



# the **LEARNING BLUEPRINT**

## HACKING THE BRAIN TO OPTIMIZE LEARNING

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*The following was excerpted from The Learning Blueprint digital portal ...*

Welcome to **The Learning Blueprint: Hacking the Brain to Optimize Learning**. This is a practical science of learning course designed specifically for students.

This program was developed (and is led) by Dr. Jared Cooney Horvath, one of Australia's leading Science of Learning experts.

Get excited! Dr. Jared Cooney Horvath is an incredible instructor, and he's going to share some fascinating insight with you that will change the way you understand learning and approach school.

### PROGRAM GOALS

Our goal with *The Learning Blueprint* is to "hack the brain to optimize learning" ... but what exactly does this mean, and why is it important?

Well, at our core, **we are all learning machines**. If you think about it, learning underlies just about everything we do in life – from going to school to playing sports to building relationships.

Plus, it's the foundation for developing important skills like creativity, adaptability, critical-thinking, problem solving and self-management.

**Learning is the ultimate skill** ... and amazingly, our educational system often drops the ball when it comes to teaching students *how* to do it effectively!

But make no mistake, learning is a skill that *can* be developed ... and understanding *how* to do it is immeasurably valuable, because it exponentially increases the return of every hour you devote to it.

Plus, in our modern information age -- where knowledge is quickly becoming the most valuable form of currency -- success is naturally gravitating to those who can **learn the fastest and most effectively**.

So, with *The Learning Blueprint*, our goals are to:

- Teach you how learning works at a *literal level* -- so you can start to approach it more systematically
- Deconstruct the common myths that often get in the way of effective learning
- Equip you with the **highest-impact strategies** for boosting your learning rate and expanding your learning capacity



Hi there. My name is Jared Cooney Horvath, and first and foremost I want to thank you for participating in The Learning Blueprint. I'm very excited about this program!

My aim is to *transform* the way you think about thinking and learning, and deliver a healthy dose of practical value that you can immediately leverage in your day-to-day life.

Before you begin going through the main content, I want to quickly express my 'big-picture' goal for this module, as well as emphasize a few points to set expectations and help you extract maximum value ...

## MY PRIMARY GOAL (AND WHY 'HOW TO' GUIDES OFTEN FAIL)

To help you better understand my primary goal with The Learning Blueprint, I find it helpful to analogize my general approach to cooking.

Let's imagine you wanted to bake a cake.

If I were to give you a detailed, step-by-step recipe for baking a cake, you'd probably be able to follow the instructions quite easily. Mix three eggs with some butter, add whole milk, whisk in some flour ... pretty simple.

But what would happen if you had no eggs? Or were allergic to milk?

Without a deeper understanding of the *purpose for and interaction between* each ingredient, you'd likely become derailed! You would have little clue about how to press

forward and tweak the recipe to suit your unique kitchen; your unique tastes; your unique requirements; etc.

And this is why simple 'how to' guides so often fail. Although surface-level tips and techniques may be useful within narrowly-defined contexts, they often *fail* to transfer over to novel circumstances and unstable conditions.

So, we get stuck! Without a deeper grasp of the fundamental concepts, we must blindly follow instructions with no clear sense of why they work (or don't work) ... even when they are failing to serve us.

Accordingly, if we want our learning to be effective, we must move beyond simple recipes and dig deeper into the mechanisms behind *why* each recipe works. In other words (at the risk of extending this analogy beyond its logical limit), we must strive to become Gordon Ramsay's of learning.

That is my goal!

By exploring brain research, diving into key psychological ideas, and conducting a number of relevant (and fun) experiments, I will introduce you to the latest and most important concepts from the field of Learning Sciences, and equip you with an arsenal of proven learning strategies that you can immediately start to apply.

However, I don't want to simply help you apply these strategies so that you can get better grades in school (although that will likely be a byproduct). Indeed, the skill of learning extends well-beyond the classroom into *all* facets of your life.

So instead, I want to help you 'take ownership' of the fundamental principles that drive thinking and learning -- which, in turn, will give you the power to confidently adapt, modify and personalize them to your unique contexts.

## A FEW QUICK NOTES

Before we dive in, there are two things I want you to be aware of:

First, the concepts we will explore are *foundations* of learning. Accordingly, they are supported by a wealth of brain and behavioral research. In this instance, when I say 'research', I don't mean a single obscure study from 1970 conducted with rats in the Siberian wilderness. I mean *well-characterized, well-replicated research* spanning decades of scientific toil.

For this reason, I don't want you to simply take my word for anything. If you wish to probe deeper into any of the topics I discuss -- or if you'd like to review the research that supports any of the claims I make -- please contact my staff at LME Global and we will be happy to point you in the right direction.

Second, whenever I step into the role of 'teacher', I adhere to a basic maxim: if I cannot get my learners to experience a concept that I am discussing, then I do not yet truly understand that concept myself.

As such, I've tried my best to apply this maxim to The Learning Blueprint by offering a complement of learning devices -- including interactive lectures, hands-on exercises, guided reviews, reflection questions, recall exercises, recognition quizzes and more.

To get the most out of this program, I urge you to carve out the necessary time to complete all of these synergistic activities.

## TIME COMMITMENT

The Learning Blueprint is delivered over 14 sessions that can be completed in ~35-40 minutes. Each session is anchored by an interactive lecture (~20 minutes), and is supplemented with important learning devices including hands-on exercises, reflection questions, guided reviews, active recall exercises, recognition quizzes, and more.

The total time commitment for this course is approximately 8 hours. Ideally, you should space out 3 sessions per week, and complete the course in 5 weeks. However, you can certainly accelerate the pace of the program if you'd like. For instance, if you commit yourself tackling one session per day, you could complete the full program in as little as 2-3 weeks.

However, we strongly advise that you *do not* attempt to complete more than one session per day, as this type of 'binge watching' approach is not conducive to deep, long-term learning.

*SESSION 1 NOTE: While most of the lectures are between 15-20 minutes in length, the session 1 lecture is a full 35 minutes. So please budget a bit more time to complete this session.*

## REQUIRED TOOLS & RESOURCES

Aside from an open mind and a strong internet connection, the only tool you really need at your disposal as you go through The Learning Blueprint is a physical journal or notebook.

Throughout the module, I will ask you to consider reflection questions and complete 'free-recall' exercises ... and it will benefit your learning *most* if you physically write-down your thoughts and ideas.

In addition, it may be helpful (but certainly not required) if you have access to a printer. There are some handouts and optional readings which you may decide are easier to consume in hard-copy format -- depending on your unique learning preferences.



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## COURSE OUTLINE

Below is the outline for The Learning Blueprint ...

### THE BIG PICTURE

As we progress through The Learning Blueprint, we will leverage the metaphor of the *brain as a computer* to provide a complete framework for learning.

We start off by exploring the mind (the operating system) and defining how the brain physically functions (the hardware), before delving into the rules and strategies that govern learning (the software), and closing with discussions about 'lecture survival' and important self-management concepts (the user).

### SESSIONS 1-3: FOUNDATIONS OF THINKING | The Operating System

The brain does not function like most people think ... and this misunderstanding often stands in the way of effective learning.

In sessions 1-3, we explore how the brain truly makes sense of reality, the power that concepts have over perception, and the importance of 'building the right story' BEFORE learning.

✚ **SESSION 1** | *The Coder: How does the brain truly work?*

✚ **SESSION 2** | *The Predictor: Who is really in charge here?*

✚ **SESSION 3** | *Errors + Failure: The unsung heroes of learning*

### SESSIONS 4-6: FOUNDATIONS OF LEARNING | The Hardware

Now that we understand the power stories exert on perception, it's time to understand how these stories physically act within the brain to drive learning.

In session 4-6, we explore the foundational process of learning (from novice to mastery), how thoughts and actions physically drive this process, and the role th

at genetics play when it comes to intelligence and skill development.

- ✚ **SESSION 4** | *Brain + Plasticity: What is the brain made of ... and how does it change?*
- ✚ **SESSION 5** | *Genes + Intelligence: Are we slaves to our genes ... or are they slaves to us?*
- ✚ **SESSION 6** | *Foundational Learning: What is the essential ingredient for learning at a fundamental level?*

## **SESSIONS 7-9: GET YOUR RULES RIGHT | The Software**

It's time to start hacking the brain software and uncovering the rules that will help you work with (instead of against) your natural brain systems -- starting with memory.

Memory is the foundation of effective learning -- and fortunately, it is a very predictable system! During sessions 7-9, we reveal six important memory principles, and explore valuable strategies that will help you form deep, long-lasting memories.

- ✚ **SESSION 7** | *Memory - Encoding: What are memories ... and how do we make new ones?*
- ✚ **SESSION 8** | *Memory - Storage: What are the best strategies for making memories stick?*
- ✚ **SESSION 9** | *Memory - Access: What is the key to producing deep, long-lasting memories?*

## **SESSION 10: METACOGNITION | The Software Updates**

Metacognition, to put it simply, is thinking about thinking. More specifically, it is the internal process of planning, monitoring, assessing and adapting your understanding and performance.

During session 10, we dive into the concept of metacognition, and explore how you can leverage this critical skill to unlock your brain's full potential and take control of your learning.

- ✚ **SESSION 10** | *Metacognition: Stepping into the driver's seat of your own brain*

## **SESSIONS 11-13: GET YOURSELF RIGHT | The User**

You know the operating system, the hardware, and the software -- now it's time to jump into the driver's seat and take control of yourself!

During sessions 11 and 12, we look at the before, during and after of lectures -- and we reveal the most effective strategies for optimizing your productivity during these valuable discourses of learning. In session 13, we dive into the art of time-management.

Note: Please see *Bonus Section 2* for additional 'user development' strategies. In this bonus section, we explore additional self-management topics relevant to learning ... including stress, feelings/emotions, goal setting, and the PERMA model of well-being.

✚ **SESSION 11** | *Surviving Lectures (1): What should you do before and after every lecture?*

✚ **SESSION 12** | *Surviving Lectures (2): How can you maximize your learning during lectures?*

✚ **SESSION 13** | *Time Management: How can you guarantee that you fail at this important skill?*

## **SESSION 14: CONNECTING THE DOTS | The Matrix**

Now that we've covered everything you need to become a master of learning, it's time to tie it all together.

During session 14, we discuss The Learning Trajectory -- a full-spectrum look at learning from surface, to deep, to transfer. Then we explore strategies for advancing this model beyond theory into practice.

✚ **SESSION 14** | *The Learning Trajectory: A full-spectrum look at learning*

## **BONUS CONTENT**

### **BONUS SECTION 1: THE LEARNING TRAJECTORY**

In this bonus section, we reinforce what we explored in Session 14 by taking a deep-dive into The Learning Trajectory -- a comprehensive model of learning that will help you understand how it works at a fundamental level.

We begin with surface knowledge (facts), move through the three stages of deep learning, and close with skill transfer. Relevant learning strategies for each stage are discussed.

✚ **BONUS 1.1** | *Surface Learning: What are facts ... and why are they so important?*

✚ **BONUS 1.2** | *Deep Learning: How do we move beyond simple fact accumulation?*

✚ **BONUS 1.3** | *Transfer: What is transfer ... and why is it so challenging?*

✚ **BONUS 1.4** | *C21 Skills: Can we really teach creativity, collaboration and critical thinking?*

### **BONUS SECTION 2: A CRASH-COURSE ON SELF-MANAGEMENT**

In this bonus section, we explore important self-management topics that are relevant to effective learning ... including stress, feelings and emotions, effective goal setting, and the PERMA model of personal well-being.



- ✚ **BONUS 2.1** | Stress + Emotions: When does stress help learning ... and when does it hurt?
- ✚ **BONUS 2.2** | Personal Wellbeing (1): What is well-being (hint: it's not the same as happiness)?
- ✚ **BONUS 2.3** | Personal Wellbeing (2): What are the top strategies for boosting your well-being?
- ✚ **BONUS 2.4** | Emotions + Learning: Does being happy help you learn more effectively?

## **BONUS SECTION 3: A QUICK STUDY-STRATEGY REFRESHER**

In this bonus section, we quickly review a handful of powerful strategies that will ensure you get the *absolute most* out of any time you devote to studying.

- ✚ **BONUS 3.1** | Study Survival: What are the best study strategies to support deep learning?