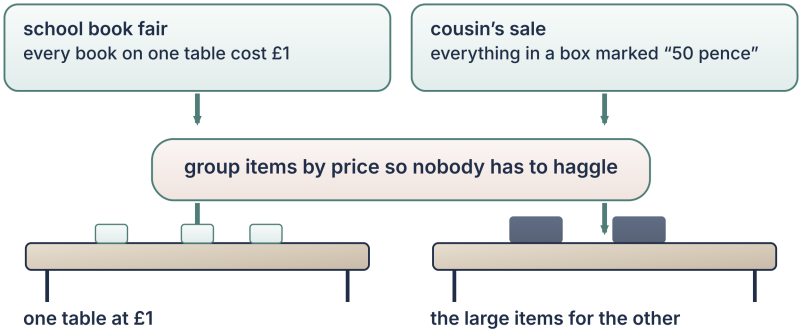
The Intellect book defines intellect as solving tasks where the variables are identified. A variable is anything in the problem that can change, such as the price of a lamp or the table it goes on. Priya can list every one of hers. In section 2.3, memory brought back her past experience. Intellect works on what she knows now, and in section 2.5, Creativity will take over when some of the variables are still unknown.

Planning starts with the goal. Locke and Latham (2002) describe a goal as the aim of an action, often a set standard to reach within a time limit, and section 1.3 showed why a specific goal works better than a vague one. “Make some money” gives Priya nothing to plan against. **“£120 by noon” tells her how to price, what to sell first and when to cut prices**, because she can check any plan against it.

The next step is to look at the problem in more than one form. Kotovsky, Hayes and Simon (1985) gave people versions of the same puzzle, the Tower of Hanoi, with identical rules underneath and different descriptions on top. Some versions took sixteen times as long to solve on average. Progress came when people could plan two moves ahead, and that was hard because it meant holding a lot in mind at once. Priya’s first version of her problem is a jumbled list of forty items. When she redraws it as a table with columns for item, size and price, she sees that most of the money sits in six large items and that the small ones need little thought.



Pricing forty items one by one would take most of Friday evening, and a past solution can save the effort if she thinks to look for it. Gick and Holyoak (1980) gave people a story whose solution could also solve a later problem, and found that without a hint to use the story, far fewer people applied it. The solution was in their memory, and most of them still missed that it fitted. In a later paper, Gick and Holyoak (1983) gave people two such stories, and many worked out the general rule the stories shared. The clearer the rule they wrote down, the better they did on the new problem. Priya deliberately looks for two cases she has seen. At the school book fair, every book on one table cost £1. At her cousin's sale, everything in a box marked "50 pence" went fast. The shared rule is to group items by price so nobody has to haggle, and she sets one table at £1 and keeps the large items for the other.



The last step is to check the plan's forecast against how similar plans turned out. Lovallo and Kahneman (2003) wrote that people forecasting a project tend to picture its own details and expect it to go well. Their remedy is the outside view, which forecasts from how a group of similar past projects actually went. Section 2.3 used your own last attempt for this, and the outside view widens it to other people's attempts. Priya asks three neighbours who held sales last year. They

made between £60 and £140, and two said the buyers had gone by eleven. She moves her price cuts to half past ten and keeps £120 as the target, knowing it sits near the top of that range.

The goal-setting work rests on a long review, while the findings on problem form and borrowed solutions each come from a single paper and the outside view comes from a magazine article. No one has tested the four steps together. Priya's plan now has a goal, a clear form, a borrowed rule and a forecast checked against real sales, and she can start setting up at eight.

The exercise below runs the same four steps on a plan of your own. Its purpose is to catch a weak plan while it is still on paper, when changing it costs nothing. Pick a task with known parts, such as a party, a trip or a small project at work, and do the exercise before you start it.

> Exercise:
>
> Check a plan before you act.
>
> 1. Write a specific goal with a standard and a time limit. Based on the goal-setting review by Locke and Latham (2002).
> 2. **Write the problem a second way**, as a list, a drawing or a table, before you choose a plan. Adapted from the finding by Kotovsky, Hayes and Simon (1985) that the form of a problem changes how hard it is.
> 3. Write two past problems that were solved the same way, name the rule they share and try it on the new problem. Adapted from Gick and Holyoak (1983).
> 4. Before you settle the plan, list three similar past projects and how they turned out, and plan from that range. Adapted from the outside view in Lovallo and Kahneman (2003).

You can tell the attempt worked when your plan changed at least once on paper because of one of the steps, for example a new order of jobs after you redrew the problem or a later deadline after you checked similar projects. A second sign is that you can say in one sentence the rule you borrowed and where it came from. After the task, compare the result with the range from step 4. If you landed outside it, note why, and use that note the next time you plan something similar.

Key idea:

Set a specific goal, redraw the problem, borrow a rule from two past solutions and check your forecast against similar projects (Locke & Latham, 2002; Kotovsky et al., 1985; Gick & Holyoak, 1983; Lovallo & Kahneman, 2003).

2.5 Creativity: Finding New Ways to Act

Tomás is twelve and grows lettuce in a small patch behind his family's flat. For two weeks running, birds have pulled up the seedlings before they could grow. He does not know which birds they are, when they come or what would keep them off, and the usual answer of a garden net is too big for the odd shape of his patch. When the usual way of acting fails and some of the facts are unknown, **creativity finds a new way to act**. This section shows how to use it on an everyday task, with two methods and a daily habit.

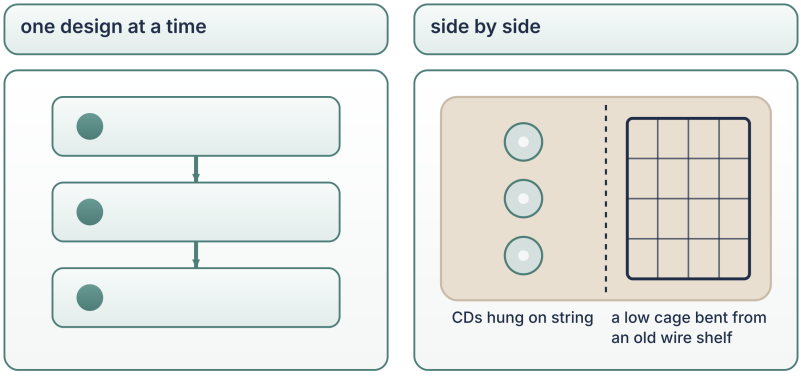


The Creativity book defines creativity as solving tasks where the variables are not identified. In section 2.4, Priya could list every part of her yard sale and plan with intellect. Tomás cannot list his, because he does not yet know what scares these birds or how long a fix must last. A plan worked out on paper would rest on guesses, so he will learn the missing facts by trying things.

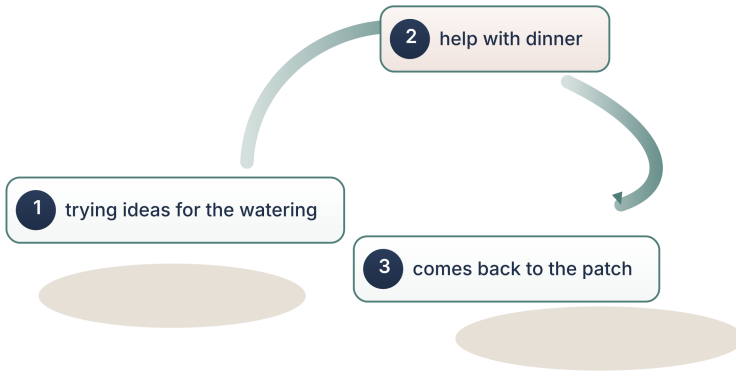
Many people assume creativity belongs to artists and inventors. Kaufman and Beghetto (2009) describe an everyday kind of creativity, the new ways people find to handle ordinary problems, and they place it in nearly everyone. Belief makes a difference to whether people use it. In a study of workers, Tierney and Farmer (2002) found that people who believed they could be creative at work did more creative work, beyond what their general confidence in their jobs would predict. It was one study in one workplace, so it shows a link and leaves the cause open. Tomás tells his sister he is “not the creative type”. By that he means he has never painted a picture, while keeping birds off lettuce is exactly the everyday kind of problem Kaufman and Beghetto describe.

Creativity can also be trained. Scott, Leritz and Mumford (2004) combined 70 studies of creativity training and found that it worked on average. The more successful programmes taught ways of thinking and rules of thumb, and practised them on realistic tasks from the field the person cared about. For this book, that means **practising creativity on real actions from your own week**, and the two methods below do that.

The first method is to try several versions at once. Dow and colleagues (2010) asked beginners to design web adverts. Those who made several designs side by side and got feedback on all of them produced adverts that were clicked more often and rated higher by experts than those who improved one design at a time. Their designs were also more varied, and their confidence rose more. The study used one kind of design task, and using it for everyday actions is the book's own step. Tomás makes two guards on the same afternoon. One is a row of old CDs hung on string so they flash in the sun. The other is a low cage bent from an old wire shelf. He sets them over two halves of the patch and checks each morning.



After four days the cage half is untouched and the CD half has lost two seedlings, so the cage wins. A second problem then appears, because the cage blocks the watering can and Tomás cannot see how to water underneath it. The second method is for this kind of stuck moment. Sio and Ormerod (2009) combined many studies and found that a pause in the middle of a problem helped on average. It helped most on problems with many possible answers and less on puzzles with one hidden answer, and the benefit was larger when people had worked on the problem longer before the pause. Tomás spends twenty minutes trying ideas for the watering, then goes to help with dinner. When he comes back to the patch he sees that a short length of garden hose could poke through the gaps in the wire, and the watering problem is solved.



The two methods fit different moments. Trying versions side by side works when you can test cheaply and the answer will show itself, as the bird damage did. The pause works when you have already put real effort into a problem and the next idea will not come. Both depend on you treating ordinary problems as worth a new approach, and a small daily habit keeps that going.

The exercise below trains all three on your own week. Its purpose is to make finding a new way to act an ordinary habit, so it is ready when a real problem arrives. Choose routine actions with low stakes for the first step, and save the second step for a task where you are stuck.

> Exercise:
>
> Find a new way to act.
>
> 1. For one routine action, such as packing your bag or getting to school or work, **try two different ways this week**, then keep the better one. Adapted from the parallel prototyping study by Dow et al. (2010).
> 2. Work on a stuck task for a set time you choose, switch to an easy task, then return to it. Adapted from the incubation meta-analysis by Sio and Ormerod (2009).
> 3. Each day, do one ordinary task a new way and note what changed. Adapted from the everyday creativity described by Kaufman and Beghetto (2009).

You can tell the attempt worked when, by the end of the week, at least one routine is done differently because a version you tested did better. A second sign is that you came back to a stuck task after the pause with at least one idea you had not tried. In your daily notes, look for changes that made a task quicker, easier or more pleasant, and keep those. If

none of your new ways did better, the notes still show what does not work, and next week try versions that differ more from each other.

Key idea:

When the usual way fails, try two versions side by side, pause after real effort and practise a new way each day (Dow et al., 2010; Sio & Ormerod, 2009; Kaufman & Beghetto, 2009).

2.6 Combining the Six Basic Mental Abilities

GRACE IS FIFTEEN AND is organising a surprise picnic in the park for her grandmother's eightieth birthday on Sunday. There will be six guests, she has £40 for food, and the forecast is uncertain. No single ability will get this picnic from an idea to a cloth on the grass. **Real tasks use all six basic mental abilities together**, and they switch between them many times. This section shows how the abilities combine in one action and why the best place to train them is on the actions you want to improve.

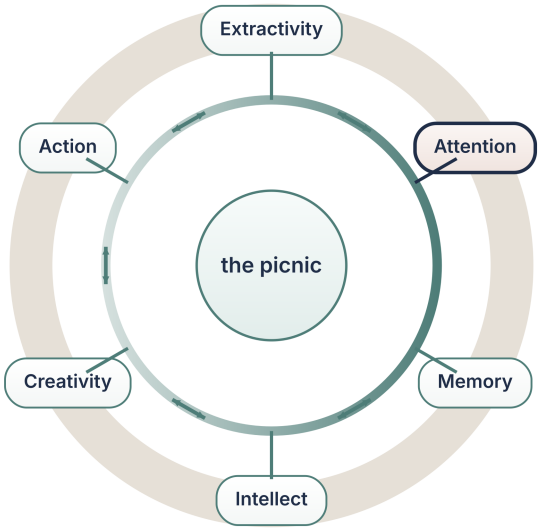


Sections 2.1 to 2.5 took the other five abilities one at a time. Grace uses each of them, often within the same hour. She gathers one deciding fact, the chance of rain at two o'clock, and stops reading forecasts once she has it. She keeps her shopping on track while her phone keeps buzzing. She remembers that the last family picnic ran out of drinks. She lays out the £40 in a small table, £15 for sandwiches, £12 for the cake, £8 for drinks and £5 for plates and napkins. With rain possible and no shelter booked, she also sketches a second set-up near the bandstand, whose roof she has never checked. Action is the ability that turns all of that into a picnic that actually happens, and then adjusts it as the afternoon goes.

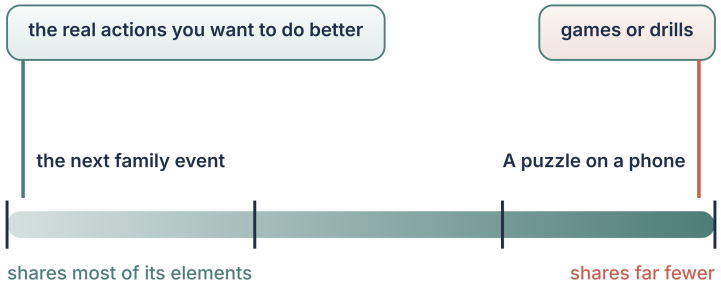
The other Cleverini books describe how some of these abilities fit together. The Memory book presents four of them as pillars that all work through memory: Extractivity takes information in, memory keeps it, intellect reasons with it and creativity combines it in new ways. It is a framework for the series and has not been tested as a model, and it leaves out attention and action. Attention fills part of that gap. Burgoyne and Engle (2020) describe attention control as a common thread running through broad mental abilities, including reasoning about new problems and holding information in mind while you work. **Attention keeps the other abilities pointed at the task**, which is why it appears in every step of Grace's plan.

The abilities do not run in a fixed order. At two o'clock on Sunday a shower starts. In a few minutes Grace reads the sky and sees that it will pass, recalls her sketch of the bandstand, checks that the roof covers enough benches, moves the food and gets everyone talking again. Gathering, remembering, creating and acting all happened at once, and attention held them on one aim, a dry and happy grandmother. A plan

that expected the abilities to take turns would have been too slow for the rain.



Combining the abilities on real tasks also matters for how you train them. More than a century ago, Thorndike and Woodworth (1901) found that improving at one mental task spread to another only as far as the two shared the same elements. Later reviews of brain-training programmes reached a similar answer. Simons and colleagues (2016) found good evidence that the programmes improved the trained tasks and little evidence that they improved everyday thinking. Sala and Gobet (2019), reviewing many earlier analyses, found that cognitive training had almost no effect on general thinking skills. Barnett and Ceci (2002) proposed a way to describe how far a new situation is from the one where something was learned, by when and where the learning has to be used. The further the new situation, the less you can count on the practice carrying over.



The further the new situation, the less you can count on the practice carrying over.

The practical rule for this book follows from that research. **Train the abilities on the real actions you want to do better**, and treat games or drills as extras. A picnic planned with all six abilities is practice for the next family event, because the next one shares most of its elements. A puzzle on a phone, however enjoyable, shares far fewer.

The exercise below puts the six abilities on one real task of your own. Its purpose is to make you notice where each ability enters, so that you can call on the one a task needs instead of waiting for it. The order of the steps follows the series framework and has not been tested as a method, so treat it as a checklist and change the order when the task calls for it.

Exercise:

One task, six abilities.

1. Pick one real task for this week. Before you start, note what you need to find out, what you must keep your attention on, what you already know from last time, your plan, and one new option in case the plan fails. Then do the task and review it afterwards. Adapted from the transfer findings of Thorndike and Woodworth (1901) and the creativity training review by Scott, Leritz and Mumford (2004).

2. When you choose how to practise, **pick the real action you want to improve before any game or drill**. Adapted from the brain-training review by Simons et al. (2016).

You can tell the attempt worked when your notes from step 1 show each of the six abilities at least once, and when one of them changed what you did, for example a remembered problem that you planned around. A second sign shows during the task itself, when something goes wrong and you switch quickly to the ability it needs. In the review, mark the ability that helped least and pay attention to it on your next task. If you used Cleverini games along the way, their scores show progress in the game only and are neither a test of ability nor a diagnosis.

Key idea:

Real tasks use the six abilities together, so train them on the actions you want to improve (Thorndike & Woodworth, 1901; Simons et al., 2016; Sala & Gobet, 2019).



Module

3

Developing the Core Skills of Action

Module 2 showed how the other five basic mental abilities feed into what you do. Module 3 turns to action itself. Section 1.3 named eight core skills that decide how well an action goes, from getting started to getting finished. **Module 3 trains each of the eight core skills on tasks from your own week**, one section at a time.

The first four sections are about getting an action going and keeping it on course. Section 3.1 covers initiation. Section 3.2 covers self-control, the skill of directing what you do and holding back from impulses. Section 3.3 is about persistence when the work gets hard, and section 3.4 is about courage, acting when you feel afraid or unsure.

The last four sections are about the quality of the action and its end. Section 3.5 deals with speed. Section 3.6 deals with precision, so that the work you produce is accurate and well made even when you are working quickly. Section 3.7 covers adaptability, which means correcting an action or changing it when things change. Section 3.8 is about completion, turning effort into a finished result.

The skills overlap. A real task such as a school project or a house move usually needs several of them at once, and you will often notice one skill failing while the others hold up well. Each section still trains one skill on its own, with a worked example, an exercise and a description of what a successful attempt looks like, so you can see which skill needs the most practice.

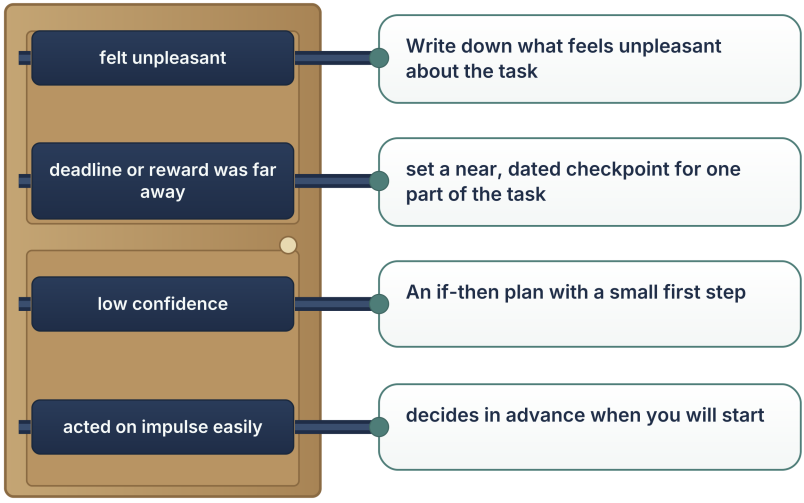
3.1 Initiation: Starting Without Delay

Kofi is fourteen and has promised his mum he will clear out the overflowing cupboard in his room before his cousin comes to stay in three weeks. He knows what to do and he has the time. Each evening he opens the cupboard door, sees the heap of old games, cables and school papers, and closes it again. Initiation is the skill of **moving from meaning to do something to doing its first step**. This section looks at why starting gets put off and gives three ways to start sooner.



Putting a task off is common enough to have been studied closely. Steel (2007) combined 691 results from studies of procrastination and looked at what went with it most consistently. People tended to put a task off more when it felt unpleasant and when its deadline or reward was far away. They also put it off more when they had low confidence that they could do it and when they acted on impulse easily. These are links found across many studies, and they still describe what tends to go together, without proving which one causes the delay. They are useful

because each one points to something you can change. Kofi's cupboard scores badly on two of them, since it is dusty and dull, and the deadline is three weeks off.



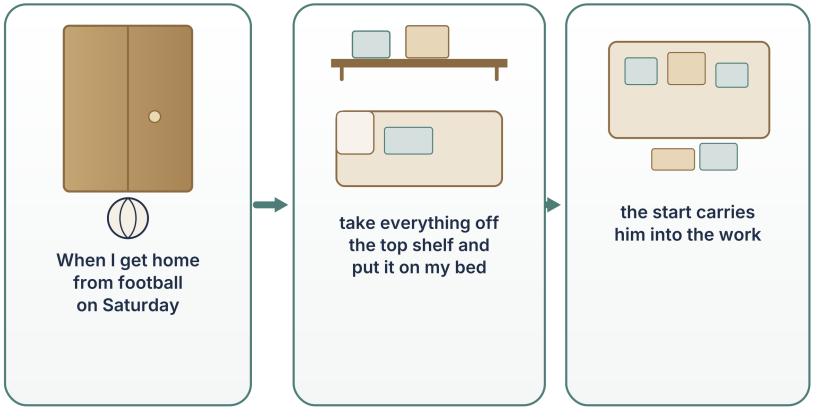
The first method moves the deadline closer. A date three weeks away barely feels real, so **set a near, dated checkpoint for one part of the task**. Kofi tells his mum that the top shelf will be empty by Saturday at noon. The whole job still has three weeks, and the first part now has three days.

The second method deals with the unpleasant feeling. Eckert and colleagues (2016) taught people skills for putting up with unpleasant feelings and for changing them, and across three studies, including one randomised trial, the training reduced procrastination. All three studies come from one paper, so other researchers have still to confirm the result. The book's own version is simple. **Write down what feels unpleasant about the task**, agree to put up with it for two minutes and start the first step inside those two minutes. Kofi writes, "Dust, and

deciding what to throw away." Once it is written down, the dust is one fact about the job among others, and he agrees to two minutes of it.

The third method decides in advance when you will start. Sections 2.2 and 2.3 used if-then plans to shield a task and to remember one, and the same kind of plan helps you begin. Gollwitzer and Sheeran (2006) combined 94 tests of if-then plans and found a medium to large effect on reaching goals on average, and starting was one of the stages where the plans helped. Kofi writes, "When I get home from football on Saturday, I will take everything off the top shelf and put it on my bed." Once everything is on the bed, he has to sort it before he can sleep, so the start carries him into the work.

Confidence plays a part as well. Section 1.2 described Bandura's (1977) view that the belief you can do something affects whether you start at all, and it also described William James's cold morning, when getting up happened on the first clear thought of rising (James, 1890). An if-then plan with a small first step serves both ideas. Taking things off one shelf is a step Kofi is sure he can do, and the plan places the thought of starting at the exact moment he walks in.



On Saturday the top shelf is empty before noon, and by the following weekend the cupboard is done with more than a week to spare. The three methods left the work as dusty as before and moved its start to a fixed moment and a small, clear step.

The exercise below puts the three methods on a task you have been putting off. Its purpose is to make starting a planned event instead of something you wait to feel like doing. Pick one task that has sat on your list for at least a few days, and do all three steps before the end of today.

> **Exercise:**
>
> Start a task you have been putting off.
>
> 1. If the deadline is far away, set a near, dated checkpoint for one part of the task and tell someone. Adapted from task delay as a predictor of procrastination in Steel (2007).
> 2. Write what feels unpleasant about the task, accept it for two minutes and start the first step within those two minutes. Adapted from the emotion-skills training of Eckert et al. (2016) and the review by Steel (2007).
> 3. **Write an if-then start plan**: "When [time or cue], I will start [first step]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).

You can tell the attempt worked when you started the task at the moment your plan named, without a new round of deciding. A second sign is that you reached the checkpoint by its date. Keep a note for a week of each planned start and whether it happened on time. If a start

keeps slipping, make the first step smaller or tie it to a cue you meet more reliably, then try again the next day.

Key idea:

Bring the deadline closer, name the unpleasant part and decide when and with which small step you will start (Steel, 2007; Eckert et al., 2016; Gollwitzer & Sheeran, 2006).

3.2 Self-Control: Directing Behavior and Resisting Impulses

Ben is fifteen and wants a pair of football boots that cost £60. He has six weeks before the season starts. His walk home from school passes a corner shop, and most days he goes in and spends £2 on a drink and a snack. Those £2 a day across thirty school days are exactly the price of the boots. Ben has to steer what he does towards the boots and hold back from the shop on the way. Self-control means **steering your actions towards a goal and holding back from impulses that pull against it**. This section shows that people who manage it well fight their impulses less often than you might expect, and it gives two ways to set that up.

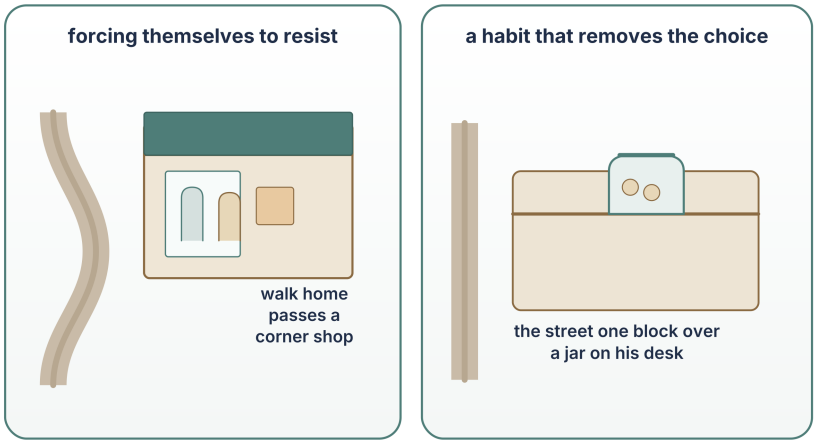
Section 1.3 described a large review of 102 studies, in which people with more self-control did somewhat better at doing what they meant to do and at holding back from what they meant to avoid (de Ridder et al., 2012). Section 1.2 described a study that followed 1,000 children to the age of 32, in which more self-control in childhood went with better health and finances as adults (Moffitt et al., 2011). Both findings are

links, and they show why the skill is worth building. They say less about how people with good self-control actually manage it.



Galla and Duckworth (2015) looked at that question in six studies with 2,274 people. People with high self-control relied less on forcing themselves to resist and more on helpful habits, and those habits explained part of their better results. The studies measured links over time and come from one paper, so they show a likely route without proving it. For practice, the point is that **a habit that removes the choice does much of the work** that resisting would otherwise have to do.

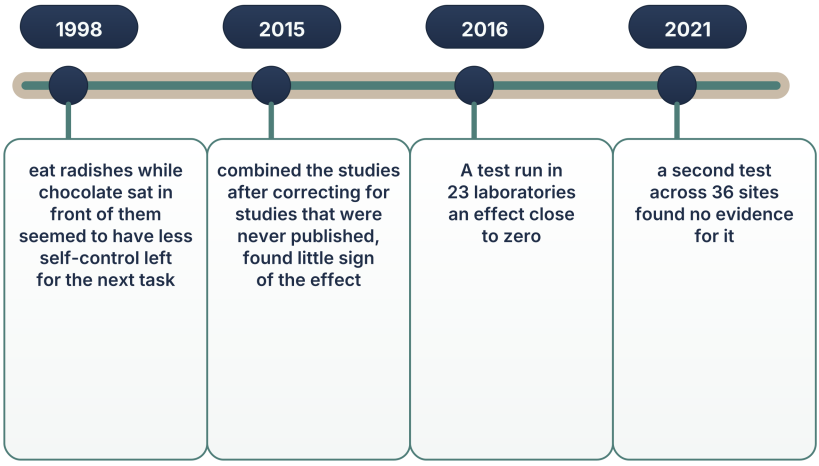
Ben uses that route first. He changes his walk home to the street one block over, which does not pass the shop, and each day when he gets in he drops the £2 he would have spent into a jar on his desk. The new route and the jar happen at the same time and in the same place every day, so after a week or two he no longer has to decide anything on the way home.



Some impulses cannot be walked around. On Fridays Ben's friends go to the shop together, and he goes with them. For an urge you will still meet, an if-then plan prepares the response in advance, in the same form that sections 2.2 and 3.1 used for distractions and starting (Gollwitzer & Sheeran, 2006). Ben writes, "If I feel the urge to buy something at the shop, I will drink from my water bottle and talk to whoever is waiting outside." When the urge comes, he already knows what his hands and mouth will do.

Many people believe that willpower gets used up during the day, so resisting one thing leaves less for the next. The idea goes back to a well-known study by Baumeister and colleagues (1998), in which people who had to eat radishes while chocolate sat in front of them seemed to have less self-control left for the next task. Later work has made that claim doubtful. Carter and colleagues (2015) combined the studies and, after correcting for studies that were never published, found little sign of the effect. A test run in 23 laboratories found an effect close to zero (Hagger et al., 2016), and a second test across 36 sites found no evidence for it (Vohs et al., 2021). **The evidence for**

willpower running out is mixed at best, so it is safer to plan around habits and if-then plans than around saving willpower for later.



By the end of the sixth week Ben's jar holds £56. He gave in twice, both times on a Friday before the if-then plan had settled in, and he covers the last £4 from his birthday money. He buys the boots that Saturday, in time for the first match of the season.

The exercise below sets up the same two routes for an impulse of your own. Its purpose is to take as many decisions as possible away from the moment of temptation, because that moment is when holding back is hardest. Choose one temptation that comes up most days, such as a snack, a game or checking your phone during homework.

> ✎ **Exercise:**
>
> Plan around one temptation.
>
> 1. Pick one daily temptation and **set up a habit that removes the choice**, done at the same time and in the same place each day. Adapted from the habit route in Galla and Duckworth (2015).

2. For the times you will still meet the urge, write: "If I feel the urge to [impulse], I will [chosen response]." Adapted from the if-then plans in Gollwitzer and Sheeran (2006).
3. For fun, play a go-or-no game with a partner: they call "go" or "no", and you clap only on "go". This is a traditional game of the "Simon says" kind and is played here for practice in the game itself.

You can tell the attempt worked when, after a week or two, you pass the moment of temptation without having to decide, because the habit has taken over. A second sign is that the if-then response comes to mind as soon as the urge arrives. Keep a simple daily tick for each day you stuck to the plan and a cross for each slip, and note what was different on the days with a cross. If the slips cluster on one kind of day, as Ben's did on Fridays, write an if-then plan for that day in particular.

> **Practice in play:** *The Cleverini games Goalkeeper, Figures and Lighthouse practise self-control in the game. Their scores show progress in the game only and are neither a test of ability nor a diagnosis. A large review found good evidence that brain-training programs improve the trained tasks and little evidence that the gains reach everyday life (Simons et al., 2016), so the plans above are what help with real temptations.*

Key idea:

Set up habits that remove the choice, and keep an if-then plan for the urges you cannot avoid (Galla & Duckworth, 2015; Gollwitzer & Sheeran, 2006).

3.3 Persistence: Continuing Through Difficulties

Zara is twelve and has signed up to play a song on the guitar at her school's spring concert in eight weeks. She knows most of the chords already. The song also needs an F chord, which means pressing one finger flat across all six strings, and at first it hurts and buzzes every time. Persistence means **keeping an action going when it gets hard**, and part of it is knowing what to change when it keeps failing. This section shows how to prepare for the hard stretch before it arrives and how to tell when to change course.



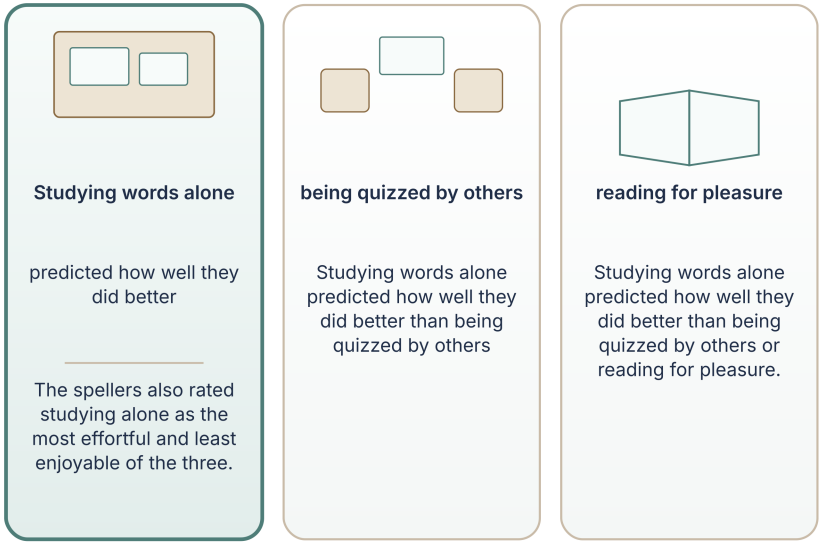
Persistence is often described as grit, a mix of passion and staying power that some people are said to have more of than others. Credé, Tynan and Harms (2017) combined 584 results from 88 samples, covering 66,807 people, and found that grit was only moderately linked with how well people did and very closely linked with conscientiousness, the familiar trait of being careful and hard-working. They concluded that the most useful part of grit is probably perseverance, the habit of keeping going after setbacks. Grit as a separate trait has weak support,

so this book treats persistence as something you do on a particular task and can plan for.

What you persist with matters as much as how long. Duckworth and colleagues (2011) followed young competitors in the National Spelling Bee in the United States. Studying words alone predicted how well they did better than being quizzed by others or reading for pleasure. The spellers also rated studying alone as the most effortful and least enjoyable of the three. It is one study, and it fits what section 1.3 reported, that practice explains part of performance and that how much depends on the field (Macnamara et al., 2014). For Zara, the practice that counts is the F chord on its own, played slowly, and not the parts of the song she already enjoys.

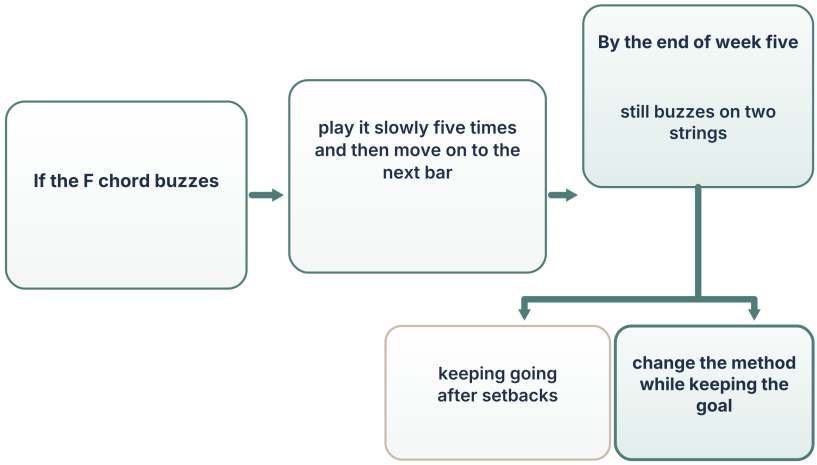
Confidence affects how long you keep going. Section 1.2 described Bandura's (1977) view that believing you can do something shapes whether you start, and he also argued that it shapes how long effort lasts when obstacles appear. One of the main sources of that belief is your own past success. Before her practice each evening, Zara writes one line about a time she got through something similar. She chooses the change between two other chords last term, which took her two weeks of buzzing before it came clean.

The obstacle itself can be planned for. Sections 2.2, 3.1 and 3.2 used if-then plans against distraction, delay and impulses, and the same review found that such plans help people keep going towards a goal (Gollwitzer & Sheeran, 2006). Zara writes, "If the F chord buzzes, I will play it slowly five times and then move on to the next bar." The plan turns the moment of failure into an instruction, so a buzz no longer means the end of practice.



The same review found that if-then plans also help people let go of a course of action that is failing (Gollwitzer & Sheeran, 2006). Persistence also includes knowing when to **change the method while keeping the goal**. By the end of week five, after twenty minutes of practice most days, Zara's full F chord still buzzes on two strings. Her guitar teacher shows her a smaller F chord that uses four strings and sounds right in this song. Zara drops the full version for now and spends the last three weeks making the change to the smaller chord smooth.

At the concert in week eight she plays the whole song with the smaller F chord, and it sounds clean. The full F chord goes back on her practice list for after the concert, when there is no date to meet.



The exercise below prepares the same supports for a hard task of your own. Its purpose is to have your response to the hard stretch ready before it arrives, because that is when giving up feels most reasonable. Choose something that will take several weeks and that has one part you already know will be difficult.

Exercise:

Prepare for the hard stretch.

1. Name the obstacle most likely to stop you and **write an if-then plan for it**: "If [obstacle], then I will [next step]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).
2. Before each hard part, write one time you got through something similar. Adapted from Bandura's (1977) account of past success as a source of confidence.
3. Each week, note one task you kept going on after a setback and one task you rightly stopped or changed. Adapted from the focus on perseverance in Credé, Tynan and Harms (2017).

You can tell the attempt worked when an obstacle you named arrived and you carried out your if-then step instead of stopping for the day. A second sign is that your weekly notes show both kinds of entry, tasks you kept going on and tasks you changed or stopped for a clear reason. If the notes show only one kind, look again at the tasks you dropped without a reason, and at the tasks you kept going on long after the evidence said to change.

Key idea:

Plan your response to the likely obstacle, practise the hard part on its own and change the method when it keeps failing (Gollwitzer & Sheeran, 2006; Duckworth et al., 2011; Credé et al., 2017).

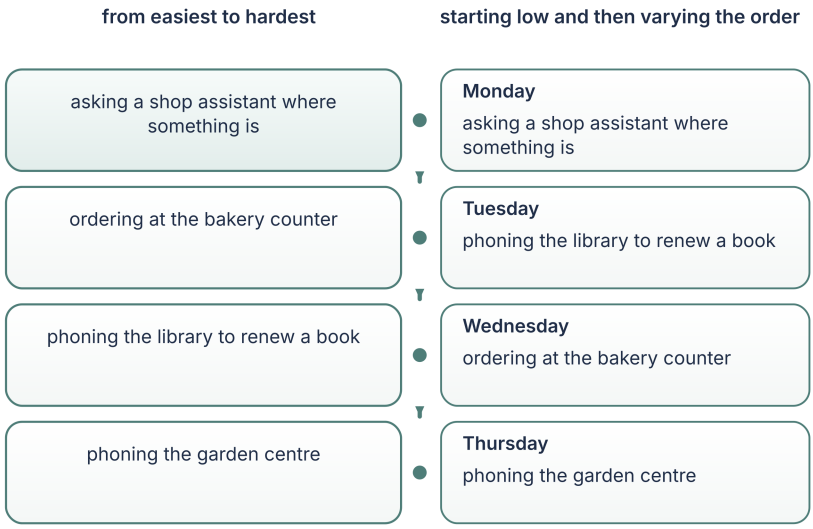
3.4 Courage: Acting Despite Fear and Uncertainty

Dev has had the garden centre's phone number on a scrap of paper for nine days. He is fourteen, and the sign in the window said they want help on Saturdays. Every evening he picks up the phone, imagines the manager asking something he cannot answer, and puts it down again. He has every reason to call, and what stops him each time is fear. **Acting while the fear is still there is what this book means by courage**, and it can be prepared like any other skill. This section gives three ways to prepare and shows Dev using them over one week.



Courage builds on the confidence that sections 1.2 and 3.3 discussed. Bandura (1977) argued that the belief you can cope decides whether you even start to deal with something you fear. He named four sources of that belief: your own past successes, seeing others succeed, encouragement from other people and the state of your body. Dev has a sister who phoned a café for her first job last year, so he asks her how it went. She tells him the manager mostly wanted to know which days she was free. That one piece of second-hand success makes the call feel more ordinary.

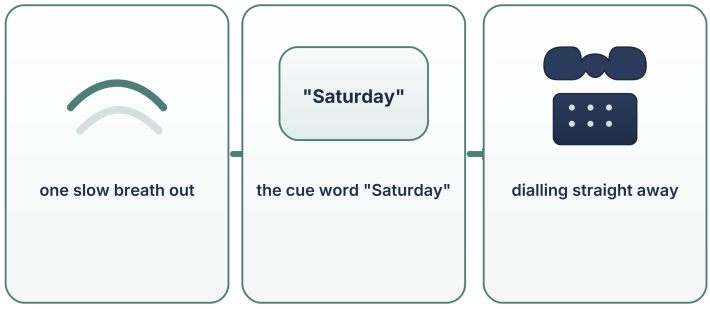
The first preparation is to approach the fear in smaller steps. Therapists who treat anxiety use exposure, which means meeting a feared situation on purpose until it loses some of its grip. Craske and colleagues (2014) describe how such treatment often uses a list of feared situations ranked from easier to harder. They favour starting low and then varying the order. Their paper was written for clinicians treating anxiety disorders, and the version here is a self-help adaptation for everyday hesitation. Dev writes four things he usually avoids, from easiest to hardest: asking a shop assistant where something is, ordering at the bakery counter, phoning the library to renew a book and phoning the garden centre.



On Monday he asks the shop assistant, and on Tuesday he phones the library before he has done the bakery counter. The library call goes better than he expected, and on Wednesday the bakery feels easy. Taking the steps out of order is deliberate, since it follows the varied order that Craske and colleagues favour over a strict climb from easiest to hardest.

The second preparation is to practise the words until they come without effort. Beilock and colleagues (2004) gave people maths problems under pressure in three experiments. Pressure hurt performance only on the problems people had not practised, the ones that needed a lot of working things out in their heads. Once those problems had been practised until the answers came straight from memory, the pressure no longer hurt. The research was on maths and comes from one paper, so using it for a phone call is the book's own step. Dev writes his first sentence, "Hello, my name is Dev, and I saw your sign about Saturday help," and says it aloud until he can say it while thinking about something else.

The third preparation is a short routine just before the hard moment. Gröpel and Mesagno (2019) reviewed 47 studies of ways to help athletes who perform worse under pressure. Routines done just before performing were among the methods most often reported to help, along with a few others suited to sport. Dev's routine has three steps: one slow breath out, the cue word "Saturday" and then dialling straight away. The routine gives his body and his attention something to do in the seconds when fear would otherwise fill the gap.



The fear is still there on the day, and the method allows for that. Section 3.1 described a way to put up with an unpleasant feeling for two minutes while you start (Eckert et al., 2016), and the same applies here. On Thursday at four o'clock Dev's heart is still racing when he dials. He says his first sentence exactly as practised, the manager asks which days he is free, and he starts the following Saturday.

The exercise below prepares the same three supports for something you have been avoiding. Its purpose is to make the brave action small and well practised before you start, so that fear has less room to stop it. Choose an everyday action you keep putting off because it makes you nervous, such as asking a question in class, phoning someone you do not know or speaking up at a meeting.

Exercise:

Prepare to act despite fear.

1. List a few everyday actions you avoid, with how hard each one feels. **Start with an easier one this week**, then try the others in a mixed order until you have done the one you avoided most. Adapted from the fear hierarchy in Craske et al. (2014). This is self-help for everyday hesitation and is no substitute for therapy. If you have an anxiety disorder, panic, trauma or obsessive-compulsive symptoms, work with a qualified clinician, and stop and seek help if the distress is severe.
2. Rehearse the exact first words or moves of the feared action aloud until they come without effort. Adapted from Beilock et al. (2004).
3. Make a three-step routine, a breath, a cue word and the first move, and use it just before the feared action. Adapted from the pre-performance routines in Gröpel and Mesagno (2019).

You can tell the attempt worked when you did the action you had been avoiding, even if you were nervous while doing it. A second sign is that your practised first words came out as rehearsed. After each step on your list, rate how hard it felt before and after. If an action still feels too hard to start, add an easier step before it or practise its first words again, and try the routine before you begin.

Key idea:

Take smaller steps towards the fear, rehearse the first words until they are automatic and use a short routine just before you act (Craske et al., 2014; Beilock et al., 2004; Gröpel & Mesagno, 2019).

3.5 Speed: Acting Faster and More Efficiently

On Saturday mornings Leo helps at his aunt's sandwich stall in the market. He is fourteen, and each sandwich takes him about two and a half minutes, from reading the order slip to handing it over wrapped. By eleven o'clock the queue reaches the next stall, and some customers give up and leave. His aunt asks him to get quicker. In this book, **speed means reaching the same result in less time**, and the result includes getting it right. This section shows how to gain speed without paying for it in mistakes.

Section 1.3 introduced the trade-off between speed and care. Heitz (2014) describes it as one of the most common patterns in behaviour: push for more speed and errors tend to rise. Leo finds this out in the first week. He simply hurries, and his time drops to about 100 seconds a sandwich, but the wrong orders go up from two on a normal Saturday to six. Six customers get the wrong filling, and two of them want their money back. His aunt would rather wait a little longer for the right sandwich, so Leo stops hurrying every step and looks at them one at a time.

Reading is one place where his hurry costs him. Rayner and colleagues (2016) reviewed research on reading speed and found that reading faster costs understanding, which section 2.1 put to use for skimming. Skimming suits a long text when you need only the main point, and it does not suit a short order slip where every word matters. Leo goes back to reading each slip once, fully, before he reaches for the bread. That takes a few seconds and stops most of the wrong fillings.



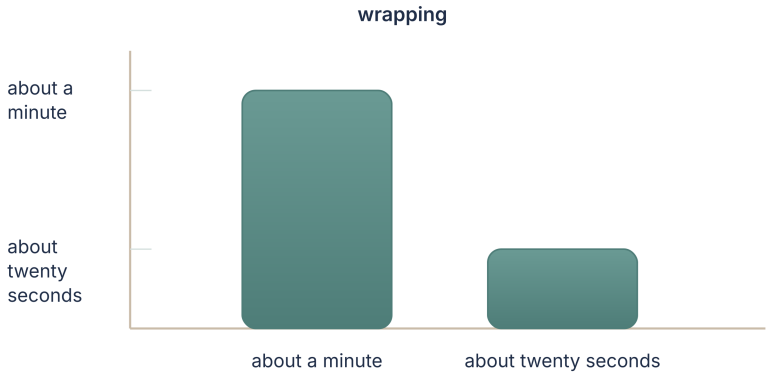
The better route is to find the slowest step and make that one quicker. Leo times the steps of one sandwich and finds that wrapping it in paper takes about a minute, far longer than anything else, because he has to think about each fold. Beilock and colleagues (2004) found, in three experiments on maths problems, that steps practised until the answer came straight from memory held up under pressure, while unpractised steps that needed working out fell apart. Section 3.4 used the same study for rehearsing the first words of a phone call. It is one paper and was about maths, so using it for a physical routine is the book's own step. Leo takes a stack of paper home and wraps a book twenty times each evening until the folds happen without thought.

Practice helps, though how much it explains differs a great deal between fields, as section 1.3 reported (Macnamara et al., 2014). For a short, repeated routine like wrapping, the gain is easy to see. By the fourth Saturday Leo's wrapping takes about twenty seconds instead of a minute.



Leo then sets a time target with an error check. His target is 115 seconds a sandwich, which allows for the few extra seconds of reading each slip in full, and he keeps it only if the wrong orders stay at about two a morning, as they were before he started. On the fourth Saturday he makes 40 sandwiches at about 115 seconds each with two wrong orders. Across 40 sandwiches, 35 seconds saved on each comes to more than twenty minutes, and the queue stays short all morning.

The exercise below runs the same method on a routine of your own. Its purpose is to make you faster in the place where speed is cheapest, so that your accuracy holds. Choose a task you repeat often, such as packing a bag, setting a table, filing papers or making breakfast.



Exercise:

Get faster without more mistakes.

1. Time each step of the routine once and find the slowest step. Rehearse that step on its own **until it needs no thought**. Adapted from practice to direct recall in Beilock et al. (2004).
2. Set a time target for the whole routine and count your errors each time. Keep the target only if the errors stay level, and ease it if they rise. Adapted from the speed and accuracy trade-off in Heitz (2014).

You can tell the attempt worked when the whole routine is quicker and your error count is the same as before or lower. A second sign is that the step you practised now happens while you think about something else. Write down the time and the errors for each attempt over two weeks. If the time drops and the errors climb, as Leo's did in his first week, slow down the step where the errors happen and look for a different step to speed up.

> **Practice in play:** *The Cleverini game Rail Dispatch practises timing in the game, and a partner game works offline: sort objects into boxes as your partner calls out the next item. Game scores show progress in the game only and are neither a test of ability nor a diagnosis. A large review found little evidence that gains from brain-training programs reach everyday life (Simons et al., 2016), so the routine you want to speed up is the best place to practise.*

Key idea:

Find the slowest step, practise it until it is automatic and keep a time target only while your errors stay level (Beilock et al., 2004; Heitz, 2014).

3.6 Precision: Improving Accuracy and Quality

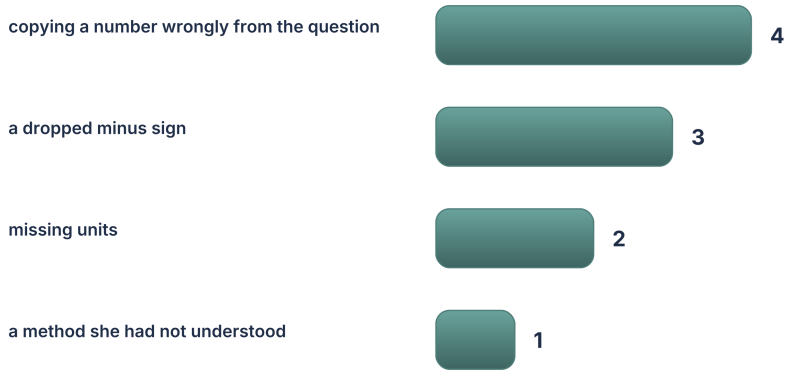
Five of the twenty answers on Isla's maths homework came back marked wrong last week, and the week before it was five again. When she looked at them closely, she found she could do every one of those questions. She had copied a number wrongly, dropped a minus sign or left off the units. Isla is thirteen, and her teacher's comment said the same thing twice: careless mistakes. What she lacked was precision, **getting the details right every time**, and this section shows how to find where your mistakes happen and how to stop them there.



Careful work takes a little more time. Section 1.3 introduced the trade-off between speed and accuracy, and section 3.5 found the cheapest places to gain speed. Heitz (2014) describes the link between how fast people decide and how accurate they are as a basic property of making choices. Precision works from the other end of the same trade-off and spends a little extra time where mistakes are most likely.

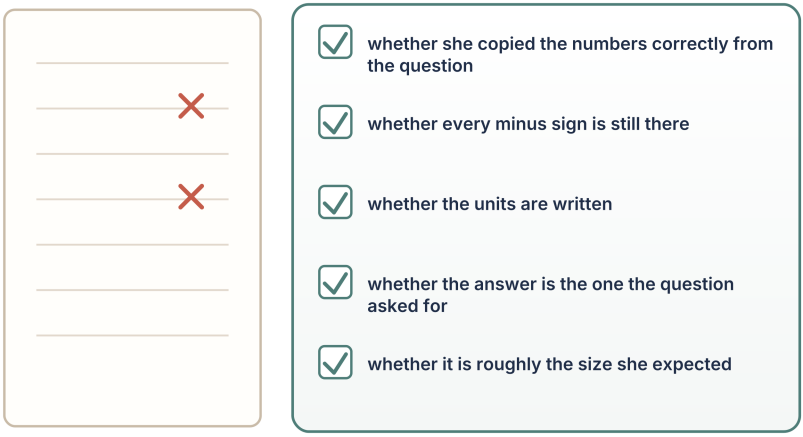
The first step is to find out where the mistakes come from. Section 1.3 described a review of 607 results on feedback, in which feedback helped on average but made performance worse in more than a third of cases (Kluger & DeNisi, 1996). Feedback that points to a step of the task tends to help more than a verdict on the person, and “careless” is a verdict. Isla keeps an error log for the next two homeworks. For each wrong answer she writes the step where it went wrong and leaves out any judgement of herself.

Her log for the two weeks holds ten errors. Four came from copying a number wrongly from the question, three from a dropped minus sign, two from missing units and one from a method she had not understood. Nine of the ten happened at three steps of the work, and only one needed new teaching.



The second step is a short checklist aimed at those steps. Checklists are best known from surgery. Haynes and colleagues (2009) introduced a 19-item safety checklist in eight hospitals, and deaths after surgery fell from 1.5% before the checklist to 0.8% after it, while complications fell from 11.0% to 7.0%. That study compared the same hospitals before and after, without a control group. When the province of Ontario in Canada later made such checklists compulsory in 101 hospitals, a study of about 215,000 operations found no significant fall in deaths, which went from 0.71% to 0.65%, or in complications (Urbach et al., 2014). The evidence is mixed. **A checklist can help when people go through it each time**, and having one on the wall did not by itself show any gain.

Isla's checklist has five lines, and she ticks each line on every question before moving on. It asks whether she copied the numbers correctly from the question, whether every minus sign is still there, whether the units are written, whether the answer is the one the question asked for and whether it is roughly the size she expected. The checks add about four minutes to each homework.



Over the next three weeks her wrong answers fall to two, then one, then four. In the third week she was in a hurry, and she skipped the ticks on the last eight questions, where three of the four mistakes turned up. The checklist worked when she used it, which fits the mixed surgical results. In the fourth week with the checklist she ticks every line again and gets one answer wrong, a method question she takes to her teacher.

The exercise below sets up the same two tools for a task of your own. Its purpose is to aim your extra care at the few steps where your mistakes happen, so that precision costs a few minutes instead of slowing down everything. Choose a task you repeat at least once a week, such as homework, a work report, a recipe or packing for training.

> Exercise:
>
> Find and fix your mistakes.
>
> 1. For the next two times you do the task, **record each error with the step where it happened**, and leave out any judgement of yourself. Adapted from the feedback review by Kluger and DeNisi (1996).

2. Write a checklist of up to five lines for the steps where your errors happened, and tick each line every time you do the task. Adapted from the surgical checklist studies by Haynes et al. (2009) and Urbach et al. (2014), whose mixed results make this a practice tool that works only when used.

You can tell the attempt worked when your error count falls over the following weeks and the errors that remain are ones your checklist does not cover. A second sign is that your error log names steps, not your character. If the errors come back, check first whether you skipped ticks, as Isla did in her third week, and then add a line for any new step where errors now gather.

> **Practice in play:** *The Cleverini game Shoal practises precision in the game, and an offline version uses arrow cards: name the direction of the middle arrow quickly and correctly while ignoring the arrows beside it. Game scores show progress in the game only and are neither a test of ability nor a diagnosis. A large review found little evidence that gains from brain-training programs reach everyday life (Simons et al., 2016), so the error log and checklist are what help with real tasks.*

Key idea:

Log each error by the step where it happened, then tick a short checklist for those steps every time (Kluger & DeNisi, 1996; Haynes et al., 2009; Urbach et al., 2014).

3.7 Adaptability: Correcting and Changing Actions

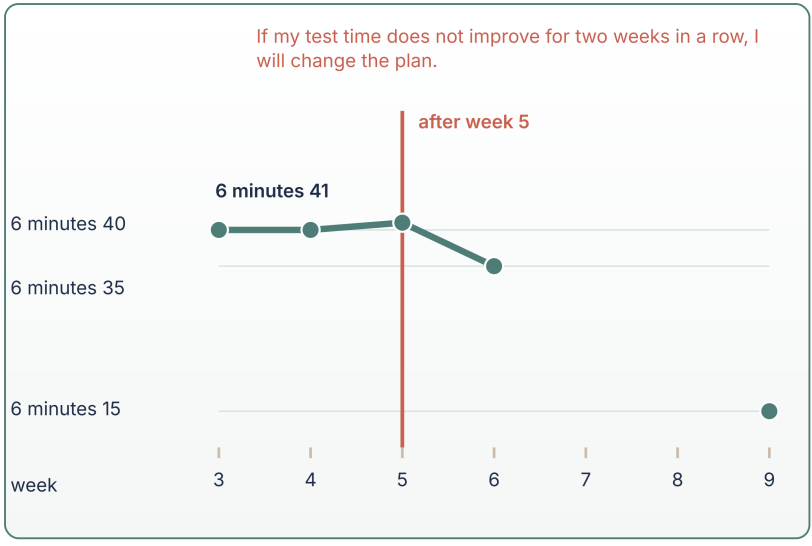
"Week 5: test kilometre, 6 minutes 41 seconds." Rosa wrote it under week 4's 6 minutes 40 and week 3's 6 minutes 40 and saw that her running had stopped improving. She is fifteen and training for a 5 km charity run in week 10, and her plan of three runs a week had worked well at first. The skill she needs next is **noticing when an action has stopped working and changing it in time**, which this book calls adaptability. This section shows how to build that noticing into a plan and how to make the change itself go smoothly.

Correction starts with knowing where you are. Section 1.3 described a review of experiments in which people who were helped to check their progress towards a goal reached it more often than people who were not (Harkin et al., 2016). Rosa's weekly test kilometre is that kind of check. Without it, five weeks of steady effort would have felt like progress, because the runs were still tiring and she was still doing all three.



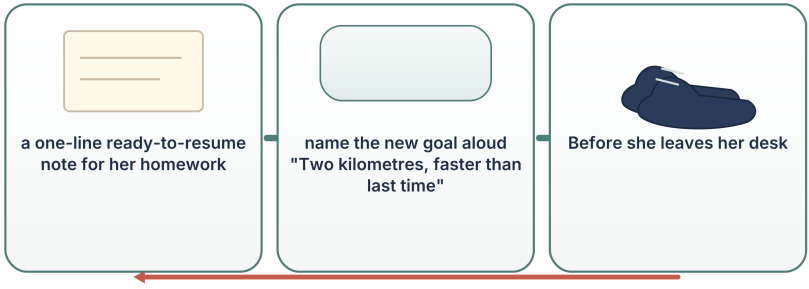
A check is more useful when you have decided in advance what you will do with the result. Section 3.3 used if-then plans to keep going through obstacles, and the same review of if-then plans found that they also help people let go of a course of action that is failing (Gollwitzer & Sheeran, 2006). At the start of her training Rosa wrote, “If my test time does not improve for two weeks in a row, I will change the plan.” Weeks 4 and 5 were those two weeks, so after week 5 the decision was already made, and all she had to choose was the new plan.

Rosa also uses a weekly review that gives each of her goals one of three labels: keep, change or stop. The labels are the book’s own, built on the two findings above. Her homework routine gets keep. Her running plan gets change, and she replaces one of the three runs with a rest day and makes the other two shorter and faster. Her Saturday swim gets stop until after the race, because it leaves her legs tired for Sunday’s run. Stopping a goal for a clear reason is part of adaptability, as section 3.3 noted for a method that keeps failing.



Changing what you do has a cost in the moment of switching. Monsell (2003) reviewed studies of task switching and found that people are slower and make more mistakes just after switching to a different task, and that a chance to prepare for the switch reduces that cost without removing it. Rosa's evenings switch between homework and training. Before she leaves her desk she takes a few seconds to name the new goal aloud, "Two kilometres, faster than last time," and she writes a one-line ready-to-resume note for her homework, the method from section 2.2 (Leroy & Glomb, 2018). The note means the homework is waiting for her in a known place when she gets back.

After the change her test times start to fall again, to 6 minutes 35 in week 6 and 6 minutes 15 by week 9. On the day of the charity run in week 10 she finishes the 5 km in just under 33 minutes, and in that week's review the swim goes back to keep.



The note means the homework is waiting for her in a known place when she gets back.

The exercise below builds the same habits into a goal of your own. Its purpose is to make correcting course a scheduled event, so that a check tells you when to change a plan instead of a bad result telling you too late. Choose a goal you are working towards over several weeks, and set a short weekly time for the review.

> Exercise:
>
> Check, then keep, change or stop.
>
> 1. Once a week, check your progress on each goal and **mark it keep, change or stop**. Write one line on what you will do differently for each goal marked change. Adapted from the progress-monitoring review by Harkin et al. (2016) and the if-then plans of Gollwitzer and Sheeran (2006).
> 2. Before you switch from one task to another, take a few seconds to name the new goal or rule. Adapted from the task-switching review by Monsell (2003).

You can tell the attempt worked when a weekly check led you to change or stop something before it had cost you much, and when you can point to the line in your notes that triggered the change. A second sign is that switching between tasks takes you less settling-in time than before. If every goal comes out as keep week after week, write a clear if-then rule for each one, naming the result that would make you change it.

> **Practice in play:** *The Cleverini game Switcheroo practises adaptability in the game, and an offline version uses a pack of cards sorted by a rule that a partner changes without warning. Game scores show progress in the game only and are neither a test of ability nor a diagnosis. A large review found little evidence that gains from*

> *brain-training programs reach everyday life (Simons et al., 2016), so the weekly review is what helps you adapt real plans.*

Key idea:

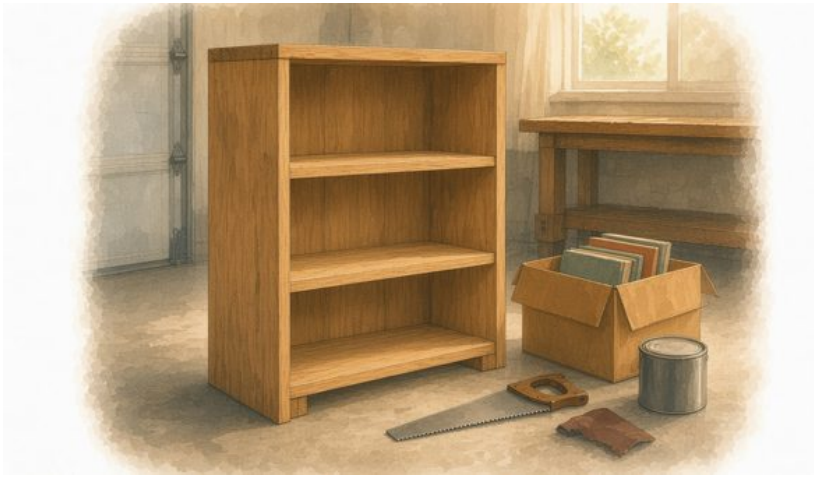
Check progress every week, decide in advance what result will make you change course and name the new goal before each switch (Harkin et al., 2016; Gollwitzer & Sheeran, 2006; Monsell, 2003).

3.8 Completion: Turning Effort into Finished Results

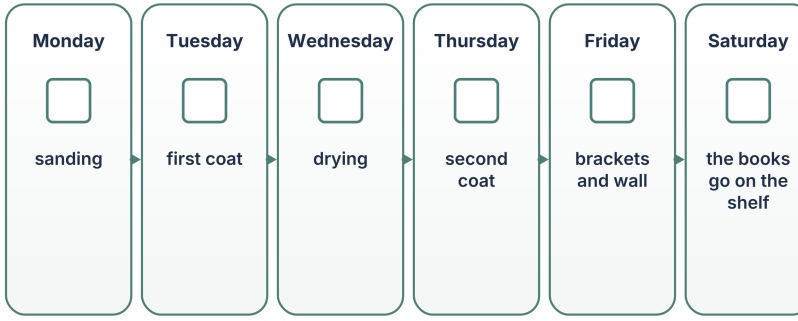
The bookshelf in Hamid's garage has been nearly finished since September. He is thirteen, and he cut and screwed the frame together in two weekends. What is left is the dull end of the job: sanding, two coats of paint and fixing it to his bedroom wall. His books are still in a box on the floor. **Finishing needs a skill of its own**, separate from starting and keeping going, and this book calls it completion. This section shows how to define the end of a task, plan the last stretch realistically and come back to the work each time you stop.

A task often stalls near the end because "finished" has never been described. Locke and Latham (2002) define a goal as the aim of an action, usually a set standard to reach within a time limit, and section 2.4 used the same idea to plan a yard sale. For completion, that standard describes the finished result in words you can check. Hamid writes it on a card and pins it to the garage wall: "Done means sanded smooth, two

coats of white paint, fixed to my wall and my books on it, by the last Saturday of half-term."



The date needs to be realistic. Section 2.3 described how Buehler, Griffin and Ross (1994) found that people's predictions of when they would finish were too optimistic, and how connecting a prediction to past experience removed the bias in one of their studies. Hamid's first thought is that the painting will take one afternoon. Then he remembers the stool he painted last year, which took three evenings because each coat needed a full day to dry. He plans for that, and the six remaining steps fill the half-term week from Monday to Saturday.

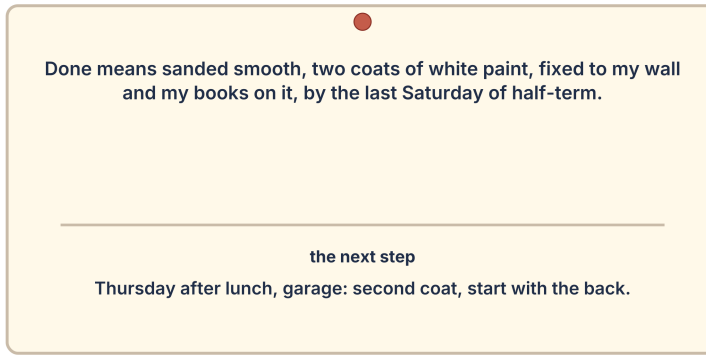


The plan stays on the wall as a list of the six steps, and he ticks each one as he finishes it. Section 1.3 described a review of experiments in which people who were helped to check their progress reached their goals more often (Harkin et al., 2016). The ticks are the check. On Wednesday evening, with the paint drying, three ticks show him that he is halfway, and the three empty boxes show what is left.

Many people believe that unfinished tasks stick in the memory better than finished ones, an idea often called the Zeigarnik effect. Ghibellini and Meier (2025) combined the studies on it and found no memory advantage for unfinished tasks. They did find a general tendency for people to go back to a task that had been interrupted. That pull to return is real, and the next finding shows how a plan can put it to use.

Masicampo and Baumeister (2011) found in several laboratory studies that an unfinished goal kept intruding on people's thoughts while they did something else, and that letting them write a specific plan for the goal stopped those effects. It is one paper, so the result still needs confirming by other researchers. Each time Hamid stops work he writes the next step on the card, with when and where he will do it, such as "Thursday after lunch, garage: second coat, start with the back." He then goes inside without the job nagging at him, and on Thursday he knows exactly where to start.

The paint costs him £6 from his pocket money, and on Friday his dad helps him drill the wall and fit the brackets. On Saturday afternoon the books go on the shelf, and every line of the card is true.



The exercise below runs the same steps on an unfinished task of your own. Its purpose is to make the end of the task clear, give it a realistic date and give every pause a next step. Choose something you started and left near the end, such as a project, a repair, a piece of writing or a tidy-up.

> Exercise:
>
> Finish one unfinished task.
>
> 1. **Write what "done" means**: the standard the finished result must meet and the date. Adapted from the goal definition of Locke and Latham (2002).
> 2. Set the finish date from how long the last similar task took, and list the steps that remain. Adapted from Study 4 of Buehler, Griffin and Ross (1994).
> 3. Whenever you stop before finishing, write when and where you will do the next step. Adapted from the plan-making studies of Masicampo and Baumeister (2011).

You can tell the attempt worked when every part of your "done" line is true on or before the date you set. A second sign is that each time you

returned to the task, you started straight from the next step you had written down. Tick each step on your list as you finish it. If the date slips, compare the steps that took longer than planned with your last similar task, and use the difference when you set your next finish date.

Key idea:

Write what "done" means, set the date from your last similar task and give every pause a written next step (Locke & Latham, 2002; Buehler et al., 1994; Masicampo & Baumeister, 2011).



Module

4

Methods for Improving Action

Section 1.1 defined action as the ability to start purposeful behaviour and keep it going, under control and adjusted, until it reaches the outcome you intended. Module 3 trained the eight core skills behind that ability one at a time. Module 4 turns to methods. Each method in Module 4 is **a practical tool you can apply to almost any task**, and most of them draw on several core skills at once.

The first three sections deal with getting from an intention to an organised start. Section 4.1 is about overcoming inertia and starting straight away. Section 4.2 turns a goal into a plan whose steps you can actually carry out. Section 4.3 covers time management, deciding what comes first and putting the steps in a workable order.

The next four sections work on how the action itself goes. Section 4.4 is about getting more done for the same effort. Section 4.5 improves the quality of the work with checklists and feedback, and section 4.6 builds habits and routines that keep you consistent from week to week. Section 4.7 deals with acting when the outcome is uncertain and with managing the risks.

Section 4.8 then combines the methods into a short daily practice. Some methods will suit your tasks better than others, and you do not need all of them at once. Each section has a worked example, an exercise for a real task from your own week and a description of what a successful attempt looks like, so you can choose the methods that help you most and practise those first.

4.1 Overcoming Inertia and Starting Immediately

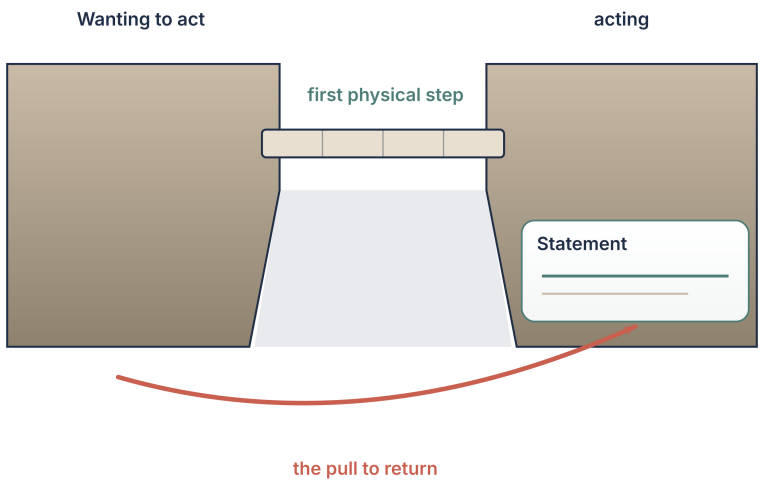
For four Saturdays in a row Yusuf has sat down after breakfast meaning to begin his college application statement, and each time the morning has gone on something else. He is sixteen, the statement needs to be about 600 words, and the deadline is at the end of next month. He wants to write it, and he knows it matters. Section 3.1 trained initiation as a skill. The method in this section rests on **making the first step physical and doing it straight away**, while the intention is still fresh.



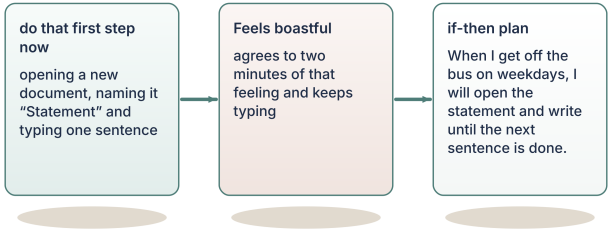
Wanting to act and acting are further apart than they feel. Sheeran (2002) reviewed research on how often people's intentions turn into behaviour and found a real gap between the two. Section 1.1 described the follow-up by Webb and Sheeran (2006), in which raising people's intentions a lot changed their behaviour much less. Yusuf already wants to write the statement, so more wanting would not close the gap. He needs a way across it at one particular moment.

Section 3.1 described what tends to hold a start back. Steel (2007) found that people put tasks off more when they feel unpleasant and when the deadline is far away. Yusuf's statement is both. Writing about himself feels boastful, and a deadline at the end of next month still feels distant. The method below handles those two pulls by shrinking the start until there is little left to resist.

The first part is to choose the first physical step, small enough to do in a minute. For Yusuf it is opening a new document, naming it "Statement" and typing one sentence about why he wants to study engineering. The second part is to **do that first step now**, before the next thought about the task arrives. Ghibellini and Meier (2025) combined many studies of interrupted tasks and found that people tend to go back to a task once it has been started and then left. They also found, as section 3.8 noted, that unfinished tasks are not remembered better than finished ones. The useful part for starting is the pull to return. Once Yusuf's document exists with one sentence in it, the task has been started, and that pull now works for him.



The third part deals with the unpleasant feeling and the next start. Eckert and colleagues (2016) found in three studies, including a randomised trial, that training people to put up with unpleasant feelings and to change them reduced procrastination. It is one paper, as section 3.1 noted. Yusuf uses the book's two-minute version from that section. He writes, "Feels boastful," agrees to two minutes of that feeling and keeps typing. For the next session he writes an if-then plan, the kind that Gollwitzer and Sheeran (2006) found helps people get started: "When I get off the bus on weekdays, I will open the statement and write until the next sentence is done."



That Saturday he writes 120 words before lunch. He opens the document again that evening without planning to, and by the following Friday the draft is about 600 words long, more than two weeks before the deadline. The writing stayed as hard as before, and each start now took one minute and one physical action.

The exercise below sets up the same method for a task you keep meaning to begin. Its purpose is to move you from intending to doing within a minute, while the intention is still active. Choose a task you have put off at least twice, and do step 1 as soon as you finish reading the steps.

Exercise:

Start within a minute.

1. **Do the first physical step now**: open the file, lay out the tools or write the first sentence, even if you will continue later. Adapted from the pull to resume an opened task in Ghibellini and Meier (2025).
2. Write what feels unpleasant about the task, accept it for two minutes and keep going. Adapted from Eckert et al. (2016) and Steel (2007).
3. Before you stop, write an if-then plan for the next start: "When [time or cue], I will start [the first small step]." Adapted from Gollwitzer and Sheeran (2006).

You can tell the attempt worked when the first step happened within a minute of deciding to start, and when you came back to the opened task at the time your if-then plan named. A second sign is that the work grew from that first step without a new struggle to begin. Write down how long each start took over a week. If a start still drags, make the first step smaller until it takes a minute or less.

Key idea:

Make the first step physical and small, do it at once and set an if-then plan for the next start (Ghibellini & Meier, 2025; Eckert et al., 2016; Gollwitzer & Sheeran, 2006).

4.2 Turning Goals into Executable Plans

In ten weeks Anya's family flies to Spain to stay with her cousin, and Anya, who is fifteen, has written "get better at Spanish" at the top of a page. Nothing has happened since. The goal is honest, and it gives her nothing to do on a Tuesday evening. **An executable plan turns a goal into steps you can carry out on a named day**, and this section builds one on a single page in four parts, with a weekly check at the bottom.



A good goal is only the start. Section 1.1 described how Webb and Sheeran (2006) found, across 47 experiments, that a large change in what people intended led to a smaller change in what they did. A plan has to cover the ground between deciding and doing, which a better goal statement alone does not reach.

The first part of the plan is the goal itself, written as a standard and a date. Locke and Latham (2002) reviewed 35 years of research and found that specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed

committed to it. Sections 1.3 and 3.8 used the same idea. Anya rewrites her line: “By the trip, hold a five-minute conversation in Spanish with my cousin about my day.” It is hard enough to stretch her, and she can tell on the day whether she has done it.

The second part is the steps, each one written as an action you could start without further thought. Anya estimates she needs about 100 everyday phrases for that conversation. “Learn phrases” is still too vague to start, so she writes the step as “learn two new phrases from my list and say them aloud five times.”

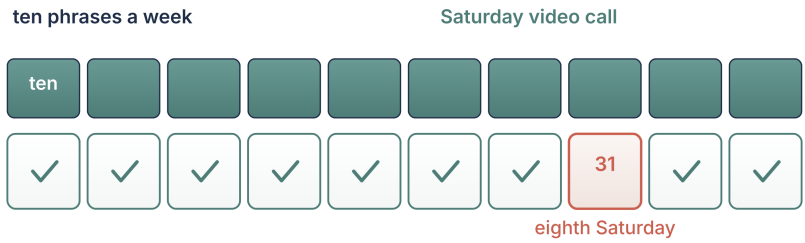


The third part sets the time from experience. Buehler, Griffin and Ross (1994) found that people’s predictions of how long work would take were too hopeful, because they pictured the future going smoothly, and section 2.3 showed how connecting the prediction to past experience

removed that bias in one of their studies. Anya remembers learning French vocabulary for a test last term, when about ten new words a week was the most that stuck. At ten phrases a week, 100 phrases take ten weeks, which matches the trip exactly and leaves no slack. She decides to accept that pace and to drop the less useful phrases if she falls behind.

The fourth part links the first step to a moment in the day. Gollwitzer (1999) described if-then plans as a link between a situation you expect and the action you will take when it arrives, and Gollwitzer and Sheeran (2006) found across 94 tests that such plans helped people reach their goals. Anya writes, “When I clear my plate after dinner on a weekday, I will open my phrase list and learn two new phrases.” Two phrases on five weekdays give her the ten a week her plan needs.

The page also needs a way to see whether the plan is working. Harkin and colleagues (2016) found in their review of experiments that people who were prompted to check their progress reached their goals more often. Anya’s check is a Saturday video call with her cousin, after which she counts how many of her phrases she managed to use and writes the number at the bottom of the page.



By the eighth Saturday she uses 31 phrases in one call. In Spain, the week after her tenth week of practice, she talks with her cousin for more

than five minutes about her day, and she brings the page home with all ten weekly tallies filled in.

The exercise below builds the same one-page plan for a goal of your own. Its purpose is to turn a goal into something you can act on tomorrow, with its time set from real experience. Choose a goal that will take several weeks, such as learning a skill, saving for something or finishing a project.

> Exercise:
>
> Build a one-page plan.
>
> 1. Write the goal as **a clear standard and a date**, describing what "good enough" looks like. Adapted from the goal definition of Locke and Latham (2002).
> 2. Before you set how long the work will take, write how long the last similar task took, then set the new time from that. Adapted from Study 4 of Buehler, Griffin and Ross (1994).
> 3. Write the first step as an if-then plan: "When [cue], I will [first step of the plan]." Adapted from Gollwitzer and Sheeran (2006).

You can tell the attempt worked when, on any given day, your page tells you exactly what to do and when, without further deciding. A second sign is that your weekly check shows the work moving at about the pace you planned. Add a weekly progress line at the bottom of the page and fill it in every week. If the numbers fall behind for two weeks running,

use the last similar task again to reset the pace or shrink the goal to a standard you can still reach by the date.

Key idea:

Write the goal as a standard and a date, set the time from your last similar task, tie the first step to a cue and check progress every week (Locke & Latham, 2002; Buehler et al., 1994; Gollwitzer & Sheeran, 2006; Harkin et al., 2016).

4.3 Time Management, Prioritization and Sequencing

Saturday, nine o'clock, three free hours before lunch at noon, and Callum, who is thirteen, has five things he could do with them. His maths homework is due on Monday. A history project is due in three weeks, and he has a trumpet exam in two. His grandmother visits on Sunday, so his room needs tidying, and his phone keeps lighting up with a group chat about a game that afternoon. Section 4.2 showed how to turn one goal into a plan. **When several plans compete for the same hours**, the work is to find out how long each part really takes and then decide what order to do it in.

Callum's first plan is a guess. Maths will take twenty minutes, the history thirty, the trumpet thirty and the room fifteen, so he expects to be free by about half past ten. Buehler, Griffin and Ross (1994), whose work section 2.3 introduced, found that people's time estimates were usually too hopeful, and that the bias dropped in one study when people connected the estimate to past experience. Lovallo and Kahneman (2003) gave similar advice to business planners in a

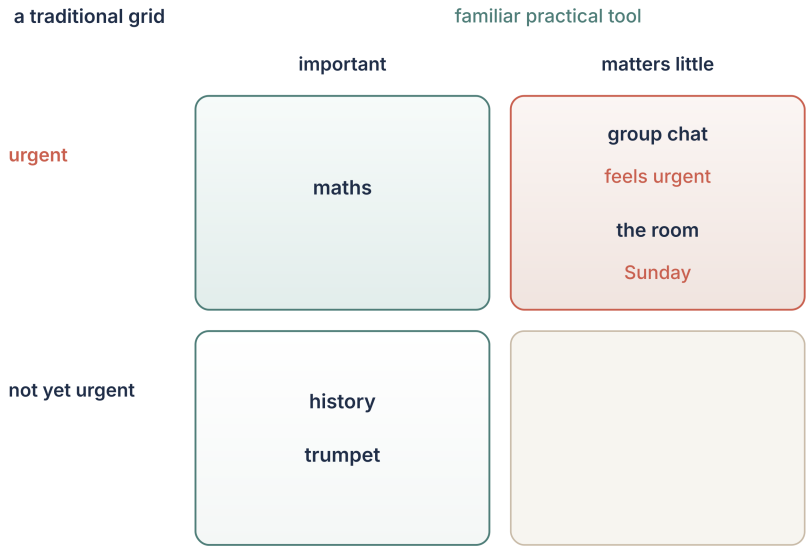
magazine article: look at how comparable past projects actually turned out, which they called taking the outside view, before trusting the story of the one in front of you.



So Callum looks back instead of forward. The last maths sheet of this kind took him fifty minutes, not twenty, and tidying his room before the last visit took thirty-five. He keeps the trumpet at thirty minutes, his usual practice time, and he gives the history forty-five minutes because the first stage, reading and making notes on two sources, took about that long on his last project. The new total is two hours and forty minutes, which still fits before noon but leaves almost no time spare.

Next he has to choose an order. Many people use a traditional grid that sorts tasks by whether they are urgent and whether they are important. It is a familiar practical tool rather than a method tested in the research behind this book, and it is useful here because it makes Callum look past the loudest task. The group chat feels urgent but matters little, so it can wait until noon. The maths is both urgent and important. The room has a fixed time, Sunday, but matters less, so it can go last. The

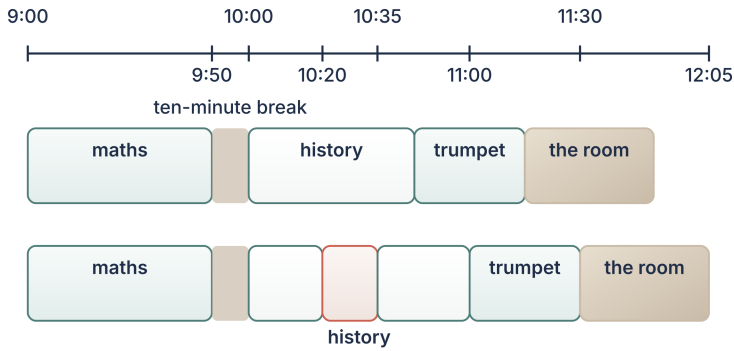
history and the trumpet are important but not yet urgent, and tasks like these tend to get pushed aside by whatever is beeping.



The history project is the one most at risk. Steel (2007) found in a large review that a long gap before a deadline was one of the steadiest predictors of putting work off. A three-week deadline feels far away on a Saturday morning. Callum's response, which is the book's own step rather than something Steel tested, is to give the project a near, dated checkpoint: notes from two sources finished today.

Then he sequences the morning in single blocks. Monsell (2003), whose review section 3.7 used, found that people are slower and make more errors just after switching tasks, and that a moment of preparation reduces this cost without removing it. Callum's order is maths from 9:00 to 9:50, a ten-minute break, history from 10:00 to 10:45, trumpet from 10:45 to 11:15 and the room from 11:15 to 11:50, with the phone face down in another room until noon.

At 10:20 his mother asks him to help unload the shopping. Before he gets up, he writes the next step on top of his history notes: “Read the second source, page 4, and note two facts about the wall.” Leroy and Glomb (2018) found in their studies that a brief ready-to-resume plan like this reduced the attention left stuck on an interrupted task. He is back at 10:35, reads the note and finishes the history block at 11:00. Everything after it moves fifteen minutes later, so the trumpet runs from 11:00 to 11:30 and the room from 11:30 to 12:05, five minutes past his finishing time. He answers the group chat over lunch.



Read the second source, page 4, and note two facts about the wall.

The exercise below turns these moves into a routine for one day. Its purpose is to give you a plan whose times come from real experience and whose order puts the important work ahead of the merely loud. Try it on a day when several tasks are competing for the same hours.

Exercise:

Plan one day.

1. List the day's tasks and mark each as urgent, important, both or neither. Do an important but not urgent task before a merely urgent one, unless safety requires otherwise. Traditional practitioner grid; no study traced.
2. Before you put a task in the day, write how long the last similar job took and schedule from that, not from a best-case guess. Adapted from Buehler, Griffin and Ross (1994).
3. Work on one task in a single block. If you must switch, first write **the next step on the task you are leaving**. Adapted from Monsell (2003) and Leroy and Glomb (2018).

You can tell the attempt worked when your day ends close to the plan, perhaps a few minutes over, as Callum's did, rather than an hour adrift. Another good sign is that an important task with a far deadline moved forward by its checkpoint, not only the urgent ones. If an interruption came, you should be able to return to the parked task by reading your note, without trying to remember where you were. When a block keeps running over by the same amount, write the real time down and use it as your "last similar job" next time.

Key idea:

Schedule from how long similar work really took, put important work ahead of merely loud work, give far deadlines a near checkpoint and park a task with its next step before you switch (Buehler et al., 1994; Steel, 2007; Monsell, 2003; Leroy & Glomb, 2018).

4.4 Improving Speed, Efficiency and Productivity

Sixty parcels leave for the post office every Friday morning, and on Thursday evenings Ellie packs them. She is fourteen, and her mum runs a small online candle shop from their kitchen. Ellie starts at five o'clock and usually finishes at eight, three hours for sixty orders, or three minutes each. Last week two parcels went out with the wrong labels, and sending one of them again cost her mum £4.50. Section 3.5 showed how to speed up one slow step by practising it. **This section looks at a whole working session**, where much of the lost time sits in the gaps between steps.

Ellie times one evening and writes down where the minutes go. She packs each order from start to finish before beginning the next one: read the order, print its label, find the right candle, wrap it, box it, tape it and stick on the label. Every order makes her switch between the printer, the shelf and the packing table, and she checks her phone whenever it buzzes. Monsell (2003), whose review section 3.7 used, found that people are slower and make more errors just after switching from one task to another, and that preparing for the switch reduces this cost without removing it.

Her first change is to group the work into fewer, longer blocks. She prints all sixty labels in one block, then picks all the candles, then packs and tapes, and sticks on the labels last. The phone stays in the hall. She also sets the table out the same way every Thursday, with boxes on the left, tape in the middle and labels on the right. Wood and Rünger (2016) explained in their review that habits form when people repeat the same action in the same setting, and that a formed habit becomes the efficient, default way of responding, with less effort spent deciding

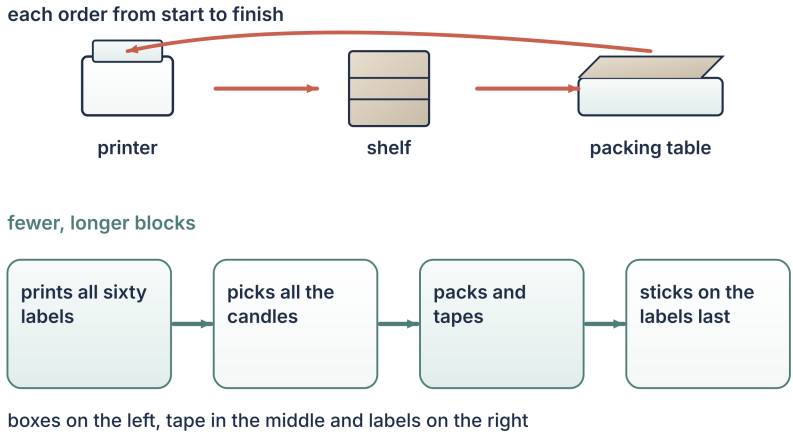
what comes next. After a few Thursdays Ellie no longer has to think about where anything goes.



Going faster brings its own risk. Heitz (2014) reviewed a pattern found again and again in research: when people act more quickly, they tend to make more mistakes. So Ellie's target for the evening comes with a check. She aims for two and a half minutes an order, or 150 minutes in all, and she counts wrong labels each week. She keeps the faster pace only if the count stays at two or fewer. One of last week's mistakes came from skimming a customer's note that asked for the parcel to go to a different address. Rayner and colleagues (2016) found in their review of reading research that reading faster trades off against understanding, so she now reads every customer note in full, even when it slows her down.

The block of packing is long and dull, and halfway through it she takes ten minutes away from the table. Albulescu and colleagues (2022) combined studies of short breaks and found that they raised people's energy and reduced tiredness. Their effect on how much people got done was small and clear only for less demanding tasks, and longer breaks helped performance more than very short ones. Ellie treats the

break as a way to stay fresh for the second half rather than as a speed trick.



At half past six on the third Thursday her younger brother asks for help with his homework. Before she gets up, she writes on a sticky note: “Next: order 34, blue box, gift note, back at 6:45.” Leroy and Glomb (2018) found in their studies that a short ready-to-resume plan like this reduced the attention left stuck on the paused task and helped people do the new task well. She helps her brother, comes back at 6:45 and picks up at order 34 without searching for her place.

The changes show in her record. On the first Thursday with blocks the work takes 160 minutes, with one wrong label. On the third Thursday it takes 145 minutes of work plus the ten-minute break and the fifteen minutes with her brother, so she finishes at 7:50 instead of eight, and there are no wrong labels. The 145 minutes beat her target of 150, and the error count stayed within her limit, so she keeps the new pace.



The exercise below applies these steps to a task you repeat every week. Its purpose is to make the work quicker while keeping its quality where it was. Choose something you do often enough to time, such as a weekly chore, a homework type or a job you help with.

Exercise:

Speed up a repeated task.

1. Set a time target for the task and count your errors each time. Keep the target **only if errors stay level**. Adapted from Heitz (2014).
2. Work in one block on a single task, then take a short break away from it. If the work is demanding, make the break long enough to rest. Adapted from Albulescu et al. (2022) and Monsell (2003).
3. When you are interrupted, write one line with the next step and when you will return, then handle the new task. Adapted from Leroy and Glomb (2018).

You can tell the attempt worked when your timed record goes down over two or three tries while the error count stays the same or falls. A second sign is that an interruption costs you only the time it takes, because your note tells you where to pick up. If the errors rise as the time falls, ease the target back and look for the step where the mistakes happen, using the error log from section 3.6.

Key idea:

Group the work into blocks, set it out the same way each time, pair every speed target with an error count and park a task with a note before an interruption (Monsell, 2003; Wood & Rünger, 2016; Heitz, 2014; Leroy & Glomb, 2018).

4.5 Improving Quality Through Checklists, Practice and Feedback

Mr Hale's red pen found three misspelled player names in Freya's last match report, and he rewrote her first paragraph again. Freya is fourteen and writes a 300-word report on the school football team's Saturday match for the newsletter, due to Mr Hale by Monday morning. Over her last four reports he has corrected twelve misspelled names and rewritten three of the four opening paragraphs. Each of the three tools in this section's title deals with **a different part of that problem**. A checklist catches mistakes she already knows about, and focused practice strengthens the weak step. Feedback shows her what she cannot yet see.



Section 3.6 showed how an error log points to the steps where mistakes cluster, and how a short checklist can guard those steps. Freya's log is easy to read because Mr Hale's marks show it: names and openings. She writes five checks on a card and keeps it by her laptop.

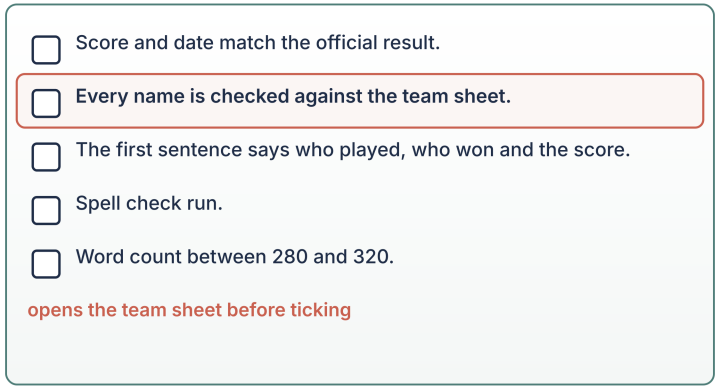
1. Score and date match the official result.
2. Every name is checked against the team sheet.
3. The first sentence says who played, who won and the score.
4. Spell check run.
5. Word count between 280 and 320.

The research on checklists comes from hospitals, and it carries a warning as well as a promise. Haynes and colleagues (2009) introduced a 19-item checklist for operations in eight hospitals, and afterwards deaths fell from 1.5 percent to 0.8 percent. This was a before-and-after comparison, and Urbach and colleagues (2014) later looked at about 215,000 operations in 101 hospitals in Ontario after a checklist was made compulsory there. Deaths and complications did not fall by a

significant amount. The two studies suggest that a checklist helps when people actually use it with care, and that having the form is not enough.

Freya learns this on her first Saturday with the card. She ticks the second box out of habit without opening the team sheet, and one name, Connor spelled “Conor”, gets through. On the next two reports she opens the team sheet before ticking, and both come back with no misspelled names.

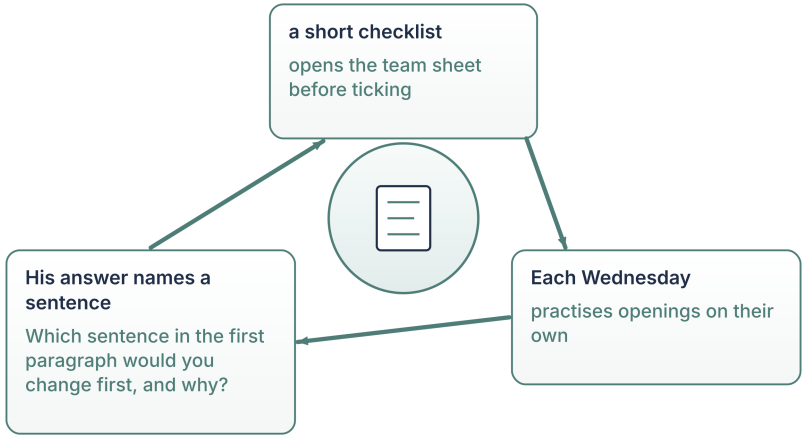
The openings need a different tool, because a checklist can tell her the first sentence is weak but cannot make it strong. Ericsson, Krampe and Tesch-Römer (1993) argued that expert performance comes from long, focused practice aimed at the hard parts of a skill. Later work narrowed that claim. Macnamara, Hambrick and Oswald (2014) combined many studies and found that this kind of practice explained only part of the differences between people’s performance, more in games and music than in education or professional work. Practice of the weak step can help, though it will not account for everything.



So Freya practises openings on their own. Each Wednesday she takes the result of an old match from the newsletter archive and writes three

different first sentences for it in ten minutes. Her quality check is item 3 on her card: each sentence has to name the teams, the winner and the score. She picks the best of the three and puts the practice into the next real report.

Feedback is the third tool, and it needs care. Kluger and DeNisi (1996) combined 607 results and found that feedback raised performance on average, yet more than a third of the feedback they studied made performance worse, especially when it drew attention to the person rather than to the task. Hattie and Timperley (2007) also found in their review that feedback can help or harm, depending on its type and how it is given. When Freya sends a report, she now asks Mr Hale one question about the work: “Which sentence in the first paragraph would you change first, and why?” His answer names a sentence, which gives her something to act on before the next match.



Over the next three reports the record changes. Misspelled names go from twelve in four reports to one in three, the “Conor” from the first

week. Mr Hale rewrites one of the three openings, the first, and leaves the other two as she wrote them.

The exercise below sets up the same three tools for a task you repeat. Its purpose is to raise the quality of the work, with each tool aimed at a different kind of weakness. Choose a task you do at least weekly and that someone else sees, such as a homework type, a report or a job you help with.

> Exercise:
>
> Build a quality cycle.
>
> 1. Write five checks you will tick before or during the task, then use the list the next three times you do it, not just once. Adapted from Haynes et al. (2009) and Urbach et al. (2014).
> 2. Pick the step you usually get wrong or rush. Practise it on its own with a quality check, then put it back into the full task. Adapted from Ericsson, Krampe and Tesch-Römer (1993) and Macnamara, Hambrick and Oswald (2014).
> 3. Ask for, or write, one piece of feedback that **names a step of the task** you can change. Adapted from Kluger and DeNisi (1996).

You can tell the attempt worked when the mistakes your checklist guards against stop appearing, and when the feedback you get begins to point at new things instead of the same ones. A ticked box should mean you looked, so if an error on your list still gets through, check whether you are ticking from memory. If the weak step stays weak after a few

weeks of practice, ask for feedback on that step alone and change how you practise it.

Key idea:

Use a short checklist with real attention, practise the weak step on its own and ask for feedback that names a step of the work (Haynes et al., 2009; Urbach et al., 2014; Macnamara et al., 2014; Kluger & DeNisi, 1996).

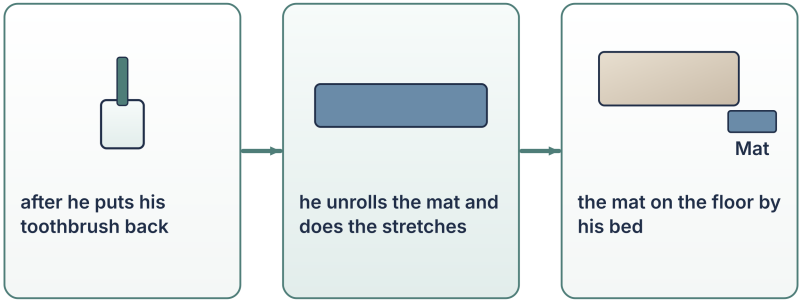
4.6 Building Habits, Routines and Consistency

A BLUE EXERCISE MAT LIES rolled up under Joel's bed, where it has been since his first visit to the physiotherapist. He is twelve, his knees ache after football, and the physiotherapist has given him ten minutes of stretches to do every evening for the next ten weeks. In the first week he does them on two evenings out of seven, each time because his mum reminds him. Joel knows why the stretches matter, and what he needs now is **a routine that starts without anyone having to remember it**.



A habit is a learned link between a situation and an action. Wood and Neal (2007) explained in their review that habits form slowly as people repeat an action in the same setting, until features of that setting begin to set the action off without a fresh decision each time. Wood and Rünger (2016) described the same process with later evidence and added that a formed habit becomes the efficient, default way of acting. Section 3.2 showed, through the work of Galla and Duckworth (2015), that people who manage themselves well often lean on habits like these rather than on effort in the moment.

So Joel's first job is to choose a cue he already meets every evening. He picks brushing his teeth before bed, because he does it every night and the bathroom is next to his room. His rule is short: after he puts his toothbrush back, he unrolls the mat and does the stretches. He keeps the mat on the floor by his bed instead of under it, and he sticks a note saying "Mat" on the bathroom mirror until he no longer needs it.

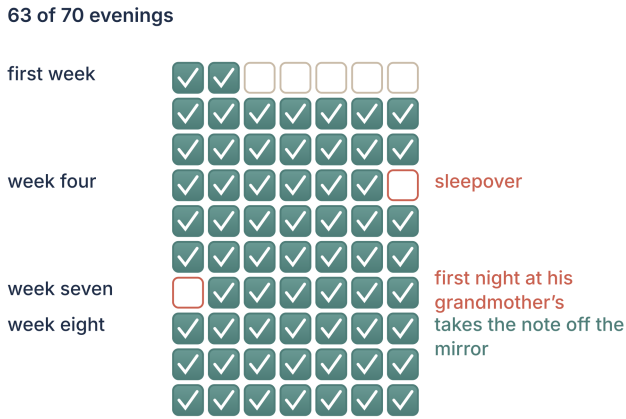


How long the routine takes to become automatic varies a great deal. Lally and colleagues (2010) asked 96 volunteers to repeat a chosen daily health behaviour in the same setting for twelve weeks. For the 39 people whose results fitted the researchers' model well, the middle value for reaching close to full automatic strength was 66 days, with a range from

18 to 254 days. That is one study of health behaviours, so 66 days is a midpoint for those volunteers and gives no deadline for anyone else. It does tell Joel to expect weeks or months of repetition before the stretches start on their own.

The same study found that missing a single chance to do the behaviour did not seriously disturb the process. In week four Joel sleeps over at a friend's house for a birthday and does no stretches that night. The next evening, after his toothbrush goes back in the cup, he does them as usual. He treats the missed night as one gap, and the routine carries on.

A bigger risk comes in week seven, when Joel spends half-term with his grandmother. Wood, Tam and Witt (2005) studied students who moved to a new university and found that old habits lasted only when features of the setting stayed the same. When the setting changed, people's behaviour fell back under deliberate choice. At his grandmother's house the bathroom, the mirror and the bedroom are all different, and on the first night he forgets the stretches completely. The next morning he writes a new cue on a card: "After I brush my teeth at Gran's, mat on the landing." He follows it for the rest of the week.



By the end of the ten weeks Joel has stretched on 63 of 70 evenings. Five of the seven gaps came in the first week, before he had a cue, and the other two were the sleepover and the first night at his grandmother's. Around week eight he notices that he sometimes reaches for the mat before he remembers the note, and he takes the note off the mirror. At his last appointment the physiotherapist says his knees are moving more easily and asks him to keep going.

The exercise below sets up a habit in the same way. Its purpose is to link a useful action to a cue that already happens every day, so that the action stops depending on memory or mood. Choose one small action you would like to do daily, such as a short stretch, ten minutes of reading or packing your bag for the next day.

> Exercise:
>
> Build one habit.
>
> 1. Choose one small action and name **a cue you already meet each day**. Do the action right after that cue for the next few weeks. Adapted from Wood and Neal (2007) and Lally et al. (2010).
> 2. If you skip a day, do the action at the next cue and carry on. Adapted from Lally et al. (2010).
> 3. When your place or schedule changes, write a new cue for the same action and use it the first week in the new setting. Adapted from Wood, Tam and Witt (2005).

You can tell the attempt is working when you start the action at the cue without a reminder, at least on some days, as Joel did around week eight. Keep a simple tracker so you can see the run of ticks and spot any pattern in the gaps. If the gaps keep falling on the same day, the cue is

probably weak on that day, so choose a different cue for it. Expect the routine to take weeks or months to settle, and judge it by the tracker rather than by how it feels on a bad night.

Key idea:

Tie one small action to a cue you already meet each day, keep the setting the same, carry on after a missed day and write a new cue when your place or schedule changes (Wood & Neal, 2007; Lally et al., 2010; Wood, Tam & Witt, 2005).

4.7 Acting Under Uncertainty and Managing Risk

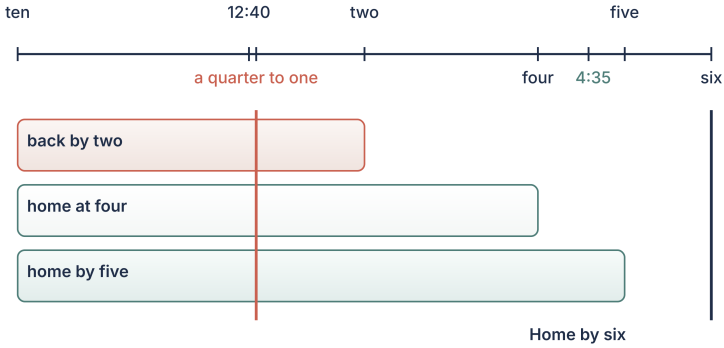
"Home by six" was the one condition Theo's parents set when he asked to cycle to the lake with two friends on Saturday. Theo is fourteen, the lake is 30 kilometres away, and none of them has ridden that far before. His first plan fits on a sticky note: leave at ten, ride fast, eat at the lake, back by two. The plan leaves out what he cannot know in advance: how fast they will really go, whether it will rain and whether a tyre will go flat on a lane with no shops. **Acting under uncertainty means deciding before those answers arrive**, with a plan that still works if some of them go the wrong way.



Theo's sticky note rests on quick judgments. Tversky and Kahneman (1974) described the mental shortcuts people use when they judge under uncertainty. These shortcuts save effort and often work, but they also produce regular, predictable errors. A useful habit before a risky plan is to treat the first judgment as a draft and check it against something firmer.

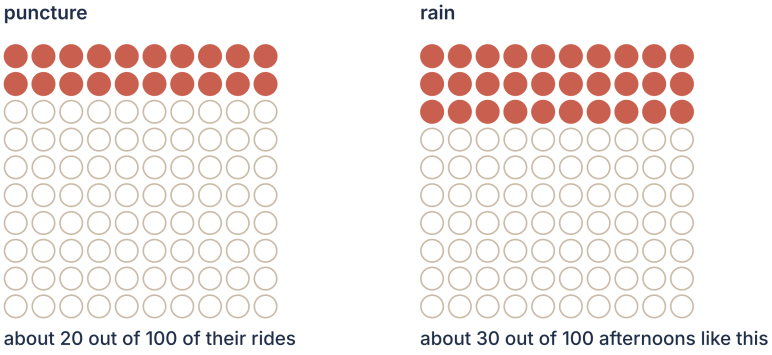
The firmest thing Theo has is the group's own history. Lovallo and Kahneman (2003), writing for business planners, advised taking the outside view: look at how similar past cases turned out, not only at the story of the present one. Section 2.4 used the same advice for decisions. Theo looks up the three longest rides the friends have done together. Twenty kilometres took an hour and forty minutes, 25 took two hours and ten, and 35 took three hours. Each comes out at about twelve kilometres an hour, stops included, well below the twenty he had imagined. At that pace the 60-kilometre round trip takes five hours of riding, and with an hour for lunch at the lake they would be home at four, not two.

Buehler, Griffin and Ross (1994), whose work sections 2.3 and 4.2 used, found that people's time forecasts were too hopeful unless they connected them to past experience. Even a forecast built from past rides can be wrong on the day, so Theo adds a buffer. The plan now says home by five, an hour before his parents' limit. He also writes a turn-back rule: if they have not reached the lake by a quarter to one, they eat where they are and ride home.



The other two risks are chances, and people often handle chances badly. Kahneman and Tversky (1973) found that people's predictions often ignored how common an outcome usually is, judging instead by how well the present case seemed to fit. Theo's first thought about punctures is that they never get them. Looking back, though, two of the group's last ten longer rides ended with someone pushing a bike. Hoffrage and colleagues (2000) reported that most people, experts included, find chances easier to use when they are written as counts, such as 8 out of 100, instead of as percentages alone. Theo writes both risks that way. A puncture has happened on about 20 out of 100 of their rides. The forecast gives a 30 percent chance of afternoon rain, which he writes as rain on about 30 out of 100 afternoons like this one.

Written as counts, neither risk is large enough to cancel the ride, but both are common enough to prepare for. Theo packs a spare inner tube and a pump, and on Thursday evening he and his friends practise changing a tube in his garage until each of them can do it. Each of them packs a light waterproof jacket. The ride goes ahead.



On Saturday they leave at ten and reach the lake at 12:40, five minutes inside the turn-back time. Nobody gets a puncture. Light rain starts at three, the jackets come out, and the wet ride home is slower than the ride out, taking two hours and fifty-five minutes after an hour at the lake. They are home at 4:35, inside the buffer and well before six.

The exercise below takes the same steps for any uncertain plan of your own. Its purpose is to replace a hopeful first guess with forecasts and chances drawn from real cases, and to decide what to do about each risk before you start. Choose a plan where the timing or the outcome is uncertain, such as a trip, an event or a first attempt at something.

> Exercise:
>
> Check a risky plan.
>
> 1. Before you commit, list three similar past cases and how they turned out. Write your forecast from that range, then decide. Adapted from Lovallo and Kahneman (2003) and Kahneman and Tversky (1973).
> 2. Take one uncertain outcome in your plan and rewrite its chance as **"about N out of 100 like this"**, then choose what to do about it. Adapted from Hoffrage et al. (2000).
> 3. Write how long the last similar job took, add a buffer above that, and only then set your finishing time. Adapted from Buehler, Griffin and Ross (1994).

You can tell the attempt worked when each risk in your plan has a written count and a matching action, such as a spare part, a backup time or a rule for turning back. A second sign comes afterwards: the real result lands inside the range you planned for, even if some things went wrong. If it falls outside, add the new case to your list of past cases so that your next forecast starts from a fuller record. Section 3.4 covers how to act when the problem is fear rather than judgment.

Key idea:

Treat the first guess as a draft, forecast from similar past cases, write each chance as a count out of 100 and plan a buffer and a fallback before you start (Tversky & Kahneman, 1974; Lovallo & Kahneman, 2003; Hoffrage et al., 2000; Buehler et al., 1994).

4.8 Combining Methods and Practising Daily

Seven methods have filled this module so far, each shown on a separate task, from Yusuf's college statement in section 4.1 to Theo's bike ride in section 4.7. Mira, who is fifteen, has one task that needs several of them at once. Her mock exams start in four weeks, she sits six subjects, and her revision so far has been a few long evenings followed by days of nothing. Section 1.1 defined action as the ability to initiate, control, sustain and adapt purposeful behaviour to achieve intended outcomes. For Mira that means a way of using the methods together, **every day, in a few minutes**, rather than one at a time when she remembers.

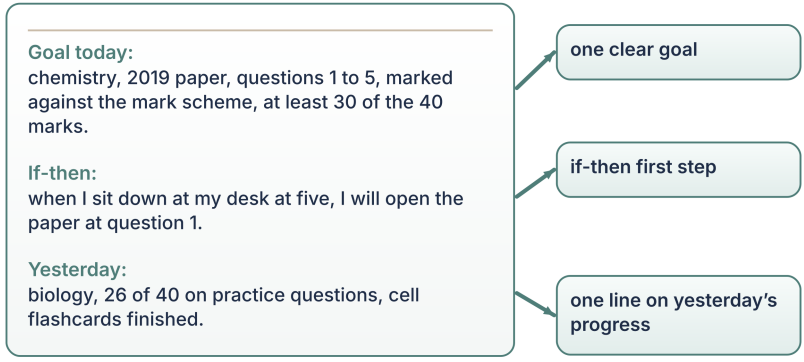


The core of her routine draws on three methods with strong support of their own. Locke and Latham (2002) found that specific, hard goals led to better performance than trying to do one's best, as long as the person had the ability and the commitment. Gollwitzer and Sheeran (2006) found across 94 tests that if-then plans helped people reach their goals. Harkin and colleagues (2016) found that people prompted to check

their progress reached their goals more often. Putting the three together into one daily routine is this book's own method and has not been tested as a set.

Mira's version is a card she writes each morning except Sunday, in about five minutes. Her plan is six revision sessions a week, one per subject, forty minutes each, with Sundays free, which gives four sessions for every subject before the mocks. On the ninth day her card reads:

- **Goal today:** chemistry, 2019 paper, questions 1 to 5, marked against the mark scheme, at least 30 of the 40 marks.
- **If-then:** when I sit down at my desk at five, I will open the paper at question 1.
- **Yesterday:** biology, 26 of 40 on practice questions, cell flashcards finished.



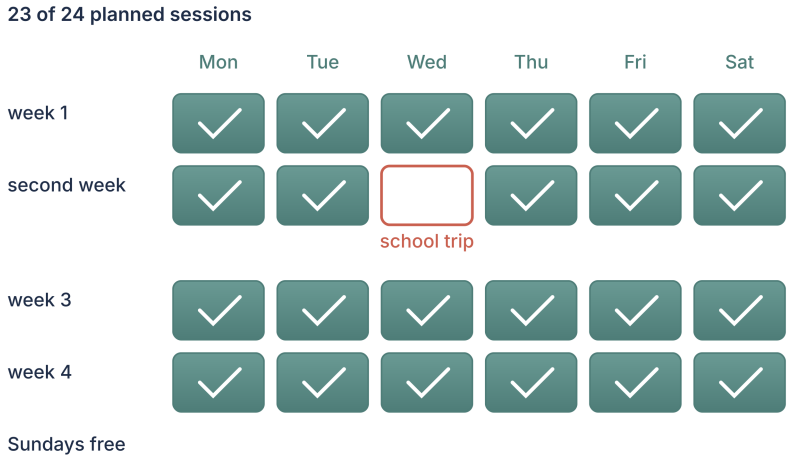
The other methods in this module fit around the card when she needs them. She times each session from how long the last similar paper took, as in section 4.3, and does each one in a single block with her phone in another room, as in section 4.4. When a paper shows the same kind of mistake twice, she adds a line to a short checklist, as in section 4.5.

The card works only if she writes it every day, and here the habit research from section 4.6 helps. Wood and Neal (2007) explained that habits form slowly through repeating an action in the same setting, until the setting itself starts the action. Galla and Duckworth (2015) found that people with good self-control relied on helpful habits more than on effort in the moment. So Mira writes the card at the same place and moment each day, at the kitchen table right after she puts her breakfast bowl in the sink. In the second week a school trip gets back late on Wednesday and she skips that day's session. Lally and colleagues (2010), in a study of health behaviours, found that missing one chance did not seriously set back a forming habit. Their study did not test study routines, but it gives Mira a reasonable rule: she writes Thursday's card as usual and carries on.

One part of her old routine goes. Mira has been playing a memory-training app for twenty minutes a night, hoping it would make revision easier. Simons and colleagues (2016) reviewed such brain-training programs and found little evidence that the gains spread to distant tasks or to everyday thinking, and section 2.6 described the much older finding of Thorndike and Woodworth (1901) that practice spreads mainly where tasks share the same elements. She spends the twenty minutes on flashcards for the subject she will sit first instead, so her practice happens on the task she needs to improve.

By the start of the mocks Mira has done 23 of her 24 planned sessions. Her marks rise in five subjects, and in history they stay where they were. That result fits what Macnamara, Hambrick and Oswald (2014) found when they combined many studies of practice: it explained only part of the differences in performance, and much less in some fields than in others. Section 1.1 also noted that action is not the same as the result, and someone can act well and still fall short for reasons outside their

control. Mira's history mark gives her something to ask her teacher about, and her card for the following week includes one line of feedback to act on.



The exercise below turns the card into a routine of your own. Its purpose is to bring the three methods behind the card into a few minutes a day, practised on a real task. Choose a task that will run for at least a few weeks, such as revision, a project or training for an event.

> Exercise:
>
> Daily action card.
>
> 1. Each day, write **one clear goal, one if-then first step and one line on yesterday's progress**. Adapted from Locke and Latham (2002), Gollwitzer and Sheeran (2006) and Harkin et al. (2016).
> 2. Choose a real task from this week, not a separate drill, and use the card on it in the setting where you need the result. Adapted from Thorndike and Woodworth (1901) and Simons et al. (2016).

3. Write the card at the same time and place each day for the next few weeks. If you miss a day, start again at the next one. Adapted from Wood and Neal (2007) and Lally et al. (2010).

You can tell the routine is working when the card takes only a few minutes and the "yesterday" line nearly always has something to report. A second sign is that you can point to the method behind any part of your day when someone asks why you did it that way. If the progress lines keep showing the same weak spot, bring in the method from this module that fits it, such as a checklist for repeated mistakes or an outside view for a plan that keeps running late.

Key idea:

Write a goal, an if-then first step and a progress line every day, in the same place, on a real task, and bring in the other methods when the progress line shows you need them (Locke & Latham, 2002; Gollwitzer & Sheeran, 2006; Harkin et al., 2016; Wood & Neal, 2007).



Module

5

Training Action in Different Fields

Module 4 gave you methods that work on almost any task, each shown on one example. Real tasks are messier. Each one arrives inside a field, such as a school subject, a job, a small business, a fitness plan or a friendship, and each field brings its own deadlines, its own people and its own ways of going wrong. Module 5 takes the methods you already have and shows **how they change shape when you use them in a particular field**, so that you can practise action where you actually need it.

Sections 5.1 and 5.2 start with study and work. Section 5.1 looks at education and learning, from starting homework to studying in a way that lasts until the exam. Section 5.2 turns to professional work and project management, where plans meet other people's timetables and work is often interrupted.

Section 5.3 covers business and entrepreneurship, including how to judge a new idea before money goes into it. Section 5.4 deals with health and fitness, along with personal development. It is about turning good intentions into steady habits, and it gives no advice on diets, medicines or treatments. Module 6 is where the book looks at the body's daily needs in more detail.

Section 5.5 moves to communication and relationships, including working with others, where your actions depend on how other people respond. Section 5.6 closes the module with everyday life and with carrying a skill from one field into another, including how close two tasks need to be before a method carries over.

Each section follows the pattern of Module 4. It has a worked example from its field, an exercise you can try on a real task from your own week and a description of what a successful attempt looks like. You do not need every field at once. Start with the one where you most want your

actions to make a difference, and come back to the others when you need them.

5.1 Education and Learning

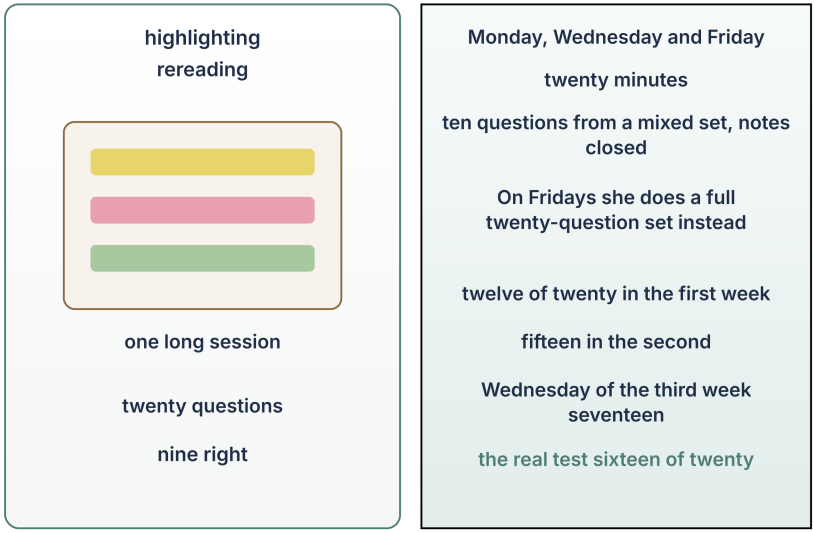
After an hour of highlighting her physics notes in three colours, Hana felt ready. She is thirteen, her end-of-unit test on speed, distance and time is in three weeks, and the next day she tried a practice set of twenty questions from her textbook. She got nine right. The highlighting had made the notes look familiar without making her able to use them. In school, **action means doing the kind of studying that changes what you can do later**, and then starting it on time, week after week.



Hana's feeling of being ready has a known cause. Roediger and Karpicke (2006), whose study section 2.3 described, found that rereading made students more confident, while testing themselves led to better memory a few days later. Later reviews of many studies, by

Rowland (2014) and by Adesope, Trevisan and Sundararajan (2017), found the same pattern: practice tests helped learning more than restudying did. That delayed gain suits a test three weeks away.

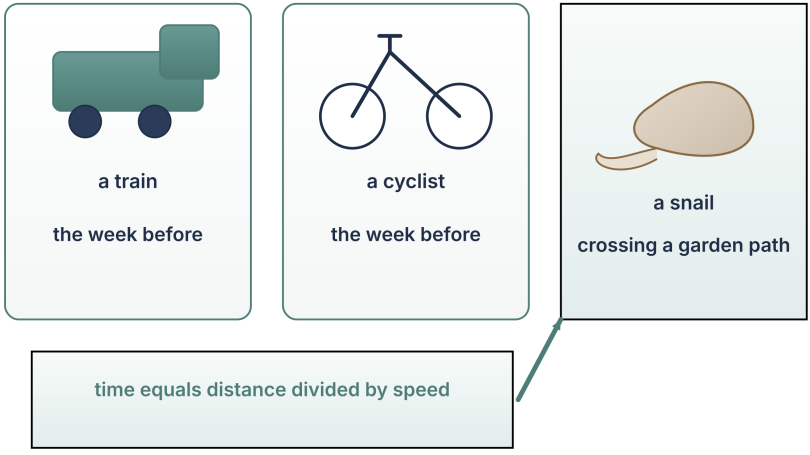
Dunlosky and colleagues (2013) rated common study techniques by how useful they were. Two came out on top: practice testing and spreading practice out over time. Highlighting and rereading were among those rated low. Hana changes her plan to match. Instead of one long session, she studies for twenty minutes on Monday, Wednesday and Friday. Each session begins with ten questions from a mixed set, done with her notes closed, and only then does she check the answers and look up what she got wrong. On Fridays she does a full twenty-question set instead.



Starting is the next problem, because three short sessions a week are easy to put off. Gollwitzer and Sheeran (2006), whose work section 4.1 used, found across 94 tests that if-then plans helped people act on their goals, including getting started. Hana writes: “When I finish my snack after

school on Monday, Wednesday and Friday, I will open the practice set at the first unmarked question.” She also sets a clear target instead of “revise physics.” Locke and Latham (2002) found that specific, hard goals led to better results than doing one’s best, provided people had the ability and stayed committed. Her goal is sixteen of twenty on a fresh mixed set by the Wednesday of the third week.

Word problems are where she stalls. A question about a snail crossing a garden path looks new to her, even though she solved one about a train and one about a cyclist the week before. Gick and Holyoak (1980, 1983), whose studies section 2.4 described, found that people often fail to use an earlier solution on a new problem unless something reminds them, and that comparing two similar examples helped many people find the rule they shared. So before each word problem, Hana writes down the two earlier ones solved the same way and names the rule: time equals distance divided by speed. When she still stalls, her note in the margin reads “same as the train one.”



Her scores on the Friday sets climb from twelve of twenty in the first week to fifteen in the second. On the Wednesday of the third week she does a fresh twenty-question set as a final check and gets seventeen, above her target, and on Friday she gets sixteen in the real test. Her eight sessions add up to two hours and forty minutes, less than three evenings of highlighting would have taken, and the time now goes into recalling and using the steps instead of looking at them.

The exercise below sets up the same study routine for a subject of your own. Its purpose is to replace the study habits that feel productive with ones that change what you can do later, and to make sure the sessions start. Choose a topic with a test or a deadline a few weeks away.

> **Exercise:**
>
> Study for later.
>
> 1. After studying a short passage or a set of steps, put it away. Later, write what you can recall, then check. Avoid only rereading. Adapted from Roediger and Karpicke (2006) and Dunlosky et al. (2013).
> 2. Before a new problem, write two earlier problems that were solved the same way. **Name the shared rule**, then try the new one. If you stall, remind yourself that the earlier cases apply. Adapted from Gick and Holyoak (1983).
> 3. Write: “When [time or place], I will start [the first study step].” Adapted from Gollwitzer and Sheeran (2006).

You can tell the routine is working when your scores on practice done from memory rise from week to week, as Hana’s did. A second sign is that new problems start to look like old ones you have solved, because you can name the rule they share. If your scores stay flat, check that you

are recalling before you look at your notes, and that the sessions are spread across the week instead of bunched into one evening.

Key idea:

Test yourself instead of rereading, spread short sessions across the weeks, compare two solved examples before a new problem and tie each session's start to a fixed moment (Roediger & Karpicke, 2006; Dunlosky et al., 2013; Gick & Holyoak, 1983; Gollwitzer & Sheeran, 2006).

5.2 Professional Work and Project Management

Sofia's manager handed her the project on a Monday morning with one line in the email: "Bakery website, six weeks." Sofia is twenty-six and a junior designer at a small agency, and this is the first project she will run herself. The client, a local bakery, wants a new site with an online order form for cakes. At work, plans meet other people's timetables, messages arrive all day and a client has to approve the result. **Action at work rests on a plan that survives that contact**, built from the methods of Module 4 and adjusted for a team.

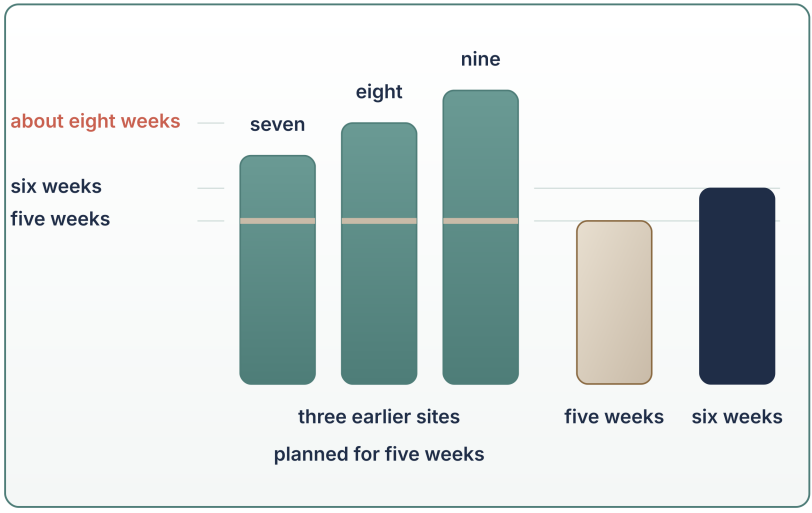
Her first step is to turn the one-line brief into a goal with a standard and a date. Locke and Latham (2002), whose review section 4.2 used, found that specific, hard goals led to better performance than doing one's best, as long as people had the ability and stayed committed. Sofia writes: "By the end of week six, five pages live, the order form tested with ten test

orders, and the bakery's written approval." Her manager and the client both see the same line, so everyone agrees on what finished means.



Next comes the schedule. Sofia's own estimate, built from the list of pages, is five weeks, which fits comfortably inside six. Buehler, Griffin and Ross (1994) found that people's time forecasts are usually too hopeful unless they connect them to past experience, and Lovallo and Kahneman (2003) advised planners to look at how similar past projects turned out as a group. Sections 4.3 and 4.7 used both. The agency's records show three earlier sites of this size. Each was planned for five weeks, and they took seven, eight and nine. The outside view says about eight weeks, not five.

That gap gives Sofia a decision to make before any design work starts. She takes the records to her manager and the client, and they agree to launch in week six with three pages and the order form, which matter most to the bakery, and to add the remaining two pages by the end of week eight. The goal line is rewritten to match. Changing the plan now costs one short meeting, while finding out in week six would have meant a missed launch.

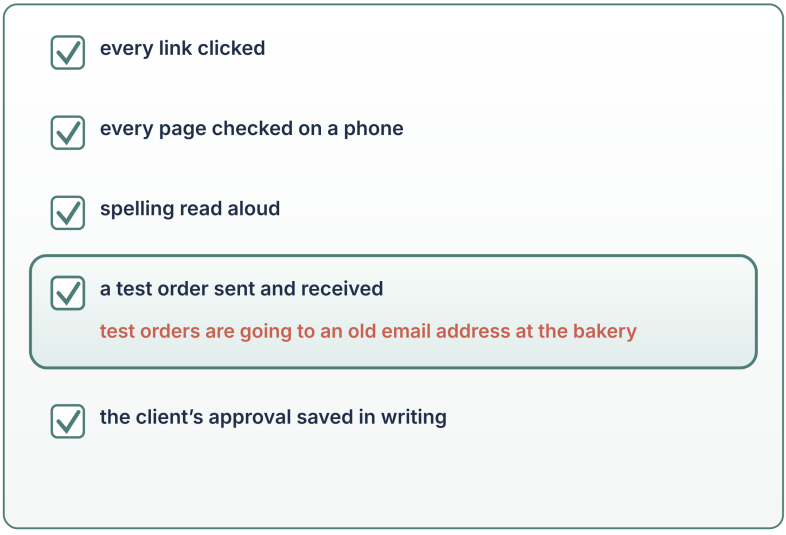


The plan also needs a way to see whether it is on track. Harkin and colleagues (2016) found in their review of experiments that people who were prompted to check their progress reached their goals more often. Every Friday Sofia spends fifteen minutes comparing tasks done with tasks planned, and she sends the client a three-line update. In week three the check shows the order form running a week behind, so she moves a page layout to week five and gives the form her full attention.

Interruptions are part of agency life. Colleagues ask quick questions, and the bakery phones with new ideas. Leroy and Glomb (2018), whose studies section 4.4 described, found that a short ready-to-resume plan reduced the attention left stuck on an interrupted task. Before Sofia answers a call, she types one line at the top of her file, such as “Next: order form, date field, test with a date next month, back at 2:30.” She returns to the line instead of trying to remember where she was.

The last tool is a short launch checklist. The best-known checklist research comes from hospital surgery. Haynes and colleagues (2009) found fewer deaths and complications after a checklist was introduced

in eight hospitals, but Urbach and colleagues (2014) found no significant fall when a checklist was simply made compulsory across 101 hospitals. Section 4.5 drew the lesson that a checklist helps only when people actually use it. Sofia's has five lines: every link clicked, every page checked on a phone, spelling read aloud, a test order sent and received, and the client's approval saved in writing. She ticks it before each release. On launch day, the fourth line catches a fault: test orders are going to an old email address at the bakery. She fixes it before the site goes live.



The three pages and the order form go live at the end of week six, after ten test orders arrive correctly, and the bakery signs off in writing. The two remaining pages follow in week eight, as agreed. Sofia's manager adds the project to the agency's records, so the next person who plans a site of this size has four past cases to look at instead of three.

The exercise below applies the same methods to a project at work, at school or in a club. Its purpose is to build a plan that holds up when it

meets other people, interruptions and the real length of the work. Choose a project that will take several weeks and involves at least one other person.

> Exercise:
>
> Run a small project.
>
> 1. Before setting dates, write how long the last similar project took and how it turned out. Build the new plan **from that range**, not from a best-case story. Adapted from Buehler, Griffin and Ross (1994) and Lovallo and Kahneman (2003).
> 2. When you are interrupted, write the next step and when you will return, then handle the new task. Adapted from Leroy and Glomb (2018).
> 3. Write five checks for a repeated work task and tick them the next three times you do it. Adapted from Haynes et al. (2009) and Urbach et al. (2014).

You can tell the attempt worked when the people involved agree on what finished means before the work starts, and when any change to the plan happens early, at a progress check, instead of on the deadline. A second sign is that interruptions cost only their own time, because your resume line tells you where to start again. When the project ends, write

down how long it really took, so that the next plan has one more past case to start from.

Key idea:

Agree a clear standard and date, plan from how similar projects really went, check progress every week, park interrupted work in writing and use a short checklist each time you release something (Locke & Latham, 2002; Lovallo & Kahneman, 2003; Harkin et al., 2016; Leroy & Glomb, 2018).

5.3 Business and Entrepreneurship

£900 is the number Ollie wrote at the top of his plan. He is sixteen and wants to sell tote bags made from old jeans at his school's Christmas fair, which is four weeks away. His plan says he will make sixty bags and sell them all at £15 each. His uncle, hearing the idea over dinner, told him that nearly all new products flop. Ollie now has two forecasts, one very hopeful and one very gloomy, and neither is built on much. **Action in business starts with a forecast built from real cases**, then tests the product cheaply before much money or time goes in.



The gloomy forecast is the easier one to check. Castellion and Markham (2013) reported that the very high new-product failure figure often repeated in business talk is a persistent myth. The studies they reviewed, going back to 1977, found failure rates of 40 percent or less. That still means many products fail, so Ollie should plan for the chance of a weak result. It does not mean failure is nearly certain.

The hopeful forecast needs the same treatment. Lovallo and Kahneman (2003) argued that business plans built on the inside story of one project tend to underestimate time and cost, and advised looking at how similar past projects actually turned out. Buehler, Griffin and Ross (1994) found that time forecasts were too hopeful unless people connected them to past experience. Sections 4.3 and 4.7 used both. Ollie collects three cases. Last summer he planned 45 minutes for each cushion he sewed and took 90. A friend's candle stall at last year's fair sold 22 of 50 candles. His aunt, who has sold crafts at the same fair for years, says she usually takes home about half her stock.

From those cases he rewrites the plan. The first test bag takes him 75 minutes, so sixty bags would need 75 hours, far more than he has alongside school. He decides to make thirty, about 37 and a half hours over four weeks, or roughly nine a week. He forecasts sales of 20 to 30 at the fair, not sixty. Each bag costs him £5: £2 for a pair of jeans from a charity shop and £3 for the lining and other materials. Thirty bags cost £150, so at £15 each he covers his costs after ten sales.

Before making all thirty, he tests the design. Dow and colleagues (2010), whose study section 2.5 described, found that beginners who developed several designs side by side produced better web adverts than those who improved one design at a time. That was one study of adverts, so for Ollie it is a reason to try two versions, with no promise attached. He makes two bags in parallel, a plain one and one with a patch pocket cut

from the back of the jeans, and shows both to ten classmates. Seven prefer the pocket. He makes the rest with pockets.



The setting matters too. Amabile and colleagues (1996) developed a way to measure how supportive a workplace is for creative work, and found that it could tell high-creativity projects from low-creativity ones. Ollie's school enterprise club gives him a version of that support. The textiles teacher lets him use the sewing machines on Wednesday afternoons, and club members practise pricing and stall layout on their own real products. Scott, Leritz and Mumford (2004), whose review section 2.5 also used, found that the more successful creativity training used realistic exercises from the field in question, which is how the club works.



At the fair Ollie sells 24 bags, inside his forecast range. At £15 each that brings in £360. Take away the £150 in costs and he has £210, with six bags left to sell online.

The exercise below applies the same steps to a small business idea of your own, real or planned. Its purpose is to replace hopeful or gloomy guesses with a forecast from real cases and to test the product before you commit fully. Choose an idea you could try within the next month, such as a stall, a service for neighbours or something you make and sell.

> **Exercise:**
>
> Test a business idea.
>
> 1. Before you say yes, list three similar past cases and how they turned out. Write your cost and sales forecast **from that range**. Adapted from Lovallo and Kahneman (2003) and Buehler, Griffin and Ross (1994).

2. Before choosing a design or offer, make two different versions side by side and compare them with real people. Adapted from Dow et al. (2010).
3. Take one live problem from your idea, not a puzzle, and use one method from this section on it this week. Adapted from Scott, Leritz and Mumford (2004).

You can tell the attempt worked when your forecast is a range drawn from real cases and you know how many sales cover your costs. A second sign is that the version you finally make has beaten at least one other version with real people. If the result falls outside your range, add it to your list of cases, so that your next forecast starts from a fuller record.

Key idea:

Forecast from similar past cases instead of hope or gloom, know your break-even point, test two versions before you commit and practise on a real business problem (Castellion & Markham, 2013; Lovallo & Kahneman, 2003; Dow et al., 2010; Scott et al., 2004).

5.4 Health, Fitness and Personal Development

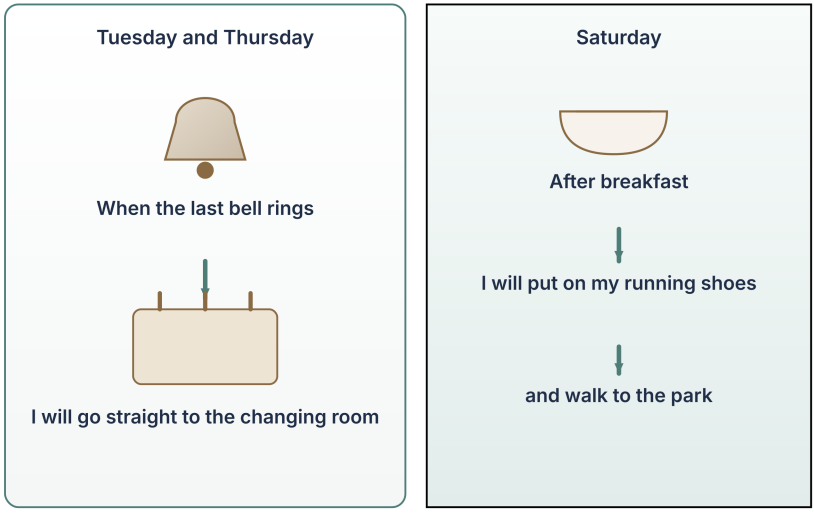
Last term Esme went to the school running club twice. She is fourteen, and both times she enjoyed it, yet the other eighteen sessions slipped past while she meant to go. This term the club's coach has set the group a target: run the Saturday 5-kilometre course in the park without stopping by the end of the ten-week term. The coach supplies the training plan, with two club runs a week after school and the Saturday run. Esme's part is to turn up and keep going, and that is where **action in health and fitness often stalls**.



This section gives general information about how to act on a health or fitness goal. It gives no advice about diets, medicines or treatments. Anyone with an injury or a health condition should follow the advice of a doctor or another qualified clinician before and during a new activity, and Module 6 looks at sleep, movement and food in more detail.

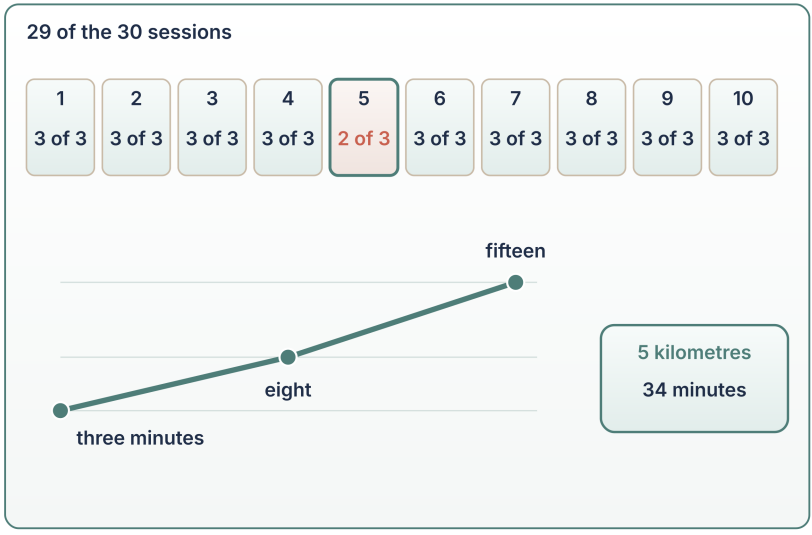
Esme's last term shows a familiar gap. Webb and Sheeran (2006), whose review section 1.1 described, found across 47 experiments that a large change in what people intended led to a smaller change in what they did. Esme already wanted to run, so her plan has to cover the moment of going.

So she ties each session to a moment she already meets. Gollwitzer and Sheeran (2006) found across 94 tests that if-then plans helped people act on their goals, including getting started. Esme writes two: "When the last bell rings on Tuesday and Thursday, I will go straight to the changing room," and "After breakfast on Saturday, I will put on my running shoes and walk to the park." Gardner, Lally and Wardle (2012), writing for family doctors, gave similar advice: repeat the chosen behaviour in the same setting until it starts to feel automatic and takes less effort. Section 4.6 explained why this works, and Galla and Duckworth (2015) found that people with good self-control tend to lean on helpful habits rather than on willpower in the moment.



Every Saturday afternoon she writes one line in a notebook: how many of the three sessions she went to, and the longest time she ran without walking. Harkin and colleagues (2016) found that people prompted to check their progress were more likely to reach their goals. The record also gives her something to show the coach. In the first week her longest run without stopping is three minutes. By week four it is eight, and by week seven it is fifteen.

In week five a dentist appointment falls on Thursday, and she misses that club run. Lally and colleagues (2010) followed volunteers forming new daily health habits and found that missing a single chance did not seriously disturb the process. The same study found that the time for a habit to feel automatic varied widely, with a middle value of 66 days in the group whose results fitted the model, so Esme sets no date by which the runs should feel easy. She goes on Saturday as usual, and that week's line reads two of three.



On the last Saturday of term Esme runs the whole 5 kilometres without stopping, in 34 minutes. Across the ten weeks she has gone to 29 of the 30 sessions. The same three tools fit personal development outside sport, such as practising an instrument, learning to cook a few meals or reading before bed, as long as the action and its cue are your own choice.

The exercise below sets up the same routine for a goal of your own. Its purpose is to close the gap between wanting to do something healthy or useful and actually doing it week after week. Choose one action you already want to do that is not a medical treatment, such as a walk, a class, practice on an instrument or time to read.

> Exercise:
>
> Turn a wish into a routine.
>
> 1. Write: "After I [existing daily cue], I will [first step]." If you have an injury or a health condition, follow a qualified clinician's advice on what the action should be. Adapted from Gollwitzer and Sheeran (2006) and Gardner, Lally and Wardle (2012).
> 2. Repeat the action after the same cue for the next few weeks. If you miss one day, **do it at the next cue**. Adapted from Lally et al. (2010).
> 3. Once a week, write one line on whether the action happened and what will change next week. Adapted from Harkin et al. (2016).

You can tell the routine is working when the weekly lines show the action happening on most planned days and the effort of starting begins to fall. A second sign is that a missed day is followed by the next session, not by a missed week. If the lines show the same session missed again

and again, change the cue for that day instead of relying on more willpower.

Key idea:

Tie the action to a cue you already meet, repeat it in the same setting, carry on after a single miss and check the week in one line, while leaving any diet, medicine or treatment decisions to a qualified clinician (Webb & Sheeran, 2006; Gollwitzer & Sheeran, 2006; Lally et al., 2010; Harkin et al., 2016).

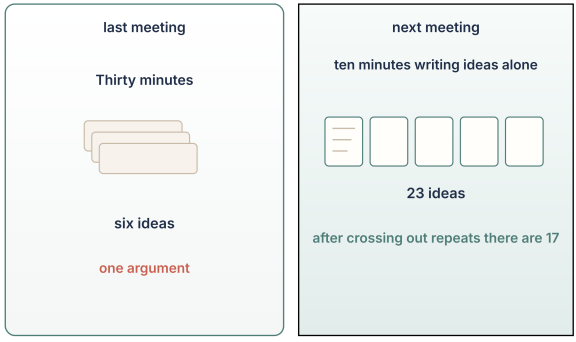
5.5 Communication, Relationships and Collaboration

THIRTY MINUTES OF THE school council's last meeting produced six ideas and one argument. Ade is fifteen and one of five council members, and the council has £400 from the summer fair to spend on improving the students' common room. The plan has to be agreed by all five and then presented to the head teacher, Mrs Okafor, next Thursday. Ade's own actions now depend on four other people, **so how he talks, listens and shares the work** decides whether anything gets bought.

The council starts with too few ideas. In the last meeting everyone talked at once, a few voices filled the time and the list stayed short. Mullen, Johnson and Salas (1991) combined many studies of brainstorming and found that groups generating ideas together produced fewer and weaker ideas than the same number of people working alone whose lists were then pooled. That finding is about

producing ideas, not about every kind of teamwork. So Ade suggests a change for the next meeting. Each member spends ten minutes writing ideas alone, then they read out their lists. Together the five lists hold 23 ideas, and after crossing out repeats there are 17.



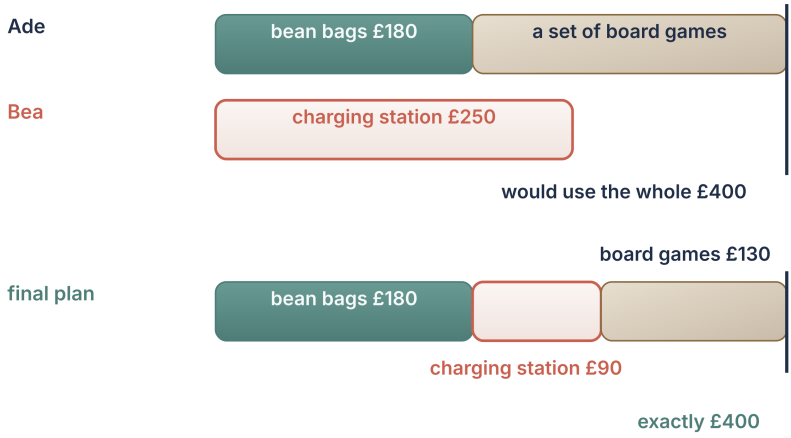


The shortlist leads straight into a disagreement. Ade wants bean bags at £180 and a set of board games, which would use the whole £400. Bea, another member, wants a phone-charging station costing £250, which would leave too little for anything else. Last time a disagreement like this turned into two people repeating themselves more loudly.

Ade prepares for it with an if-then plan. Gollwitzer and Sheeran (2006), whose work section 4.1 used, found that if-then plans helped people at several stages of acting on a goal, including protecting it from unwanted influences. Using the format for a conversation is this book's own application. Ade writes: "If Bea and I start talking over each other, then I will stop and ask her what matters most to her about her idea."

When it happens, he stops and asks. He listens until he can say her point back in his own words: students leave the common room at lunchtime to charge their phones in the library, so the room stays empty. Saluk and colleagues (2026) found in five studies that listening well raised speakers' sense of well-being in the moment, even during a disagreement. The finding is about how the speaker feels right then, and Bea does relax enough to hear Ade's side. Together they look for a cheaper charging station and find one for £90. The final plan is bean bags at £180, the £90 charging station and £130 of board games, which comes to exactly £400.

Bea makes the slide with the costs, and when Ade checks it he finds the charging station's delivery charge is missing. Kluger and DeNisi (1996), whose review section 4.5 used, found that feedback helped on average but made performance worse in more than a third of cases, especially when it turned attention to the person instead of the task. So Ade's comment names the slide line: "The £90 needs the £6 delivery added. We could take £6 off the games." Bea makes the change, and the total stays at £400.



The last step is the talk to Mrs Okafor. Ade knows that his first words tend to come out in a rush when he is nervous. Beilock and colleagues (2004) found that pressure hurt performance mainly on problems people had not practised until the answers came easily, and Gröpel and Mesagno (2019) found in their review of sport studies that routines before performing were among the methods most often reported to help under pressure. Section 3.4 used both for a feared phone call, and the same adaptation fits a short talk. Ade practises his first sentence until he can say it without thinking: "We have a plan for the £400 that all five of us agree on." Just before he speaks, he takes one slow breath and says his cue word, "slow", to himself. The talk takes under two minutes, and Mrs Okafor approves the plan.

The exercise below applies the same steps to a shared task in your own life, at school, at work, in a club or at home. Its purpose is to get more ideas from a group, to keep a disagreement on the problem and to prepare the words that matter most. Choose a task where the result depends on at least two other people.

Exercise:

Work it out together.

1. For one shared problem, each person writes ideas alone for a set time. Then pool the lists and discuss. Adapted from Mullen, Johnson and Salas (1991).
2. In one disagreement this week, **listen long enough to restate the other person's point** before you argue back. Adapted from Saluk et al. (2026).
3. Rehearse the first sentence of a hard talk until it comes easily. Just before you start, take a breath, say your cue word and then say the first sentence. Adapted from Beilock et al. (2004) and Gröpel and Mesagno (2019).

You can tell the attempt worked when the pooled list is longer than a group discussion usually gives you, and when the other person in a disagreement agrees that you have stated their point fairly. A further sign is that your comments on shared work lead to a change in the work, not to an argument about who is careless. If a conversation still goes wrong, look at which step was missing and plan that one for next time. These steps are practical habits for everyday talk; they are not a treatment for strong social anxiety, which deserves help from a qualified professional.

Key idea:

Invent alone before you meet, listen until you can restate the other side, aim comments at the work and rehearse the first words of anything that matters (Saluk et al., 2026; Kluger & DeNisi, 1996; Gröpel & Mesagno, 2019).

5.6 Everyday Life and Transferring Skills Between Fields

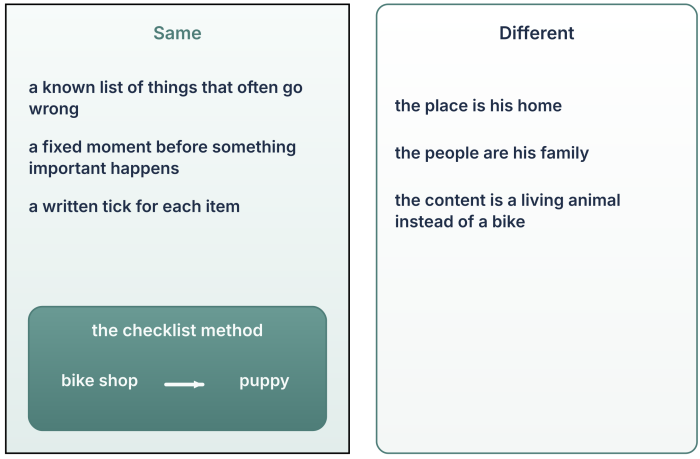
Lucas's family voted four to nothing for a puppy, and then they put him in charge of getting the house ready. He is sixteen, the puppy arrives in three weeks, and he has never looked after a dog. He does have a Saturday job at a bike shop, where before every repaired bike goes back to its owner he works through a six-line checklist. The question for this section is **which of the methods he already uses will carry over to a new everyday task**, and which will not.



Section 2.6 showed that improvement tends to spread only between tasks that share parts. Thorndike and Woodworth (1901) found more than a century ago that practice spreads mainly where the same elements are involved. Later reviews point the same way. Simons and colleagues (2016) found little evidence that brain-training gains spread to distant tasks or to everyday life, and Sala and Gobet (2019) concluded that general cognitive training had almost no effect on general thinking skills. So Lucas should not expect his whole bike-shop

routine to make him good at dogs. He should look for the parts of it that the new task shares.

Barnett and Ceci (2002) described transfer as a matter of distance: how far the new situation is from the one where the skill was learned, in time, place, people and content. Lucas writes two columns. The same: a known list of things that often go wrong, a fixed moment before something important happens, and a written tick for each item. Different: the place is his home, the people are his family, and the content is a living animal instead of a bike. The checklist method sits in the first column. His speed with a spoke key does not appear in either.

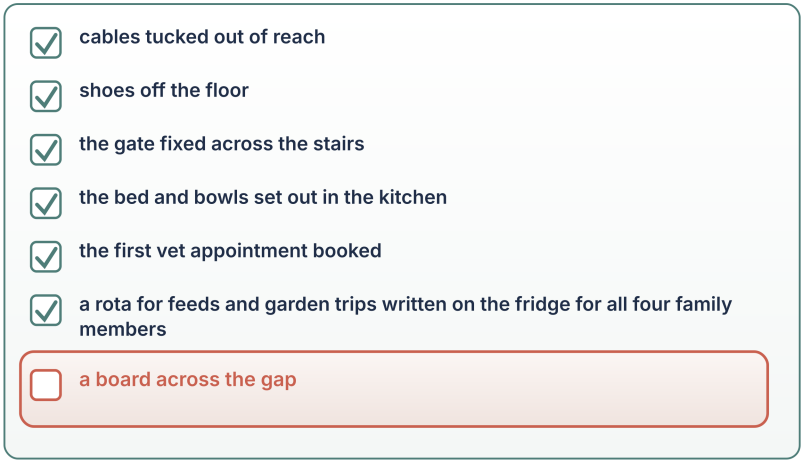


To see the shared rule clearly, he uses a second past case. Gick and Holyoak (1980, 1983), whose studies section 2.4 described, found that people often miss an earlier solution unless they are reminded of it, and that comparing two similar examples helped many of them find the rule underneath. Lucas's two cases are the bike checklist and the packing list his family used for a camping trip last summer, which stopped them forgetting the tent pegs a second time. Both follow one rule: before

something important arrives or leaves, walk through a written list of what usually goes wrong.

He builds the puppy list from the breeder's care sheet and from questions he asks friends who have dogs, and the vet's advice settles anything about the puppy's health. It has six lines: cables tucked out of reach, shoes off the floor, the gate fixed across the stairs, the bed and bowls set out in the kitchen, the first vet appointment booked, and a rota for feeds and garden trips written on the fridge for all four family members. He ticks the list on the Friday evening before the puppy arrives.

The first week brings one surprise. On the Tuesday the puppy squeezes under the garden gate, which has a gap at the bottom that no one noticed, and Lucas's sister catches her by the bins. The gap was missing from the list because it belonged to the "Different" column, a new place and a living animal, and nothing in a bike shop or a campsite had taught him to check a garden gate. He adds a seventh line, and his dad fixes a board across the gap that evening.



At the end of the first week Lucas walks through one ordinary action, the seven o'clock feed and garden trip, using the six basic mental abilities from Module 2. Extractivity: he read the breeder's sheet. Attention: he kept watching the puppy while the back door was open. Memory: he remembered the gate. Intellect: he planned the rota so no one had two early mornings in a row. Creativity: he used an old cot side as a second gate by the back door. Action: on his two mornings of the week he started the feed at seven sharp. Cleverini's position is that the six abilities work together in this way. The walk-through shows him where each one helped.

This section closes Module 5. Each field in it, from study to conversation, used methods first set out in Module 4, and each time they had to be fitted to the field. The exercise below helps you carry one method a short distance into your own everyday life. Its purpose is to move a method only where the steps are shared, and to notice what has changed. Choose an everyday task coming up soon that resembles something you already handle well.

> **Exercise:**
>
> Carry one method across.
>
> 1. Pick one method you used in study, work, business, health or conversation this week. **Name the shared steps**, then use the same method on a different everyday task that has those steps. Adapted from Thorndike and Woodworth (1901) and Barnett and Ceci (2002).
> 2. Write two past cases that were handled the same way. Name the shared rule, then use it on a new everyday problem. Adapted from Gick and Holyoak (1983).

3. Take one real action from today. For each of the six abilities, write one line on how it helped, or was missing, in that action. The book's own walk-through, as in section 2.6.

You can tell the attempt worked when the method you moved did its job in the new task and you can say which steps the two tasks shared. A second sign is that the surprises, like Lucas's garden gate, come from the column of differences, so you know where to look next time. If a method does not help in the new task, check whether the two tasks really share steps. If they share only a name, the new task needs a method of its own.

Key idea:

Carry a method only where the steps are shared, name what has changed, use two past cases to find the rule and expect new problems from the differences (Thorndike & Woodworth, 1901; Barnett & Ceci, 2002; Gick & Holyoak, 1983; Simons et al., 2016).



Module

6

Sleep, Movement and Food

Every method in this book so far has assumed a person with enough energy to use it. Plans and habits both depend on a body with enough sleep and food to start the work and keep going. Module 6 turns to those foundations. It looks at **how the state of your body affects your readiness to act**, and at small, practical changes that make it easier to start and to keep going.

The module gives general information about health, not medical advice. Where it mentions official guidance, it reports that guidance without setting a personal target for you, and it prescribes no diets, doses, treatments or training plans. If you have a sleep problem, an injury, an illness or a pregnancy, or you are unsure whether a change is right for you, follow the advice of a doctor or another qualified clinician.

Section 6.1 covers sleep and recovery, and how the night before shapes what you are ready to do the next day. Section 6.2 turns to physical activity and how moving during the day relates to being ready to act.

Section 6.3 looks at food and drink and their link with energy through the day. It covers eating and hydration as everyday habits, without fixed formulas. Section 6.4 deals with fatigue and rest, and with working at a pace you can keep up for weeks instead of a single burst.

Each section follows the pattern of Modules 4 and 5. It has a worked example, an exercise you can try in your own week and a description of what a successful attempt looks like. The changes it suggests are small on purpose. Choose the area where your energy most often runs short, try one change there and notice whether starting and keeping going become easier.

6.1 Sleep and Recovery

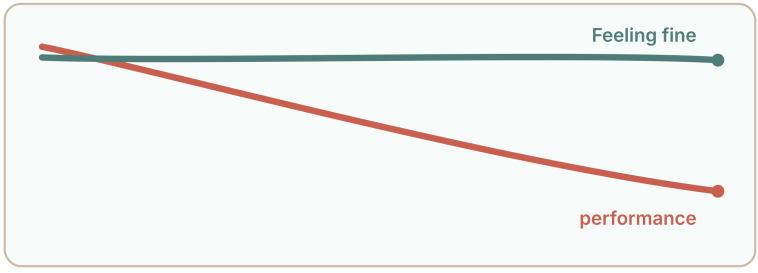
The car smells of the instructor's coffee when Kemal climbs in at eight on a Tuesday morning, and within ten minutes he has stalled twice at the same junction. He is twenty-eight, his driving test is in six weeks, and his instructor marks every fault on a sheet. Over the first two weeks of lessons the sheets show about nine faults a lesson, with no sign of falling. Kemal has also been going to bed around half past twelve and getting up at half past six for work. **Sleep is part of getting ready to act**, and Kemal's short nights may be costing him on the road.



What follows is general information about sleep, not medical advice. It is not a treatment for insomnia or any other sleep disorder. If you are worried that you sleep too little or too much, or you have a health condition, talk to a doctor or another qualified healthcare provider. The guidance quoted below is for adults, so younger readers should ask a parent, a school nurse or a doctor what applies to them.

Official guidance gives a starting point. A consensus statement from two sleep-medicine bodies, written by Watson and colleagues (2015), says that adults should sleep seven or more hours a night on a regular basis, and links regularly sleeping less than that with poorer performance, more errors and a greater risk of accidents. The National Sleep Foundation's updated report by Hirshkowitz and colleagues (2015) recommends seven to nine hours for young adults and adults. Kemal's six hours in bed fall below both.

He does not feel tired, which is part of the problem. Van Dongen and colleagues (2003) limited the sleep of 48 adults in a laboratory for two weeks. Those kept to six hours or less a night built up thinking and attention problems as large as those after up to two full nights without sleep, and they were largely unaware of how far their performance had dropped. Feeling fine after a run of short nights is not a reliable guide, and that matters most for actions where mistakes are dangerous, such as driving.

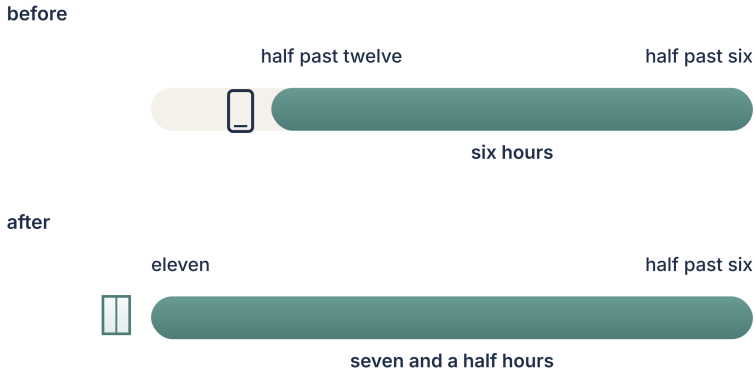


Sketch, not real data

Sleep also matters for what he is learning. Diekelmann and Born (2010) reviewed research showing that sleep supports the storing of new factual memories, and Yoo and colleagues (2007) found in one

laboratory study that a night with no sleep at all weakened the brain's ability to take in new memories the next day. Kemal is learning the road rules for his theory test as well as the skills in the car, so his nights are part of his practice.

He makes two changes. First, he sets a regular bedtime of eleven and keeps his alarm at half past six, which gives him seven and a half hours in bed on work nights. Second, he swaps the phone for a printed theory book in bed. Chang and colleagues (2015) found that reading on a light-emitting e-reader in the evening, compared with a printed book, delayed sleep, shifted the body clock later and left people less alert the next morning. The study tested e-readers, not phones, but a phone screen also gives off light, so Kemal applies the same idea.



Over weeks three to five the instructor's sheets show about five faults a lesson instead of nine. More lessons will have helped too, so the sheets cannot show how much of the change came from sleep. Kemal also notices that he no longer stalls at the junction near the test centre, and he passes his test at the end of week six with three minor faults.

The exercise below helps you give sleep a fair place in your own plans. Its purpose is to protect regular sleep before days when you need to act

well, and to stop trusting the feeling of being fine after short nights. Choose a week with something that matters to you near the end of it, such as a test, a match or an important day at work.

> Exercise:
>
> Plan a week of sleep.
>
> 1. For one week, plan a bedtime and a wake time that leave **at least seven hours in bed** on a regular basis. If you are worried that you sleep too little or too much, talk to a healthcare provider. Adapted from Watson et al. (2015).
> 2. For a few evenings, use a printed book or paper notes instead of an e-reader or phone in the time just before sleep. Adapted from Chang et al. (2015).
> 3. After several short nights, do not treat feeling fine as proof that you are performing well. If an action could put you or others at risk, such as driving, take extra care and catch up on sleep before you push on. Adapted from Van Dongen et al. (2003).

You can tell the attempt is working when your bedtimes and wake times stay close to the plan on most nights, and the work you care about goes a little better or a little more steadily. A second sign is that you notice short nights in your diary before they show up as mistakes. If you keep

the plan and still feel unrested, or you find it very hard to sleep, talk to a doctor, because a sleep problem that lasts needs a clinician's advice.

Key idea:

Give yourself a regular seven hours or more in bed before days that matter, keep light-emitting screens out of the last part of the evening and do not trust feeling fine after a run of short nights (Watson et al., 2015; Chang et al., 2015; Van Dongen et al., 2003).

6.2 Physical Activity and Readiness to Act

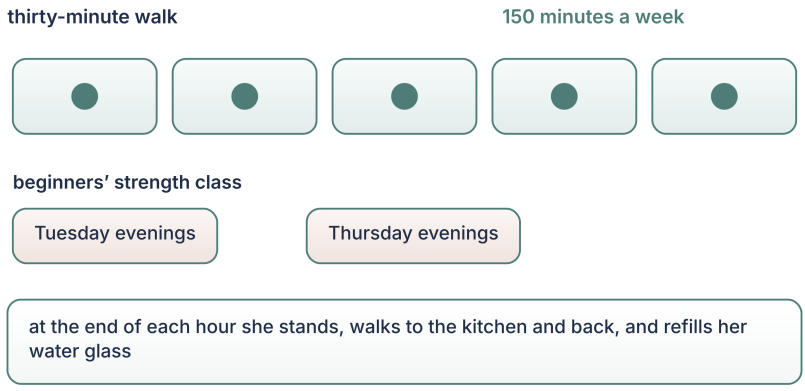
The sentence on Nadia's screen has been half-finished for ten minutes, and it is only three o'clock. She is thirty-eight and works from home as a translator, and she has four weeks to translate a 60,000-word technical manual. That means 3,000 words on each of twenty working days. In the first week she sits at her desk from nine until six, gets up mainly for lunch, and averages 2,500 words a day, most of them before two o'clock. Her plan has to make room for **a body that is ready to do the work**, and for Nadia that starts with moving more.



This section gives general information about physical activity, not medical advice, and it does not prescribe a training plan. The official guidance below is written for adults, so younger readers should ask a parent, a teacher or a doctor what applies to them. The World Health Organization notes that people without a medical reason to avoid it generally do not need a check-up before starting light or moderate activity no harder than a brisk walk. Anyone with a health condition, an injury or any doubt should ask a doctor or another qualified clinician first.

The guidance gives Nadia something to aim at. The World Health Organization's 2020 guidelines, set out by Bull and colleagues (2020), recommend that adults do 150 to 300 minutes of moderate activity a week, or 75 to 150 minutes of vigorous activity, or a mix of the two. They also recommend muscle-strengthening activity for all the major muscle groups on two or more days a week. The UK's National Health Service (2024) gives a plain test for moderate effort: you breathe faster and feel warmer, and you can still talk but not sing. In her first week Nadia's only regular movement is a ten-minute walk to the corner shop.

She builds the movement into the shape of her working day. She starts each weekday with a thirty-minute walk on the canal path, brisk enough that she could talk to a friend but not sing, which gives her 150 minutes a week. On Tuesday and Thursday evenings she joins a beginners' strength class at the local leisure centre, where the instructor sets the exercises. She keeps the plan at the lower end of the guidance rather than jumping into a hard new programme.

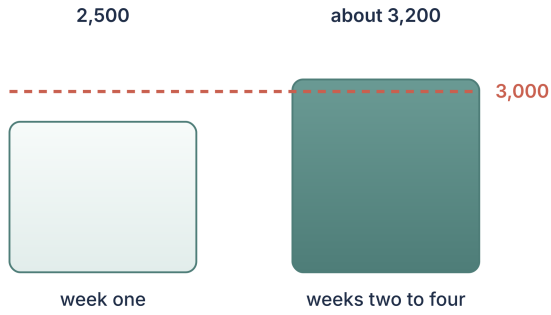


The long sitting is the other half of the problem. The WHO guidelines advise adults to limit the time they spend sitting and say that replacing it with activity of any intensity, even light activity, brings health benefits, though the evidence was not strong enough to set a sitting limit. The NHS also advises breaking up long periods of not moving. Neither source says how often, so Nadia chooses a simple rule of her own: at the end of each hour she stands, walks to the kitchen and back, and refills her water glass.

For the hardest part of each day she adds one more step. Chang and colleagues (2012) combined many studies of a single session of exercise and later thinking. They describe the findings as mixed, with researchers generally concluding that there is a small positive effect, so a walk before hard work may help a little and may not. Nadia treats it as worth trying. On days with a difficult technical chapter, she takes a ten-minute walk round the block straight after lunch and starts that chapter as soon as she sits down again.

Over the next three weeks she averages about 3,200 words a day. She had 47,500 words left after the first week, so she finishes the manual on the last Friday, on time. She has also settled into the job and learned its

technical terms, so she cannot tell how much of the change came from moving. What she can see is that the three o'clock stall now happens on fewer days.



The exercise below helps you add movement to a week of work or study. Its purpose is to bring your activity closer to the official guidance in a way you can already manage safely, and to break up long periods of sitting. Choose a week in which you will spend long hours at a desk or table.

> Exercise:
>
> Move through a working week.
>
> 1. Plan one week of activity you can already do safely, such as walking. Note your minutes of moderate activity, when you can talk but not sing, and whether you included two muscle-strengthening days. **Aim toward the official range** instead of jumping to a hard new programme. If you have a health condition or doubt, ask a clinician first. Adapted from Bull et al. (2020) and NHS (2024).

2. In one work or study day, stand or walk for a short time whenever you have been sitting for a long while. No official source sets the exact interval, so choose a simple break you will repeat. Adapted from NHS (2024) and Bull et al. (2020).
3. Take a moderate walk, then do one task that needs a clear head. Treat any lift as small and possible. Adapted from Chang et al. (2012).

You can tell the attempt is working when your week's minutes of moderate activity move toward the guidance and your long sits are broken up on most days. A second sign may be fewer stalls at the times of day when you used to slow down, though that is harder to measure and may have other causes. If an activity causes pain, or you feel unwell, stop and talk to a doctor.

Key idea:

Build moderate activity and two strength sessions into your week at a level you can already manage, break up long sitting with short, regular breaks and try a brisk walk before hard work (Bull et al., 2020; NHS, 2024; Chang et al., 2012).

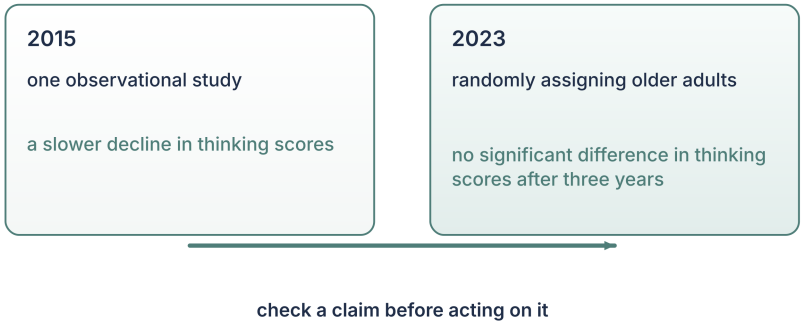
6.3 Nutrition, Hydration and Energy

Graham had the "brain support" capsules in his online basket, at £29.99 a month, when his daughter asked him what they were for. He is sixty-one, newly retired, and three mornings a week he works a shift from ten until one as a volunteer guide at the town museum. He wants to stay sharp for the visitors' questions. His plan, drawn mostly from a newspaper article and an advert, was to change the way he eats completely, start the capsules and keep his evening glass of red wine "for the heart". Food and drink are part of being ready to act, and **the first action is to check a claim before acting on it**.



What follows is general information, not medical or dietary advice, and it sets out no diet, supplement plan or dose. If you have a health condition, take medicines, are pregnant or are thinking of changing what you eat or drink for a health reason, talk to a doctor or another qualified clinician.

The newspaper article said that one way of eating could make the brain 7.5 years younger. The figure comes from Morris and colleagues (2015), who followed older adults and found that those whose reported eating most closely matched a pattern later called the MIND diet showed a slower decline in thinking scores, a gap the authors likened to being 7.5 years younger. That was one observational study, and the authors said a trial was still needed. When Barnes and colleagues (2023) ran that trial, randomly assigning older adults to the MIND diet or a control diet, they found no significant difference in thinking scores after three years. One study pointed one way and a later trial did not confirm it, so Graham has no good reason to expect a new diet to sharpen his memory. Any change to his eating is better decided with his doctor for his health in general.



The capsules come next. The US Office of Dietary Supplements publishes fact sheets on nutrients such as vitamin D, iron and vitamin B12 (Office of Dietary Supplements, 2022, 2023a, 2023b), and it states that its information should not take the place of medical advice. Graham empties the basket and adds a question to the list for his next appointment with his doctor instead. What the doctor says is between the two of them, and this book gives no dose.

The wine is harder, because it feels like a healthy habit. The GBD 2016 Alcohol Collaborators (2018) analysed alcohol use and harm across 195 countries and found that the level of drinking that kept harm lowest was zero drinks a week. The finding gives no one a drinking plan, though it does mean "for the heart" is not a reason Graham can rely on, so he drops that reason and decides for himself what to do about the glass. Anyone who finds it hard to cut down on alcohol should talk to a doctor.

change the way he eats completely	better decided with his doctor
the capsules	empties the basket a question to the list for his next appointment with his doctor
"for the heart"	drops that reason
a glass of water with breakfast	takes a bottle on shift

One change is simple enough to try at once. On his museum shifts Graham drinks nothing between breakfast and lunch, and by the last hour he often has a dull headache and feels flat. Masento and colleagues (2014) reviewed research on hydration and found that water can have a positive effect on some thinking abilities and on mood, though they also noted that many of the studies were weak in method. Official guidance from the US Institute of Medicine (2004) puts adequate intake at about 3.7 litres a day for men and 2.7 for women, counting water from both food and drink, with more for very active people or in hot weather. That is a broad guide, not a target to drink in one go. Graham starts having a glass of water with breakfast and takes a bottle

on shift. For four weeks, after each shift he notes only whether he felt thirsty, whether he had a headache and how his mood was.

Over those twelve shifts he notes a headache twice. Before, it was most shifts. He cannot be sure the water made the difference, since a new routine changes more than one thing, but the notes give him something real to bring to his doctor if the headaches return.

The exercise below helps you handle food and drink as part of being ready to act. Its purpose is to check a claim before you act on it, to try one small noticing step and to hand questions about doses to a clinician. Choose one food, drink or supplement habit you have taken up, or are thinking of taking up, because you hoped it would help your energy or thinking.

> **Exercise:**
>
> Check before you change.
>
> 1. At your next meal, drink water. Afterwards, note only whether you felt thirsty and how your mood felt. This is **a noticing step** with no amount attached. Adapted from Masento et al. (2014).
> 2. For one week, notice any habit of drinking alcohol "for health" or "for energy" and drop that reason. This is not a medical plan for cutting down. Adapted from GBD 2016 Alcohol Collaborators (2018).
> 3. If you are thinking of a vitamin or mineral supplement for a gap you suspect, ask a qualified clinician first instead of starting a dose on your own. Adapted from Office of Dietary Supplements (2022).

You can tell the attempt worked when you can name the source behind a food or drink habit, and say whether a later study backed it up. A

second sign is that your notes on thirst and mood give you something real to talk about with a doctor, instead of a guess. If you notice symptoms that worry you, such as lasting tiredness or headaches, see a doctor rather than trying to fix them with food or supplements.

Key idea:

Check a food or drink claim against later evidence before you act on it, treat water as something to notice rather than a dose and take questions about supplements or alcohol to a clinician (Morris et al., 2015; Barnes et al., 2023; GBD 2016 Alcohol Collaborators, 2018; Masento et al., 2014).

6.4 Fatigue, Rest and Sustainable Performance

The box marked "kitchen" turned out to hold Femi's winter coats. He is thirty-five, and he and his partner move to a new flat in two weeks, with forty boxes to pack around his full-time office job. In the first week he packs every evening from seven until midnight, makes a coffee at eight to keep going and gets to bed around half past twelve before his alarm at six. He feels fine, yet by the weekend three boxes are labelled wrongly and he has forgotten to confirm the van. **Working at a pace you can keep up** is the last foundation in this module, and Femi's first week shows what happens without it.



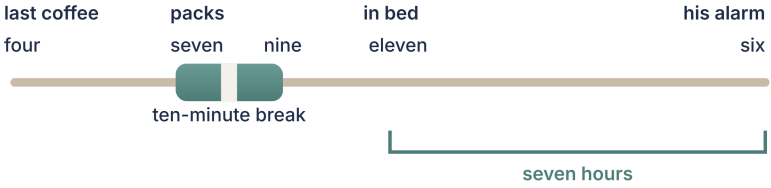
This section gives general information, not medical advice. If you are pregnant, have a health condition or take medicines, ask a doctor or another qualified clinician about caffeine or naps. The European Food Safety Authority's panel (EFSA Panel on Dietetic Products, Nutrition and Allergies, 2015) found too little information to set caffeine figures for children and teenagers in the same way as for adults, so younger readers should leave caffeine questions to a parent or doctor.

Femi's feeling of being fine is not much of a guide. In one laboratory study, described in section 6.1, Van Dongen and colleagues (2003) found that people kept to six hours or less of sleep for two weeks built up deficits in thinking and attention while remaining largely unaware of them. Femi has been getting about five and a half hours. Mislabelled boxes are a small cost, but the same blind spot matters much more for driving or other work where a mistake could hurt someone.

The coffee is part of the problem. Drake and colleagues (2013) gave people a large dose of caffeine at bedtime, three hours before or six hours before, and in this one study every timing still disturbed their sleep. The authors advise avoiding a substantial amount of caffeine for

at least six hours before bed. The large dose belonged to the study, and this book recommends no dose. A report from the US Institute of Medicine (2001) gives the average half-life of caffeine, the time the body takes to clear half of it, as about five hours, ranging from about one and a half to nine and a half hours between people. A coffee at eight is still at work at midnight.

So for the second week Femi plans a pace he can keep. He packs from seven until nine with one ten-minute break away from the boxes, has his last coffee at four in the afternoon and is in bed by eleven, which gives him seven hours before his alarm. Albulescu and colleagues (2022) combined studies of short breaks and found that they raised energy and reduced tiredness, though their effect on how much people got done was small and not clearly above zero, and longer breaks helped performance more than very short ones. At work, where he sits most of the day, he also stands and walks to the window every hour, following the World Health Organization and National Health Service advice to break up long periods of sitting (Bull et al., 2020; NHS, 2024).



Moving day itself starts badly, because a neighbour's party keeps him awake until two. Brooks and Lack (2006) tested afternoon naps of different lengths in 24 young adults after a short night. In that one small study a ten-minute nap helped most overall, while a thirty-minute nap left people groggy for a while after waking. Femi takes a ten-minute nap at one o'clock, before the afternoon of carrying. He does not drive

the van. His sister, who slept well, drives it, because a short night and a nap are a poor mix with a heavy vehicle.



After the first week 22 boxes were packed. In the second week Femi packs the remaining eighteen, about three or four an evening, and none are labelled wrongly. He cannot be sure which change mattered most, and the shorter evenings also gave him less to rush. All forty boxes are ready on time, and the van was confirmed on the Monday.

This section closes Module 6. Each of its sections has treated the body as part of being ready to act, and the methods in the earlier modules work better when they rest on these foundations. The exercise below helps you plan a demanding stretch so that you can still act well at the end of it. Its purpose is to replace pushing harder with a pace and habits you can keep. Choose a busy period coming up, such as a move, an exam week or a deadline at work.

> **Exercise:**
>
> Plan a pace you can keep.
>
> 1. In a work or study block, step away from the task for a short break. If the next work is demanding, make that break a little longer than a quick pause. Adapted from Albulescu et al. (2022).

2. After a short night, if a nap is possible, keep it brief, about ten minutes in the study that compared lengths. Wait a while before anything demanding, and do not drive or do other safety-critical work while sleep-deprived. Adapted from Brooks and Lack (2006).
3. If you use caffeine, **avoid a substantial amount in the six hours before you plan to sleep**. Adapted from Drake et al. (2013).

You can tell the attempt is working when your bedtimes hold through the busy stretch and the small mistakes that came with tiredness become rarer. A second sign is that you can say when you will stop each day before you start. If tiredness lasts even after a regular routine, see a doctor, because lasting fatigue is a question for a clinician.

Key idea:

Set a daily stopping time, take real breaks, keep caffeine away from the hours before bed and keep naps short after a bad night, without trusting the feeling of being fine (Van Dongen et al., 2003; Drake et al., 2013; Albulescu et al., 2022; Brooks & Lack, 2006).



Module

7

Overcoming Barriers to Action

You can have a written plan and a rested body and still not start. Something gets in the way before the first step. Often it is a worry about what others will think, or a doubt that you can manage the task at all. Module 7 is about **the inner barriers that stop a person acting even when the methods are in place**, and about practical ways to get past them.

This module is self-help for the everyday hesitation that most people feel, not therapy. Its exercises are small steps you can try on ordinary tasks. If fear, low mood, panic or stress is strong, lasts a long time or gets in the way of daily life, talk to a doctor or another qualified clinician, who can offer help that a book cannot.

Section 7.1 looks at the fear of failing and of being rejected or judged. Section 7.2 deals with self-doubt and confidence. Here confidence means your belief that you can do a particular task, which you can build one task at a time, and the section explains why that is different from how much you like yourself overall.

Section 7.3 turns to putting things off. It treats delay as a way of escaping an unpleasant feeling for a while, and shows how to start anyway. Section 7.4 covers perfectionism, together with the habit of preparing and deciding for so long that the doing never begins.

Section 7.5 closes the module with motivation and overwhelm, and with stress and setbacks. Keeping going matters there. So does knowing when to stop. A plan made in advance can include a point at which you will step back from a course that is clearly not working, so that stopping there follows a choice you made earlier with a clear head.

Each section follows the pattern of Modules 4 to 6, with a worked example, an exercise for your own week and a description of what

success looks like. Start with the section on the barrier you meet most often, and try its exercise on a task you have been avoiding this week.

7.1 Fear of Failure, Rejection and Judgment

Thirty drawings fill Mei's sketchbook, and nobody else has seen one of them. She is thirteen, and the town library has put up a leaflet for its young artists' exhibition. Each entrant hangs one picture and says a few sentences about it at the opening evening, which is four weeks away, on a Friday. The entry form and a £5 fee are due the Friday before. Mei wants to enter. She has picked up the form twice and put it back in her bag both times, because she keeps picturing people looking at her drawing and then at her, and finding both not good enough.



This section is self-help for the ordinary nerves that most people feel before being judged, and it is not therapy. If fear is severe or lasts a long time, or it stops you doing everyday things, or it comes with panic, talk

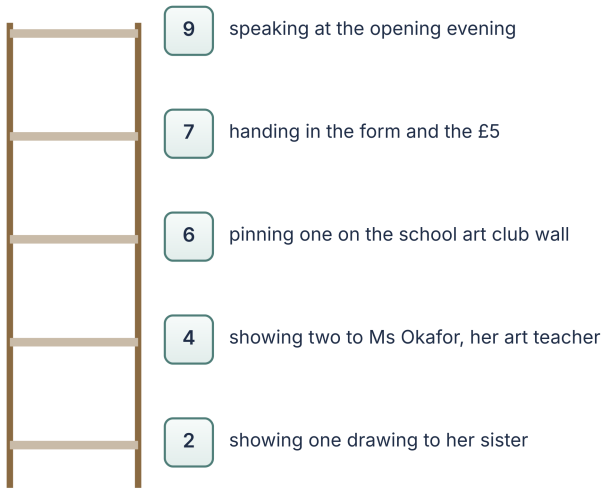
to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician. The same applies if you think you may have an anxiety problem. Stop any step that causes severe distress and ask for help.

Fear of failing or being judged often looks like nothing at all from the outside, because the action simply never starts. The psychologist Albert Bandura (1977) argued that a person's belief in their ability to cope with a situation helps decide whether they try, how hard they try and how long they keep going when it gets difficult. Mei has the skill to draw well, and her doubt is about coping with being looked at, so she does not begin.

Clinical psychologists who treat anxiety use a gentle way of building that belief. Craske and colleagues (2014), writing for therapists, describe facing feared situations step by step, starting with a less frightening one and then mixing the order instead of always climbing in a straight line. They also report that a substantial number of people are not helped or find the fear coming back later, which is one reason real anxiety problems need a professional. Mei's case is everyday hesitation, so she borrows only the simplest part of the idea. She writes a ladder of five steps and gives each a number from 1 to 10 for how hard it feels: showing one drawing to her sister (2), showing two to Ms Okafor, her art teacher (4), pinning one on the school art club wall (6), handing in the form and the £5 (7) and speaking at the opening evening (9).

In the first week she shows her sister a drawing of a bus stop on a winter morning and, two days later, takes it and a drawing of her grandad's hands to Ms Okafor. Ms Okafor says the shadows under the bus shelter are the strongest part and the hands look stiff. That is useful, and it hurts a little. Mei notices the sting, names it to herself as "being judged", lets it sit for a minute and keeps going. Eckert and colleagues

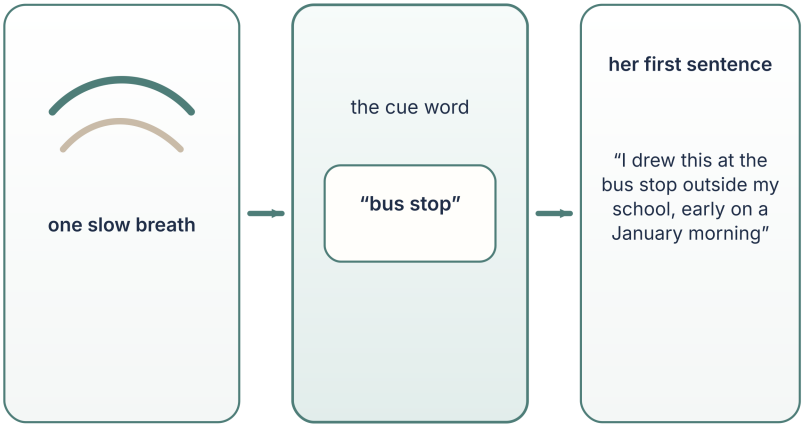
(2016), in one paper reporting three studies, found that training people to put up with unpleasant feelings and change them reduced putting things off. Mei uses the same skill on the fear of being judged.



Judgment can also change the work itself. Byron, Khazanchi and Nazarian (2010) combined many studies and found that strongly judged settings lowered people's creative performance, while lightly judged settings could raise it. That result concerns creative work, not every kind of fear. Mei keeps her sketchbook as a judge-free place for new drawings and only decides later which one to show. In the second week she pins the bus stop drawing on the art club wall, and on Thursday of the third week she hands in the form and the £5, a day early.

The opening evening is the hardest rung, so she prepares for it in two ways. Beilock and colleagues (2004), in one paper of three experiments using maths problems, found that pressure spoiled performance on problems people had not yet practised much, and that practising them

until the answer came straight from memory removed the problem. Their results came from maths, so Mei treats them as a hint to try. She writes her first sentence, “I drew this at the bus stop outside my school, early on a January morning”, and says it aloud each evening until it comes out without thinking. She also builds a short routine, as many athletes do before a hard moment. Gröpel and Mesagno (2019) reviewed studies of choking in sport and found that routines before performing were among the methods most often reported to help, though the studies were of sportspeople. Mei’s routine is one slow breath, the cue word “bus stop” and then her first sentence.



At the opening evening her voice shakes on the second sentence, and she forgets one thing she meant to say. A woman asks where the bus stop is, and Mei answers. Her drawing is one of twenty-two on the walls. The small prize goes to someone else, and Mei walks home already thinking about which drawing to enter next year.

> **Exercise:**
>
> A brave step this week. The purpose of this exercise is to start a small action you have been avoiding because you fear failing or being judged, and to prepare its hardest moment so that pressure does less damage. It is self-help for everyday nerves. If the fear is severe or lasting, talk to a trusted adult and work with a qualified clinician instead.
>
> 1. List actions you have been avoiding because of fear of failing, rejection or judgment, and give each a number from 1 to 10 for how hard it feels. This week, **start with an easier one**, then try others, not always in strict order. Adapted from Craske et al. (2014).
> 2. Write the exact first words or first move of the hardest step, and rehearse them until they come without effort. Adapted from Beilock et al. (2004).
> 3. Make a three-part routine, such as a breath, a cue word and the first move, and use it just before the feared moment. Adapted from Gröpel and Mesagno (2019).

You can tell the attempt is working when you have done at least one step you had been avoiding, and the next one up the list feels a little less heavy. Notice whether the first words came out as you rehearsed them even when your voice shook. If the fear grows instead of easing, or you

start avoiding more things, stop the ladder and talk to a trusted adult or to a doctor or another qualified clinician.

Key idea:

Fear of being judged is easier to act through when you take small steps, starting with easier ones, rehearse the first move until it runs smoothly and use a short routine before the hard moment (Bandura, 1977; Craske et al., 2014; Beilock et al., 2004; Gröpel & Mesagno, 2019).

7.2 Self-Esteem, Self-Doubt and Confidence

"I'm just not a practical person," Rhys says, every time someone mentions the kitchen tap. He is forty-four, the tap has dripped for three weeks, and a plumber has quoted £90 to fix it. A pack of new tap washers costs £4, and a two-minute video shows how to change one. Rhys has watched the video twice. Each evening he looks at the tap, feels sure he will flood the kitchen and leaves it for another day.



Rhys's doubt sounds like a judgment about the whole of him, yet what holds him back is narrower. The psychologist Albert Bandura (1977) used the word self-efficacy for a person's belief that they can carry out a particular kind of action. He argued that this belief helps decide whether someone starts, how much effort they put in and how long they keep going when things get difficult. It is task confidence, and it is a different thing from self-esteem, which is how much a person values themselves overall. Someone can like themselves well enough and still doubt they can change a tap washer. No study used for this book shows that raising a person's overall self-esteem, on its own, makes them act more. Confidence for a particular task, built on that task and tasks like it, is the part this section works on.

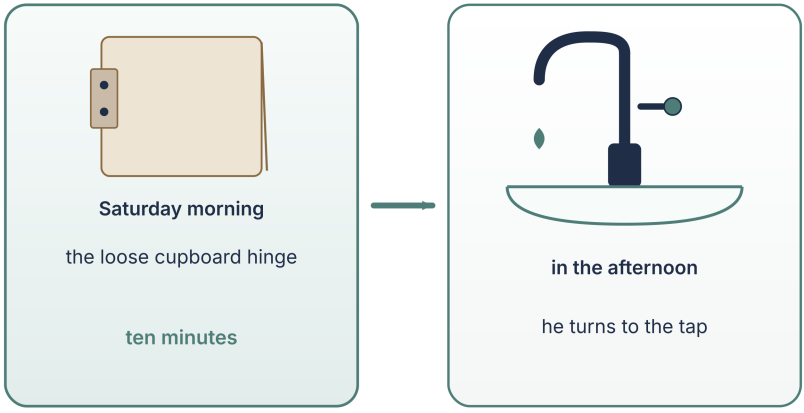
Self-doubt about one task is ordinary and usually changes with experience. If it spreads into a lasting sense of being worthless or useless, or comes with low mood that does not lift, that is beyond what a book can help with, and a doctor or another qualified clinician is the right person to talk to.

Doubt and delay often go together. Steel (2007) combined many studies of procrastination and found that people with lower task confidence were consistently more likely to put things off. That is a link found across studies and cannot show that low confidence causes the delay, though it fits Rhys's three weeks.

Bandura described four sources of task confidence: having done the task or something like it, seeing someone similar do it, being told you can and the state of your body as you face it. Having done it is the most direct of the four, and it is the one Rhys has most overlooked. Two years ago he put together a wardrobe with forty screws and a sheet of instructions that made little sense, and it still stands. He writes that

down on the back of an envelope before he starts. He reckons that turning off a valve and undoing a nut is no harder than that wardrobe.

He also picks a smaller job that is a little hard but within reach. A cupboard door beside the sink has hung crooked for months because of a loose hinge. On Saturday morning he fixes the loose cupboard hinge first, which takes ten minutes, and in the afternoon he turns to the tap.



The tap takes him fifty minutes, against the video's two, and he spends ten of them hunting for the right spanner. His daughter Ava, who is nine, passes him tools. When the drip stops she says he is the best fixer in the world. Rhys laughs, and instead of handing the label back he thanks her for spotting that the old washer had split down one side, which was the actual cause.

The difference matters for both of them. Brummelman and colleagues (2014), in three studies with children, found that adults were most likely to give lavish, inflated praise to children with low self-esteem, and that this praise made those children less willing to take on challenges afterwards. Those results come from children, so for adults they serve only as a caution. Specific, honest feedback is a different matter. Deci,

Koestner and Ryan (1999) combined 128 experiments and found that positive feedback raised people's interest in a task, while rewards promised for doing or finishing it tended to lower their interest later. For the same reason, Rhys does not promise himself a takeaway for finishing the tap. On the envelope, under the wardrobe, he writes what he actually did: "Turned water off, changed washer, no drip after 24 hours."

The next morning the sink is dry. The bathroom tap has started to drip too, and this time Rhys tackles it the following weekend instead of waiting three weeks.

> Exercise:
>
> Build confidence for one task. The purpose of this exercise is to raise your belief that you can do one particular task you have been doubting, using evidence from what you have actually done. It works on task confidence, not on how you feel about yourself overall.
>
> 1. Before the task, **write down one time you got through something similar**, then start the first step. Adapted from Bandura (1977).
> 2. Choose one action that is a little hard but within reach, do it, and write down that you completed it. Adapted from Bandura (1977).
> 3. Afterwards, write or ask for one specific comment on what was done, instead of a lavish label such as "you're brilliant". Adapted from Deci, Koestner and Ryan (1999) and Brummelman et al. (2014).

You can tell the attempt is working when you start a task you had been avoiding and can point to a written line about what you did. The next similar task should take less time to begin.

Key idea:

Confidence for a task grows mainly from evidence that you have done that task or something close to it, so start with a small success, record what you did and give and ask for specific comments instead of inflated praise (Bandura, 1977; Deci et al., 1999; Brummelman et al., 2014).

7.3 Procrastination and Emotional Resistance

If Halima does nothing, £140 will disappear on 31 March. She is twenty-nine, and last autumn the airline cancelled her flight to her cousin's wedding, so she rebooked with another company. The first airline owes her the £140 ticket price, but she has to claim it through an online form, and the claim window closes in eleven weeks. The email with the link has sat in her inbox since November. Each time she opens it her stomach tightens, so she closes it and scrolls through recipes on her phone for a while, and she feels better at once.



The relief explains why the email is still there. The psychologists Fuschia Sirois and Timothy Pychyl (2013) argued that putting things off is often a way of repairing a bad mood for the moment. Avoiding the task means avoiding the feeling it brings, and the cost lands on your future self, who still has the task and now has less time. Their paper is a theory review, not a new experiment, but it fits what Halima does every evening. Her delay comes from how the form makes her feel, and scrolling makes that feeling go away for a while.

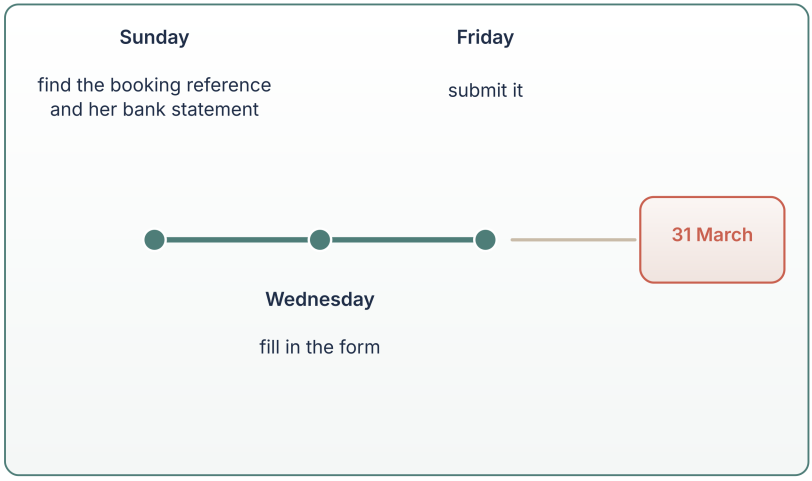
Piers Steel (2007) combined hundreds of results on procrastination. People were consistently more likely to put a task off when it felt unpleasant, when its deadline or reward was far away and when they had little confidence they could do it. These are links found across many studies, and they cannot show on their own that any of these things causes delay. Even so, all three fit Halima. The form feels unpleasant, 31 March feels far off, and she is not sure she will fill it in correctly.

Because delay is partly about feelings, a skill for handling feelings can help. Eckert and colleagues (2016), in one paper reporting three studies, one of them a randomised trial, found that training people to put up with unpleasant feelings and to change them reduced their procrastination. That is skills practice, the kind anyone can try, and it is different from therapy. If putting things off comes with low mood or worry most days, or is harming your work, studies or relationships, talk to a doctor or another qualified clinician.

Halima tries the skill on the airline email. She writes down what is unpleasant about it: “I’m annoyed that I have to chase my own money, and I’m afraid the form will reject me.” She lets that feeling be there for two minutes without scrolling, and then she does the first small step.

She also brings the deadline closer. In Steel’s analysis a far deadline was one of the clearest links with delay, although he did not test checkpoints

himself, and Halima responds by setting three near dates. She will find the booking reference and her bank statement by Sunday, fill in the form on Wednesday and submit it by Friday.



For each checkpoint she writes an if-then plan, as in section 3.1. Gollwitzer and Sheeran (2006) combined 94 tests of plans of this kind and found that they helped people get started on goals. Her Sunday plan reads: “When I sit down with my tea after Sunday lunch, I will open the airline email and search for the booking reference.”

On Sunday she finds the reference in four minutes and downloads the bank statement in two more. The form on Wednesday takes twenty-five minutes, mostly because one box asks for the flight number in a format she has to look up, and she submits it that evening instead of waiting for Friday. Ten days later the airline emails to ask for a copy of her new ticket. The old tight feeling comes back. She writes a fresh if-then plan for that evening and sends the copy before bed. The £140 reaches her account at the end of February.

Exercise:

Start a task you have been dodging. The purpose of this exercise is to start a task you keep putting off because of how it makes you feel, by facing the feeling for a moment and bringing the deadline closer, as self-help for everyday delay.

1. Write what feels unpleasant about the task, **accept that feeling for two minutes**, then start the first step. Adapted from Eckert et al. (2016) and Sirois and Pychyl (2013).
2. Split a far-off task into one next step with a date this week, and do that step. Adapted from Steel (2007).
3. Write an if-then plan for that step: "When [time or cue], I will start [the first small step]." Adapted from Gollwitzer and Sheeran (2006).

You can tell the attempt is working when the dated step is done on or before its date and you can name the feeling you used to escape from. Notice, too, whether the task took less time than the weeks of dodging suggested it would.

Key idea:

Putting a task off often buys a moment of relief from an unpleasant feeling, so name the feeling and let it be there, then bring the deadline close with a dated step and an if-then plan to start it (Sirois & Pychyl, 2013; Steel, 2007; Eckert et al., 2016; Gollwitzer & Sheeran, 2006).

7.4 Perfectionism, Indecision and Excessive Preparation

Agnes's spreadsheet of local charities has fourteen rows and twenty-three columns. She is fifty-eight, works three days a week at a dental surgery and decided in September that she wanted to volunteer on one of her free days. It is now December. She has read every charity's website and two of their annual reports, added columns for travel time and parking, and still not applied anywhere. The food bank at the end of her road is top of the list on most columns, and its application form has six questions. She has printed it, answered five and rewritten the sixth, "Why do you want to volunteer with us?", seven times.



Two barriers are at work, and they feed each other. One is a standard set so high that no answer feels ready. The other is preparation that has turned into a way of not deciding. This section is self-help for everyday high standards that hold up action. Perfectionism that causes real

distress, or that gets in the way of work, sleep or relationships, is a matter for a qualified professional such as a doctor or psychologist.

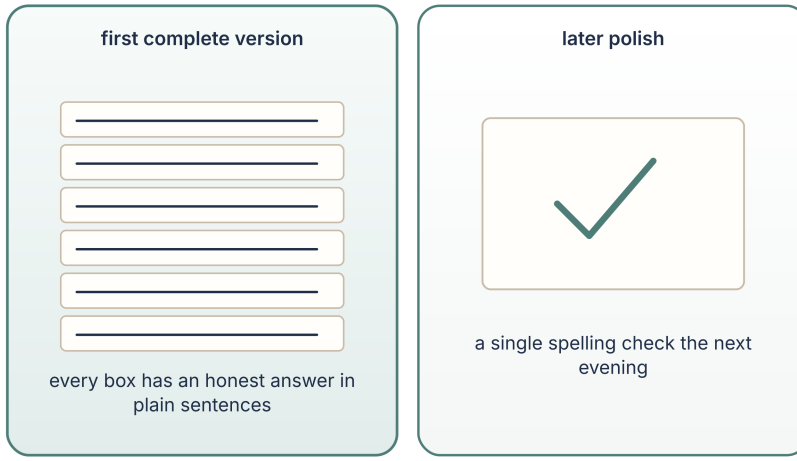
The psychologists Paul Hewitt and Gordon Flett (1991) described perfectionism as having more than one form. One is setting perfect standards for yourself, and another is demanding perfection from others. The third they called socially prescribed perfectionism, the feeling that other people require you to be perfect. Their paper measured these forms and their links with distress, and it shows associations, not causes. When Agnes looks at her seventh draft, the voice in her head says, "They'll expect someone who has worked in health care to write something impressive." That is the third form. Nobody at the food bank has said it.

High standards are often defended as the price of good work. The evidence on that is mixed. Wigert and colleagues (2012), in one study using measures of creativity, found that the healthier kind of perfectionism was only weakly linked to creativity, and on some measures higher standards helped only up to a point. That study looked at creative tasks, so it cannot settle the question for everyday tasks such as Agnes's form, and it offers no sign that ever higher standards keep making work better.

The spreadsheet is the other barrier. Martin Eppler and Jeanne Mengis (2004) reviewed research from several fields on information overload, the state of having more information than you can use well. Their review describes how extra information can make decisions harder instead of easier. Agnes's twenty-three columns stopped helping her choose some time ago.

So she makes two changes. First she writes two separate standards for the form. Her standard for a first complete version is that every box has

an honest answer in plain sentences, and her standard for later polish is a single spelling check the next evening.



Second, she stops gathering. Masicampo and Baumeister (2011), in one paper of laboratory studies, found that goals left unfinished tend to keep pulling at a person's thoughts, and that making a specific plan for them removed that pull. Agnes writes her next step on a sticky note, "Tuesday, 7 pm: finish question six in one go, twenty minutes", closes the spreadsheet and adds nothing more to it.

She also decides in advance when she would let go. Gollwitzer and Sheeran (2006), who combined 94 tests of if-then plans, found that they helped people start goals and also helped them step back from courses of action that were failing. Agnes writes, "If the food bank's shifts don't fit my free days after four weeks, then I will apply to the second charity on my list." Knowing there is a planned way out makes the first choice feel less final.

On Tuesday her answer to question six takes eighteen minutes and is four sentences long. It mentions that she likes being useful in a practical

way and that she lives two minutes away. On Wednesday evening she checks the spelling and sends the form. The food bank replies nine days later. Her first shift is on a Thursday in January, and the shifts fit, so the second charity stays on the list unused.

> Exercise:
>
> Finish the first version. The purpose of this exercise is to get a task you keep polishing or researching to a first complete version, and to stop the extra gathering that keeps you from deciding.
>
> 1. Notice a thought of the form "they will think I must be perfect." **Rewrite it as your own good-enough standard** for a first version, or drop it, and start that first version. Adapted from Hewitt and Flett (1991).
> 2. For the same task, write one standard for a first complete version and a separate standard for later polish. Do not raise the first standard part way through. Adapted from Wigert et al. (2012).
> 3. If you are still gathering or still deciding, write the next concrete step and a time to do it, then stop collecting for now. Adapted from Masicampo and Baumeister (2011) and Eppler and Mengis (2004).

You can tell the attempt is working when a first complete version exists by the time you set, and you have not added to your research since

writing the next step. If you planned a point to step back, check that you know exactly what would make you use it.

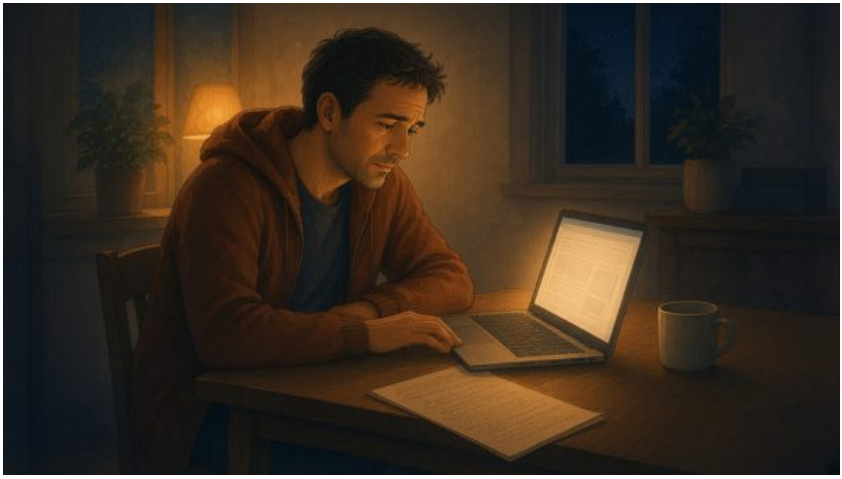
Key idea:

Set one standard for a first complete version and a separate one for polish, stop gathering once you have written the next step, and plan in advance when you would change course (Hewitt & Flett, 1991; Wigert et al., 2012; Masicampo & Baumeister, 2011; Gollwitzer & Sheeran, 2006).

7.5 Motivation, Overwhelm, Stress and Setbacks

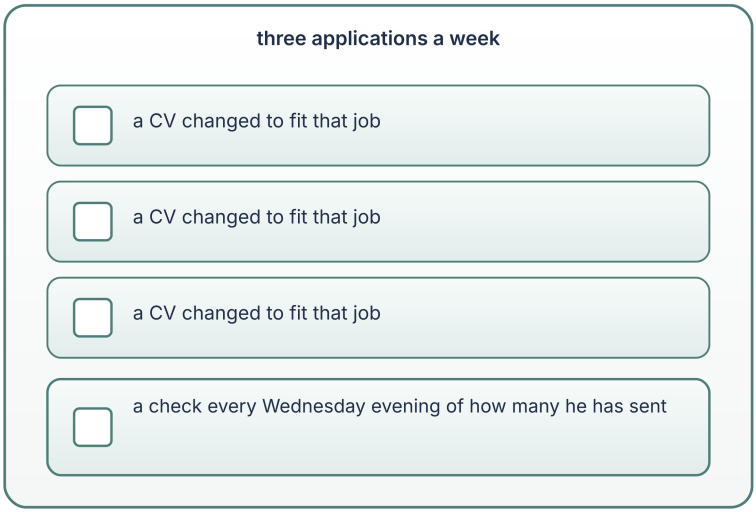
By week twelve Gareth will have another interview booked, but six weeks after being made redundant he cannot see a way there. He is fifty, he ran a warehouse team for eleven years, and since the warehouse closed he has sent forty job applications. They all used the same CV. Two companies replied, both to say no, and none offered an interview. Most nights he is still at the kitchen table at one in the morning, scrolling job sites with a list of things he thinks he ought to do, which keeps getting longer.

Losing a job can bring real stress and low mood, and this section is self-help for the ordinary strain of a hard stretch. If your stress or low mood is severe, lasts for weeks or makes daily life hard to manage, talk to a doctor or another qualified clinician. The steps here can sit alongside that help but cannot replace it.



Gareth wants a job badly, so wanting is not what is missing. Webb and Sheeran (2006), combining 47 experiments, found that a fairly large change in what people intended to do led to a noticeably smaller change in what they actually did. Wanting something more is a weak lever on its own. A plan and a way of checking it add what motivation leaves out.

His goal is also too vague to steer by. “Apply for everything” gives him nothing to measure and never finishes. Locke and Latham (2002), reviewing 35 years of research, found that specific, difficult goals led to better performance than being told to do your best, as long as the person had the ability and was committed to the goal. Gareth swaps his endless list for one specific goal: three applications a week, each with a CV changed to fit that job, and a check every Wednesday evening of how many he has sent. Harkin and colleagues (2016) combined experiments on checking progress and found that people who monitored their progress were more likely to reach their goals.



The late nights are a cost he has not counted. The psychologist Robert Hockey (1997) described how people under heavy pressure can often keep their performance up by pushing harder, but only by spending more effort and feeling more strained. Hockey's paper is a framework, not a test of a method, yet it explains why Gareth can keep sending applications while feeling worse each week. So he sets a stopping time of six in the evening and keeps Sundays free of job hunting.

Sonnentag and Fritz (2007), who built a questionnaire on how people recover from work, described four kinds of recovery: switching off mentally, relaxing, taking on a new challenge that is not the work and choosing for yourself how to spend free time. In their study these experiences were moderately linked with well-being, which is a link and not a promise. On Sundays Gareth leaves his phone in a drawer and teaches himself to bake bread with his son.

He also looks at what keeps people going. Ryan and Deci (2000), in a theory review, describe three needs that support motivation: feeling

capable, feeling that your choices are your own and feeling connected to other people. Gareth has been alone at the table for weeks. He joins the Thursday job club at the library, where he chooses which roles to apply for and can see his own count of applications rise.

He splits his three weekly applications between two kinds of role: warehouse manager, which feels like the obvious step, and stock controller, which matches the day-to-day work he enjoyed. Before he starts, he writes a stop point: "If my six manager applications bring no interview by the end of week ten, then I will stop applying for manager roles and put all three each week into stock control." Gollwitzer and Sheeran (2006), combining 94 tests of if-then plans, found they helped people protect a goal and also helped them step back from a course that was failing. By the end of week ten the six manager applications have brought nothing, while six stock-control applications have brought two interviews. Gareth stops the manager applications as planned, without spending another month on them.

The second interview is for a stock-control post at a garden-supplies firm, and it goes well enough that he reaches the final round. Then the firm chooses someone else. Credé, Tynan and Harms (2017), combining studies of "grit", found that its useful part is mainly the habit of keeping going after a setback, which overlaps a great deal with being conscientious. Gareth has an if-then plan ready for this moment too: "If I hear no, then the next morning I will ask for feedback and send one application before lunch." The feedback says his answers were good but too short on figures. The next morning he sends an application that includes the numbers from his old warehouse, and he has another interview booked for week twelve.

This section closes Module 7. Each of its sections has treated an inner barrier as something ordinary people meet and can get past with small,

planned steps. A planned stop is one of those steps, chosen in advance when the head is clear.

> **Exercise:**
>
> Plan for a hard stretch. The purpose of this exercise is to turn a vague wish to try harder into one clear weekly goal, with a planned response to setbacks and a real break from the effort.
>
> 1. For the next week, write one goal with a clear standard and a date, harder than "do your best" but within your ability, and **check progress once mid-week**. Adapted from Locke and Latham (2002) and Harkin et al. (2016).
> 2. After a setback, write either "If [the same obstacle], then I will [next step]" or, if the course is failing, a short plan for how you will stop and what you will do instead. Adapted from Gollwitzer and Sheeran (2006).
> 3. After a stretch that felt costly, take time off the task that includes switching off and a choice you make yourself, and if you like, a small challenge that is not the same work. Adapted from Hockey (1997) and Sonnentag and Fritz (2007).

You can tell the attempt is working when your mid-week check shows the goal moving, and a setback leads to a next step written in advance

instead of a lost week. Notice whether your time off actually feels like time off.

Key idea:

Turn the wish to do more into one specific weekly goal that you check, protect real time off, and decide in advance both how to respond to a setback and when you would stop a course that is failing (Locke & Latham, 2002; Harkin et al., 2016; Hockey, 1997; Gollwitzer & Sheeran, 2006).



Module

8

Amplifying Action Through the Outside World

Module 7 looked inward, at the doubts and feelings that can stop a person before the first step. Much of what helps you act sits outside your head. A friend who answers your question in five minutes can save an evening of guessing, and a desk set up the night before can make the morning's first step almost automatic. Module 8 is about **using other people and the world around you to multiply what you can do on your own**.

Section 8.1 covers getting help from other people. It looks at how to ask for help in a way that is easy to say yes to, and at the kind of help that leaves you able to do the next part yourself.

Section 8.2 turns to working with others on a shared task. It deals with handing part of a job to someone else, and with being answerable to another person for what you said you would do. Groups can do more than one person, but they also bring their own ways of going wrong, and the section shows how to set up shared work so that each person's part is clear.

Section 8.3 is about your environment and the systems you build around a task. Arranging a place, removing small obstacles and keeping open tasks in one trusted list can make the right action easier than the wrong one, so that less depends on resisting temptation in the moment.

Section 8.4 closes the module by looking at how action skills grow and change across a life. Young children need different support from teenagers, and both differ from older adults, and the section shows how to adapt the methods of this book at each age, including for someone you care for.

Each section follows the pattern of the earlier modules, with a worked example, an exercise to try in your own week and a description of what

success looks like. Start with the section that matches where your own tasks most often stall.

8.1 Getting Help from Other People

Marek put his chances at three in ten. He is thirty-six, and from next month he will get his daughter Zofia, who is seven, ready for school every morning, because her mum is starting early shifts at the hospital. Zofia wants a French plait, the kind that runs from the top of her head to the back of her neck. Marek has watched the same online video eleven times. Each morning this week he has propped his phone on the stairs, copied the video and sent Zofia to school with a plait that falls apart by morning break.



His sister Kasia is a hairdresser who lives twenty minutes away. The three-in-ten was Marek's guess at how likely she was to say yes if he

asked her to teach him. She runs a busy salon, and he does not want to be a nuisance, so he has not asked.

Guesses like his tend to be too low. Flynn and Lake (2008), in one paper reporting six studies, found that people asking for help underestimated how likely others were to agree, in the laboratory and in everyday settings. In some of their studies the guesses were out by as much as half. Half was the largest gap they found, and some people do say no. The people asking were also thinking about what a yes would cost the helper, and forgetting that saying no to a direct request feels awkward too.

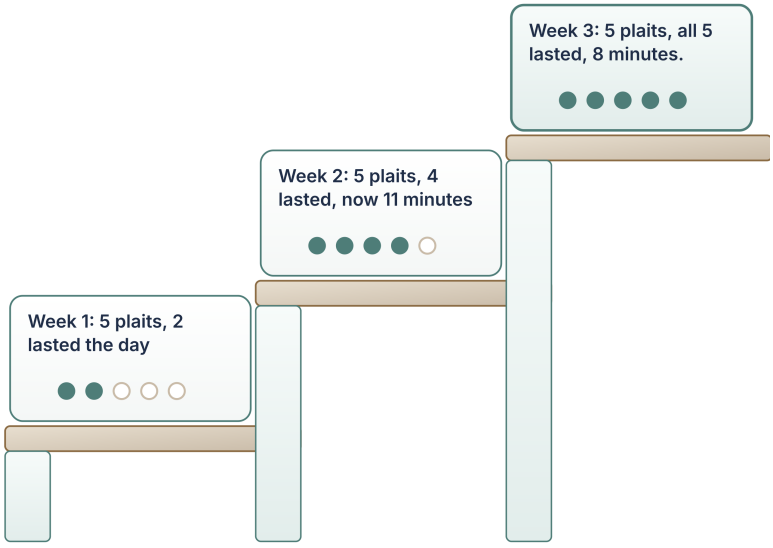
How you ask matters as well. A vague "Could you help me with Zofia's hair some time?" leaves Kasia to work out what he needs and when. In this book's own advice, which no study here has tested directly, a good request names one thing, a time and roughly how long it will take. Marek texts Kasia to ask whether she could spend about twenty minutes on Saturday morning showing him how to start a French plait on Zofia. Within the hour she replies that he should bring Zofia round at ten.

On Saturday Kasia plaits Zofia's hair in under a minute, talking all the time, and Marek cannot follow a single step. Skilled people often lose track of what a beginner finds hard. Hinds (1999), in one paper, found that people with more expertise were worse at predicting how long a task would take a beginner, and that the methods tried to correct this did not help much. So Marek asks Kasia to slow down and show him only the first three crossings at the top, where his plaits always go wrong.

The kind of help he asks for matters too. Wood, Bruner and Ross (1976) watched tutors helping 30 children aged three to five with a problem-solving task. They described how the best tutors took on the

parts the child could not yet manage and left the child to do as much as possible alone. That was one observational study with young children, but the idea fits adults learning a new skill. Kasia starts the plait and holds the top section, Marek does the rest, and then they swap so that he starts and she only corrects his grip. Ryan and Deci (2000), in a theory review, argued that motivation is stronger when people feel capable and in charge of their own choices, and connected to others. Help that leaves Marek doing the plait himself fits that better than help that does it for him.

Kasia also asks him to text her a single line every Sunday for three weeks. Harkin and colleagues (2016) combined experiments on checking progress and found that monitoring progress helped people reach their goals, more so when the progress was reported to another person. Marek's three texts read: "Week 1: 5 plaits, 2 lasted the day"; "Week 2: 5 plaits, 4 lasted, now 11 minutes"; "Week 3: 5 plaits, all 5 lasted, 8 minutes."



By the time the early shifts start, the plait takes him eight minutes, which fits the school morning. The top is still a little loose on some days. Zofia has started asking for two plaits.

> Exercise:
>
> Ask for help that teaches. The purpose of this exercise is to get unstuck on one task by asking one person for a specific kind of help, the kind that leaves you able to do more of the task yourself next time.
>
> 1. Pick one stuck task. Before asking, write how likely you think a yes is. Then **send or say one specific request** to one person today, naming what you need, by when and roughly how long it will take them. Afterwards, write down the answer. Adapted from Flynn and Lake (2008).
> 2. When you ask, name the part you want the helper to do or show, and the part you will do yourself. Afterwards, note what you can now do alone. Adapted from Wood, Bruner and Ross (1976).
> 3. Agree with one person to send a one-line progress report on a set day each week for three weeks, saying what you did and your next step. Adapted from Harkin et al. (2016).

You can tell the attempt is working when your request gets an answer and you can compare it with your guess, and when the part you can do

alone grows from one week to the next. If someone says no, ask somebody else, or ask the same person for something smaller.

Key idea:

Ask one person for one specific thing, expecting a yes more often than your guess suggests, and ask for help that leaves you doing more of the task yourself (Flynn & Lake, 2008; Wood et al., 1976; Harkin et al., 2016).

8.2 Collaboration, Delegation and Accountability

Four people share Nia's kitchen, and none of them thinks the mess is theirs. Nia is twenty and in her second year at university, renting a house with three other students: Josh, Amara and Finn. The letting agent inspects the house in three weeks, and each of them has paid a £400 deposit that can be cut for dirt or damage. Since October a note on the fridge has said "Everyone please keep the kitchen clean!!", and in that time the oven has grown a black crust and the sink has rarely been empty.



A job that belongs to everyone often gets less effort from each person. Karau and Williams (1993) combined 78 studies and found that people working together on a shared task tended to put in less effort than when they worked alone, a pattern called social loafing. Among the things that most affected how much effort dropped were whether each person's own part could be seen and judged, and whether the task felt meaningful to them. The note on the fridge gives no job to any one person.

Nia calls a house meeting on Sunday evening. Before anyone talks, she asks each person to spend five minutes writing, alone, every cleaning job the house needs before the inspection. Mullen, Johnson and Salas (1991) combined studies of brainstorming and found that people thinking together in a group produced fewer and weaker ideas than the same number of people working alone whose ideas were then pooled. The four separate lists hold fourteen jobs, and after they cross out the repeats there are eleven, including two that had never come up in conversation, the extractor fan filter and the back of the fridge.

They then give each job a named person and a date and put the list on the fridge in place of the old note, with a copy in the house group chat. Josh, Amara and Finn take three jobs each, and Nia takes the other two along with keeping the list up to date.

The oven is the worst job, and Finn takes it. Nia hands it over carefully, because a job handed over with no details often comes back half done. Locke and Latham (2002), reviewing 35 years of research, found that specific, difficult goals led to better results than being asked to do your best. A goal in their sense has a clear result, a standard and usually a time limit. The rest of the handover is this book's own method, which no study here has tested as a whole. Nia and Finn write a card together and read it aloud. The result is a clean oven, the standard is no grease

left on the inside walls or the glass, the date is the Saturday before the inspection, the check-in is Wednesday evening, and Finn decides for himself which cleaner to buy, up to £8 from the house kitty.

result	a clean oven
standard	no grease left on the inside walls or the glass
date	the Saturday before the inspection
check-in	Wednesday evening
Finn decides	which cleaner to buy, up to £8 from the house kitty

Each Sunday the four of them tick off the list in the group chat. Harkin and colleagues (2016) combined experiments on checking progress and found that monitoring helped people reach their goals, more so when progress was reported to someone else. The first Sunday shows nine of the eleven jobs done, the second ten, and the third all eleven.

Being answerable to other people is not a simple switch that always makes work better. Lerner and Tetlock (1999) reviewed research on accountability and found that its effects depend on its kind, such as who people answer to and whether they know in advance what they will be judged on. Depending on those details, accountability made people's thinking more careful, made no difference or made some errors worse. Their review brought studies together without pooling them into one number. When Josh suggests posting the name of anyone who misses a job, the house agrees instead that the Sunday check is about the list, and a missed job simply gets a new date.

On Wednesday Finn reports that the glass is clean but the back wall needs a second go. He finishes on Saturday morning. The inspection note says the kitchen is in good order and mentions only a loose bathroom tile, which was there when they moved in, and the four deposits come back in full.

> Exercise:
>
> Share a task so it gets done. The purpose of this exercise is to turn a job that belongs to "everyone" into named parts with dates, and to hand one part over clearly enough that it comes back done.
>
> 1. For a group decision or plan, ask each person to **write their own options alone for five minutes** before any discussion, then pool the lists and choose. Adapted from Mullen, Johnson and Salas (1991).
> 2. List each person's named part and a date, and share the list with the whole group. Adapted from Karau and Williams (1993).
> 3. Before handing over a task, write on one card the result wanted, how good is good enough, the date, the check-in day and what the other person may decide alone. Read it aloud together. Adapted from Locke and Latham (2002).

You can tell the attempt is working when every part on the list has a name beside it, and the handed-over task comes back on its date at the

standard on the card. Watch, too, whether the regular check stays about the work. If it starts to feel like blame, change how the check is run.

Key idea:

Give every shared job a named person and a date, let people think alone before deciding together, and hand tasks over with a clear result, standard and check-in (Karau & Williams, 1993; Mullen et al., 1991; Locke & Latham, 2002; Harkin et al., 2016).

8.3 Environment, Resources, Systems and External Leverage

Ibrahim's good mornings and his bad mornings start with the same alarm. He is twenty-seven and works as a bus mechanic, and two months ago he moved to a new depot across town where his shift starts at seven. To get there he needs the 6:32 bus. In the last four weeks he has been late for six of his twenty shifts, and his supervisor has given him a written warning. On the bad mornings the alarm goes off at 5:50 on the phone beside his bed, he reads messages under the duvet, and at 6:31 he is in the hallway hunting for his keys while the bus goes past the window.

Ibrahim has tried telling himself to be stronger in the morning, and it has not worked. Duckworth, Gendler and Gross (2016), in a review of research on self-control, argued that it can be much easier to choose or change your situation ahead of time than to fight a temptation once it is in front of you. Their example is a student who goes to the library

without a phone. The review sets out an argument across many studies and does not give a single combined result, but the idea is simple to test.

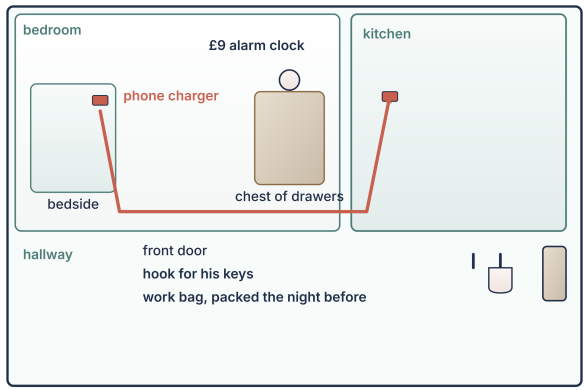


The timing matters too. Hofmann and colleagues (2012) sent beeper prompts to 205 adults for a week and collected thousands of reports of everyday desires. In this one study, the situation people were in had more influence late in the process, at the point of deciding whether to resist and what to do, than at the moment a desire first appeared. That point, for Ibrahim, is 5:50 with the phone already in his hand.

There is also a reason his old routine stopped working. Wood, Tam and Witt (2005) followed students who moved to a new university and found that their habits survived only where the setting stayed the same. At his old depot Ibrahim walked to work past a bakery, and leaving on time took care of itself. The new depot changed the cues, so he has to build the setting again on purpose.

On Sunday evening he makes four changes to his flat. He moves the phone charger from his bedside to the kitchen and buys a £9 alarm clock for the chest of drawers across the bedroom, puts a hook for his

keys beside the front door and hangs his work bag, packed the night before, on the hook beside them.



Changes like these work by turning a daily struggle into a habit. Galla and Duckworth (2015), in one paper of six studies, found that people with strong self-control tended to rely on good habits more than on effortful resisting, and that those habits helped explain their better results. If the setting makes the right step the easy one, Ibrahim needs less willpower at ten to six.

He adds one more system. A notepad hangs on the hook by the door, and anything he must remember for the morning, such as topping up his bus pass or taking back a borrowed tool, goes on it the moment he thinks of it. Risko and Gilbert (2016), reviewing research on putting memory work outside the head, found that this kind of offloading lowers the load on the mind and can help, though it can also cause trouble if you come to rely on a note that then goes missing. Kirsh (2010) argued that written notes and layouts also give people something lasting to look at and rethink, beyond simply saving memory. A list is a system in the same sense as the checklists in section 3.6, and it only helps if he reads it.

You may have heard of nudges, small changes to how choices are arranged. A large combined analysis found that nudges set up by others, such as governments and companies, had a modest average effect, but a later re-analysis that corrected for unpublished studies found no clear evidence that they worked (Mertens et al., 2022; Maier et al., 2022). Ibrahim is arranging his own setting, which neither analysis tested, so this section leans on the research above.

In the four weeks after his Sunday changes, Ibrahim is late once in twenty shifts, on a morning when the 6:32 bus was cancelled. Twice he still picks up the phone in the kitchen while the kettle boils, but by then he is out of bed and dressed.

> **Exercise:**
>
> Arrange the setting for your next start. The purpose of this exercise is to change your surroundings so that the action you want is the easy one, instead of relying on willpower in the moment.
>
> 1. The evening before a task, arrange the place: tools out, the first step visible and **the main distraction in another room**. The next day, note whether you started sooner. Adapted from Duckworth, Gendler and Gross (2016).
> 2. List three actions you want to do more and three you want to do less. For each, change one thing in the setting that makes the wanted action one step easier or the unwanted one a step harder. Adapted from Duckworth, Gendler and Gross (2016) and Wood, Tam and Witt (2005).
> 3. Choose one trusted place, such as a notebook page or a single list on your phone, where every promised action is written as soon as it comes up, and read it once a day. Adapted from Risko and Gilbert (2016) and Masicampo and Baumeister (2011).

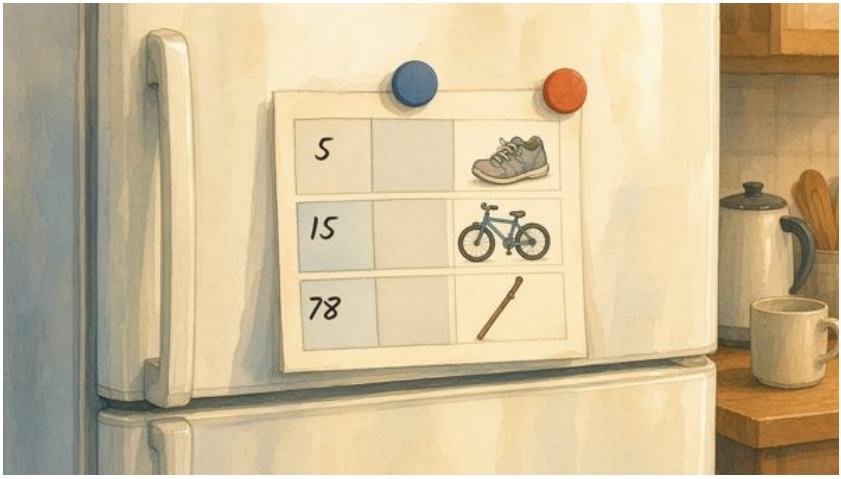
You can tell the attempt is working when the first step of your task starts sooner without a struggle, and when the trusted list holds everything you need to remember. If a change stops helping, look at what in the setting has changed.

Key idea:

Change the setting before the moment of choice, so that the action you want is the easy one, and keep what you must remember in one trusted place outside your head (Duckworth et al., 2016; Galla & Duckworth, 2015; Wood et al., 2005; Risko & Gilbert, 2016).

8.4 Developing and Adapting Action Skills at Different Ages

Five, fifteen and seventy-eight are the ages written down the side of the chart on the Hughes family's fridge. Claire, who is forty-four, drew it up in September, when the family agreed that each of them would learn one new everyday skill by half-term, seven weeks away. Alfie, who is five, will tie his own shoelaces. Megan, who is fifteen, will cycle the three miles to school on her own instead of getting a lift. Her grandad Wilfred, who is seventy-eight and lives with them, will take the twenty-minute walk after lunch that his doctor suggested, every day instead of now and then.



The idea for Wilfred's walk came from his own doctor. Any reader with a health condition should agree changes to activity or medicine with a doctor or another qualified clinician. A younger reader should talk to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician.

The three skills are very different, but each asks the person to begin and then to keep going until it is done. Psychologists use the term executive functions for the mental control skills behind this, such as holding a plan in mind or stopping an impulse. They support action without being the same thing as action. In a major review, Adele Diamond (2013) described how these skills develop through childhood and can improve with practice, and how stress or a lack of sleep can weaken them.

Children's self-control has also been linked with how their lives turn out. Moffitt and colleagues (2011) followed about 1,000 children from birth to the age of 32 and found that those with more self-control in childhood tended to have better health and finances as adults, and less trouble with the law. That is one group of people followed over time,

and it shows a link only. It cannot show that training a child's self-control would change how their adult life goes, and the Hughes family is not trying to. Alfie just wants to stop waiting for someone to tie his shoes.

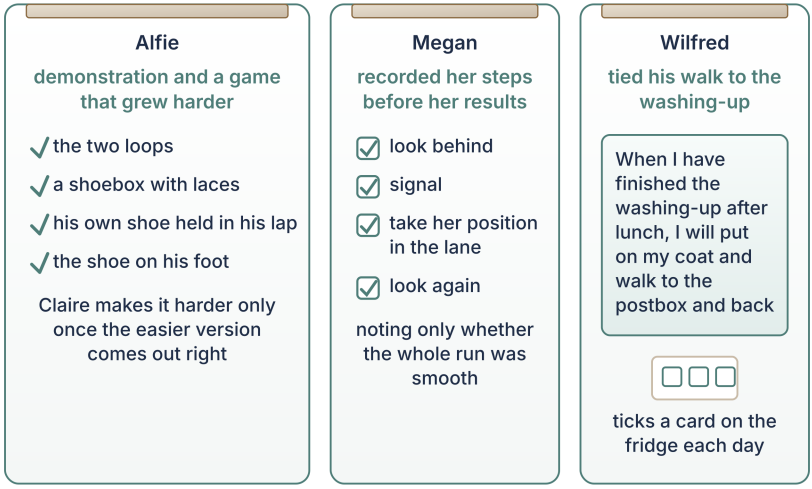
Small children need help of a particular kind. Wood, Bruner and Ross (1976), in an observational study of 30 children aged three to five building a block pyramid with a tutor, found that the youngest needed the adult to keep the goal in view and to show them steps, while older ones mainly needed to hear that they were on the right track. Claire starts by tying the first knot herself, shows Alfie the two loops slowly, and lets him cross and pull them. Diamond and Lee (2011) reviewed programmes that helped children aged four to twelve with these control skills and found that the successful ones shared two features: repeated practice and a challenge that slowly rose. How far such practice carries over into daily life is not yet settled. Alfie practises for five minutes most days, first on a shoebox with laces threaded through it, then on his own shoe held in his lap and then on the shoe on his foot. Claire makes it harder only once the easier version comes out right without help.

Teenagers face a different pull. Gardner and Steinberg (2005), in one laboratory experiment with 306 people, found that people took more risks when friends were with them than when they were alone, and that the effect was stronger in teenagers and young adults than in older adults. Megan's friends cycle the same road, and the hardest part of it is a busy roundabout. The family agrees that she will ride the roundabout on her own and meet her friends at the park gate just after it.

For the riding itself, Megan practises the roundabout with her dad on Sunday mornings and records each run. Zimmerman and Kitsantas (1997), in one experiment with 90 high-school girls learning a new physical skill, found that those who recorded their own practice

improved in skill and in confidence. For two weeks Megan ticks four steps for each run, which are look behind, signal, take her position in the lane and look again. Once all four come out right every time, she switches to noting only whether the whole run was smooth, a change this book suggests for when the steps are steady.

Later life calls for changes to the method more than to the goal. Charles and Carstensen (2010), reviewing research on ageing, described how many older people stay content and emotionally well even as some physical and mental capacities decline. Wilfred's memory for plans is not what it was, so he ties his walk to something he already does every day. Liu and Park (2004), in one small study, asked 31 older adults to test their blood sugar four times a day for three weeks. Those who made if-then plans linking each test to a set moment tested nearly half as often again as the two comparison groups. Wilfred writes, "When I have finished the washing-up after lunch, I will put on my coat and walk to the postbox and back," and ticks a card on the fridge each day.



By half-term Alfie ties his shoes on his own most mornings, though the bows are loose. Megan has ridden to school alone for three weeks. Wilfred has 19 ticks out of 21 days on his card for the last three weeks, against about two walks a week before. Each of them got a different kind of support: Alfie had demonstration and a game that grew harder, Megan recorded her steps before her results, and Wilfred tied his walk to the washing-up.

This section closes Module 8, which has looked at how other people, shared work and your surroundings can add to what you do alone. Age is one more part of that outside world, and the same methods work across it when the support is adjusted to the person.

> **Exercise:**
>
> Adjust the support to the age. The purpose of this exercise is to fit a method from this book to the age of the person using it, whether that is you or someone you help.
>
> 1. For a young child, choose a short game or everyday task to practise for a few minutes most days, and **make it slightly harder only after the child succeeds easily**. Adapted from Diamond and Lee (2011).
> 2. For a teenager learning a skill, record each practice step done correctly for two weeks, then switch to recording only the result once the steps are steady. Adapted from Zimmerman and Kitsantas (1997).
> 3. In later life, write an if-then plan that links a daily action to an existing routine, such as “When I finish breakfast, I will take my walk,” and tick a card each day for three weeks. Adapted from Liu and Park (2004).

You can tell the attempt is working when the person does more of the task without help each week. If progress stops, change the kind of support before changing the goal.

Key idea:

Keep the goal and change the support to fit the age: show and gradually raise the challenge for a young child, record practice for a teenager and tie the action to a daily cue in later life (Wood et al., 1976; Diamond & Lee, 2011; Zimmerman & Kitsantas, 1997; Liu & Park, 2004).



Module

9

Technology, AI and Cleverini Games

Module 8 looked at the help that comes from other people and from the places where you work. Your phone and computer belong to that outside world too. They need a module of their own, because the same device that can remind you to start a task can also pull you away from it a dozen times an hour. Module 9 is about **using technology so that it adds to your own action instead of replacing it or interrupting it**.

Section 9.1 covers ordinary digital tools, such as calendars and reminders, for planning a task and keeping track of it. It shows how to move an intention out of your head and into a tool at the moment it will be needed, and how to stop the alerts that break your attention. It names kinds of tool. It does not recommend any particular app.

Section 9.2 turns to AI assistants and automation. These tools can write a first draft in seconds. They can also get things wrong with great confidence. The section looks at when it makes sense to let an assistant help and how to check what it gives you, and at how to keep your own skill from fading while you use one. Research on AI changes quickly, so any figure in that section is tied to the study and the year it comes from.

Section 9.3 closes the module with Cleverini games and offline exercises that train parts of action, such as holding back a response or switching to a new rule. A game score shows how you did at that game, and it is never a test or a diagnosis. The section explains why each game is paired with practice on a real task, and it gives offline versions for anyone who would rather use cards or a partner than a screen.

Each section follows the pattern of the earlier modules, with a worked example, an exercise to try in your own week and a description of what success looks like. If your phone is the thing that most often gets between you and a task, section 9.1 is a good place to begin.

9.1 Digital Tools for Planning, Executing and Tracking Actions

In Tunis, Leila's mother keeps her phone on the windowsill beside the kitchen table, where she can see it while she cooks. Most evenings it stays silent. Leila is thirty-three and lives in Leeds, and since her father died two years ago she has meant to send her mother a short voice message every evening and to call her every Sunday. In the last thirty days she sent nine messages and made two of the four Sunday calls. She thinks of her mother often, but each time the moment to act came and went while her mind was somewhere else.



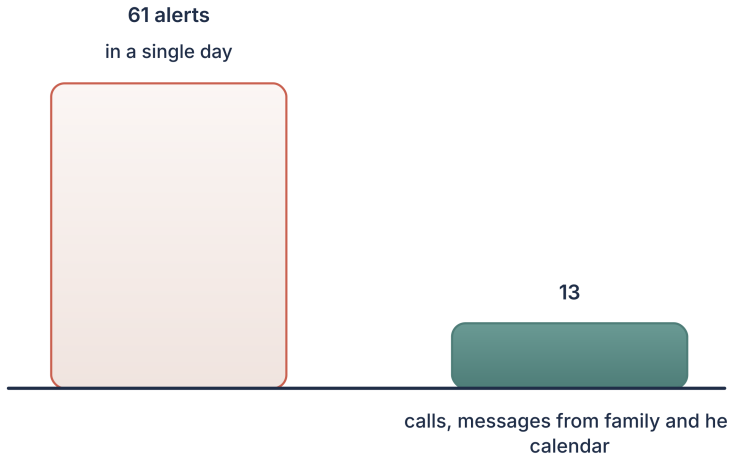
Remembering to do something later is a particular kind of memory. Einstein and McDaniel (2005), in a short review, explained that it depends on noticing a cue at the right moment, something in your surroundings that brings the plan back to mind. Leila's first attempt was a phone reminder at nine each morning, when she is teaching a class and cannot act on it. She swipes it away and has forgotten it by lunch.

Digital tools can carry this job for you. Risko and Gilbert (2016), reviewing research on what they call cognitive offloading, found that handing memory work to notes, lists or devices lowers the load on the mind, though it can also leave people less likely to notice cues themselves. The trick is to set the reminder for the time or place where the action can actually be done. Leila changes hers to fire when her phone detects that she has arrived home, and she writes the first step into the reminder text: “Record one minute for Mum, starting with what you had for lunch.” For the Sunday call she sets a weekly calendar entry for eleven in the morning, after breakfast, with her mother’s number in it.

Writing the plan down helps in a second way. Masicampo and Baumeister (2011), in one paper of laboratory studies, found that unfinished goals keep tugging at people’s thoughts, and that making a specific plan for them stopped that tug. Once the reminder and the calendar entry exist, Leila stops worrying through the day about whether she will remember.

The phone that reminds her also distracts her. When she picks it up to record a message, she often finds a stack of alerts and is still scrolling forty minutes later with nothing sent. Stothart, Mitchum and Yehnert (2015), in one laboratory study, found that simply receiving a notification disrupted people’s attention on a demanding task, even when they did not touch the phone. Kushlev, Proulx and Dunn (2016) asked 221 adults to spend one week with phone alerts on and the phone nearby and another week with alerts off and the phone away. In the week with alerts on, people reported more trouble paying attention, and that predicted lower productivity. That was one experiment and relied on what people said about themselves.

So she does a one-day audit. Leila counts 61 alerts in a single day, and she turns off every alert she does not need for something she must do that day, which leaves 13: calls, messages from family and her calendar.



She also moves the social media app she scrolls most off her home screen, so that it takes a few extra taps to open. Lyngs and colleagues (2020), in one field experiment with 58 students over six weeks, found that changing the design of a social media site, by adding reminders of the user's goal or removing the news feed, helped people stay on task. Some found the reminders annoying, and some worried about missing out without the feed. Leila's change is a simpler one that the study did not test. No study used for this book compares named apps, so the choice of tool is yours to test against your own results. The kinds of tool that matter are reminders, calendars, task lists, trackers, timers and blockers.

Last, she keeps a simple tracker in the notes on her phone for two weeks, with one tick for each evening's message and one line on what helped or got in the way. Harkin and colleagues (2016) combined

experiments on monitoring progress and found that it helped people reach their goals, more so when the progress was recorded or shared. After two weeks her tracker shows 12 ticks out of 14 evenings. The two lines without ticks read “left phone at work” and “wedding, home at 1 am”. Both Sunday calls happened. Her mother has started replying with voice messages of her own.

> Exercise:
>
> Put one intention into a tool. The purpose of this exercise is to use ordinary digital tools so they bring an action to mind at the moment you can do it, and to stop them pulling you away from it.
>
> 1. Take one thing you keep forgetting to do. Set a reminder for **the exact time or place it can be done**. The book suggests writing the first step into the reminder text and counting after a week how often you acted on it. Adapted from Einstein and McDaniel (2005) and Risko and Gilbert (2016).
> 2. For one day, list every alert that interrupts you. Turn off all that you do not need for an action you must take that day, and compare a work block before and after. The audit list is the book’s own form. Adapted from Kushlev, Proulx and Dunn (2016).
> 3. Keep one digital or paper tracker for one action for two weeks. The book’s own format is one tick per day done and one line on what helped or blocked it. Adapted from Harkin et al. (2016).

You can tell the attempt is working when the reminder arrives at a moment you can act on it, and your tracker shows more ticks in the

second week than you managed before. Watch, too, whether fewer alerts means fewer lost evenings.

Key idea:

Set reminders for the moment you can act, switch off the alerts you do not need and keep a simple record of what you did, choosing whichever tools you find work for you (Einstein & McDaniel, 2005; Risko & Gilbert, 2016; Kushlev et al., 2016; Harkin et al., 2016).

9.2 AI Assistants, Automation and Intelligent Support

THE FERRY THAT BRONWEN planned her whole Saturday around stops running for the winter at the end of October, and her trip is in the middle of November. She found that out on the lake company's own website, three weeks before she was due to leave, after an AI assistant had built her a three-day walking plan in about thirty seconds. Bronwen is forty-one and has never been on a walking trip alone. The plan looked complete, with a packing list, a route for each day, a campsite at £18 a night and a ferry across the lake on the Saturday morning. Beside her laptop she now has a printed timetable with "Last sailing: 31 October" circled in pen.



AI assistants can save a great deal of time, and the research on them changes quickly, so every figure in this section belongs to one study and the year it was published. In one study in 2023, Noy and Zhang gave 453 professionals short writing tasks, and those who used an AI assistant finished about 40% faster, with work that was rated about 18% better. That result is about getting short pieces of writing done, and it says nothing about whether people learned anything. In one large study at work, published in 2025, Brynjolfsson, Li and Raymond found that customer support agents with an AI assistant got through about 15% more work, and that the least experienced gained most. Bronwen, a beginner at planning trips, is just the kind of person who gets a lot from a first draft.

The trouble is that these tools are strong on some tasks and weak on others that look much the same. In one field experiment published in 2026, Dell'Acqua and colleagues gave 758 consultants a range of tasks. On tasks the AI handled well, those using it did more and did it faster, at higher quality. On a task just outside what the AI could do, those using it were 19% less likely to get the right answer than those working without it. The researchers called the uneven edge between the two

kinds of task a "jagged frontier". For Bronwen, a packing list sits well inside it. Whether a small ferry runs in November is a local, up-to-date fact, and that is where the assistant went wrong.

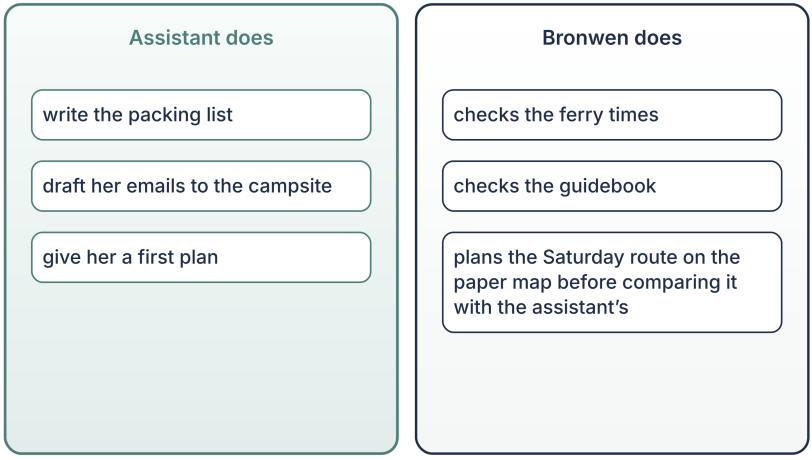
It also invented something. The plan recommended a guidebook, with a title, an author and a year, and when Bronwen searched for it, it did not exist. In one study in 2023, Walters and Wilder checked the sources produced by two versions of a chatbot. Of the sources GPT-3.5 gave, 55% were made up, and of those GPT-4 gave, 18% were made up. Many of the real ones had serious errors. Those were older models, and newer ones may do better or worse, so any source from an assistant still needs checking.

People tend to trust automatic advice more than they should, a habit called automation bias. Parasuraman and Manzey (2010) reviewed research on it, and Goddard, Roudsari and Wyatt (2012) brought together 74 studies in a systematic review. Most of that research came from older kinds of automation, such as aircraft systems and decision aids in hospitals, not from chatbots, so it is best read as a general human tendency. Parasuraman and Manzey found that training and instructions alone could not prevent it. In one survey published in 2025, Lee and colleagues asked 319 office workers about their own use of AI, and those who were more confident in it said they did less critical thinking. That is what people reported about themselves, and it shows a link that cannot prove a cause. Bronwen nearly booked the ferry without a second look, because the plan was so neat.

Handing work to a machine has another cost. Risko and Gilbert (2016), reviewing research on offloading memory work to tools, found that it lightens the load on the mind but can leave people less able to do the work themselves. In one large field experiment published in 2025, Bastani and colleagues gave nearly a thousand secondary-school maths

students access to two versions of an AI tool. Practice grades rose by 48% with a plain version, called GPT Base, and by 127% with a version built to tutor, but once access was removed, the GPT Base group showed a 17% reduction in performance. Bronwen will be on a hillside in November with a paper map and a phone that may have no signal.

So she splits the work. Bronwen lets the assistant write the packing list, draft her emails to the campsite and give her a first plan, and she checks the ferry times and the guidebook herself and plans the Saturday route on the paper map before comparing it with the assistant's.



Her own Saturday route goes round the end of the lake instead of across it, which adds four miles, and the assistant's second version of the route agrees with hers. She books the train for £64 and the campsite for two nights at £36. Over the next week she checks eleven facts that the assistant gave her against an official site or the original page, and two of them need correcting: a car park that charges in winter and a café that closes at three.

Exercise:

Use an assistant and keep the judgement. The purpose of this exercise is to get real help from an AI assistant on a task you are stuck on while keeping the decisions, the checking and your own skill with you. The steps work with any assistant, and the book does not recommend a particular one.

1. Ask an assistant for three ways to break a stuck task into first steps. Choose one, change it to fit your situation and **do the first step within ten minutes**. Note what you changed and why. The three-options format is the book's own. Adapted from Dell'Acqua et al. (2026).
2. Before acting on any fact, number or source an assistant gave you, confirm it in one independent source, such as the original page, an official site or the paper itself. The book suggests keeping a tally over a week of how many items needed correcting. Adapted from Walters and Wilder (2023) and Wineburg and McGrew (2019).
3. For a task you now hand to an assistant every time, do it yourself without help once a week, then compare. The weekly round is the book's own. Adapted from Bastani et al. (2025).

You can tell the attempt is working when you can name what you changed in each AI suggestion and your weekly tally shows you caught

the errors before acting on them. The task you do unaided each week should not get harder.

Key idea:

Let an assistant draft and suggest, and keep the decision and the check with you, testing every fact against a real source and doing the work unaided often enough to keep the skill (Dell'Acqua et al., 2026; Walters & Wilder, 2023; Bastani et al., 2025; Parasuraman & Manzey, 2010).

9.3 Training Action with Cleverini Games and Offline Exercises

TRY THIS WITH SOMEONE at home. Ask them to call out "go" or "no" in a random order, and clap only when you hear "go". Raf, who is thirteen, played it in the living room with his sister Mila, who is eight, and she beat him three rounds out of three. He clapped on "no" every time she said it quickly. It was a game, but it was also the same problem his teacher had written about on his last report: Raf answers before the question is finished and talks over other people in class discussions. In the week before he started anything new, he counted 22 interruptions across five school days.

Holding back a response is one part of action, and some games give you short, repeated practice at it. Cleverini makes several games that you play in a web browser, and six of them practise parts of action. Goalkeeper asks you to save every white ball but hold back on the golden ones. Figures makes you wait until you have read the shape name as well as seen the shape, and Lighthouse asks you to tap each ship but

not the buoys and seagulls that move just like ships. Shoal rewards quick, accurate answers, and Switcheroo changes the rule for matching cards without warning. In Rail Dispatch you set each junction before the train arrives, because the trains cannot stop or turn back. Psychologists have studied rule switching of the Switcheroo kind for a long time (Monsell, 2003).



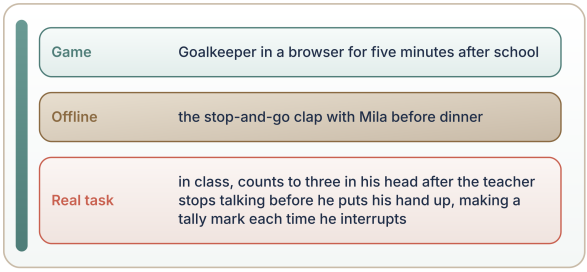
A score in any of these games is in-game progress only; not a test, not an IQ, not a diagnosis. It shows how you did at that game, on that day. The games give their own names to high scores, and this book does not use those names as levels.

The big question is whether getting better at a game makes you better at anything else. Simons and colleagues (2016), in a long review of "brain-training" research written by a group of experts, found strong evidence that training improves the trained task, less evidence that it helps closely related tasks and little evidence that it helps everyday life. Sala and Gobet (2019), looking across many combined analyses, found that training had a minimal effect on general thinking skills. So this book does not claim that Goalkeeper will stop Raf interrupting.

Barnett and Ceci (2002) described how hard it is for a skill to carry over to a setting that is very different from where it was learned. A classroom discussion is a very different setting from a game on a screen.

What the book offers instead is its own method, which no study has tested: pair each game with one real task that needs the same skill, and practise the real task directly, soon after the game. Diamond and Lee (2011), reviewing programmes that helped children aged four to twelve with these control skills, found that the successful ones, which included games played without a computer, shared two features: repeated practice and a challenge that slowly rose. Raf is just past that age range, but the two features are easy to build in.

Raf's card has three lines. He plays Goalkeeper in a browser for five minutes after school, plays the stop-and-go clap with Mila before dinner and, in class, counts to three in his head after the teacher stops talking before he puts his hand up, making a tally mark each time he interrupts.



Mila makes the clap game harder only when Raf gets ten rounds right in a row, first by calling faster and then by saying words that sound like "go", such as "toe" and "dough". By the end of the second week he wins most rounds. His Goalkeeper scores rise too, which shows his progress at Goalkeeper and nothing more. The tally is what matters. The 22

interruptions of the week before fall to 14 in the first week and 9 in the second. Nobody can say how much of that came from the games and how much from the counting in class, which is the real task practised directly.

The games and their offline versions train narrow skills, such as holding back, accuracy, switching rules and timing. Keeping going on a long task, acting despite fear and finishing what you start are not trained by any of these games. For those, use the offline exercises in Modules 3, 4 and 7, practised on the real task.

> ✎ **Exercise:**
>
> Pair a game with a real task. The purpose of this exercise is to practise one narrow skill in a game or its offline version and then use the same skill straight away on a real task, which is the part that counts.
>
> 1. Play the stop-and-go clap with a partner. They call “go” or “no” at random, and you clap only on “go”. Play ten rounds, then speed up. This is a traditional party game, paired here with Goalkeeper by the book.
> 2. Play a rule-change card sort. Sort a deck by colour, and have a partner call a new rule, such as suit or number, without warning while you keep going. This is the offline version of Switcheroo. Adapted from Monsell (2003).
> 3. After a short game session, **do one real task that uses the same skill within the hour**, and write down how the real task went, leaving the score aside. The pairing is the book’s own. Adapted from Simons et al. (2016).

You can tell the attempt is working when your record of the real task improves, whatever the game score does. If the score climbs and the real task does not change, spend the time on the real task instead.

Key idea:

A game trains the game, so pair it with one real task that needs the same skill, practise that task directly and judge progress by the task, never by the score (Simons et al., 2016; Sala & Gobet, 2019; Barnett & Ceci, 2002).



Module

10

Your Training Program, Practice Plan and Practitioner Levels

Module 9 looked at tools and games that can support practice. This last module turns the methods of the whole book into a plan you can follow and review. Module 10 is about **finding where you are now and practising from there**. You judge progress from records, not from a feeling.

Section 10.1 covers establishing your starting point. Before you change anything, you need a record of how you actually act in an ordinary week, because a guess about your own habits can be a long way out.

Section 10.2 is the Action training program. It gives you a short daily exercise and a weekly challenge, practised over twelve weeks. That length is the one used across this series of books. It is a practical window, and research has not shown it to be the best length. The section also covers what to do when a week is missed, and how to keep a routine going after those weeks end.

Section 10.3 looks at using all six basic mental abilities together on a real task. The six basic mental abilities covered in this series each play a part. They are not lined up in a fixed order. The section shows how to notice which of them a real task needs, without claiming that practice in one ability automatically improves another.

Section 10.4 closes the book with measuring progress, practitioner levels and continuing development. The level names, from Basic to Master, are a practice framework shared with the other books in the series, and they do not come from a research finding. The wording of the Action rows is still a proposal. The section also shows how to tell a real change from a lucky week, and how to plan the next challenge once the twelve weeks are over.

Each section follows the pattern of the earlier modules, with a worked example and an exercise to try in your own week. Start with a one-week

record of where you are. Then choose the first daily exercise from section 10.2.

10.1 Establishing Your Starting Point

The receipt in Iona's purse is for £35, dated last Tuesday, for a metre of linen and a box of tacks she bought on the way to her first upholstery class. She is forty-eight, and the dining chair she plans to recover has stood in the middle of her sitting room since that evening, still in its old green cover. The class runs for six weeks, Tuesdays from seven until nine, and the chair needs to be finished by the last one. Her tutor has asked everyone to practise at home for thirty minutes on four evenings a week. Iona would have said she was already the sort of person who does that. **A starting point is a record of how you actually act in an ordinary week**.



A guess about your own habits can be a long way out, so a starting point needs records as well as a rating (Kruger & Dunning, 1999;

Gignac & Zajenkowski, 2020). That evidence is mixed, and this book uses it only as a reason to write things down. It does not teach a story about who overestimates their skill.

Every way of measuring a quality such as self-control is imperfect in its own way. Duckworth and Yeager (2015), in a methods review, compared questionnaires and performance tasks and found that each approach has gaps that can make it a poor fit for some uses, including individual diagnosis. A useful starting point therefore mixes a short self-rating with a record of what you actually did, including a start on time and a finish. That mix is this book's own design. Treat the rating and the log as a practice tool you keep for yourself. This book does not treat them as a test or as a diagnosis, and it does not give you a practitioner level from them.

The rating uses the eight core skills from Module 3. They are initiation and self-control; persistence and courage; speed and precision; adaptability and completion. Before she keeps any record, Iona rates herself from 1 to 5 on each of them. She gives initiation a 4, because she thinks of herself as someone who gets on with things, and completion a 3. Most of the others she also marks as 3.

The log has to cover a full ordinary week. A single bad day, or a single good one, can look like a change when it is only the usual up and down (Barnett, van der Pols & Dobson, 2005). She chooses the next seven days, a week that has not already gone badly, and she starts the log before any of those days have begun. For each day she writes down every task she meant to do, then a yes or no for a start on time, a yes or no for finishing, and a note on what got in the way.

She plans four home practices, each at eight in the evening for thirty minutes, on Wednesday and Thursday, then Friday and Monday, plus

cutting the linen at ten on Saturday and going to the second class on Tuesday, six intended tasks in all.

Wednesday goes as planned. She sits down at eight, works for thirty minutes on easing out old tacks, and stops when the half hour is up. Thursday she picks up her phone at eight and starts the chair at twenty past, then stops after a quarter of an hour with the strip only half done. Friday she means to start at eight and instead watches a film. Saturday comes and she leaves the linen uncut, because a wrong cut would waste the only metre she has. Sunday was never in the plan. Monday she tells herself the last class is still weeks away, and she does not sit down. Tuesday she arrives at class on time and stays until nine.

When she copies the week into a table, two tasks were started on time, one was started late, three were not started, and two were finished: the Wednesday practice and the Tuesday class.

	a start on time	finishing	what got in the way
Wednesday, practice at eight	yes	yes	
Thursday, practice at eight	late	no	picks up her phone at eight
Friday, practice at eight	not started	no	instead watches a film
Saturday, cutting the linen at ten	not started	no	a wrong cut would waste the only metre she has
Sunday was never in the plan			
Monday, practice at eight	not started	no	the last class is still weeks away
Tuesday, the second class	yes	yes	

two tasks were started on time

one was started late

three were not started

two were finished: the Wednesday practice and the Tuesday class

From that table she rates herself again. Initiation, which she had marked as 4, she now marks as 2, and that is the biggest gap between the two.

If she later wants to know whether a new week is a real gain, she should look for a change bigger than her usual week-to-week swing (Jacobson & Truax, 1991). She does not need a formula. One ordinary week gives her a first sense of that swing, and she will use the same kind of record when she reviews her progress in section 10.4.

A timed quiz or a game score is a weaker main baseline. In a combined analysis of many studies, Hausknecht and colleagues (2007) found that repeating the same test raises scores by itself, in part because the second try is more familiar. Iona's main starting point is therefore the log of real tasks she meant to do.

The log also shows which tasks she delayed, and what usually went with the delay. Steel (2007), in a large combined analysis, found that putting things off often goes with a task that feels unpleasant, a task that is still far off, lower confidence, or being pulled away. Those findings show a link, and they stop short of showing that one of them causes the delay. From her log Iona picks the three tasks she most often put off. Friday's practice lost out to the film. Saturday's cutting felt beyond her. Monday's practice felt far off, because the last class was still weeks away. The questions are Steel's categories, and the list she makes is this book's own form. She now has a record of where she started and a gap she can name, plus the delayed tasks that are worth a closer look when she begins a practice plan.

> **Exercise:**
>
> Make a record of an ordinary week. The purpose of this exercise is to give you an honest starting point, built from a rating and from

what you actually did, so later practice has something real to be compared with.

1. Before you change anything, rate yourself from 1 to 5 on each of the eight core skills from Module 3 (initiation and self-control; persistence and courage; speed and precision; adaptability and completion). Then, for seven ordinary days, list each task you meant to do and mark a yes or no for a start on time, a yes or no for finishing, and a note on what got in the way. Choose a normal week, not one you already know was unusual. The log form is the book's own. Adapted from Duckworth and Yeager (2015).
2. After the week, rate yourself again from the log, not from memory, and note the biggest gap. The before-and-after rating is the book's own. Adapted from Gignac and Zajenkowski (2020).
3. From the log, pick the three tasks you most often delayed. For each, note whether it felt unpleasant, was far off, felt beyond you, or lost out to a distraction. The list is the book's own; the categories come from Steel (2007).

You can tell the attempt is working when you have a completed week of records, you can name the biggest gap between your first rating and the

log, and you have three delayed tasks with a short note beside each one. You have not turned the numbers into a test score or a level.

Key idea:

A starting point is a record of an ordinary week, mixed with a short self-rating you then check against that record, and it is a practice tool you keep for yourself (Duckworth & Yeager, 2015; Kruger & Dunning, 1999; Gignac & Zajenkowski, 2020; Barnett et al., 2005; Jacobson & Truax, 1991; Hausknecht et al., 2007; Steel, 2007).

10.2 The Action Training Program: Daily Exercises, Weekly Challenges and Twelve Weeks of Practice

THE SATURDAY 10:30 SLOT at the town library changes hands in twelve weeks. Tamsin, who is thirty-nine, has helped at the junior chess club all term, and from that Saturday she will lead it. Eight to twelve children usually come. She has a £12 demonstration board on order, and she has promised the librarian a simple plan for the first eight sessions she will run. In a baseline week of the kind set out in section 10.1, she meant to prepare on four evenings and started on time once. Initiation was the weakest of the eight core skills on her log. **A training program turns a starting record into twelve weeks of practice you can keep going**.



Twelve weeks is the length used across this series of books, the same as the other five. It is a practical window, and research has not shown it to be the best length. As section 4.6 explained, a new daily action becomes automatic slowly and at very different speeds. In one field study of everyday health habits, Lally and colleagues (2010) asked people to repeat a chosen action in the same setting for twelve weeks. The time taken to feel close to automatic ranged from 18 to 254 days, and the midpoint was 66 days. That finding is mixed, and it gives no day count to aim for. The twelve weeks in the study were simply how long the researchers watched; they are not a reason to treat twelve weeks as a scientific requirement.

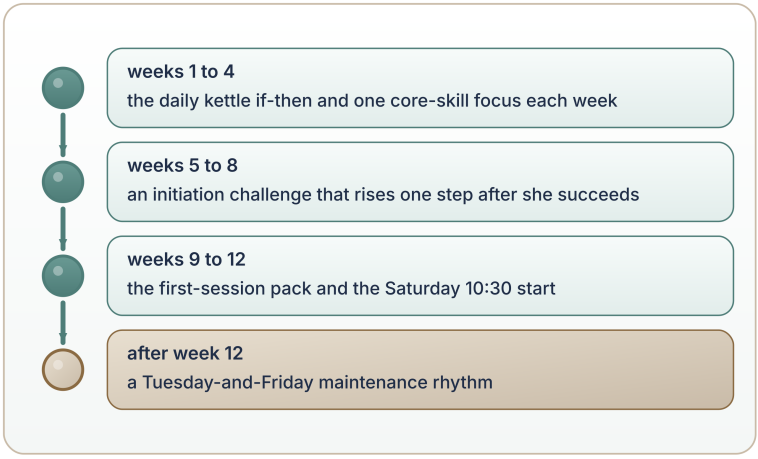
The same study found that missing one opportunity did not undo the progress, and this book's own rule is to avoid missing two days in a row, which goes a little further than that finding, since the research only says that one miss did not matter much.

The daily method with the strongest evidence is an if-then plan, of the kind already used in earlier modules. Gollwitzer and Sheeran (2006) combined 94 tests of if-then plans and found that they helped people

reach their goals, including at the point of starting. Tamsin writes: “If the kettle boils at eight in the evening, then I will sit down and spend ten minutes on one chess puzzle or one teaching point.” She ticks a tracker when she has done it. The if-then form and the repeated cue come from the research. The ten minutes and the tick are this book’s own.

The shape of the twelve weeks is this book’s plan, shared with the series, and it is not a research finding. The first four weeks keep one daily if-then action and give one core skill a focus each week. The next four weeks put a weekly challenge on the weakest skill from the baseline, one step harder after a success. The last four weeks are for one finished real project that uses several skills. After week 12 comes a lighter rhythm, so the skill does not fade from lack of use.

On a single page she writes the twelve-week plan: weeks 1 to 4 with the daily kettle if-then and one core-skill focus each week, weeks 5 to 8 with an initiation challenge that rises one step after she succeeds, weeks 9 to 12 with the first-session pack and the Saturday 10:30 start, and after week 12 a Tuesday-and-Friday maintenance rhythm.



In week 1 the focus is initiation: she protects the start at eight. In week 2 it is self-control: the phone goes in another room for the ten minutes. Week 3 is persistence: she stays for the full ten minutes when the puzzle is awkward. Week 4 is precision: she writes a short, accurate note on how the puzzle is solved. On Thursday of week 2 she skips the ten minutes. On Friday she sits down when the kettle boils, following the book's own rule about two days in a row.

From week 5 the weekly challenge targets initiation, the weakest skill on her baseline. Focused practice on a weak point can help, yet it explains only part of skill. Ericsson, Krampe and Tesch-Römer (1993) argued that long, focused practice is the route to expert performance. Macnamara, Hambrick and Oswald (2014), in a combined analysis of many studies, found that deliberate practice explained only part of the differences in performance, and more in some fields than in others. The challenges therefore aim at Tamsin's weakest skill, and they do not promise expertise from hours alone.

The difficulty should rise only as far as she can still succeed. Bjork and Bjork (2020), in a review of their own work, warned that a harder task becomes unhelpful once the person cannot manage it yet. The weekly ladder is this book's own. In week 5 Tamsin starts within five minutes of the kettle, on three evenings, and she does all three. In week 6 she tries five evenings. In week 7 she starts a task she has been putting off, the outline of the first session, within five minutes, on three evenings. In week 8 she starts that outline and stays for the full ten minutes, on four evenings. She steps up only because the week before went to plan.

A setting change can break a new routine, so she also plans for a disruption. Wood, Tam and Witt (2005), in one field study of students who moved university, found that habits survived only where the setting stayed the same. In week 6 Tamsin is away on a two-night work

trip, on Wednesday and Thursday, and the kettle at home will not be there. She writes, in advance, “If my usual cue is gone, I will do the two-minute version after I brush my teeth.” The two-minute fallback is this book’s own. She does the two-minute start in the hotel on both evenings, then the full ten minutes on Friday, and she hits all five evenings of the week 6 challenge.

Weeks 9 to 12 are the project. In week 9 she writes a title and a teaching point for each of the first eight sessions. In week 10 the £12 board arrives, and she assembles the first-session pack: six puzzles, a fifteen-minute teaching point and a simple sign-in sheet. In week 11 she runs a thirty-minute practice session in the library on Thursday evening with two colleagues who also help at the club, and that practice takes the place of Thursday’s ten minutes. In week 12, at 10:30 on Saturday, she leads the session. It lasts forty-five minutes, and eight children come. She starts on time, and the project is finished.

The program does not stop there. In a combined analysis of 53 training studies, Arthur and colleagues (1998) found that skills fade as time out of use grows. After week 12 Tamsin keeps the same kettle cue on Tuesdays and Fridays, for ten minutes, to prepare the next Saturday’s puzzles.

> **Exercise:**
>
> Run a twelve-week practice plan. The purpose of this exercise is to turn a starting record into a daily if-then action, a weekly challenge

that stays within reach, and a plan for the week the routine will break, over the series' twelve-week window.

1. Each day, write one planned action as an if-then plan, do it at the same cue, and tick a tracker. This book uses ten minutes as a typical length for that action. The if-then form and the repeated cue come from the research; the ten minutes and the tick are the book's own. Adapted from Gollwitzer and Sheeran (2006) and Lally et al. (2010).
2. Each week, choose one challenge a step harder than last week on the skill your baseline showed as weakest, and step up only after you have succeeded. The weekly ladder is the book's own. Adapted from Bjork and Bjork (2020).
3. Write one if-then plan for a week your routine will break, such as travel, illness or exams: "If my usual cue is gone, I will do the two-minute version at [new cue]." The two-minute fallback is the book's own. Adapted from Wood, Tam and Witt (2005).

You can tell the attempt is working when the tracker has daily ticks, the weekly challenge has only got harder after a success, and you have a written disruption plan before the week the cue will be missing. Treat

the twelve weeks as the series' practice window, and not as a length shown to be best.

Key idea:

Practise daily with an if-then plan at a repeated cue, add a weekly challenge on your weakest skill that rises only after a success, plan a short fallback for a disrupted week, and use twelve weeks as the series' window, then keep a lighter rhythm so the skill does not fade (Gollwitzer & Sheeran, 2006; Lally et al., 2010; Bjork & Bjork, 2020; Wood, Tam & Witt, 2005; Macnamara, Hambrick & Oswald, 2014; Arthur et al., 1998).

10.3 Using All Six Basic Mental Abilities Together in Real-World Action

Farid stretches a tape measure across the doorway at the top of his stairs and writes down seventy-eight centimetres. He is thirty-six and lives on the first floor. A neighbour two streets away is giving away an upright piano if it is collected by five o'clock on Saturday, and Farid wants it. The piano is 150 centimetres along the keys and 62 centimetres deep, and it stands 118 centimetres high. **Use all six abilities together on the real task you want to get done**.



Building on section 2.6, which showed that real tasks call on all six basic mental abilities and that they do not run in a fixed order, this section adds a way to plan for each of them before you start, and a way to notice the pattern after two real tasks. The other Cleverini books are named here by title only. The Extractivity book, the Attention book, the Memory book, the Intellect book and the Creativity book each describe one ability. The Memory book presents four of them as pillars that all work through memory, a series framework that has not been tested as a model and that leaves out attention and action. This book's own framing is that Action is where the other abilities turn into done things.

Attention is a thread that runs through many of them. Burgoyne and Engle (2020), in a review, described attention control as a common thread among broad mental abilities, including reasoning about new problems and holding information in mind. While Farid measures the door, books the van and later carries the piano, attention is what keeps the next step in view.

A real action also moves through phases. As section 1.1 set out, people first decide, and then they carry the decision out (Heckhausen &

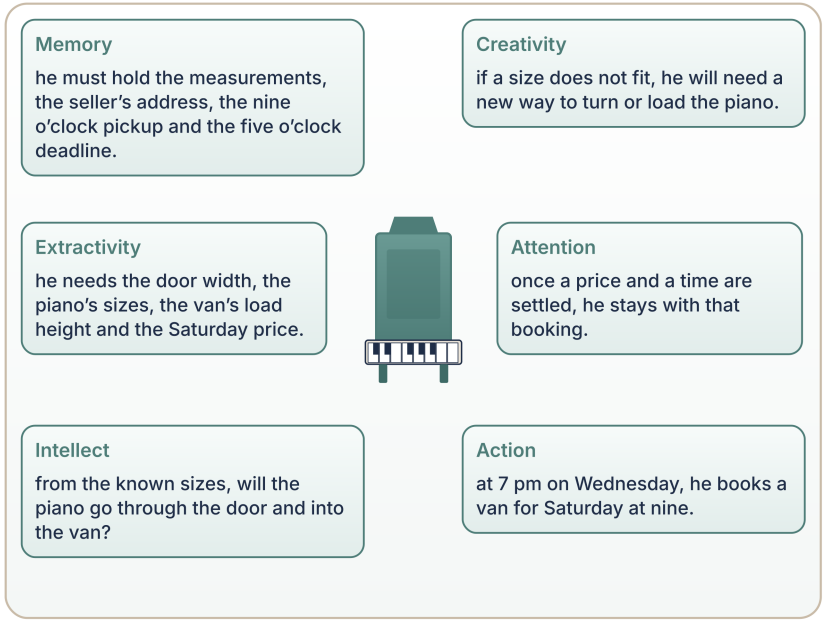
Gollwitzer, 1987; Keller, Gollwitzer & Sheeran, 2020). The mapping of abilities onto those phases is this book's own. While Farid is still deciding, Extractivity and Intellect do a lot of the work: he needs the door width, the piano's sizes and a Saturday price, and he needs to work out from those known figures whether the piano will go through. Once he has decided, Attention and Action lead, Memory carries the plan, and Creativity steps in if the plan fails. That is a guide for this task. Other tasks can call on the abilities in a different pattern.

Before he books anything, he checks the plan against reality. Oettingen and colleagues (2001), in one paper of four experiments, found that when people set a wished-for future next to the obstacle in the present, commitment was stronger if they also thought they could succeed. That finding is mixed. He then adds an if-then plan for the obstacle, of the kind already used in earlier modules (Gollwitzer & Sheeran, 2006). The pairing is this book's own, and it is not given a special name. His best outcome, in one sentence, is a piano in the sitting room by five o'clock on Saturday, with no damage. The main obstacle is that he may still be comparing vans on Saturday morning. He writes: "If it is 7 pm on Wednesday and I have not booked, I will book a Saturday van then."

On Wednesday evening he also writes a six-line plan, one line for each ability. The six-line form is this book's own; the deciding and doing phases come from the research above. The lines use each ability in the words of its own book, and they can be written in any order. Extractivity is taking in information quickly and clearly, in an orderly way: he needs the door width, the piano's sizes, the van's load height and the Saturday price. Attention is choosing what is important and staying with it: once a price and a time are settled, he stays with that booking. Memory is taking in, keeping and bringing back information: he must hold the measurements, the seller's address, the nine o'clock

pickup and the five o'clock deadline. Intellect is solving tasks where the variables are identified: from the known sizes, will the piano go through the door and into the van? Creativity is solving tasks where the variables are not identified: if a size does not fit, he will need a new way to turn or load the piano. Action, as this book defines it, is the ability to initiate and control purposeful behaviour, and to sustain and adapt that behaviour, to achieve intended outcomes: at 7 pm on Wednesday, he books a van for Saturday at nine.

On a single page those six lines sit together, in no required order, as the plan for this one task.



Practising this way matters because practice transfers mostly to what was practised. As section 2.6 explained, reviews of brain-training programmes found strong evidence that they improve the trained task and little evidence that they improve distant tasks or everyday

performance (Simons et al., 2016), and how far a skill carries depends on how far the new setting is (Barnett & Ceci, 2002). So the place to combine the six abilities is inside the real task, here the piano move. This book does not claim that training in the Extractivity book, or in any of the others, will by itself improve Action.

At 7 pm on Wednesday he books a van for £65, from nine until one on Saturday. On Thursday evening he reads the van's details and finds a load height of 110 centimetres. The piano stands 118 centimetres high, so it will not go in upright. The door, at seventy-eight centimetres, will take the piano if they turn it and use the 62-centimetre depth. He adds a new loading plan: the piano will travel on its side, 62 centimetres high in the van, on a blanket, with straps from the hire desk. On Friday he buys an £8 blanket. On Saturday he picks up the van at nine, collects the piano at half past, and is at his stairs at eleven. With a friend's help he turns it through the doorway, and it is in the sitting room by quarter past twelve. The van and the blanket cost £73, and the five o'clock deadline still has hours left.

The next Wednesday, at midnight, his car insurance is due for renewal. His current company has quoted £428. On Tuesday he gets two other quotes, £395 and £410. On Wednesday at twenty past nine in the evening he is still tempted to look at a fourth, and then he pays the £395.

After both tasks he writes a short review, step by step, of which ability did the main work and where it stalled. Section 2.4 already set out two laboratory papers by Gick and Holyoak (1980, 1983): people rarely brought a known method to a new problem unless they were prompted, and comparing two cases helped them draw out a rule. Those findings are mixed. The review across two tasks is this book's own form of that prompt. On the piano, Extractivity ran on after he

already had a price, and he almost kept comparing vans. On the insurance, the same thing happened with a fourth quote. The repeating pattern is that he keeps gathering after he already has enough to choose. Next time, the Action line gets a time as soon as the deciding numbers are in.

> **Exercise:**
>
> Put all six abilities on a real task, then compare two. The purpose of this exercise is to plan for each ability before you start a real task, to check the plan against the main obstacle, and to notice a repeating pattern after a second task.
>
> 1. Choose one real task for the week. Before starting, write one line for each ability: what you need to find out (Extractivity), what you must keep in focus (Attention), what you must remember (Memory), what is known and must be worked out (Intellect), what is unknown and needs new options (Creativity), and the first step with a time and a place (Action). The six-line plan is the book's own. Adapted from Heckhausen and Gollwitzer (1987).
> 2. After two different real tasks, note for each step which ability did the main work and where it stalled. Compare the two and name any pattern that repeats. The ability-by-step review is the book's own. Adapted from Gick and Holyoak (1983).
> 3. Before you start, write the best outcome of the task in one sentence, then the main obstacle in you or in the situation, then an if-then plan for that obstacle. The pairing is the book's own and is not given a special name. Adapted from Oettingen, Pak and Schnetter (2001) and Gollwitzer and Sheeran (2006).

You can tell the attempt is working when you have a six-line plan for one real task, an if-then plan for the main obstacle written before you

start, and, after a second task, a pattern you can name. You have not treated practice in one ability as a way to raise another.

Key idea:

Plan for all six abilities on the real task itself, check the plan against the main obstacle before you start, and compare two tasks so a pattern is easier to see (Heckhausen & Gollwitzer, 1987; Keller et al., 2020; Oettingen, Pak & Schnetter, 2001; Gollwitzer & Sheeran, 2006; Gick & Holyoak, 1980, 1983; Simons et al., 2016; Barnett & Ceci, 2002).

10.4 Measuring Progress, Practitioner Levels and Continuing Development

After the Sunday shift, Soren has an hour before the bus. He is forty-three and a shift supervisor at a warehouse, and for twelve weeks he has been practising a ten-minute check of the six fire exits and eight emergency torches at the end of each shift. Two torches had failed during those weeks, and he replaced them at £11 each, £22 in all. Today is his first level review, booked for this hour twelve weeks ago. **A level is a description of the evidence in your records at a twelve-week review**.



The book uses five level names, in a fixed order from Basic to Master, the same names and the same number of steps as in the Intellect book of this series, and as already applied in the Creativity book and the Extractivity book. Write them in that order, from Basic at the top to Master at the bottom. Use these names only. The names, the threshold rule and the stopping rule come from those books. The Action wording in the table below is a proposal, so the wording is used exactly as the pack gives it and is not a final criterion set.

The levels and their criteria are this book's own practice structure. No study tested them, and no research sets the thresholds. They grant no official qualification and have no public standing. They are not a test or a diagnosis, and they are not an IQ score. A Cleverini game score is in-game progress only, and it never counts as evidence for a level.

No level asks for a set number of hours, sessions, weeks or tasks. You judge the evidence yourself at the twelve-week review. Give each level an evidence checklist: copy that row's evidence kinds as separate lines, with

the section number beside each one, and tick a line only when the dated item is in your folder. There is no minimum count on any line.

Level	What your practice shows	Evidence to collect, and the section that produces it
Basic	You keep a short daily action routine and have a record of where you started	A starting record (10.1) and a short daily action-routine record (10.2)
Intermediate	You meet weekly challenges and use a method (for example an if-then plan) on real tasks	Weekly challenge records (10.2) and a record of a method used on real tasks (10.2)
Advanced	You finish a monthly project, choose among methods before you start and track your measures	A finished monthly project (10.2, 10.4), a note of the methods you chose before you started (10.2) and a record of your measures (10.4)
Expert	You raise difficulty to a dated plan and can name the core skills and abilities each phase of a real action used	A dated plan that raises difficulty (10.2) and a note naming the core skills and abilities each phase of a real action used (10.3)
Master	You keep practice going across reviews and plan each new challenge yourself	A record of practice kept going across reviews (10.4) and a plan for the next challenge that you made yourself (10.4)

Read each level as a description of practice, never as a rank of the person, and never as a ranking of talent. Practice matters, and it is not everything (Macnamara, Hambrick & Oswald, 2014). A level says what your folder can show today, at this review.

Start with the lowest level and work upward. At each twelve-week review, check each row in turn and stop at the first row where evidence is missing. Your level is the row above it, and the row with the gap is your next step.

Soren begins with Basic. His folder holds the starting record from section 10.1: in the baseline week he had meant to do the check on all four of his shifts, started on time on one and finished two. It also holds a short daily action-routine record from the twelve weeks that followed,

built on an if-then plan: “If I hang up my radio at the end of the shift, then I will start the exit-and-torch check and tick the sheet.” Both lines under Basic have dated evidence, so he ticks them.

Under Intermediate he has weekly challenge records from section 10.2, and the same if-then plan used on the real checks. He ticks both lines. Under Advanced he has a finished monthly project from weeks 9 to 12, a four-week set of signed check sheets and a one-page note on two blocked exits, and he has tracked his measures. He has no dated note that he chose among methods before he started, even though he did choose the if-then plan over a reminder on his phone. He leaves that line blank and stops.

He ticks every evidence line under Basic and under Intermediate, leaves a blank under Advanced where a note on choosing methods is missing, and writes Intermediate as his level, with Advanced as the next step.



A level is one kind of reading of the folder. A shorter review, every four weeks, reads the same records for change. Harkin and colleagues (2016), in a combined analysis of many studies, found that tracking progress helped people reach their goals, more so when the progress was recorded or shared. Soren's tick sheets are that kind of record. He can show them to his manager, and he still judges the change from the numbers, not from a comment about the sort of person he is. Kluger and DeNisi (1996), in another combined analysis, found that feedback helped on average, but that over a third of feedback interventions made performance worse. In the review, look at the task and the method.

Feeling that you improved is not proof that you improved. Bjork and colleagues (2013), in a review, noted that people often have a faulty picture of how they learn and remember. Soren's twelfth week felt messy, because one exit was blocked and the extra note took time, and he went home sure the week had been a poor one. The log says otherwise.

In the baseline week he started on time on one of four shifts and finished two. In the last four weeks he started on time on twelve of sixteen shifts and finished fourteen. Across the twelve weeks, the number he started on time in a week usually moved by one. The gain from one in the baseline week to an average of three in the last four weeks is larger than that usual swing, so he counts it as a real change. As section 10.1 set out, a change counts as real when it is bigger than your usual week-to-week swing, and you can judge that from the log without a formula (Jacobson & Truax, 1991). He writes one change of method for the next four weeks: a dated line, on the day he chooses a method, naming which one he chose and why.

The program does not stop at week twelve. As section 10.2 set out, skills fade without use (Arthur et al., 1998). After the review, Soren keeps a

short weekly session on the check he has built, and he chooses the next real challenge one step beyond his current level row. That next step is Advanced: he will write the missing methods note, and he will plan a new monthly project. The weekly session and the "one row beyond" rule are this book's own.

Exercise:

Read your records, set a level and plan the next stretch. The purpose of this exercise is to judge progress from dated records, to place those records beside the five level rows at a twelve-week review, and to keep practice going after week twelve.

1. At each twelve-week review, go down the five level rows in order and stop at the first row where you lack evidence in your folder; your level is the row above it. Write the evidence next to each row you pass. Tick a line only when the dated item is there. There is no minimum count, and a game score does not count. The Action row wording is a proposal. The stopping rule is the series' own practice structure. Adapted from the Creativity book's level review, as set out for Action in this section.
2. Every four weeks, compare the log with the section 10.1 baseline: tasks started on time, tasks finished, and the weakest skill. Count a change only if it is bigger than your usual week-to-week swing. Write one change of method for the next four weeks. The four-week review form is the book's own. Adapted from Harkin et al. (2016) and from the reliable-change idea in Jacobson and Truax (1991), used as a concept only, with no formula.

3. After week twelve, keep one short weekly session per core skill you have built, and choose the next real challenge a step beyond your current level row. The weekly session and the "one row beyond" rule are the book's own. Adapted from Arthur et al. (1998).

You can tell the attempt is working when a twelve-week page shows ticked evidence lines, a named level that stops at the first gap, a four-week comparison with the baseline, and a short plan for what continues after week twelve. The page is a practice record you keep for yourself.

Key idea:

Judge progress from dated records, read a level as a description of practice at a twelve-week review, count a change only when it beats your usual swing, and keep a lighter rhythm so the skill does not fade (Harkin et al., 2016; Kluger & DeNisi, 1996; Jacobson & Truax, 1991; Arthur et al., 1998; Macnamara, Hambrick & Oswald, 2014).

A. Action Planning Worksheets and Method Chooser

These pages collect the planning methods already used in this book, so you can copy them onto a sheet and use them on a real task. They do not add a new method, and they have not been tested as a set. Copy one sheet at a time. Each sheet names the sections it comes from. The method chooser at the end is a practice aid. It is not a validated instrument, and it does not add a new theory.





A.1 Goal. Write the goal as a standard and a date, describing what "good enough" looks like (section 4.2). Locke and Latham (2002) reviewed 35 years of research and found that specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed committed to it. Sections 1.3 and 3.8 used the same idea. The sheet below is adapted from the goal definition of Locke and Latham (2002), as used in those sections and in section 4.2.

Table A.1: Goal sheet

	Write here
What "good enough" looks like	
Date I will meet it by	
How I will know it is met	

A.2 If-then start or obstacle plan. Gollwitzer (1999) described if-then plans as a link between a situation you expect and the action you will take when it arrives, and Gollwitzer and Sheeran (2006) found across 94 tests that such plans helped people reach their goals. In 47 tests, people were encouraged to want to do something more. What they meant to do changed a lot, but what they actually did changed less (Webb and Sheeran, 2006). This book uses a written if-then plan when a meaning alone has not been enough to start (sections 1.1, 3.1 and 4.1). The same form also works for an obstacle that is likely to stop you (section 3.3): "If [obstacle], then I will [next step]." The sheet is adapted from Gollwitzer (1999) and Gollwitzer and Sheeran (2006), as used in sections 1.1, 3.1, 3.3 and 4.1.

Table A.2: If-then plan

	Write here
If (the cue, or the obstacle)	
Then I will (the first step, small enough to start at once)	

A.3 Progress check. Harkin and colleagues (2016) found in their review of experiments that people who were prompted to check their progress reached their goals more often (sections 1.3, 4.2 and 4.8). Section 4.8 already shows how to keep a daily card in the same place, on a real task. If the numbers fall behind for two weeks running, use the last similar task again to reset the pace or shrink the goal (section 4.2). The sheet is adapted from Harkin et al. (2016), as used in those sections.

Table A.3: Progress check

Week of	What I planned	What I started	What I finished	What I will change next week

A.4 Ready-to-resume / park-the-rest note. Before you leave a task, write the next step on it (section 4.3). Leroy and Glomb (2018) found in their studies that a brief ready-to-resume plan like this reduced the attention left stuck on an interrupted task. Whenever you stop before finishing, write when and where you will do the next step (section 3.8). This comes from the plan-making studies of Masicampo and Baumeister (2011). The sheet is adapted from those two sources, as used in sections 4.3 and 3.8.

Table A.4: Ready-to-resume note

	Write here
Task I am leaving	
Next step	
When and where I will do it	

A.5 Outside-view time or risk check. Lovallo and Kahneman (2003) advised taking the outside view: look at how similar past cases turned out, not only at the story of the present one (sections 2.4 and 4.7). Section 2.4 records that this advice comes from a magazine article, not a new experiment. Before you set how long the work will take, write how long the last similar task took, then set the new time from that (section 4.2; Buehler, Griffin and Ross, 1994). Section 4.7 also has you write an uncertain chance as "about N out of 100 like this", then add a buffer and a fallback before you start. The sheet is adapted from Lovallo and Kahneman (2003) and Buehler, Griffin and Ross (1994), as used in sections 2.4, 4.2 and 4.7.

Table A.5: Outside-view check

	Write here
Similar past case 1, and how it turned out	
Similar past case 2, and how it turned out	

	Write here
Similar past case 3, and how it turned out	
My forecast, from that range	
How long the last similar task took	
Time I will plan, with a buffer	
Chance I am unsure about, as about N out of 100	
Fallback if this goes off plan	

A.6 Method chooser. When a common problem appears, use this table to pick one method already in this book. The chooser is a practice aid. It is not a validated instrument, and it does not add a new theory.

Table A.6: Method chooser (practice aid)

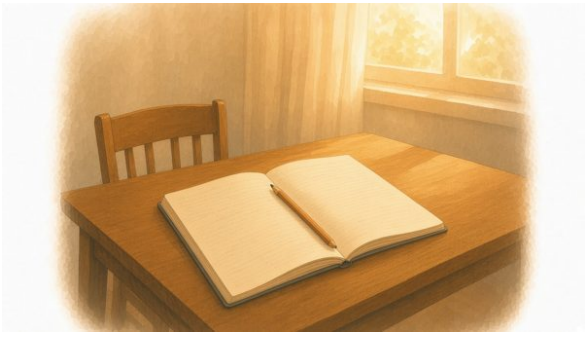
When this is the problem	Use this method	Section
I am not starting	Write an if-then start plan for a small first step	3.1, 4.1
I keep switching	Park the task with its next step before you leave it	4.3
The forecast feels too hopeful	Take the outside view: list similar past cases and plan from that range	2.4, 4.7
I cannot tell if the plan is working	Add a weekly progress check	1.3, 4.8
The goal is vague	Rewrite it as a standard and a date	1.3, 4.2
I stop before the end	Write what “done” means, and write the next step whenever you pause	3.8

If more than one row applies, start with the first that fits, then use the daily card in section 4.8. The table does not test what is wrong with you; it only points you back to a method already taught.

B. Action Barriers and Practical Countermeasures

These pages collect common barriers already treated in this book, each with a countermeasure already taught. They do not add a new method. The tables are a practice aid. They do not diagnose you, and they are not a treatment plan.

The material from Module 7 is self-help for everyday hesitation, not therapy. If fear, low mood, panic or stress is strong, lasts a long time or gets in the way of daily life, talk to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician, who can offer help that a book cannot. The sleep row later is general information about sleep, not medical advice.



Fear of failure, rejection and judgment. Section 7.1 treats the ordinary nerves most people feel before being judged. Fear of being judged is easier to act through when you take small steps, starting with easier ones (sections 7.1 and 3.4). That first step is adapted from Craske et al. (2014) as a self-help "smallest brave step". It is not a course of therapy. If the fear is severe or lasts a long time, talk to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician instead, and stop any step that causes severe distress.

Table B.1: Fear of failure, rejection and judgment

Barrier	What to try	Section
You avoid an action because you fear failing or being judged	List the actions you have been avoiding, and start with an easier one this week, then try others, not always in strict order	7.1, 3.4

Self-doubt. Section 7.2 keeps task confidence apart from overall self-esteem. Bandura (1977) used the word self-efficacy for a person's belief that they can carry out a particular kind of action. No study used for this book shows that raising a person's overall self-esteem, on its own, makes them act more. Confidence for a task grows mainly from evidence that you have done that task or something close to it. Steel (2007) found that people with lower task confidence were consistently more likely to put things off. That is a link found across studies and cannot show that low confidence causes the delay.

Table B.2: Self-doubt

Barrier	What to try	Section
You doubt you can do a particular task	Before you start, write down one time you got through something similar, then do a step that is a little hard but within reach, and record that you completed it	7.2

Procrastination and emotional resistance. Sirois and Pychyl (2013) argued that putting things off is often a way of repairing a bad mood for

the moment. Their paper is a theory review, not a new experiment. Steel (2007) combined hundreds of results on procrastination. People were consistently more likely to put a task off when it felt unpleasant, when its deadline or reward was far away and when they had little confidence they could do it. These are links found across many studies, and they cannot show on their own that any of these things causes delay. Eckert and colleagues (2016), in one paper reporting three studies, one of them a randomised trial, found that training people to put up with unpleasant feelings and to change them reduced their procrastination. That is skills practice, and it is different from therapy. A near, dated checkpoint can also help when the deadline is far away, although Steel did not test checkpoints himself. For the first step, write an if-then start plan. Gollwitzer and Sheeran (2006) found across 94 tests that such plans helped people reach their goals.

Table B.3: Procrastination and emotional resistance

Barrier	What to try	Section
You put a task off because of how it feels	Write what feels unpleasant about the task, accept that feeling for two minutes, then start the first step	7.3, 3.1
The deadline is far away	Split the task into one next step with a date this week, and write an if-then plan for that step	7.3, 3.1, 4.1

Perfectionism, indecision and excessive preparation. Section 7.4 treats two barriers that often feed each other: a standard set so high that no version feels ready, and preparation that has turned into a way of not deciding. Write one standard for a first complete version and a separate one for later polish, and do not raise the first standard part way through. Eppler and Mengis (2004) reviewed research on information overload, the state of having more information than you can use well, and described how extra information can make decisions harder instead of easier. If you are still gathering, write the next concrete step and a

time to do it, then stop collecting for now. Masicampo and Baumeister (2011), in one paper of laboratory studies, found that goals left unfinished tend to keep pulling at a person's thoughts, and that making a specific plan for them removed that pull.

Table B.4: Perfectionism, indecision and excessive preparation

Barrier	What to try	Section
No version feels good enough	Write your own good-enough standard for a first complete version, keep a separate standard for later polish, and start the first version	7.4
You keep gathering information instead of deciding	Write the next concrete step and a time to do it, then stop collecting for now	7.4

Motivation, overwhelm, stress and setbacks. Wanting something more is a weak lever on its own. Webb and Sheeran (2006), combining 47 experiments, found that a fairly large change in what people intended to do led to a noticeably smaller change in what they actually did. A plan and a way of checking it add what motivation leaves out. Locke and Latham (2002) found that specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed committed to it. Harkin and colleagues (2016) found that people who were prompted to check their progress reached their goals more often.

Hockey (1997) described how people under heavy pressure can often keep their performance up by pushing harder, but only by spending more effort and feeling more strained. His paper is a framework, not a test of a method. Section 7.5 responds by setting a daily stopping time and protecting real time off. After a setback, write an if-then plan for the next step, or, if the course is failing, a short plan for how you will stop and what you will do instead. Credé, Tynan and Harms (2017), combining studies of "grit", found that its useful part is mainly the

habit of keeping going after a setback, which overlaps a great deal with being conscientious. This book does not offer a grit-training programme. A planned stop is also a step, chosen in advance when the head is clear.

Table B.5: Motivation, overwhelm, stress and setbacks

Barrier	What to try	Section
You want the result, but wanting has not changed what you do	Write one weekly goal with a clear standard and a date, and check progress once mid-week	7.5
A hard stretch leaves you strained, and the list keeps growing	Set a daily stopping time and protect real time off the task	7.5
A setback, or a course that is failing	Write "If [the same obstacle], then I will [next step]", or a short plan for how you will stop and what you will do instead	7.5

Earlier barriers. Sections 3.1 and 4.1 also treat inertia, the difficulty of starting at all. Make the first step physical and small, do it at once, and set an if-then plan for the next start. Unfinished work can keep pulling at your attention when you switch (section 4.3). Leroy and Glomb (2018) found in their studies that a brief ready-to-resume plan reduced the attention left stuck on an interrupted task. Park the task with its next step before you leave it.

Short sleep is a different kind of barrier, because you may not notice it. In one laboratory study, Van Dongen and colleagues (2003) found that people kept to six hours or less of sleep for two weeks built up deficits in thinking and attention while remaining largely unaware of them. Feeling fine after a run of short nights is not a reliable guide, and that matters most for actions where mistakes are dangerous, such as driving. This is general information about sleep, not medical advice. If you are worried that you sleep too little or too much, or tiredness lasts even after a regular routine, talk to a parent, a teacher or another trusted

adult, or to a doctor or another qualified clinician. The rows above, and the earlier-barrier table that follows, are a compact reminder of methods already taught.

Table B.6: Earlier barriers

Barrier	What to try	Section
You are not starting	Make the first step physical and small, do it at once, and write an if-then plan for the next start	3.1, 4.1
Unfinished work keeps pulling at your attention	Before you switch, write the next step on the task you are leaving, and when and where you will do it	4.3
A run of short nights, while you feel fine	Do not treat feeling fine as proof that you are performing well. If an action could put you or others at risk, such as driving, take extra care	6.1, 6.4

C. Exercise Bank, Cleverini Games and Offline Alternatives

THIS BANK WRITES OUT the book's exercises in full, so you can pick one and start. Each exercise is copied from the section named beside it, with the same wording and the same facts, and with the same credits, and with no page pointers. The bank is sorted by module, then by section, which is the order given in the appendix notes: Modules 1 to 7, then Modules 8 to 10. About This Book comes first, because it already has a short exercise. Each exercise keeps its credit and status: adapted, the book's own, or traditional.

The last part of this appendix names the six confirmed Cleverini games and one offline alternative for each game. Initiation has no confirmed game, and neither do persistence, courage or completion. Those skills stay on the offline exercises already in this bank.

About This Book. **Status:** Adapted



> ✎ Exercise:
>
> Try it. Pick one task you have been putting off. **Write one if-then plan for it** that names the time, the place and the first small step (Gollwitzer, 1999). Use the form "If [this situation happens], then I will [take this first step]."

Module 1.

1.1 What We Mean by Action: From Intention to Result. Status: Adapted

> ✎ Exercise:
>
> From plan to result.
>
> 1. Starter. **List last week's plans** and tick the ones you did.
> 2. Middle. Pick one plan you missed. Write what you want and the day it will be done by.
> 3. Advanced. Write the best outcome you hope for. Then write what stands in your way today. Then decide if you will go for it.

Ideas from Locke and Latham (2002) and Oettingen and colleagues (2001).

1.2 The History, Psychology and Science of Action (1 of 2).
Status: Adapted

> Exercise:
>
> Try it. Tomorrow morning, **notice the moment the thought "I must get up" arrives, and get up on that thought** before a second thought joins it. This exercise is adapted from James (1890).

1.2 The History, Psychology and Science of Action (2 of 2).
Status: Adapted

> Exercise:
>
> Look at one action you keep putting off.
>
> 1. Starter. **List what belongs to you and what belongs to your surroundings**, as in Lewin's person and environment (Lewin, 1936).
> 2. Middle. Rate from 1 to 5 your attitude, what others expect and how able you feel (Ajzen, 1991).
> 3. Advanced. Write one past success, one person who did it, one encouragement and one note on your body's state (Bandura, 1977).

1.3 Types of Action and What Makes Action Effective (1 of 3).
Status: Adapted

> Exercise:
>
> Try it. Do one short routine task twice, **once as fast as you can and once as carefully as you can**, and note the time and the errors each time. This exercise is adapted from the speed and accuracy tradeoff in Heitz (2014).

1.3 Types of Action and What Makes Action Effective (2 of 3).
Status: Adapted

> Exercise:
>
> Try it. After your next task, **write or ask for one piece of feedback that names a step of the task** and says nothing about you as a person. This exercise is adapted from the feedback review by Kluger and DeNisi (1996).

1.3 Types of Action and What Makes Action Effective (3 of 3).
Status: Adapted

> Exercise:
>
> Pick one goal you want to reach this month.
>
> 1. Starter. **Write one task at the how level and at the why level**, and drop to the how level when it gets hard (Vallacher & Wegner, 1987).
> 2. Middle. For one day, note each hour whether what you were doing ran on habit or by choice (Wood et al., 2002).
> 3. Advanced. Once a week, record your progress on the goal (Harkin et al., 2016).

Module 2.

2.1 Extractivity: Gathering Information for Action. **Status:** Adapted

> Exercise:
>
> Gather for the action.
>
> 1. Before you look anything up, **write the one fact that would change what you do.** Gather that fact, then stop gathering. Adapted from Simon's (1971) point that attention has to be shared out among sources.
> 2. Skim the material for that fact, then read only the part that holds it closely. Adapted from the review of skimming and reading speed by Rayner et al. (2016).
> 3. If the fact comes from a web page, open a new tab and check who is behind the source before you act on it. Adapted from lateral reading as described by Wineburg and McGrew (2019).
> 4. Act, and note how long you spent between starting to look and acting.

2.2 Attention: Selecting and Controlling Actions. **Status:** Adapted

> Exercise:
>
> Protect one action.
>
> 1. Before you start, name the distraction most likely to pull you away and **write an if-then plan for it**: "If [the distraction] comes, I will [the step that takes you back to the task]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).

2. If you have to switch away, first write one line saying where you stopped and what the next step is. Adapted from the ready-to-resume plan in Leroy and Glomb (2018).
3. If the task includes driving or cycling, put the phone out of reach before you set off and reply only after you stop. Adapted from the texting and driving meta-analysis by Caird et al. (2014).

2.3 Memory: Using Experience, Knowledge and Learned Procedures. Status: Adapted

> Exercise:
>
> Prepare memory for one task.
>
> 1. For one thing you have to do later, **name the place or event where you will meet the cue**, and write it as a plan: "If [the cue], I will [the action]." Adapted from Einstein and McDaniel (2005) and the if-then plans of Gollwitzer and Sheeran (2006).
> 2. Before you estimate how long the task will take, write down how long the last similar task took. Adapted from Study 4 of Buehler, Griffin and Ross (1994).
> 3. The day before, write the steps of the task from memory, then check them against your notes and mark anything you missed. Adapted from the self-testing study by Roediger and Karpicke (2006).

2.4 Intellect: Planning, Deciding and Solving Problems. Status: Adapted

Exercise:

Check a plan before you act.

1. Write a specific goal with a standard and a time limit. Based on the goal-setting review by Locke and Latham (2002).
2. **Write the problem a second way**, as a list, a drawing or a table, before you choose a plan. Adapted from the finding by Kotovsky, Hayes and Simon (1985) that the form of a problem changes how hard it is.
3. Write two past problems that were solved the same way, name the rule they share and try it on the new problem. Adapted from Gick and Holyoak (1983).
4. Before you settle the plan, list three similar past projects and how they turned out, and plan from that range. Adapted from the outside view in Lovallo and Kahneman (2003).

2.5 Creativity: Finding New Ways to Act. Status: Adapted

Exercise:

Find a new way to act.

1. For one routine action, such as packing your bag or getting to school or work, **try two different ways this week**, then keep the better one. Adapted from the parallel prototyping study by Dow et al. (2010).
2. Work on a stuck task for a set time you choose, switch to an easy task, then return to it. Adapted from the incubation meta-analysis by Sio and Ormerod (2009).

3. Each day, do one ordinary task a new way and note what changed. Adapted from the everyday creativity described by Kaufman and Beghetto (2009).

2.6 Combining the Six Basic Mental Abilities. **Status:** Adapted

> Exercise:
>
> One task, six abilities.
>
> 1. Pick one real task for this week. Before you start, note what you need to find out, what you must keep your attention on, what you already know from last time, your plan, and one new option in case the plan fails. Then do the task and review it afterwards. Adapted from the transfer findings of Thorndike and Woodworth (1901) and the creativity training review by Scott, Leritz and Mumford (2004).
> 2. When you choose how to practise, **pick the real action you want to improve before any game or drill**. Adapted from the brain-training review by Simons et al. (2016).

Module 3.

3.1 Initiation: Starting Without Delay. **Status:** Adapted

> Exercise:
>
> Start a task you have been putting off.
>
> 1. If the deadline is far away, set a near, dated checkpoint for one part of the task and tell someone. Adapted from task delay as a predictor of procrastination in Steel (2007).

2. Write what feels unpleasant about the task, accept it for two minutes and start the first step within those two minutes. Adapted from the emotion-skills training of Eckert et al. (2016) and the review by Steel (2007).
3. **Write an if-then start plan**: "When [time or cue], I will start [first step]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).

3.2 Self-Control: Directing Behavior and Resisting Impulses. Status: Mixed: adapted; traditional. Credits as written in the exercise.

> Exercise:
>
> Plan around one temptation.
>
> 1. Pick one daily temptation and **set up a habit that removes the choice**, done at the same time and in the same place each day. Adapted from the habit route in Galla and Duckworth (2015).
> 2. For the times you will still meet the urge, write: "If I feel the urge to [impulse], I will [chosen response]." Adapted from the if-then plans in Gollwitzer and Sheeran (2006).
> 3. For fun, play a go-or-no game with a partner: they call "go" or "no", and you clap only on "go". This is a traditional game of the "Simon says" kind and is played here for practice in the game itself.

3.3 Persistence: Continuing Through Difficulties. Status: Adapted

Exercise:

Prepare for the hard stretch.

1. Name the obstacle most likely to stop you and **write an if-then plan for it**: "If [obstacle], then I will [next step]." Adapted from the meta-analysis of if-then plans by Gollwitzer and Sheeran (2006).
2. Before each hard part, write one time you got through something similar. Adapted from Bandura's (1977) account of past success as a source of confidence.
3. Each week, note one task you kept going on after a setback and one task you rightly stopped or changed. Adapted from the focus on perseverance in Credé, Tynan and Harms (2017).

3.4 Courage: Acting Despite Fear and Uncertainty. **Status:** Adapted

Exercise:

Prepare to act despite fear.

1. List a few everyday actions you avoid, with how hard each one feels. **Start with an easier one this week**, then try the others in a mixed order until you have done the one you avoided most. Adapted from the fear hierarchy in Craske et al. (2014). This is self-help for everyday hesitation and is no substitute for therapy. If you have an anxiety disorder, panic, trauma or obsessive-compulsive symptoms, work with a qualified clinician, and stop and seek help if the distress is severe.
2. Rehearse the exact first words or moves of the feared action aloud until they come without effort. Adapted from Beilock et al. (2004).

3. Make a three-step routine, a breath, a cue word and the first move, and use it just before the feared action. Adapted from the pre-performance routines in Gröpel and Mesagno (2019).

3.5 Speed: Acting Faster and More Efficiently. **Status:** Adapted

> Exercise:
>
> Get faster without more mistakes.
>
> 1. Time each step of the routine once and find the slowest step. Rehearse that step on its own **until it needs no thought**. Adapted from practice to direct recall in Beilock et al. (2004).
> 2. Set a time target for the whole routine and count your errors each time. Keep the target only if the errors stay level, and ease it if they rise. Adapted from the speed and accuracy trade-off in Heitz (2014).

3.6 Precision: Improving Accuracy and Quality. **Status:** Adapted

> Exercise:
>
> Find and fix your mistakes.
>
> 1. For the next two times you do the task, **record each error with the step where it happened**, and leave out any judgement of yourself. Adapted from the feedback review by Kluger and DeNisi (1996).

2. Write a checklist of up to five lines for the steps where your errors happened, and tick each line every time you do the task. Adapted from the surgical checklist studies by Haynes et al. (2009) and Urbach et al. (2014), whose mixed results make this a practice tool that works only when used.

3.7 Adaptability: Correcting and Changing Actions. **Status:** Adapted

> Exercise:
>
> Check, then keep, change or stop.
>
> 1. Once a week, check your progress on each goal and **mark it keep, change or stop**. Write one line on what you will do differently for each goal marked change. Adapted from the progress-monitoring review by Harkin et al. (2016) and the if-then plans of Gollwitzer and Sheeran (2006).
> 2. Before you switch from one task to another, take a few seconds to name the new goal or rule. Adapted from the task-switching review by Monsell (2003).

3.8 Completion: Turning Effort into Finished Results. **Status:** Adapted

> Exercise:
>
> Finish one unfinished task.
>
> 1. **Write what "done" means**: the standard the finished result must meet and the date. Adapted from the goal definition of Locke and Latham (2002).
> 2. Set the finish date from how long the last similar task took, and list the steps that remain. Adapted from Study 4 of Buehler, Griffin and Ross (1994).

3. Whenever you stop before finishing, write when and where you will do the next step. Adapted from the plan-making studies of Masicampo and Baumeister (2011).

Module 4.

4.1 Overcoming Inertia and Starting Immediately. **Status:** Adapted

> Exercise:
>
> Start within a minute.
>
> 1. **Do the first physical step now**: open the file, lay out the tools or write the first sentence, even if you will continue later. Adapted from the pull to resume an opened task in Ghibellini and Meier (2025).
> 2. Write what feels unpleasant about the task, accept it for two minutes and keep going. Adapted from Eckert et al. (2016) and Steel (2007).
> 3. Before you stop, write an if-then plan for the next start: "When [time or cue], I will start [the first small step]." Adapted from Gollwitzer and Sheeran (2006).

4.2 Turning Goals into Executable Plans. **Status:** Adapted

> Exercise:
>
> Build a one-page plan.
>
> 1. Write the goal as **a clear standard and a date**, describing what "good enough" looks like. Adapted from the goal definition of Locke and Latham (2002).

2. Before you set how long the work will take, write how long the last similar task took, then set the new time from that. Adapted from Study 4 of Buehler, Griffin and Ross (1994).
3. Write the first step as an if-then plan: "When [cue], I will [first step of the plan]." Adapted from Gollwitzer and Sheeran (2006).

4.3 Time Management, Prioritization and Sequencing. Status: Mixed: adapted; traditional. Credits as written in the exercise.

> Exercise:
>
> Plan one day.
>
> 1. List the day's tasks and mark each as urgent, important, both or neither. Do an important but not urgent task before a merely urgent one, unless safety requires otherwise. Traditional practitioner grid; no study traced.
> 2. Before you put a task in the day, write how long the last similar job took and schedule from that, not from a best-case guess. Adapted from Buehler, Griffin and Ross (1994).
> 3. Work on one task in a single block. If you must switch, first write **the next step on the task you are leaving**. Adapted from Monsell (2003) and Leroy and Glomb (2018).

4.4 Improving Speed, Efficiency and Productivity. Status: Adapted

Exercise:

Speed up a repeated task.

1. Set a time target for the task and count your errors each time. Keep the target **only if errors stay level**. Adapted from Heitz (2014).
2. Work in one block on a single task, then take a short break away from it. If the work is demanding, make the break long enough to rest. Adapted from Albulescu et al. (2022) and Monsell (2003).
3. When you are interrupted, write one line with the next step and when you will return, then handle the new task. Adapted from Leroy and Glomb (2018).

4.5 Improving Quality Through Checklists, Practice and Feedback. Status: Adapted

Exercise:

Build a quality cycle.

1. Write five checks you will tick before or during the task, then use the list the next three times you do it, not just once. Adapted from Haynes et al. (2009) and Urbach et al. (2014).
2. Pick the step you usually get wrong or rush. Practise it on its own with a quality check, then put it back into the full task. Adapted from Ericsson, Krampe and Tesch-Römer (1993) and Macnamara, Hambrick and Oswald (2014).
3. Ask for, or write, one piece of feedback that **names a step of the task** you can change. Adapted from Kluger and DeNisi (1996).

4.6 Building Habits, Routines and Consistency. **Status:** Adapted

> Exercise:
>
> Build one habit.
>
> 1. Choose one small action and name **a cue you already meet each day**. Do the action right after that cue for the next few weeks. Adapted from Wood and Neal (2007) and Lally et al. (2010).
> 2. If you skip a day, do the action at the next cue and carry on. Adapted from Lally et al. (2010).
> 3. When your place or schedule changes, write a new cue for the same action and use it the first week in the new setting. Adapted from Wood, Tam and Witt (2005).

4.7 Acting Under Uncertainty and Managing Risk. **Status:** Adapted

> Exercise:
>
> Check a risky plan.
>
> 1. Before you commit, list three similar past cases and how they turned out. Write your forecast from that range, then decide. Adapted from Lovallo and Kahneman (2003) and Kahneman and Tversky (1973).
> 2. Take one uncertain outcome in your plan and rewrite its chance as **"about N out of 100 like this"**, then choose what to do about it. Adapted from Hoffrage et al. (2000).
> 3. Write how long the last similar job took, add a buffer above that, and only then set your finishing time. Adapted from Buehler, Griffin and Ross (1994).

4.8 Combining Methods and Practising Daily. **Status:** Adapted

> Exercise:
>
> Daily action card.
>
> 1. Each day, write **one clear goal, one if-then first step and one line on yesterday's progress**. Adapted from Locke and Latham (2002), Gollwitzer and Sheeran (2006) and Harkin et al. (2016).
> 2. Choose a real task from this week, not a separate drill, and use the card on it in the setting where you need the result. Adapted from Thorndike and Woodworth (1901) and Simons et al. (2016).
> 3. Write the card at the same time and place each day for the next few weeks. If you miss a day, start again at the next one. Adapted from Wood and Neal (2007) and Lally et al. (2010).

Module 5.

5.1 Education and Learning. **Status:** Adapted

> Exercise:
>
> Study for later.
>
> 1. After studying a short passage or a set of steps, put it away. Later, write what you can recall, then check. Avoid only rereading. Adapted from Roediger and Karpicke (2006) and Dunlosky et al. (2013).
> 2. Before a new problem, write two earlier problems that were solved the same way. **Name the shared rule**, then try the new one. If you stall, remind yourself that the earlier cases apply. Adapted from Gick and Holyoak (1983).

3. Write: “When [time or place], I will start [the first study step].” Adapted from Gollwitzer and Sheeran (2006).

5.2 Professional Work and Project Management. **Status:** Adapted

Exercise:

Run a small project.

1. Before setting dates, write how long the last similar project took and how it turned out. Build the new plan **from that range**, not from a best-case story. Adapted from Buehler, Griffin and Ross (1994) and Lovallo and Kahneman (2003).
2. When you are interrupted, write the next step and when you will return, then handle the new task. Adapted from Leroy and Glomb (2018).
3. Write five checks for a repeated work task and tick them the next three times you do it. Adapted from Haynes et al. (2009) and Urbach et al. (2014).

5.3 Business and Entrepreneurship. **Status:** Adapted

Exercise:

Test a business idea.

1. Before you say yes, list three similar past cases and how they turned out. Write your cost and sales forecast **from that range**. Adapted from Lovallo and Kahneman (2003) and Buehler, Griffin and Ross (1994).
2. Before choosing a design or offer, make two different versions side by side and compare them with real people. Adapted from Dow et al. (2010).

3. Take one live problem from your idea, not a puzzle, and use one method from this section on it this week. Adapted from Scott, Leritz and Mumford (2004).

5.4 Health, Fitness and Personal Development. Status: Adapted

> Exercise:
>
> Turn a wish into a routine.
>
> 1. Write: "After I [existing daily cue], I will [first step]." If you have an injury or a health condition, follow a qualified clinician's advice on what the action should be. Adapted from Gollwitzer and Sheeran (2006) and Gardner, Lally and Wardle (2012).
> 2. Repeat the action after the same cue for the next few weeks. If you miss one day, **do it at the next cue**. Adapted from Lally et al. (2010).
> 3. Once a week, write one line on whether the action happened and what will change next week. Adapted from Harkin et al. (2016).

5.5 Communication, Relationships and Collaboration. Status: Adapted

> Exercise:
>
> Work it out together.
>
> 1. For one shared problem, each person writes ideas alone for a set time. Then pool the lists and discuss. Adapted from Mullen, Johnson and Salas (1991).
> 2. In one disagreement this week, **listen long enough to restate the other person's point** before you argue back. Adapted from Saluk et al. (2026).

3. Rehearse the first sentence of a hard talk until it comes easily. Just before you start, take a breath, say your cue word and then say the first sentence. Adapted from Beilock et al. (2004) and Gröpel and Mesagno (2019).

5.6 Everyday Life and Transferring Skills Between Fields. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

> Exercise:
>
> Carry one method across.
>
> 1. Pick one method you used in study, work, business, health or conversation this week. **Name the shared steps**, then use the same method on a different everyday task that has those steps. Adapted from Thorndike and Woodworth (1901) and Barnett and Ceci (2002).
> 2. Write two past cases that were handled the same way. Name the shared rule, then use it on a new everyday problem. Adapted from Gick and Holyoak (1983).
> 3. Take one real action from today. For each of the six abilities, write one line on how it helped, or was missing, in that action. The book's own walk-through, as in section 2.6.

Module 6.

6.1 Sleep and Recovery. Status: Adapted

Exercise:

Plan a week of sleep.

1. For one week, plan a bedtime and a wake time that leave **at least seven hours in bed** on a regular basis. If you are worried that you sleep too little or too much, talk to a healthcare provider. Adapted from Watson et al. (2015).
2. For a few evenings, use a printed book or paper notes instead of an e-reader or phone in the time just before sleep. Adapted from Chang et al. (2015).
3. After several short nights, do not treat feeling fine as proof that you are performing well. If an action could put you or others at risk, such as driving, take extra care and catch up on sleep before you push on. Adapted from Van Dongen et al. (2003).

6.2 Physical Activity and Readiness to Act. **Status:** Adapted

Exercise:

Move through a working week.

1. Plan one week of activity you can already do safely, such as walking. Note your minutes of moderate activity, when you can talk but not sing, and whether you included two muscle-strengthening days. **Aim toward the official range** instead of jumping to a hard new programme. If you have a health condition or doubt, ask a clinician first. Adapted from Bull et al. (2020) and NHS (2024).
2. In one work or study day, stand or walk for a short time whenever you have been sitting for a long while. No official source sets the exact interval, so choose a simple break you will repeat. Adapted from NHS (2024) and Bull et al. (2020).

3. Take a moderate walk, then do one task that needs a clear head. Treat any lift as small and possible. Adapted from Chang et al. (2012).

6.3 Nutrition, Hydration and Energy. **Status:** Adapted

> Exercise:
>
> Check before you change.
>
> 1. At your next meal, drink water. Afterwards, note only whether you felt thirsty and how your mood felt. This is **a noticing step** with no amount attached. Adapted from Masento et al. (2014).
> 2. For one week, notice any habit of drinking alcohol "for health" or "for energy" and drop that reason. This is not a medical plan for cutting down. Adapted from GBD 2016 Alcohol Collaborators (2018).
> 3. If you are thinking of a vitamin or mineral supplement for a gap you suspect, ask a qualified clinician first instead of starting a dose on your own. Adapted from Office of Dietary Supplements (2022).

6.4 Fatigue, Rest and Sustainable Performance. **Status:** Adapted

> Exercise:
>
> Plan a pace you can keep.
>
> 1. In a work or study block, step away from the task for a short break. If the next work is demanding, make that break a little longer than a quick pause. Adapted from Albulescu et al. (2022).

2. After a short night, if a nap is possible, keep it brief, about ten minutes in the study that compared lengths. Wait a while before anything demanding, and do not drive or do other safety-critical work while sleep-deprived. Adapted from Brooks and Lack (2006).
3. If you use caffeine, **avoid a substantial amount in the six hours before you plan to sleep**. Adapted from Drake et al. (2013).

Module 7.

7.1 Fear of Failure, Rejection and Judgment. **Status:** Adapted

> Exercise:
>
> A brave step this week. The purpose of this exercise is to start a small action you have been avoiding because you fear failing or being judged, and to prepare its hardest moment so that pressure does less damage. It is self-help for everyday nerves. If the fear is severe or lasting, talk to a trusted adult and work with a qualified clinician instead.
>
> 1. List actions you have been avoiding because of fear of failing, rejection or judgment, and give each a number from 1 to 10 for how hard it feels. This week, **start with an easier one**, then try others, not always in strict order. Adapted from Craske et al. (2014).
> 2. Write the exact first words or first move of the hardest step, and rehearse them until they come without effort. Adapted from Beilock et al. (2004).

3. Make a three-part routine, such as a breath, a cue word and the first move, and use it just before the feared moment. Adapted from Gröpel and Mesagno (2019).

7.2 Self-Esteem, Self-Doubt and Confidence. **Status:** Adapted

> Exercise:
>
> Build confidence for one task. The purpose of this exercise is to raise your belief that you can do one particular task you have been doubting, using evidence from what you have actually done. It works on task confidence, not on how you feel about yourself overall.
>
> 1. Before the task, **write down one time you got through something similar**, then start the first step. Adapted from Bandura (1977).
> 2. Choose one action that is a little hard but within reach, do it, and write down that you completed it. Adapted from Bandura (1977).
> 3. Afterwards, write or ask for one specific comment on what was done, instead of a lavish label such as “you’re brilliant”. Adapted from Deci, Koestner and Ryan (1999) and Brummelman et al. (2014).

7.3 Procrastination and Emotional Resistance. **Status:** Adapted

> Exercise:
>
> Start a task you have been dodging. The purpose of this exercise is to start a task you keep putting off because of how it makes you feel,

by facing the feeling for a moment and bringing the deadline closer, as self-help for everyday delay.

1. Write what feels unpleasant about the task, **accept that feeling for two minutes**, then start the first step. Adapted from Eckert et al. (2016) and Sirois and Pychyl (2013).
2. Split a far-off task into one next step with a date this week, and do that step. Adapted from Steel (2007).
3. Write an if-then plan for that step: "When [time or cue], I will start [the first small step]." Adapted from Gollwitzer and Sheeran (2006).

7.4 Perfectionism, Indecision and Excessive Preparation. Status: Adapted

> Exercise:
>
> Finish the first version. The purpose of this exercise is to get a task you keep polishing or researching to a first complete version, and to stop the extra gathering that keeps you from deciding.
>
> 1. Notice a thought of the form "they will think I must be perfect." **Rewrite it as your own good-enough standard** for a first version, or drop it, and start that first version. Adapted from Hewitt and Flett (1991).
> 2. For the same task, write one standard for a first complete version and a separate standard for later polish. Do not raise the first standard part way through. Adapted from Wigert et al. (2012).
> 3. If you are still gathering or still deciding, write the next concrete step and a time to do it, then stop collecting for now. Adapted from Masicampo and Baumeister (2011) and Eppler and Mengis (2004).

7.5 Motivation, Overwhelm, Stress and Setbacks. **Status:** Adapted

> Exercise:
>
> Plan for a hard stretch. The purpose of this exercise is to turn a vague wish to try harder into one clear weekly goal, with a planned response to setbacks and a real break from the effort.
>
> 1. For the next week, write one goal with a clear standard and a date, harder than "do your best" but within your ability, and **check progress once mid-week**. Adapted from Locke and Latham (2002) and Harkin et al. (2016).
> 2. After a setback, write either "If [the same obstacle], then I will [next step]" or, if the course is failing, a short plan for how you will stop and what you will do instead. Adapted from Gollwitzer and Sheeran (2006).
> 3. After a stretch that felt costly, take time off the task that includes switching off and a choice you make yourself, and if you like, a small challenge that is not the same work. Adapted from Hockey (1997) and Sonnentag and Fritz (2007).

Module 8.

8.1 Getting Help from Other People. **Status:** Adapted

> Exercise:
>
> Ask for help that teaches. The purpose of this exercise is to get unstuck on one task by asking one person for a specific kind of help,

the kind that leaves you able to do more of the task yourself next time.

1. Pick one stuck task. Before asking, write how likely you think a yes is. Then **send or say one specific request** to one person today, naming what you need, by when and roughly how long it will take them. Afterwards, write down the answer. Adapted from Flynn and Lake (2008).
2. When you ask, name the part you want the helper to do or show, and the part you will do yourself. Afterwards, note what you can now do alone. Adapted from Wood, Bruner and Ross (1976).
3. Agree with one person to send a one-line progress report on a set day each week for three weeks, saying what you did and your next step. Adapted from Harkin et al. (2016).

8.2 Collaboration, Delegation and Accountability. **Status:** Adapted

> Exercise:
>
> Share a task so it gets done. The purpose of this exercise is to turn a job that belongs to "everyone" into named parts with dates, and to hand one part over clearly enough that it comes back done.
>
> 1. For a group decision or plan, ask each person to **write their own options alone for five minutes** before any discussion, then pool the lists and choose. Adapted from Mullen, Johnson and Salas (1991).
> 2. List each person's named part and a date, and share the list with the whole group. Adapted from Karau and Williams (1993).

3. Before handing over a task, write on one card the result wanted, how good is good enough, the date, the check-in day and what the other person may decide alone. Read it aloud together. Adapted from Locke and Latham (2002).

8.3 Environment, Resources, Systems and External Leverage. Status: Adapted

> Exercise:
>
> Arrange the setting for your next start. The purpose of this exercise is to change your surroundings so that the action you want is the easy one, instead of relying on willpower in the moment.
>
> 1. The evening before a task, arrange the place: tools out, the first step visible and **the main distraction in another room**. The next day, note whether you started sooner. Adapted from Duckworth, Gendler and Gross (2016).
> 2. List three actions you want to do more and three you want to do less. For each, change one thing in the setting that makes the wanted action one step easier or the unwanted one a step harder. Adapted from Duckworth, Gendler and Gross (2016) and Wood, Tam and Witt (2005).
> 3. Choose one trusted place, such as a notebook page or a single list on your phone, where every promised action is written as soon as it comes up, and read it once a day. Adapted from Risko and Gilbert (2016) and Masicampo and Baumeister (2011).

8.4 Developing and Adapting Action Skills at Different Ages. Status: Adapted

> Exercise:
>
> Adjust the support to the age. The purpose of this exercise is to fit a method from this book to the age of the person using it, whether that is you or someone you help.
>
> 1. For a young child, choose a short game or everyday task to practise for a few minutes most days, and **make it slightly harder only after the child succeeds easily**. Adapted from Diamond and Lee (2011).
> 2. For a teenager learning a skill, record each practice step done correctly for two weeks, then switch to recording only the result once the steps are steady. Adapted from Zimmerman and Kitsantas (1997).
> 3. In later life, write an if-then plan that links a daily action to an existing routine, such as "When I finish breakfast, I will take my walk," and tick a card each day for three weeks. Adapted from Liu and Park (2004).

Module 9.

9.1 Digital Tools for Planning, Executing and Tracking Actions.

Status: Mixed: adapted; the book's own. Credits as written in the exercise.

Exercise:

Put one intention into a tool. The purpose of this exercise is to use ordinary digital tools so they bring an action to mind at the moment you can do it, and to stop them pulling you away from it.

1. Take one thing you keep forgetting to do. Set a reminder for **the exact time or place it can be done**. The book suggests writing the first step into the reminder text and counting after a week how often you acted on it. Adapted from Einstein and McDaniel (2005) and Risko and Gilbert (2016).
2. For one day, list every alert that interrupts you. Turn off all that you do not need for an action you must take that day, and compare a work block before and after. The audit list is the book's own form. Adapted from Kushlev, Proulx and Dunn (2016).
3. Keep one digital or paper tracker for one action for two weeks. The book's own format is one tick per day done and one line on what helped or blocked it. Adapted from Harkin et al. (2016).

9.2 AI Assistants, Automation and Intelligent Support. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

Exercise:

Use an assistant and keep the judgement. The purpose of this exercise is to get real help from an AI assistant on a task you are stuck on while keeping the decisions, the checking and your own

skill with you. The steps work with any assistant, and the book does not recommend a particular one.

1. Ask an assistant for three ways to break a stuck task into first steps. Choose one, change it to fit your situation and **do the first step within ten minutes**. Note what you changed and why. The three-options format is the book's own. Adapted from Dell'Acqua et al. (2026).
2. Before acting on any fact, number or source an assistant gave you, confirm it in one independent source, such as the original page, an official site or the paper itself. The book suggests keeping a tally over a week of how many items needed correcting. Adapted from Walters and Wilder (2023) and Wineburg and McGrew (2019).
3. For a task you now hand to an assistant every time, do it yourself without help once a week, then compare. The weekly round is the book's own. Adapted from Bastani et al. (2025).

9.3 Training Action with Cleverini Games and Offline Exercises.

Status: Mixed: adapted; the book's own; traditional. Credits as written in the exercise.

> Exercise:
>
> Pair a game with a real task. The purpose of this exercise is to practise one narrow skill in a game or its offline version and then use the same skill straight away on a real task, which is the part that counts.
>
> 1. Play the stop-and-go clap with a partner. They call "go" or "no" at random, and you clap only on "go". Play ten rounds, then speed up. This is a traditional party game, paired here with Goalkeeper by the book.

2. Play a rule-change card sort. Sort a deck by colour, and have a partner call a new rule, such as suit or number, without warning while you keep going. This is the offline version of Switcheroo. Adapted from Monsell (2003).
3. After a short game session, **do one real task that uses the same skill within the hour**, and write down how the real task went, leaving the score aside. The pairing is the book's own. Adapted from Simons et al. (2016).

Module 10.

10.1 Establishing Your Starting Point. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

> Exercise:
>
> Make a record of an ordinary week. The purpose of this exercise is to give you an honest starting point, built from a rating and from what you actually did, so later practice has something real to be compared with.
>
> 1. Before you change anything, rate yourself from 1 to 5 on each of the eight core skills from Module 3 (initiation and self-control; persistence and courage; speed and precision; adaptability and completion). Then, for seven ordinary days, list each task you meant to do and mark a yes or no for a start on time, a yes or no for finishing, and a note on what got in the way. Choose a normal week, not one you already know was unusual. The log form is the book's own. Adapted from Duckworth and Yeager (2015).
> 2. After the week, rate yourself again from the log, not from memory, and note the biggest gap. The before-and-after rating is the book's own. Adapted from Gignac and Zajenkowski (2020).

3. From the log, pick the three tasks you most often delayed. For each, note whether it felt unpleasant, was far off, felt beyond you, or lost out to a distraction. The list is the book's own; the categories come from Steel (2007).

10.2 The Action Training Program: Daily Exercises, Weekly Challenges and Twelve Weeks of Practice. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

> Exercise:
>
> Run a twelve-week practice plan. The purpose of this exercise is to turn a starting record into a daily if-then action, a weekly challenge that stays within reach, and a plan for the week the routine will break, over the series' twelve-week window.
>
> 1. Each day, write one planned action as an if-then plan, do it at the same cue, and tick a tracker. This book uses ten minutes as a typical length for that action. The if-then form and the repeated cue come from the research; the ten minutes and the tick are the book's own. Adapted from Gollwitzer and Sheeran (2006) and Lally et al. (2010).
> 2. Each week, choose one challenge a step harder than last week on the skill your baseline showed as weakest, and step up only after you have succeeded. The weekly ladder is the book's own. Adapted from Bjork and Bjork (2020).
> 3. Write one if-then plan for a week your routine will break, such as travel, illness or exams: "If my usual cue is gone, I will do the two-minute version at [new cue]." The two-minute fallback is the book's own. Adapted from Wood, Tam and Witt (2005).

10.3 Using All Six Basic Mental Abilities Together in Real-World Action. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

> Exercise:
>
> Put all six abilities on a real task, then compare two. The purpose of this exercise is to plan for each ability before you start a real task, to check the plan against the main obstacle, and to notice a repeating pattern after a second task.
>
> 1. Choose one real task for the week. Before starting, write one line for each ability: what you need to find out (Extractivity), what you must keep in focus (Attention), what you must remember (Memory), what is known and must be worked out (Intellect), what is unknown and needs new options (Creativity), and the first step with a time and a place (Action). The six-line plan is the book's own. Adapted from Heckhausen and Gollwitzer (1987).
> 2. After two different real tasks, note for each step which ability did the main work and where it stalled. Compare the two and name any pattern that repeats. The ability-by-step review is the book's own. Adapted from Gick and Holyoak (1983).
> 3. Before you start, write the best outcome of the task in one sentence, then the main obstacle in you or in the situation, then an if-then plan for that obstacle. The pairing is the book's own and is not given a special name. Adapted from Oettingen, Pak and Schnetter (2001) and Gollwitzer and Sheeran (2006).

10.4 Measuring Progress, Practitioner Levels and Continuing Development. Status: Mixed: adapted; the book's own. Credits as written in the exercise.

> Exercise:
>
> Read your records, set a level and plan the next stretch. The purpose of this exercise is to judge progress from dated records, to place those records beside the five level rows at a twelve-week review, and to keep practice going after week twelve.
>
> 1. At each twelve-week review, go down the five level rows in order and stop at the first row where you lack evidence in your folder; your level is the row above it. Write the evidence next to each row you pass. Tick a line only when the dated item is there. There is no minimum count, and a game score does not count. The Action row wording is a proposal. The stopping rule is the series' own practice structure. Adapted from the Creativity book's level review, as set out for Action in this section.
> 2. Every four weeks, compare the log with the section 10.1 baseline: tasks started on time, tasks finished, and the weakest skill. Count a change only if it is bigger than your usual week-to-week swing. Write one change of method for the next four weeks. The four-week review form is the book's own. Adapted from Harkin et al. (2016) and from the reliable-change idea in Jacobson and Truax (1991), used as a concept only, with no formula.
> 3. After week twelve, keep one short weekly session per core skill you have built, and choose the next real challenge a step beyond your current level row. The weekly session and the "one row beyond" rule are the book's own. Adapted from Arthur et al. (1998).

Cleverini games and offline alternatives.

Cleverini makes several games that you play in a browser, and six of them practise parts of action. The games run in a browser, on a phone,

a tablet or a computer. Goalkeeper asks you to save every white ball but hold back on the golden ones. Figures makes you wait until you have read the shape name as well as seen the shape, and Lighthouse asks you to tap each ship but not the buoys and seagulls that move just like ships. Shoal rewards quick, accurate answers, and Switcheroo changes the rule for matching cards without warning. In Rail Dispatch you set each junction before the train arrives, because the trains cannot stop or turn back. Psychologists have studied rule switching of the Switcheroo kind for a long time (Monsell, 2003).

A score in any of these games is in-game progress only; not a test, not an IQ, not a diagnosis. It shows how you did at that game, on that day. The games give their own names to high scores, and this book does not use those names as levels.

Simons and colleagues (2016), in a long review of "brain-training" research written by a group of experts, found strong evidence that training improves the trained task, less evidence that it helps closely related tasks and little evidence that it helps everyday life. Sala and Gobet (2019), looking across many combined analyses, found that training had a minimal effect on general thinking skills. Barnett and Ceci (2002) described how hard it is for a skill to carry over to a setting that is very different from where it was learned. This book does not claim that practice at a game will improve a very different everyday task. What the book offers instead is its own method, which no study has tested: pair each game with one real task that needs the same skill, and practise the real task directly, soon after the game.

Goalkeeper is used with self-control in section 3.2, as are Figures and Lighthouse. Rail Dispatch is used with speed in section 3.5. Shoal is used with precision in section 3.6. Switcheroo is used with adaptability in section 3.7. Initiation has no confirmed game, and neither do

persistence, courage or completion. For those skills, use the offline exercises in this bank, especially in sections 3.1, 3.3, 3.4 and 3.8, practised on the real task.

Confirmed games and offline alternatives

Game Module 3 skill	What the page says	Offline alternative
Goalkeeper Self-control (with speed)	"save every white ball, but hold back on the golden ones"	Play the stop-and-go clap with a partner. They call "go" or "no" at random, and you clap only on "go". This is a traditional party game, paired here with Goalkeeper by the book.
Figures Self-control	"It is tempting to answer after one glance at the color, and holding back until you have also read the shape name is part of the challenge."	Shape-and-colour cards: say yes or no only after reading both
Lighthouse Self-control (with speed)	"Buoys and seagulls move just like ships."; "Tap each ship as soon as you notice it"	A partner holds up cards at the edge of view; respond only to one picture
Shoal Precision	"Quick, accurate responses"; "a fast answer to the wrong fish costs the streak"	Arrow cards with flanking arrows: name the middle arrow fast and correctly
Switcheroo Adaptability	"match by shape, then color, then count as the rule flips without warning"	Play a rule-change card sort. Sort a deck by colour, and have a partner call a new rule, such as suit or number, without warning while you keep going. This is the offline version of Switcheroo.
Rail Dispatch Speed (timing)	"Trains cannot stop or turn back, so you set each junction before the train arrives"	Timed sorting of objects into boxes as a partner calls the next item

Page wording below is recorded from the public catalogue at cleverini.com/games/, fetched on 15 November 2026, and is quoted here only to show why each game was confirmed. Offline alternatives for Goalkeeper and Switcheroo use the wording already settled in section 9.3; the other four use the alternatives already recorded in the scope note.

Table C.1: Confirmed games and offline alternatives

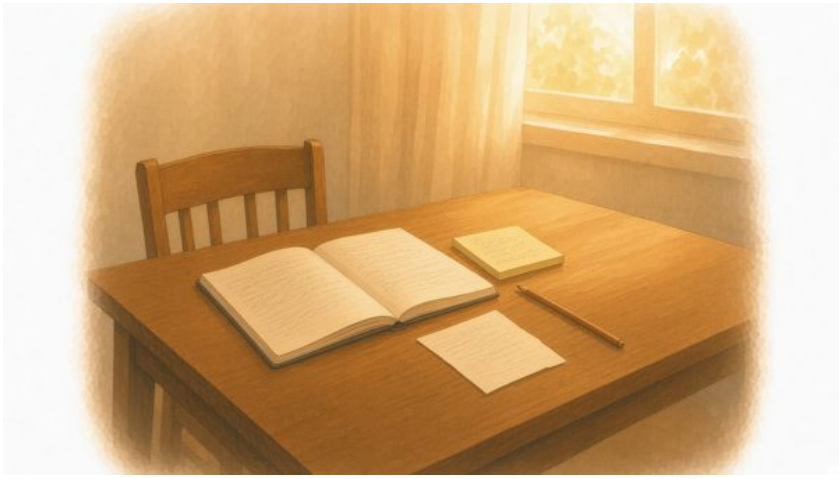
Game	What the page says	Module 3 skill	Offline alternative
Goalkeeper	“save every white ball, but hold back on the golden ones”	Self-control (with speed)	Play the stop-and-go clap with a partner. They call “go” or “no” at random, and you clap only on “go”. This is a traditional party game, paired here with Goalkeeper by the book.
Figures	“It is tempting to answer after one glance at the color, and holding back until you have also read the shape name is part of the challenge.”	Self-control	Shape-and-colour cards: say yes or no only after reading both
Lighthouse	“Buoys and seagulls move just like ships.”; “Tap each ship as soon as you notice it”	Self-control (with speed)	A partner holds up cards at the edge of view; respond only to one picture
Shoal	“Quick, accurate responses”; “a fast answer to the wrong fish costs the streak”	Precision	Arrow cards with flanking arrows: name the middle arrow fast and correctly
Switcheroo	“match by shape, then color, then count as the rule flips without warning”	Adaptability	Play a rule-change card sort. Sort a deck by colour, and have a partner call a new rule, such as suit or number, without warning while you keep going. This is the offline version of Switcheroo.

Game	What the page says	Module 3 skill	Offline alternative
Rail Dispatch	“Trains cannot stop or turn back, so you set each junction before the train arrives”	Speed (timing)	Timed sorting of objects into boxes as a partner calls the next item

D. Real-World Practice Tasks with Worked Examples

THIS APPENDIX WORKS THROUGH a few practice tasks in daily life, at work, in study and in conversation. Each task uses a method already taught in this book, mainly in Module 5 and in the methods Module 5 drew from Modules 1 to 4. The people and the details of each example are the book's own. They are illustrations, offered as practice, with no result claimed for the methods.

A method is used only where the steps are shared, and only close to the field in which it was taught (section 5.6). Thorndike and Woodworth (1901) found that practice spreads mainly where the same elements are involved. Simons and colleagues (2016) found little evidence that brain-training gains spread to distant tasks or to everyday life, and Sala and Gobet (2019) concluded that general cognitive training had almost no effect on general thinking skills. This appendix does not claim that a game, or practice in one setting, will improve a very different real-world task.

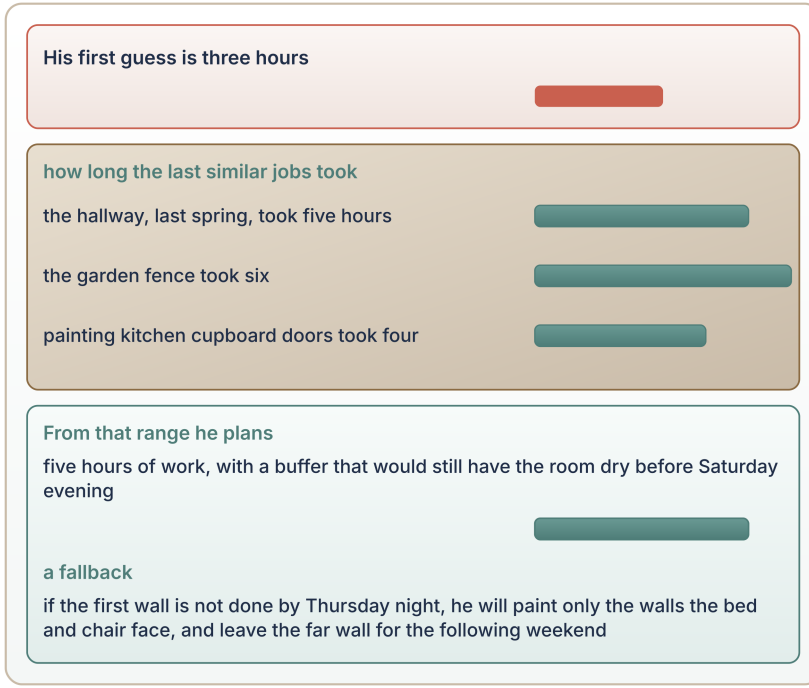


D.1 A delayed email: an if-then start. Nerys is thirty-four and manages orders for a small hardware shop. A supplier email has sat unanswered for a week. She needs a delivery date for a box of hinges, and each time she opens the message she closes it again. The people and the details of this example are the book's own.

Starting is the method already taught in sections 3.1 and 4.1, and used on school and work tasks in Module 5. Gollwitzer and Sheeran (2006) found across 94 tests that if-then plans helped people reach their goals, including getting started. Nerys writes: "When I sit down with my first tea after lunch, I will open the supplier email and write the first sentence." The first sentence she prepares is, "Please could you confirm the delivery date for order 1847?" She does not wait for a quieter day, and she does not try to tidy the whole inbox first.

D.2 A time forecast: the outside view. Patrice is forty-one and wants the spare room painted before his sister arrives on Saturday evening. His first guess is three hours, because the room is small. The people and the details of this example are the book's own.

Lovallo and Kahneman (2003) advised taking the outside view: look at how similar past cases turned out, not only at the story of the present one (sections 2.4, 4.7 and 5.2). Section 2.4 records that this advice comes from a magazine article, not a new experiment. Before he sets the time, Patrice also writes how long the last similar jobs took, then sets the new time from that (section 4.2; Buehler, Griffin and Ross, 1994). He lists three: the hallway, last spring, took five hours; the garden fence took six; painting kitchen cupboard doors took four. From that range he plans five hours of work, with a buffer that would still have the room dry before Saturday evening, and a fallback: if the first wall is not done by Thursday night, he will paint only the walls the bed and chair face, and leave the far wall for the following weekend.



D.3 An interruption: a parked next step. Jodie is seventeen and is writing a history essay in the town library, due on Friday. A friend sits down and asks for help filling in a driving-lesson form, which will take about ten minutes. The people and the details of this example are the book's own.

Section 4.3, and the work example in section 5.2, already teach parking unfinished work before you switch. Leroy and Glomb (2018) found in their studies that a brief ready-to-resume plan reduced the attention left stuck on an interrupted task. Before Jodie stands up, she writes on the top of her draft: "Write the first two sentences of paragraph 3 on the 1926 strike." She also writes when she will come back to it: "After I finish helping with the form, I will return to this chair and start at that sentence." The form is the interrupting task; the essay is the parked one. She does not try to hold the next sentence in her head while she helps.

D.4 A study plan for a later test. Waleed is sixteen, and his chemistry test on formulas and equations is in two weeks. He has been rereading his notes and highlighting them, and he feels ready until he tries a practice page with his notes closed. The people and the details of this example are the book's own.

The method stays in the study field already used in section 5.1. Roediger and Karpicke (2006) found that rereading made students more confident, while testing themselves led to better memory a few days later. Dunlosky and colleagues (2013) rated practice testing and spreading practice out over time among the more useful study techniques, and rated highlighting and rereading low. Waleed drops the long rereading session. He plans twenty minutes on three evenings a week. Each session starts with ten questions done from memory, then he checks. He ties the start to a cue (section 5.1; Gollwitzer and Sheeran, 2006): "When I hang my jacket up after school on Tuesday,

Thursday and Sunday, I will open the practice page at the first unmarked question." Before a new word problem, he writes two earlier problems solved the same way and names the rule they share, as section 5.1 already had him do.

D.5 A conversation that needs a first word. Ines is twenty-nine and volunteers at a Saturday community kitchen. The dinner rota for the next month is agreed at a short staff meeting after the wash-up, and she wants to say that she can do the first two Saturdays but not the third, because she has already promised to visit her father. In earlier meetings she has waited, then spoken late and too quickly. The people and the details of this example are the book's own.

The method stays in the conversation field already used in section 5.5. That section's key idea is to invent alone before you meet, listen until you can restate the other side, aim comments at the work and rehearse the first words of anything that matters. Ines writes her two points at home, on her own, before Saturday. She plans to listen to the proposed rota first and to restate it ("So Saturdays one to four are covered by Samir, then me, then Samir again?") before she adds her limit. She rehearses her first sentence until it comes easily: "I can do the first two Saturdays, and I cannot do the third." She aims the comment at the rota, not at anyone at the table.

These five tasks use methods already in the book. If you try one, keep it on a real task of your own that shares the same steps, and judge it by that task, not by how similar the story feels.

E. Progress Journal and Practitioner-Level Rubrics

These pages collect the journal forms and the level rubrics already set out in sections 10.1, 10.2 and 10.4. They do not add a new measure or a new level system. Copy the blank tables into a notebook, or print them, and fill them in on a real task of your own.

Harkin and colleagues (2016), in a combined analysis of many studies, found that tracking progress helped people reach their goals, more so when the progress was recorded or shared. Treat the rating and the log as a practice tool you keep for yourself. This book does not treat them as a test or as a diagnosis, and it does not give you a practitioner level from the starting record alone (section 10.1).

A starting point is a record of how you actually act in an ordinary week (section 10.1). The later pages then hold the twelve-week practice window (section 10.2), a shorter review every four weeks, and a level reading at twelve weeks (section 10.4). Twelve weeks is the series' practice window, and not a length shown to be best.



E.1 Starting record (section 10.1). Before you change anything, rate yourself from 1 to 5 on each of the eight core skills from Module 3. Then, for seven ordinary days, list each task you meant to do and mark a yes or no for a start on time, a yes or no for finishing, and a note on what got in the way. Choose a normal week, not one you already know was unusual. The log form is the book's own. After the week, rate yourself again from the log, not from memory, and note the biggest gap. From the log, pick the three tasks you most often delayed. For each, note whether it felt unpleasant, was far off, felt beyond you, or lost out to a distraction. The list is the book's own; the categories come from Steel (2007).

Table E.1: Skill rating, before the week and after the log

Core skill	Rating 1 to 5, before the week	Rating 1 to 5, after the log
Initiation		
Self-control		
Persistence		
Courage		
Speed		

Core skill	Rating 1 to 5, before the week	Rating 1 to 5, after the log
Precision		
Adaptability		
Completion		
Biggest gap between the two ratings		

Table E.2: Ordinary-week log

Day	Task I meant to do	Start on time (yes or no)	Finished (yes or no)	What got in the way

Table E.3: Delayed tasks from the log

Task I most often delayed	Unpleasant, far off, felt beyond me, or lost out to a distraction

E.2 Twelve-week practice journal (section 10.2). Each day, write one planned action as an if-then plan, do it at the same cue, and tick a tracker. This book uses ten minutes as a typical length for that action. The if-then form and the repeated cue come from the research; the ten minutes and the tick are the book's own. Each week, choose one challenge a step harder than last week on the skill your baseline showed as weakest, and step up only after you have succeeded. The weekly ladder is the book's own. Write one if-then plan for a week your routine will break: "If my usual cue is gone, I will do the two-minute version at [new cue]." The two-minute fallback is the book's own.

The shape of the twelve weeks is this book's plan, shared with the series, and it is not a research finding. The first four weeks keep one daily if-then action and give one core skill a focus each week. The next four weeks put a weekly challenge on the weakest skill from the baseline, one

step harder after a success. The last four weeks are for one finished real project that uses several skills. After week 12 comes a lighter rhythm, so the skill does not fade from lack of use.

Table E.4: Twelve-week plan

Block	What I will practise
Weeks 1 to 4	Daily if-then action, ten minutes at the same cue, and one core-skill focus each week:
Weeks 5 to 8	Weekly challenge on the weakest baseline skill, one step harder after a success:
Weeks 9 to 12	One finished real project:
After week 12	Lighter rhythm:

Table E.5: Daily if-then tracker

Date	If-then plan (cue and first step)	Tick

Table E.6: Weekly challenge

Week	Challenge on the weakest baseline skill	Succeeded?	Step up only after a success

Table E.6a: Disruption plan

If my usual cue is gone, I will do the two-minute version at:

E.3 Four-week review and continuing practice (section 10.4). A shorter review, every four weeks, reads the same records for change. Every four weeks, compare the log with the section 10.1 baseline: tasks started on time, tasks finished, and the weakest skill. Count a change only if it is bigger than your usual week-to-week swing. Write one

change of method for the next four weeks. The four-week review form is the book's own. As section 10.1 set out, a change counts as real when it is bigger than your usual week-to-week swing, and you can judge that from the log without a formula (Jacobson and Truax, 1991). After week twelve, keep one short weekly session per core skill you have built, and choose the next real challenge a step beyond your current level row. The weekly session and the "one row beyond" rule are the book's own.

Table E.7: Four-week review

	Baseline week (section 10.1)	These four weeks
Tasks started on time		
Tasks finished		
Weakest skill		
Usual week-to-week swing, from the log		
Is the change bigger than that swing?		
One change of method for the next four weeks		
After week 12: the short weekly session I will keep, and the next real challenge one row beyond my current level		

E.4 Practitioner-level rubrics (section 10.4). A level is a description of the evidence in your records at a twelve-week review. The book uses five level names, in a fixed order from Basic to Master, the same names and the same number of steps as in the Intellect book of this series, and as already applied in the Creativity book and the Extractivity book. Write them in that order, from Basic at the top to Master at the bottom. Use these names only. The names, the threshold rule and the stopping rule come from those books. The Action wording in the table below is a proposal, so the wording is used exactly as the pack gives it and is not a final criterion set.

The levels and their criteria are this book's own practice structure. No study tested them, and no research sets the thresholds. They grant no official qualification and have no public standing. They are not a test or a diagnosis, and they are not an IQ score. A Cleverini game score is in-game progress only, and it never counts as evidence for a level.

No level asks for a set number of hours, sessions, weeks or tasks. You judge the evidence yourself at the twelve-week review. Give each level an evidence checklist: copy that row's evidence kinds as separate lines, with the section number beside each one, and tick a line only when the dated item is in your folder. There is no minimum count on any line.

Table E.8: Action practitioner levels (proposal)

Level	What your practice shows	Evidence to collect, and the section that produces it
Basic	You keep a short daily action routine and have a record of where you started	A starting record (10.1) and a short daily action-routine record (10.2)
Intermediate	You meet weekly challenges and use a method (for example an if-then plan) on real tasks	Weekly challenge records (10.2) and a record of a method used on real tasks (10.2)
Advanced	You finish a monthly project, choose among methods before you start and track your measures	A finished monthly project (10.2, 10.4), a note of the methods you chose before you started (10.2) and a record of your measures (10.4)
Expert	You raise difficulty to a dated plan and can name the core skills and abilities each phase of a real action used	A dated plan that raises difficulty (10.2) and a note naming the core skills and abilities each phase of a real action used (10.3)
Master	You keep practice going across reviews and plan each new challenge yourself	A record of practice kept going across reviews (10.4) and a plan for the next challenge that you made yourself (10.4)

Read each level as a description of practice, never as a rank of the person, and never as a ranking of talent. Practice matters, and it is not

everything (Macnamara, Hambrick and Oswald, 2014). A level says what your folder can show today, at this review.

Start with the lowest level and work upward. At each twelve-week review, check each row in turn and stop at the first row where evidence is missing. Your level is the row above it, and the row with the gap is your next step.

Basic	☐ A starting record (10.1) ☐ A short daily action-routine record (10.2)
Intermediate	☐ Weekly challenge records (10.2) ☐ A record of a method used on real tasks (10.2)
Advanced	☐ A finished monthly project (10.2, 10.4) ☐ A note of the methods you chose before you started (10.2) ☐ A record of your measures (10.4)
Expert	☐ A dated plan that raises difficulty (10.2) ☐ A note naming the core skills and abilities each phase of a real action used (10.3)
Master	☐ A record of practice kept going across reviews (10.4) ☐ A plan for the next challenge that you made yourself (10.4)

My level at this review (the row above the first gap) _____

The next step (the row with the gap) _____

There is no minimum count, and a game score does not count. The Action row wording is a proposal.

Table E.9: Twelve-week level review checklist

Copy each row's evidence kinds as separate lines. Tick a line only when the dated item is in your folder. There is no minimum count, and a game score does not count. The Action row wording is a proposal.

Level	Evidence line (and section)	Dated item in the folder? (tick)
Basic	A starting record (10.1)	
Basic	A short daily action-routine record (10.2)	
Intermediate	Weekly challenge records (10.2)	
Intermediate	A record of a method used on real tasks (10.2)	
Advanced	A finished monthly project (10.2, 10.4)	
Advanced	A note of the methods you chose before you started (10.2)	
Advanced	A record of your measures (10.4)	
Expert	A dated plan that raises difficulty (10.2)	
Expert	A note naming the core skills and abilities each phase of a real action used (10.3)	
Master	A record of practice kept going across reviews (10.4)	
Master	A plan for the next challenge that you made yourself (10.4)	
My level at this review (the row above the first gap)		
The next step (the row with the gap)		

F. Glossary

Some terms come back many modules after they first appear. This glossary gathers the book's main terms in one place, each in plain words. Each meaning follows the wording already used in the settled sections, and the From column names that section. Where a meaning is not the book's own, the Source column names the writer it comes from. Read the full section when you want the evidence behind a term. The terms are in alphabetical order, in two tables.

This book treats everyday delay and everyday nerves as self-help, not as therapy. If fear is severe or lasts a long time, or it stops you doing everyday things, or it comes with panic, talk to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician.

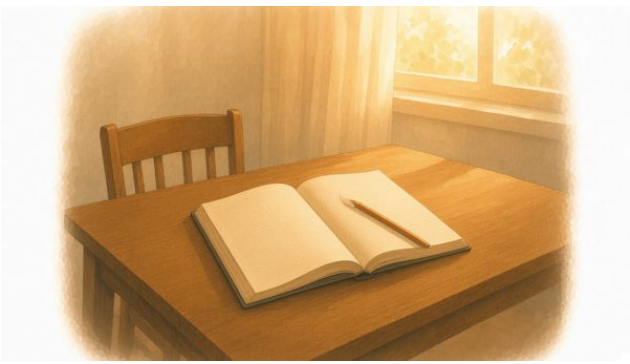


Table F.1: Terms from A to I

Term	Meaning	Source	From
Action	The working definition is: “Action is the ability to initiate, control, sustain, and adapt purposeful behavior to achieve intended outcomes.” Section 1.1 also writes this in shorter words: “ACTION = The ability to turn intentions into results.” The four doing words mean start, steer, keep going and change course. Action is not the result itself. A person can act effectively and still fail because of circumstances beyond their control.	This book’s own definition	1.1
Adaptability	Noticing when an action has stopped working and changing it in time.	This book’s own wording	3.7
Attention	“Attention means choosing what is important and staying with it.”	The Attention book	2.2
Completion	Finishing needs a skill of its own, separate from starting and keeping going, and this book calls it completion.	This book’s own wording	3.8
Courage	Acting while the fear is still there is what this book means by courage.	This book’s own wording	3.4
Creativity	“Creativity is solving tasks where the variables are not identified.”	The Creativity book	2.5
Extractivity	“taking in information fast, clearly and systematically, whether visual, audio or text.” It is this series’ own term.	The Extractivity book	2.1
Game score	A Cleverini game score is in-game progress only, and it never counts as evidence for a level. It is not an ability score.	This book’s own rule	9.3, 10.4
Goal	The aim of an action, usually a set standard to reach within a time limit. In this book a goal is written as a standard and a date. Specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed committed to it.	Locke and Latham (2002)	1.3, 3.8, 4.2

Term	Meaning	Source	From
Habit	A learned link between a situation and an action. Habits form slowly as people repeat an action in the same setting, until features of that setting begin to set the action off without a fresh decision each time.	Wood and Neal (2007)	1.3, 4.6
If-then plan (implementation intention)	An if-then plan is a link between a situation you expect and the action you will take when it arrives. It ties one moment to one thing you will do, such as "If it's Saturday after breakfast, then I'll take the patch kit to the shed."	Gollwitzer (1999); Gollwitzer and Sheeran (2006)	1.1, 3.1, 4.1
Information overload	The state of having more information than you can use well. Extra information can make decisions harder instead of easier.	Eppler and Mengis (2004)	7.4
Initiation	The skill of moving from meaning to do something to doing its first step.	This book's own wording	3.1
Intellect	"Intellect: solving tasks where the variables are identified."	The Intellect book	2.4
Intention-behaviour gap	The gap between meaning to act and acting. In 47 tests, people were encouraged to want to do something more. What they meant to do changed a lot, but what they actually did changed less.	Webb and Sheeran (2006)	1.1

Table F.2: Terms from M to T

Term	Meaning	Source	From
Memory	"Memory is the thinking ability to take in, keep and bring back information and experiences."	The Memory book	2.3
Outside view	A way of forecasting from how a group of similar past cases actually went, not only from the story of the present one. This advice comes from a magazine article, not a new experiment.	Lovallo and Kahneman (2003)	2.4, 4.7
Persistence	Keeping an action going when it gets hard, including knowing what to change when it keeps failing.	This book's own wording	3.3

Term	Meaning	Source	From
Practitioner levels	Five names in a fixed order: Basic, Intermediate, Advanced, Expert and Master. A level is a description of the evidence in your records at a twelve-week review. The levels and their criteria are this book's own practice structure. No study tested them, and no research sets the thresholds. They grant no official qualification and have no public standing. The Action wording in the level table is a proposal. No level asks for a set number of hours, sessions, weeks or tasks. At each twelve-week review, check each row in turn and stop at the first row where evidence is missing. Your level is the row above it, and the row with the gap is your next step. A game score never counts as evidence.	This book's own practice structure	10.4, Appendix E
Precision	Getting the details right every time.	This book's own wording	3.6
Procrastination	Putting a task off. People were consistently more likely to put a task off when it felt unpleasant, when its deadline or reward was far away and when they had little confidence they could do it. These are links found across many studies, and they cannot show on their own that any of these things causes delay. Putting things off is often a way of repairing a bad mood for the moment. That second account is a theory review, not a new experiment.	Steel (2007); Sirois and Pychyl (2013)	7.3
Ready-to-resume plan	A brief written plan, made before you leave a task, that names the next step on the work you are leaving. This book also calls it parking a task with its next step before you switch.	Leroy and Glomb (2018)	4.3
Self-control	Steering your actions towards a goal and holding back from impulses that pull against it.	This book's own wording	3.2

Term	Meaning	Source	From
Self-efficacy (task confidence)	A person's belief that they can carry out a particular kind of action. It is task confidence, and it is a different thing from self-esteem, which is how much a person values themselves overall. No study used for this book shows that raising a person's overall self-esteem, on its own, makes them act more.	Bandura (1977)	1.2, 7.2
Speed	Reaching the same result in less time.	This book's own wording	3.5
Starting record	A record of how you actually act in an ordinary week, mixed with a short self-rating you then check against that record. It is a practice tool you keep for yourself, not a test, a diagnosis or a practitioner level.	This book's own form	10.1, Appendix E
Transfer	Practice spreads mainly where the same elements are involved. In this book a method is carried only where the steps are shared, and only close to the field in which it was taught.	Thorndike and Woodworth (1901)	2.6, 5.6

G. Further Reading and Method Origins

This appendix is a short list of where the book's main methods came from. An origin tells you who set out a method or idea. It does not, on its own, tell you whether the method works. For the evidence, and for the limits the book already recorded, read the section in the From column. Every source here is already used in the settled sections and is on the approved list. The list adds no new source, and it makes no new claim.

This book treats everyday delay and everyday nerves as self-help, not as therapy. If fear is severe or lasts a long time, or it stops you doing everyday things, or it comes with panic, talk to a parent, a teacher or another trusted adult, or to a doctor or another qualified clinician. The first table follows the order the methods appear in the book.



Table G.1: Method origins

Method or idea	What it is	Origin	From
Intention-behaviour gap	The gap between meaning to act and acting. Sheeran (2002) reviewed research on how often people's intentions turn into behaviour and found a real gap between the two. In 47 tests, people were encouraged to want to do something more. What they meant to do changed a lot, but what they actually did changed less.	Sheeran (2002); Webb and Sheeran (2006)	1.1, 4.1, 7.5
If-then plan (implementation intention)	A link between a situation you expect and the action you will take when it arrives. It ties one moment to one thing you will do. Across 94 tests, such plans helped people reach their goals.	Gollwitzer (1999); Gollwitzer and Sheeran (2006)	1.1, 3.1, 4.2
Self-efficacy (task confidence)	A person's belief that they can carry out a particular kind of action. It is task confidence, and it is a different thing from self-esteem, which is how much a person values themselves overall. No study used for this book shows that raising a person's overall self-esteem, on its own, makes them act more.	Bandura (1977)	1.2, 7.2
Specific, hard goals	Specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed committed to it. In this book a goal is written as a standard and a date.	Locke and Latham (2002)	1.3, 4.2
Progress monitoring	Checking your progress towards a goal helps you reach it.	Harkin et al. (2016)	About This Book, 1.3, 4.8
Outside view	A way of forecasting from how a group of similar past cases actually went, not only from the story of the present one. This advice comes from a magazine article, not a new experiment.	Lovallo and Kahneman (2003)	2.4, 4.7

Method or idea	What it is	Origin	From
Transfer staying close	Practice spreads mainly where the same elements are involved. Later reviews of brain-training programmes reached a similar answer. Simons and colleagues (2016) found good evidence that the programmes improved the trained tasks and little evidence that they improved everyday thinking. Sala and Gobet (2019), reviewing many earlier analyses, found that cognitive training had almost no effect on general thinking skills.	Thorndike and Woodworth (1901); Simons et al. (2016); Sala and Gobet (2019)	2.6, 5.6, 9.3
Time from past similar work	People's predictions of how long work would take were too hopeful, because they pictured the future going smoothly. In one of the studies, people who were asked to connect their past experiences to the new prediction no longer showed the optimistic bias. The studies are all from one paper, so treat the fix as a strong hint and keep checking it against your own record.	Buehler, Griffin and Ross (1994)	2.3, 4.2
Smallest brave steps	Meeting a feared situation on purpose, in small steps, then trying them in a mixed order. Craske and colleagues (2014) wrote for clinicians treating anxiety disorders. This book uses only a self-help adaptation for everyday hesitation, and it is no substitute for therapy.	Craske et al. (2014)	3.4, 7.1
Ready-to-resume plan	A brief written plan, made before you leave a task, that names the next step on the work you are leaving. In their studies, a plan like this reduced the attention left stuck on an interrupted task. This book also calls it parking a task with its next step before you switch.	Leroy and Glomb (2018)	4.3
Habit	A learned link between a situation and an action. Habits form slowly as people repeat an action in the same setting, until features of that setting begin to set the action off without a fresh decision each time.	Wood and Neal (2007)	4.6
Practice testing and spread-out study	Roediger and Karpicke (2006) found that rereading made students more confident, while testing themselves led to better memory a few days later. Later reviews of many studies, by Rowland (2014) and by Adesope, Trevisan and Sundararajan (2017), found the same pattern: practice tests helped learning more than restudying did. Dunlosky and colleagues (2013) rated common study techniques and put practice testing and spreading practice out over time at the top.	Roediger and Karpicke (2006); Dunlosky et al. (2013)	2.3, 5.1
Procrastination	People were consistently more likely to put a task off when it felt unpleasant, when its deadline or reward was far away and when they had little confidence they could do it. These are links found across many studies, and they cannot show on their own that any of these things causes delay.	Steel (2007)	3.1, 7.3
Delay as mood repair	Putting things off is often a way of repairing a bad mood for the moment. This account is a theory review, not a new experiment.	Sirois and Pychyl (2013)	7.3

Method or idea	What it is	Origin	From
Emotion skills and delay	Training people to put up with unpleasant feelings and to change them reduced their procrastination, in one paper reporting three studies, one of them a randomised trial. That is skills practice, the kind anyone can try, and it is different from therapy.	Eckert et al. (2016)	3.1, 7.3
Information overload	The state of having more information than you can use well. Extra information can make decisions harder instead of easier.	Eppler and Mengis (2004)	7.4
Motivation needs	A theory review describes three needs that support motivation: feeling capable, feeling that your choices are your own and feeling connected to other people.	Ryan and Deci (2000)	7.5

Read an origin as history. A method's first source shows what its author proposed, and the book's sections give what later studies found. Where a source is a theory review, a magazine article, a clinical paper or a single paper, the table already says so.

The works below are useful next reads. Each one is a review or a major study that this book already drew on, and each is listed with the section that uses it.

Table G.2: Further reading

Work	What it covers	From
Locke and Latham (2002)	A 35-year review of goal setting. Specific, hard goals led to better performance than being told to do your best, as long as people had the ability for the work and stayed committed to it.	1.3, 4.2
Gollwitzer and Sheeran (2006)	A review of 94 tests of if-then plans, which found that such plans helped people reach their goals.	3.1, 4.2
Webb and Sheeran (2006)	A review of 47 tests of the intention-behaviour gap. What people meant to do changed a lot, but what they actually did changed less.	1.1, 4.1
Harkin et al. (2016)	A review of experiments on checking progress towards a goal, which found that this checking helps people reach it.	About This Book, 1.3
Dunlosky et al. (2013)	A review that rated common study techniques and put practice testing and spreading practice out over time at the top.	5.1

Work	What it covers	From
Steel (2007)	A large review of procrastination and the links that went with it most consistently.	3.1, 7.3
Wood and Neal (2007)	A review of how habits form as a learned link between a situation and an action.	4.6
Simons et al. (2016)	A review of brain-training programmes, which found good evidence that they improved the trained tasks and little evidence that they improved everyday thinking.	2.6, 9.3

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