

The Key to Powerful Learning: Slow Down to Speed Up

GEOFFREY CAINE, LL.M.



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01

Learning:
The Key
to Success
in an
Uncertain
World

Every artist was first an amateur.

— Ralph Waldo Emerson



We all want to acquire new skills and master new material more easily and with less angst. There is the sheer joy, the feeling of satisfaction, and the sense of achievement in mastering something. And we hate to feel overwhelmed, stupid or frustrated because things don't seem to come together well enough or quickly enough.

I have a very good friend who gave me an example recently. It's her secret desire to master her iPod (not the more recent iPad) – five years after getting it! She still feels overwhelmed by it, and although she is very competent in many ways, she simply cannot get the hang of current gadgetry.

The key to mastering a new skill lies in how we approach it. We might, for instance, try harder and push harder – often doing the same things with even more intensity and urgency. Yet as we press harder, we tend to get in our own way. Sometimes it's the pressure of work or finances or what others think. Sometimes it's the sheer frustration of not “getting it.” Sometimes it's just the fact that the world is moving so fast and we naturally want to move fast with it.

Yet having to learn new stuff and master new skills is simply unavoidable, particularly in such a volatile world. Jobs change.

New technologies are added. People move. Crises come and go. New opportunities suddenly drop in unannounced. So how, precisely, do we acquire those new skills and ways of being in the world that call for our attention?

It is now easy to find a huge amount of information on how to learn. Just Google “how to learn.” Learning has been the primary survival process ever since people have walked the earth because each and every one of us has to learn many things in order to survive and thrive. In addition, every self-help book, instruction manual, YouTube demonstration video and instructional website offers guidance of some sort about specific skills, ranging from cooking to communication skills, and from improving relationships to building 3-D printers.

So my question became, not what do most of these resources offer, but what do most of them miss? After all, if learning is universal and basic, why is it so often confusing, and so difficult? We’ve all experienced courses that have left us needing more, self-help books and programs that don’t really seem to help, skills that we have practiced and yet, for some reason, don’t seem to work in the real world.

Are there tools, hints, strategies, ways of learning that can supplement what others have contributed? Is there some fertilizer we can add to make the learning process more powerful and satisfying?

Surely it’s worthwhile to spend a little of our time, money and effort on learning how to learn more effectively, on improving and enhancing the most basic skill of all. That is what this book is about. It offers ideas, techniques, and a road map that help you see more clearly and delve more deeply into what has to be learned. It is your manual on how to think about learning, and how to do it better.

WHAT ARE THE FOUNDATIONS ON WHICH THIS BOOK IS BUILT?

To begin with, most people are not aware of the huge amount of research on learning, teaching, and coaching. I know. I've looked at a lot of it for many years. In fact, over a period of more than 20 years, my wife and I have coauthored nine books with five publishers connecting the dots between brain research, psychology, learning, and education. (See www.cainelearning.com.) Our books, written primarily for educators, are used on every continent.

Some of that research, and many of those techniques, are on accelerated learning. My favorite is the father of almost all the accelerated learning that is now practiced in the Western World. A Bulgarian psychotherapist (I know – speak of an unexpected origin) developed a process that he called Suggestopedia. It was called that because it capitalized on the power of suggestion. In the West it became “Suggestive Accelerated Learning and Teaching” and then simply “Accelerated Learning.” I am fortunate to have been able to study some of the variations in depth with some of the masters, particularly one called OptimaLearning (which is where I met my wife).

Finally there's the personal experience of putting it all into practice. I've done that as a professor of law, state manager of a marketing company, and an education consultant, amongst other things. I've had to walk the walk that I'm talking now.

More recently, I've had to use these tools myself in several different ways:

- *A year ago I left the ISP that had been hosting my website, and so I have had to develop basic competence in how to create*

my own websites using WordPress, a blogging tool and website creation system, that was totally new to me.

- *My wife fractured her ankle some time ago, and suddenly I had to learn how to cook three meals a day that were nourishing, edible and looked good.*
- *I wrote a couple of e-books on listening skills called the “Listening to Life” series. My publisher still wants me to give readers additional tips and hints to assist their learning. This book is as much for them as for anyone else!*

I’ve been taught, trained, coached, mentored, guided and shown the ropes in a host of ways, and have fallen flat on my face more times than I care to count. But I kept climbing back up – and I’ve I learned a lot! That’s all been stirred into the research and baked over time. And some of it is being shared here.

This book is based on a lifetime of research and experience, of bad times and good, of confusion and of sheer, delightful astonishment about what human beings can do. It’s the first step in becoming master of learning, with the promise that the first step is a huge step.

WHO THIS BOOK IS FOR?

First, this book is a do-it-yourself book. It’s for all of you who want some extra hints on how to acquire new skills, better understand new ideas, deal with a new job, or adjust to a life change such as retirement. It’s generally about how to become more effective at what you do. It sets out to provide you with a road map – a dynamic approach to learning that can be used to supplement and make better use of any other tools and processes that you come across.

Second, this book is for those who want some ideas and skills about training, teaching, and guiding others. The content can be used by parents at home with their kids, by teachers in school, by trainers in the world of business, by leaders, and by others. However, there is a secret to using it well to help others. The secret? *Use it on yourself first!* There is nothing like personal experience to make a process or idea real and to help one gauge how to use it with others.

THE BIG SECRET: SLOW DOWN TO SPEED UP!

This book is not for people in a hurry. As Lewis Carroll once wrote, “*The hurrieder I go the behinder I get.*” The goal, rather, is to show you ways to joyfully build the great foundations that make for enormous success and enhanced learning in the medium and the long term. That’s why it is different from everything else out there.

To repeat, this book is not for people in a hurry. I love learning. And time and again I meet people who relish their own learning and who wish they had taken the time to go deep, to get the fundamentals solid, to proceed joyfully without so much pressure or anxiety. And time and again they turn out to be the people who, in the long run, go further and get there faster.

I know that there is a sense of urgency almost everywhere; people seem to demand results overnight and change in mid-flight. I’ve been exposed to the almost paralyzing demand for raising test scores quickly, to the angst about getting a team to perform better, to the pursuit of short-term profit in lieu of long term profitability. Sometimes this is legitimate. For the most part, rushing is a great way to trip over one’s own feet.

Remember that there is a huge difference between being in a hurry and getting good results quickly. The tools in this little book are very powerful. Just let them do the work and take the time to enjoy the process without putting undue pressure on yourself. Feel free to go slowly. Go deep. Enjoy.

But keep in mind a core principle that will always be true. You have to get started. In the words of W.H. Murray (usually attributed to Goethe):

*Whatever you can do or dream you can, begin it.
Boldness has genius, power and magic in it.*

ACTION GUIDE

1. Let's begin with how you already learn. Think about some skill that you have acquired to the point of moderate real world competence in any field of endeavor, from work to a hobby. Make a list of the sorts of actions you took and things that you did to become competent. Then repeat the process and add to the list. (You will discover that there is always more to add!) Most important, be sure to list some of your informal actions such as chatting with friends about what you were doing and learning.
2. Take a moment to reflect on how it will feel when you know that you have an even more reliable and enjoyable way of learning.

02

How Your Brain / Mind Works

*“Learning” means making sense of
experience and developing new
capacities to act in and on the world.*

— Caine and Caine

This is not a “how to” chapter - but it is very practical. Someone once said that a good theory is a great strategy, and I’ve discovered over the years how true that is. The key to getting the most benefit lies in understanding why we are doing what we are doing.

Sometimes people do a lot of preparation, like those of us who read the instructions first; sometimes they just jump in with both feet, like those who look at the instructions when all else has failed. Your approach needs to suit you. But in any field of endeavor, expertise and mastery have a solid theoretical component.

About 25 years ago, when it was not yet fashionable, my wife and I thought that the best way to get a handle on the research about learning was to synthesize it. We examined neuroscience, cognitive psychology, stress theory, the nature of consciousness, and other fields.

Long story short, we formulated a set of 12 learning principles which we now call the Brain/Mind Principles of Natural Learning. They have been widely quoted, used throughout the world, and adopted in a host of different ways. That research explains the power of slowing down to speed up – the thrust of this approach.

The essence of the principles is spelled out here. Just enough to make sense of the processes developed in this book. For the principles in more depth, go to

<http://www.cainelearning.com/research-basis/brain-mind-principles/>.

The indispensable core point is that the body, brain, and mind function as a whole system. Every single part of us – yes, including our organs, the ways that we move and breathe, and our emotions – impact learning.

SOME CENTRAL PRINCIPLES OF NATURAL LEARNING, BRIEFLY

1. We are all innately driven to search for meaning.

We are born with a drive to make sense of our personal experience. We want to find the purpose in things, and we want to see how things fit together. That's why the learner's authentic questions – your personal interests – matter.

2. The brain/mind naturally puts things together in patterns.

It is designed to make connections, but it organizes meaningful and meaningless information differently. That's why, at the heart of all learning, is the art of making meaningful connections.

3. We think with our feelings.

Everyone always reacts to situations emotionally; both men and women, “rational” and “irrational” people – everyone! That's why it is so valuable to find a way into a topic or skill that feels good to you.

4. We think with our bodies.

This means that we learn faster – and understand more deeply

– when we “get it” in our bodies. That’s why action and doing are so important.

5. We think collectively.

Each of us has our own mind, and each of us is also part of a bunch of collective minds because we are biologically and psychologically designed to be social (even those who love to do things on their own!). That’s why talking things through with others, formally and informally, helps so much.

6. The brain/mind processes parts and wholes simultaneously.

Sometimes the dots have to be connected - sometimes the dots are already connected. These already connected dots are natural wholes – a story, a project, a situation, a game. That’s why it is so important to have some “whole” in mind from the very beginning.

7. We learn from what we pay attention to, and we also learn from much of the stuff that’s in our environment but on which we do not directly focus.

Kids do this most readily, but we all learn by “osmosis” – by just picking things up from the context as a whole. That’s why it helps to both pay attention and to use and orchestrate your environment to support your learning.

8. We learn much better when we are interested and motivated than when we are severely stressed or feel helpless.

When fight or flight, the traditional survival response kicks in, some of our innate intelligence is literally cut off. That’s why it helps to have some quick successes, and why it’s so useful to proceed at a pace that works for us.

9. Learning is both conscious and unconscious.

Much of the time we need to actively and consciously process material – both ideas and skills. In addition, the brain/mind

always processes stuff unconsciously, which is why you can sometimes go to sleep with a problem and wake up with a solution. That's why some of the strategies in this book are designed to prime and increase your unconscious processing.

10. We have different types of memory.

For instance, we sometimes need to repeat and practice things. But we also have an “episodic” or autobiographical memory system which records the natural ongoing story of our lives. That's why stories are so powerful, and also why it helps so much to introduce new ideas and skills in the form of a situation or real-world project that matters to us.

11. Learning is developmental.

The basic truth is that learning takes time and there is a progression from simple to complex, from concrete to abstract. That's why giving yourself the right sort of time in the short term saves so much time in the long term.

12. Each brain is uniquely organized.

We have different styles, preferences, interests, ways of communicating, bodies, experiences and more. That's why, although there are some general tools and ideas that help all of us, it is so important to also find what suits us best.

The central point to understand is that learning is neither a mechanical nor simply an intellectual process. It is partly like what happens in a chemical factory – or in the complex and messy dynamic inside each one of us as we digest a meal. All the parts of the system play a role; the mental part of it is in a constant interactive dance with physical movement, emotional energy, and the ongoing connections with other people and the larger world.

WHAT SUCCESS LOOKS LIKE: NEW SITUATION LENSES AND TOOLS

When you've really "got it" in body, brain, heart and mind, then you can use it (whatever it is) in real time in the real world. That means that you will have developed new situation lenses and new situation tools:

- A *situation lens* is the ability to "read" what's going on in the real world.
- A *situation tool* is the ability to act spontaneously and appropriately in unplanned situations.

Imagine, for instance, that your boss (or you if you're your own boss) wants you to improve your communication skills, become proficient with some new software, or get up to speed on anything from Facebook to aspects of finance. You seek out some instruction – from courses to tips from a friend – where you seem to "get it" and are then dropped into the real world. And somehow or other what you think you understood before doesn't seem to work. The reason? You still need to get it in your body. It still needs to become part of you. That takes time. It takes action. It takes experience. In short, all the different parts of you – your body, brain, emotions and mind – need to begin to work together. When that happens, your intellectual knowledge and workshop skills have developed into situation lenses and tools.

Usually the lenses form over time with adequate experience. That is when you can use your new learning to "read" what is happening in an unplanned situation and respond appropriately. So why not begin that way? Let's understand how experience works naturally and then take advantage of all the different components of experience from the very beginning.

When you can change, adjust, and use what you have been learning to adapt to the unexpected, you have real world competence. It's great. And it feels great.

ACTION GUIDE

1. Take stock of your assets and resources as a learner.

Take a little time to think through each of the principles, summarized in this chapter. Either by semi-daydreaming, using a journal, writing on your smart-phone , or by talking with a friend or colleague, think back over your life experience and look for a personal example or illustration of each principle at work. I guarantee that they are there because we are each biologically designed to function in this way. It's just that it's all so natural and taken for granted that we tend not to notice it. This is your opportunity to become more aware of it.

2. Reflect on one of your skills or field of genuine competence.

It may be managing a business, decorating your house, or anything else you love and/or are really good at. Notice some of the things that you automatically understand and some of the actions that you take without having to think about them. These natural modes of seeing and acting are examples of situation lenses and tools.

3. Take some more time to think back over how your understanding or skill developed.

Can you remember what it was like when you were first working on something and how that compares with your

current level of understanding or skill? Describe some of the differences.

4. Take a moment to see yourself and feel yourself functioning naturally and effectively with your new skill or skill set.

Imagine or daydream about a scenario or two where that happens. Enjoy.

03

Plan Your Work then Work Your Plan

*The big picture doesn't just come from
distance; it also comes from time.*

— Simon Sinek

The key to successful, dynamic learning lies in the approach. It's all well and good to know that we are born with a wide range of tools. It's a different thing altogether to mix and match, to put them together in ways that work well. Here, in summary form, is the map I am offering you in the chapters that follow.

Note, first, that learning never occurs in a straight line. So take one step as far as you can, then take another. And another. As you progress you will find that you can come back to earlier steps, dig deeper and go higher. I call it “riding the spiral of learning.” Adjust it to suit yourself, and enjoy!

Slow down to speed up

As much as possible let go of urgency (even if only for a few minutes at a time) and take the time to go deep enough to build great foundations. That will rain success on you in the medium and long term.

Find a purpose with passion & meaning

Live into a purpose that is profoundly meaningful to you and taps into a personal passion. A powerful purpose in a meaningful context organizes all of your biological and psychological resources to work on your behalf.

Clarify your goals

Frame your purpose in terms of a goal-based scenario – a meaningful context. Then aim high – for competence in the real world, and at the same time aim low – at the level where you can approach the skill or subject matter with very little pressure and a great deal of satisfaction.

Begin in a way that suits you

The best way to begin is not always the obvious way to begin. So take some time to forage for materials and examine some of the advice “out there.” Find a point of entry that maximizes the time and effort that you put into learning.

Personalize the concept

Every skill, from plumbing to parenting, is grounded in a general organizing concept. And that concept can then be reframed in a way that deeply appeals to you. Get those two aspects of the core concept deep in your psyche.

Think it through

Some individual steps and ideas are obvious; others need to be thought through. Fortunately there are many powerful ways to think things through that are available to all of us.

Develop a scaffold

Nothing is more valuable than having a sound, reliable platform as you work toward mastery. It so happens that erecting a scaffold and building initial rails to run on are also ways to have some quick victories and early successes.

Use your different memory systems

As much as possible engage your natural, autobiographical memory system and also make sure to deal with and process

feedback from what actually happens. But when needed, feel free to memorize creatively and in a variety of different ways.

Get real playfully

Use the entire world and all of your experience as a rehearsal hall, and have fun with it.

There's always more

Everything is connected. Things change, knowledge changes, perspectives change. For these and other reasons, make sure you come to closure and remain open to the wonderfully rich world of new possibility. Even as you become expert, make sure that you aim for open-minded expertise!

People get there in different ways – there is, for instance, diving in versus observing, experimenting versus reading the instructions, going it alone versus teaming up with others. The key is to ride the spiral of learning – feeling free to circle back to a step you may already have taken a little way.

ACTION GUIDE

Create an action guide for yourself, based on the steps in this chapter. Depending upon your particular learning preference, situation and need, this guide might be a checklist, flow chart, four-quadrant template, step ladder or a pie chart. I could have done this for you, but creating one for yourself is a great way to learn.

Another way to create an action guide is to break it into three sections. Ask yourself WHY you want to learn something, WHAT exactly you want to learn, and HOW you will go about learning.

Use your action guide regularly. Mark off the place or places where you think you are focusing at any point in time. Feel free to come back to it, modify it, and generally grow it as you learn.

Talk with others about the different steps. Think about them from time to time and from different points of view (e.g. learner, teacher, parent, manager, employee, your own spiritual path, and anything else that appeals).

04

Slow Down to Speed Up

Customer to young chef: These pastries look wonderful. Do you make them?

Chef: No. My grandma does the baking. She wants me to learn but won't slow down long enough to show me. For her it's natural, like riding a bike. For me it's like flying a plane.

— Conversation overheard at a restaurant

Take it easy. Slow down to speed up. It's so obvious, and yet so difficult. And, of course, there are different ways of going slow. As Carl Honore said in his TED talk, "In Praise of Slowness," there is bad slow and good slow. There can be laziness and sloppiness, and yet sometimes taking time out to just daydream is the best thing we can do. Daydreaming about being a master chef, speaking a new language fluently, or designing great web templates can even be the catalyst for moving forward faster.

Actually, there's more to slowing down than meets the eye.

Understand the difference between "bad slow" and "good slow"

Going slow does not mean working at a snail's pace. It means dropping the sense of urgency, taking the time to explore and get a sense of what is involved, penetrating ideas and processes rather than just skating along the surface. It means breathing into the learning so that purpose blends nicely with a relaxed state of mind. One of the differences between experts and novices, for instance, shows up in how they approach problems. Novices tend to look for a solution to a question straight away. Experts take a huge amount of time – sometimes most of the time – to make sure that they are asking the right question. That is the spirit of this book.

There is the fact is that we – you and I and others – simply live and work and learn at different speeds

Some of us are innately slower than others, at least in the short term.

The story is told of Neils Bohr, one of the great founders of quantum mechanics. Two people were visiting him in his laboratory in Copenhagen. Said one, “You know, Bohr seems to be quite slow.” The other replied “Yes. But when he gets it he really gets it!”

Our bodies and minds tend to respond to the speed of life around us

One little understood reason why we all automatically go faster and faster is called “entrainment.” We literally get caught up in the flow and pace of everything else, from music to technology to the media to our social networks to the speed and urgency with which others act. Both body and mind get caught up in the frenzy and become “set” to speeding up.

- Breathing can become shallower;
- Eating on the run becomes the norm;
- Multitasking is taken for granted;
- Media and the world of entertainment become more and more exciting, action-oriented, sensational and demanding;
- People tend to talk more quickly, rush to judgment, seek quick fixes, compete for attention; and
- So on and so on and so on.

Without knowing it, our bodies, brains, minds and even relationships have all been placed on speed dial; the system is out of sync for great learning.

ACTION GUIDE

The solution, using the phrase coined by Stephen Halpern, is to re-tune the human instrument – you. One part of the re-tuning is to treat the ideas and the processes in this book as a system in which everything interacts with everything else. Blending them so that they reinforce each other is the key to making them work well.

Below are seven actions you can take to begin to slow down effectively. These actions do something else quite wonderful: They help our brains become clearer and function more effectively – which, of course, is at the heart of being a good learner.

1. Create at least one special learning place.

Although learning occurs in many ways and in many different places, it can be helped immensely if you also have a special place – almost a sacred space – that supports your learning through the look and sound and feel of it. Above all, this environment needs to be filled with furniture and signs and sounds that positively suggest that success will come as a matter of course.

- It should look good: Uncluttered – except for the “things” you need to have around you. Make it comfortable without being sleepy, possibly decorated with some plants and, ideally, a poster of some great work of art.

- Use an inspirational poster or icon, perhaps like those life-size posters of sports heroes or celebrities that kids often hang on the walls of their bedrooms.
- It should feel good: Not too hot and not too cold. It should have “good vibes.”
- No TV or radio playing. (You may need to begin by just turning the TV down.) This may seem unusual at the beginning, but for the most part voices add “noise” which can be enormously distracting even though it can also feel familiar and comforting. TV and radio voices are almost always fast – whereas you want to slow down.
- No beeps of emails and text messages. This place and time is for you – not for what others want of you or about doing other things.
- Use peripheral charts or objects with relevant information that are at the heart of your learning. Perhaps a list of some key terms or crucial concepts – or perhaps a flow chart of essential steps. Just having them close and noticing them from time to time registers in you. Feel free to change or move them occasionally.

2. Give yourself time

Without pressure, allocate regular amounts of learning time, perhaps only 40 minutes each day. Then start “shaping” your learning time. For instance:

- Take a deep breath and have a moment of quiet before you begin. This begins to act as a signal to your brain.

- End the session with another quiet moment of reflection. Beginnings and endings like this are wonderfully restful.

3. Help your body to help you

Much of the speed at which we experience life has been programmed into us. The result is that our bodies are almost locked into “fast.” You can see it in relentless multitasking, in shallow and fast breathing, in constantly moving at high speed, and so on. So take a moment to notice and write down some of the ways in which your body has been trained to be on high alert. Then begin to implement a couple of antidotes.

- Take an occasional moment to stretch and breathe and, perhaps, to daydream.
- Make some meals slow meals – to be savored and enjoyed without rushing.
- Eat somewhat healthily. And relish the whole meal.
- Walk in the park, smell the roses, rediscover nature.

5. Enlist support of friends and family

Sometimes our attempts to slow down are looked at sideways by friends and family. But sometimes they secretly long for the same thing. So ask them for just a little help. This support can take many forms, such as:

- Reducing clutter in your environment;
- Together finding a place that honors your learning;

- Doing things together that are enjoyable but don't spur an adrenaline rush.

6. Look for “good slow” elsewhere

If you're interested, dig deeper and search further. There is, for instance, a world wide “slow” movement – ranging from slow meals to slow towns. Find out more, and enjoy it. Each of these is a taste. If you're interested, take yourself on a trip of discovery and find out more, perhaps beginning with Carl Honore's TED talk on “In Praise of Slowness” http://www.ted.com/talks/carl_honore_praises_slowness. You might also Google “slow food” or “slow living” or the books *Slowing Down to the Speed of Life* by Richard Carlson and Joseph Bailey and *Waking Up in Time* by Peter Russell.

7. Work to develop beginner's mind

Having a beginner's mind means having an attitude of openness, eagerness, and freedom from preconceptions when approaching anything. It's how a child approaches something for the first time. But it's being child-like and not childish.

One of the best ways to develop beginner's mind is through play. That is why creativity and play are so much a part of this process (see Chapter 12).

8. Go deeper into peace of mind

Beyond the techniques and strategies listed here is the opportunity to pursue a more life-serving philosophy of life. Let's call it the search for inner peace. It's about

exploring a different way to live in the world, to go about our business and, of course, to learn. Here are two life changing ways to begin:

- *Learn to meditate.* I began with Transcendental Meditation many years ago. Since then I have explored several different approaches, ranging from some Buddhist meditative practices to different types of movement such as Tai Chi. Perhaps the best way to begin is to find a teacher with whom you resonate.
- *Acquire mindfulness.* Mindfulness overlaps with, but is different from, meditation. It is the acquired art of “seeing things as they actually are” and then developing the capacity to “sit with” or “be present with” what is. It’s challenging. It is very easy to fall out of mindfulness. But it’s great stuff. A good way to begin is with the book and CD Mindfulness for Dummies.

05

Purpose and Meaning

The most beautiful thing we can experience is the mysterious. It is the source of all true art and science. Those to whom this emotion is a stranger, who can no longer pause to wonder and stand rapt in awe, are as good as dead; their eyes are closed.

— Albert Einstein

A large, stylized blue letter 'W' graphic that serves as a drop cap for the first paragraph.

We all know that purpose matters. Purpose harnesses motivation, guides action, and is a source of resilience. It gives us the guts to keep going. However, there is a key to framing and using purpose that anyone can use, regardless of where he or she is on the path of learning. Let's call it a “not-so-secret” super ingredient.

THE SUPER INGREDIENT

As much as possible your purpose should match your passion. It may be the whole thing. It may a way of looking at the whole thing. But people such as Joseph Campbell who urge us to “follow our bliss” are exactly right.

A friend of mine confirmed this for me when she made the decision to learn Italian. I was surprised because she has no Italian heritage and I figured there must be a bunch of other languages that could be equally useful. “Not so,” she said to me. “You forget how much I like cooking and eating.” She added (we share the love for eating) “and I love Italian cuisine.” Then I remembered her passion for pasta (she makes her own), her love for a bunch of Italian wines that I've never heard of, even the fact that she plays Bocelli at full volume

while she cooks. I got it. And I grasped her entry point. She wanted to speak the language of the food that she loved! And one more interesting point, when she used this passion as her focus, a huge amount of the vocabulary of fine dining came to her more easily.

As much as possible, your purpose should reach beyond the subject matter or skill that you want to study and reach into some other aspect of your life that is meaningful.

Feel free to take some time to make your connection. And feel free to reach beyond the obvious. Perhaps you want to know some more about music and have a love of computers and programming. One link could be to electronic music. A second might be the challenge of programming a synthesizer to play traditional music. Sometimes, of course, there is no need for this step. It's just a great bonus to take to the bank.

How high you aim is up to you. The point is to see that mastery can have very simple and humble beginnings.

One of my personal examples, as I mentioned in the introduction, was suddenly having to become an adequate cook. I do not want to be a great cook, let alone a gourmet chef. But when my wife injured herself, I needed to become proficient at cooking basic, healthy, tasty meals quickly. And I did it. The purpose was clear – supporting my wife (and myself). The setting was very specific – our living room and kitchen (of which, for a few months, I was actually the master). And the goal was both real and quite clearly attainable. Even if I had wanted to be a chef, that grand goal is not what I would have focused on when dealing with the needs of the moment.

Learning success and business success share the same secret ingredient

In a TED talk in 2009 on how great leaders inspire action, Simon Sinek suggested that some corporations (such as Apple) and some groups (such as the Wright Brothers) succeed as well as they do or did because they reverse the usual order of things. They don't begin with what they have to offer; rather they begin with why they do what they do! And it's not to make a profit (although that matters). There is a "why" – a deep, compelling purpose – the "why" that gets people out of bed in the morning, every morning, and helps great leaders inspire others. It is the same "why" – when we get it right – that motivates us in our learning, helps us to persist, and naturally helps the brain/mind organize data, sensations, and actions so that they come together more easily.

Your "why" – your personal purpose – helps put things together to make them stick deep inside.

Take some time to simply ask "why?"

Ask yourself why you want to learn or study or do or master something. And then ask why again. And again. Eric, my publisher at Funderstanding, advocates the asking of "why?" five times. Why "five" and not four or six is a mystery to me, but the process makes perfect sense. Take some time to ask yourself why you're really interested in learning what you are setting out to learn. It's a great way to marshal your inner reserves and resources. In part, that is because the brain/mind organizes meaningless and meaningful information and experience differently. The deeper your answers to "why," the greater the personal meaning.

Parents, this is the time to listen to your kids

Kids may not know what they want to do when they grow up, and they know less about much of the world than you do. However, they

vibrate with interest and purpose and passion. While there may be limits on what you permit, as much as possible listen to them, discern their passions, and then connect what you believe they need to what they already care about. There is many a bridge between what they need and what they want – something that is true for the rest of us as well!

Here are two examples:

A small boy is in the locker room of a football team with his dad and his brother, imagining himself leading the team onto the field. Years later that small boy, Peyton Manning, is the quarterback of the Denver Broncos and considered to be one of the greatest quarterbacks of all time.

A young girl is hiding in a garden shed in England, “studying” the family’s chickens. Years later that young girl, without a credential, becomes involved in researching chimpanzees in Africa. Now known as Dame Jane Morris Goodall, she has since become one of the world’s leading primatologists and anthropologists.

ACTION GUIDE

- 1.** Now it's time to begin. Perhaps you have just skimmed or read through the book, but the key to making it work for you is to select some skill to work on or idea to explore, and then follow the process.
- 2.** What skill or skill set would you really love to acquire? Go deep. Take time to ask yourself why, and then ask "why?" again. Get to the heart of what really matters to you. Write it down.
- 3.** Come back to your purpose every now and again and review it. There's nothing like being on a path that matters.

06

Clarify
Your Goals:
Aim High
and
Aim Low

*Aim for the right goal in Life, because
some moments can't be relived.*

— Anonymous



we are making a shift, now, from purpose to goals. Purpose is all about meaningfulness – why something matters. Goals are about specifics – doing or mastering something in the real, everyday world to give effect

to your purpose and live your dreams. Just remember, however, that dreams and goals are different. It's exhilarating to dream of being a star on Broadway or a world-class scientist or a great communicator. Getting there calls for smaller, attainable goals.

The challenge is to aim just right. Not too low because that's not really a challenge and a part of us won't take it seriously. And not too high because that just puts it out of range and makes us feel inadequate. There are exceptions. Some people naturally and appropriately aim for the stars. That's them. It does not work for most of us.

The fact is that we're all different, and so we need to set goals that work for us, and not for anyone else – not even to meet someone else's expectations. This can be particularly difficult for kids and their parents, but that's just the nature of the challenge. As much as possible allow the goals to be the goals of the learner.

So what's the secret? How do we aim just right?

THE SECRET OF SETTING MANAGEABLE LEARNING GOALS

The key is to imagine that we're two people, not just one. We are going to aim high and aim low at the same time! The way to do that is to tap into the part of us that is an adult – and also to the part of us that is a child. Here is an example.

Executives and senior management need to know basic accounting, and one of the little secrets that many of them share is that some of them don't actually have a clue. So a program called "The Accounting Game" was developed. The serious, adult participants gather in a room. And then, after some introductions and so on, the room is suddenly transformed. They find themselves being invited to be young again, and to set up a sidewalk lemonade stand. And the task? To master basic accounting (including accounting statements) by taking basic steps like buying lemons and setting the price for a glass of lemonade. All the simple things that kids can easily learn how to do. The bigger principles and ideas develop from these basic everyday actions. (The process is now in a book that you can buy on Amazon with the same name.)

GOAL-BASED SCENARIOS

Behind the example above is something more generic. You are framing your learning goal in terms of a meaningful context. (Remember how much meaning matters.) Another term for this is what Roger Schank, one of my favorite educators and a leading figure in the development of artificial intelligence, called a goal-based scenario.

Schank figured that the best way to help college students was to put them in an authentic situation where they had to acquire authentic skills by learning in real time in the real world. An example? In a course on radio journalism the students were asked to run the university radio station. They gathered information, operated the station, prepared the news and read it on air. In short – they were dropped into a goal-based scenario: a real world situation with a purpose and function that called for real world skills. And the learning, though immensely challenging, was phenomenal.

Let's look, now, at some of the elements that made the process work.

1. The setting is a “whole” situation.

The learning occurs in a scenario, a project, a game. Since, as we saw in Chapter 2, the brain/mind processes parts and wholes simultaneously, organizing the stuff to be mastered by the whole concept makes the learning far more natural.

2. The setting is simple but not trivial.

Even though the example of the lemonade stand may be framed as if it involves kids, the entire situation is still meaningful. The goal is to make a profit, so the participants have to know how to measure and “account” for that. But it's a game so taking a loss carries almost no risk. That means that the adults can work at a manageable level but still grasp the fact that this will help them in more complex situations.

3. It's playful but serious at the same time.

This state of mind is very powerful. It's the difference between being child-like and childish. More formally, my wife and I call it a state of relaxed alertness. It's engaging and interesting, without being threatening or too stressful.

4. The situation allows for quick victories.

No matter how much we want to master some skill, it's a great feeling and a great comfort to have some early and quick successes.

Everything – every subject and every skill – can be framed so that the challenge is manageable: Not too big, not too small, but just right. Here are some more examples:

- Sometimes adults have an urge to study music theory or finally learn how to read. One little trick is to expand, blow up, enlarge key elements such as the size of the letters or notes of music. Sometimes the basic, ordinary form of something is just too small for comfort - the whole thing looks and feels too complex.
- In learning to cook, find a very, very simple recipe for something that is very tasty. The first time I ever did this was in college many years ago. I came across *The I've Never Cooked Before Cook Book*, and it was fabulous. In fact, decades later, it is still going strong. This is one of the ways that I began to cook again when my wife and I needed it.
- Follow the design of online games. There is an entry level and then additional layers, waiting to be discovered and mastered as players become more proficient. Many other activities are very game-like – trading baseball cards is a great example. Just think of all the different subjects and skills that can be incorporated naturally into the game and business of trading cards!

ACTION GUIDE

1. Rethink the skill or skill set that you want to acquire. This time, make sure to keep it simple. Instead of becoming a great communicator, perhaps you could begin by being a better listener to your spouse or partner and/or your kids.
2. Paint a scene. Your scene. A clear scene. See it and, as much as possible, hear it and feel it in your bones – like leading your team out onto the field, or listening in a way that genuinely helps the kids in your school. In addition to writing a bit about it, draw it, or look for photographs that convey the scene that you can put on your wall or create a space in your house that gives off the “vibe” of this skill and setting.
3. Simplify the scene or project or setting. What would it take to make the goal smaller and the setting easier to deal with?
4. Slow down to speed up. For some people, time is of the essence. But remember the old question: How come we never have time to do it right but we always have time to do it over? Give yourself all the time you need, and then even more. This is not always possible, but it’s often much more possible than we think it is.
3. Sit back. Relax. And enjoy the journey. If the dream doesn’t stick immediately, or there are doubts, or it’s not as clear as it might be, join the club. These things take time and the key is just to begin. It’s called setting the stage.

07

Early Steps

*I must start at the beginning, if I can find it.
Beginnings are elusive things. Just when you think
you have hold of one, you look back and see another,
earlier beginning, and an earlier one before that.
Even if you start with “Chapter One: I Am Born,”
you still have the problem of antecedents, of cause
and effect.*

— Hillary Jordan

The place to begin is not always obvious, nor is it clear what to focus on. When experts organize material it looks as though there can be no doubt about the beginning, middle and end. The odds are, however, that the place they show us to begin is not where they started. And they almost certainly followed a path unlike the one that they recommend. The key is to be aware of some of your options, and then try some out.

TOTAL IMMERSION WITHOUT EXPECTATION

I vividly remember the day when my father took me (at the ripe old age of six) to watch a cricket match in South Africa. Cricket is a game invented in England, played around the world, largely in former British colonies and, surprisingly, even in the US. I understood very little, but – standing with my dad in the midst of thousands of others – deeply involved in watching the peculiar actions of a bunch of guys playing with a red ball in ways that made no sense whatsoever, created a natural, powerful, organized and emotionally compelling frame for all the elements of cricket that I have come to understand over time . . . just like so many others who attended their first ball game, or dance, or show, or swap meet – or had an opportunity to conduct their first real experiment with a chemistry set, or

took to using iPads and other tablets as if they were born with them in their hands.

This book shows you how to use the organizational power of natural experiences to pull things together with less effort. There is always a blend of parts within the whole. After all, that's how each of us acquires a native language, or "picks up" our dominant culture.

Now translate this into action. One great way to begin is to run, jump, and immerse yourself for a while in some global experience where the skill or subject you want to learn is front and center. Just be there. When it gets too overwhelming, leave. Then, if you can, find another way to experience the whole thing in a smaller and more easily observable form.

CAUTION: DON'T TRY TO BE PERFECT AND UNDERSTAND IT ALL – OR, INDEED, MUCH OF IT – IMMEDIATELY! You may be diving in, or perhaps just dipping your toe in the water. You are experiencing what matters, even if you don't get it yet.

Part of the secret of successful learning is that it helps to get exposed to a lot of stuff very early on. Over time, that will get unpacked, but the initial exposure helps to get the organizational process going.

SURVEY THE FIELD AND FORAGE FOR RESOURCES AND IDEAS

For every skill that you wish to master there is a mountain of advice and a host of possible approaches. So, take some time to forage, to look around, to ask experts and fellow learners what they used and why. As we noted earlier, the brain/mind is designed to put things together – even when you are not thinking about them. Foraging is actually one way of diving in, knowing that the best approach for

you will become clear as you get more confidence and become more competent.

I tried this as I visited some of the online videos for creating websites using WordPress. The process is presented as being so simple and so easy and so, well, obvious. And yet every video, without exception, took a lot for granted, left some things out, and put things together in different ways. So part of my foraging was to follow a couple of videos and to create a trial site that did not matter much to me, just to get my feet wet. But I also felt free to bug some friends, to pay for a little assistance, to pester the person who did some initial work for me on my site about what she did and why and how, and generally to dabble and persist with the dabbling even when I ran into apparent dead-ends.

Continue, now, with your foraging. You need to accumulate materials and resources and strategies and hints and information and ideas. No matter what you are setting out to learn, someone else has been there before, and most of the time their ideas are easy to find. I mostly use *Google, Wikipedia, Amazon and YouTube*. Sometimes I ask friends and/or experts. Many people go directly to their groups on *LinkedIn* or their friends on *Facebook*.

Collect stuff. Try things out. Taste and test and get a sense of what you might find most useful. It is almost certain that you will come across other stuff at other times that you wish you had found first. Or that something that seemed great turns out to be pretty boring or not much use. During your foraging and grazing you are beginning to prime your subconscious – it will begin to do some of your thinking for you because it has no choice. It is driven to make sense of things that you seem to find important.

CHUNK IT!

The brain/mind likes chunks. It likes bits that fit together rather than a huge mass of detail spread all over the place. A chapter or section in a book is a chunk. That's how textbooks and instruction manuals work.

Much of the time the chunking is obvious. You may, for instance, just follow the author or DVD or video, particularly if the steps and ideas seem to make sense. For instance in my first book on listening, *9 Skills for Listening to Life*, one chapter, or “chunk,” describes the pillars of great listening. An example of a pillar is the fact that we listen with both our thoughts and our feelings. Then, in the following chapter there is a section, or “chunk,” on practical listening and another on social listening.

FIND YOUR PREFERRED PLACE OF LEVERAGE

Imagine that you have jumped in, read something, looked around and clarified to some extent what you are seeking to learn. Now look for a more specific starting point that seems to offer the best launching pad for you. Make an interim decision as to what aspect of the skill or subject matter that you want to learn would be most useful? What element would offer most leverage?

In his wonderful book “The Art of Learning,” Josh Waitzkin, a chess prodigy, and later an international master, tells the story of how he came to be so good at chess. It’s a game where novices normally learn openings, then the midgame, with the endgame being studied in depth last. One of the many approaches where Josh was different was to reverse the order of things. He concentrated on the endgame very early. It seemed to him that everything else just made more sense coming from that very unusual perspective.

LISTEN!

I've had to develop listening skills in all my work, from teaching law to being an educational consultant. I've spent some time looking at conflict resolution and the emotional issues in which couples can get embroiled. And yet it took me a long time to grasp one marvelous entry point for those who want to listen better in order to deal with hot button issues and conflicts. The point? Recognize what the other person is feeling, and let them know that you know how they feel. Just that! It turns out that everyone wants to feel heard. And the moment they feel heard, you can work on dealing with the larger issue.

The bottom line of all of this is that you should feel free to take the time to look for some aspect of a skill or subject area that much of the other stuff can be organized around and that gets to the heart of what matters to you. It may help to read stories by or about people who have mastered what you are setting out to master. Perhaps talk to such a person if you can. NEVER be afraid to ask for help, for hints, for pointers to success that others have discovered. You'll be surprised at how willing most people are to share.

ACTION GUIDE

1. Experiment with total immersion. Use some skill or subject with which you are already partially familiar. Try some ways of “jumping in” further as though you were doing this for the first time. Review the steps you took and what did and did not work. Use that experience to select a couple of immersion experiences that you might use for the new skill or subject on which you are working.

2. Prepare to forage: Brainstorm and make notes of possible sources of information and guidance. These could include friends, websites, videos, social networks, happenstance and more. You have to decide whether to begin with just a few resources or go whole hog. The initial point here is just to become more aware of the resources that are available. If you start to feel overwhelmed, give yourself permission to stop.
3. Organize your material in a preliminary way in terms of the chunks that seem to matter. This basic planning helps the learning process, but does not have to be complete or perfect. In fact, expect it to change as you become more proficient.
4. Look for a leverage point, the place where you think you can get the biggest bang for the buck. If nothing specific comes to mind, just go with the advice offered by the best resources (e.g. a YouTube video) that you come across. The odds are that, over time, other ways to begin or things to emphasize will occur to you.

Now for a repeated word of caution. PLEASE don't feel that you have to get it absolutely right immediately. It's a process. Take your time. Give things a chance. Let the passion and the leverage point come to you. Perhaps you'll overhear a kid say something and your ears perk up. Perhaps it will be in a movie, or in one of those biographies that you purchased. Perhaps you could begin a conversation on Facebook and see what others have to say. Perhaps you might begin a second time, or a third. Just give yourself a chance to dive in at the place that seems as though it will work best for you.

08

Get the Concept and Make it Personal

*There is nothing worse than a sharp
image of a fuzzy concept.*

— Ansel Adams

Every skill, without exception, is based on an idea or set of ideas. Sometimes they are obvious; sometimes not. But it is enormously useful to explore the core idea, or some aspect of it. Once you have launched yourself into whatever you want to learn, and you have taken those first steps whatever they turned out to be, stop. Take a moment. Breathe.

And then think about and play with your sense of the overall concept or big idea that is at the heart of what you want to learn. Meet it and take some time to get personal. The reason lies within the Brain/Mind Principles of Natural Learning introduced in Chapter 2. For instance, each of us organizes meaningful and meaningless information and procedures differently. We naturally put things together in parts and wholes. We think with our feelings as well as our intellect. And so on. The bottom line is that the more personally relevant and compelling the overall concept or skill is, the more naturally will we be able to access every aspect of body, brain and mind to learn it in depth.

THERE ARE TWO FACES OF ANYTHING WE WANT TO LEARN

There are always two grand ideas:

- One has to do with the general essence of the skill or subject matter – It's the concept;
- The other has to do with what it all means to you personally – It's your concept.

SOME EXAMPLES

A great way to get a handle on these two faces of the same big idea is through the example of marketing.

- First, it is important to grasp the orthodox concept of marketing – which is the art and practice of promoting a product or service in a way that appeals.
- Second, then, is to find the essence of what makes a product or service appealing to you and others.

Some people are experts at understanding the first and then shaping the second for others. Here is one of my favorites from the world of marketing.

Some years ago a women's magazine in Australia offered cruise vacations. It looked as though they were just promoting vacations. But the entire marketing campaign was to sell people in their late 40's and 50's on the idea that this was their last chance for a final fling! That was the concept that made everything personal. And the promotion was hugely successful.

The same two layers apply to every skill without exception. There is the core idea of what it is about. And then there is what makes it meaningful and appealing to you personally. Get a handle on both of these, and you improve your learning considerably.

Friends of mine recently purchased a small house, one that needed a lot of work. The husband did much of the heavy work without calling in contractors, including the removal of some non-load bearing walls, installing a tank-less water heater, and working with dry wall. He had never done most of this before. However, he is well-versed in electrical work, loves building state-of-the-art model planes, and spent his career as a radio/TV engineer. How could he confidently approach this new project? Because, as his wife said, he is a “fixer.” That’s his view of what he does – he just loves to fix things. And from that perspective, all the new work fits under the umbrella of his overall purpose and view of himself. It all fits together and makes sense much more easily for him than it would for many of the rest of us.

The two layers of a concept may be quite obvious to you from the get go. Much of the time, however, we need to work for them – think about them, talk about them, read about them, perhaps watch movies that reveal something about them, ask others about them, try things our and get a feel for what resonates. Bottom line – work to “get” the overall concept in a way that is personally meaningful so that it naturally embraces and makes sense of all the little bits and pieces, the activities and processes that together end up in your being more skillful.

Here is another example. I have experimented with the notion of “getting the concept” over the years and recently tested it by talking to two friends of mine who are actors. Meg is a superb professional

actress and Larry is a very good amateur. I asked them both this question: If I wanted to learn to act, what would you suggest that I focus on?

Meg answered without hesitation: “Learn to tell a story.” It’s not just narrating a story, but getting into it with all of you. If, for instance, you are acting the role of a mother whose infant is ill, imagine what it would feel like to carry that infant in your arms – and then she acted that out, holding and rocking the imaginary baby. Put yourself into the character and live out that person’s story.

Larry had a different take on it.

For him, acting is a way of feeling free, of being able to adopt a new perspective. It’s like “an echo from another world.” “Thinking of yourself as an actor,” he said, “is giving yourself permission to do things differently. It’s a being state from which we can go in any direction.”

Wow! Both of these approaches are breathtaking to me. Both are powerful. Both are ways into the art and the skill of acting well. Each is only a first step. But that first step is huge – and can be a guide along the way.

ACTION GUIDE

1. What is the core concept, the core idea, the overall skill that you are setting out to master? It may seem obvious, such as becoming a better listener or parent or business owner. However, take some time to look at this concept from different perspectives. For instance:
 - How might it be explained by a novice as opposed to someone who does it very well?
 - Is the concept ever used as a metaphor or analogy somewhere else? “Google” for instance, is called a “search engine.” What are some of the meanings of the word “search”? And why would complex software be called an “engine”?
2. What is there about the skill that is personally meaningful and holds you – calls to you – makes it all basically worthwhile?
 - Where, for instance, have you seen the skill performed in a way that excites or interests you?
 - Is there a person who has mastered the skill whom you find compelling, and if so, why?
3. It helps greatly to discuss these questions and think of other questions with friends and co-learners.
4. Give yourself time. Begin this process early, and then come back to it regularly. You’ll be surprised at how your understanding changes and deepens!

09

Ride the Spiral of Learning

*The whole universe is based on rhythms.
Everything happens in circles, in spirals.*

— John Hartford

Jerome Bruner was one of the great minds in education. He argued, among other things, that “any subject can be taught effectively in some intellectually honest form to any child at any stage of development.” He also suggested that the curriculum should be treated as a spiral. Begin at the appropriate place. Then spiral going both deeper and higher. And then spiral again.

As you begin to move forward, you’ll find yourself at a place where you need to slow down and dig deeper. This may feel like you’re moving backward . . . but you’ll find that it brings you to a higher level and you begin moving upward again. That’s the learning spiral . . . move forward, dig deep . . . move forward again. Repeat and repeat.

What Bruner said applies to children of any age. It also applies to self-directed learning as well as to teaching. It’s for all of us who want to do it by ourselves. Fully grasping and working with the spiral of learning – the idea and the process – is both immensely rewarding and powerful. The difficult part, in fact, is getting it into our heads that we are entitled to learn in stages, to progress easily, to keep coming back to what we already know as a platform for going on. Doing that is that key to ultimate mastery.

All learning can go deeper and higher. It's a bit like the way that games work. Mastery at one stage becomes the basis for being able to take it further and seek mastery of the next stage. Actually life is like that. We can all ride the spiral because we've all actually done it.

I am assuming that you already have a manageable goal-based scenario, and that you are keeping it simple – just this side of being too complex and overwhelming. Note that even taking those steps can be done in a spiral – beginning in small ways and then going back to the beginning and going deeper. Digging deeply into a subject, and riding the spiral of learning to ever higher levels can be interesting and powerful as well as immensely joyful and wonderfully satisfying.

ACTION GUIDE

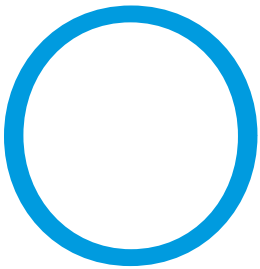
Here, in overview, are the essential next steps to help you on your way. For the time being just take note of these actions. The following chapters spell out how to implement them.

1. Think the material through in more depth. Look for the critical steps or routines or chunks or structures or themes or stories that bring order to the chaos.
2. Create and build a scaffold. These are the routines (if it's a skill) or the core ideas (if it's a topic or field of study) that provide the platform to build from. They make everything manageable. They will shift and grow over time, so the scaffold is not rigid. But it is the structure upon which you can rely, where you can rest, and which provides the platform for ongoing growth and ultimate mastery.
3. Make your natural memories work for you. We have different but overlapping types of memory. The thrust of this book is to work with your autobiographical memory – the natural ongoing story of your life. As a backup we also use some memorization techniques for stuff that will need to become part of your natural memory later.

10 Thinking Things Through

Simple can be harder than complex: You have to work hard to get your thinking clean to make it simple. But it's worth it in the end because once you get there, you can move mountains.

— Steve Jobs



One central problem with learning anything is that there is just so much! For every topic there is a mountain of information and opinion. For every skill there is always room for improvement. For every idea and concept there is more possible complexity. For each stage of development there is another one just round the corner. And there is absolutely no end in sight.

The key is to find your way through to the inner core – the essential elements and routines of any skill or subject or body of material. Sometimes they will be laid out beautifully for you and you will come across them as you venture into the subject.

One example of an extraordinarily complex system that others have broken into manageable chunks is, well, you. The human body. Your body:

- has basic parts, such as such as the head, neck, torso, arms and legs.
- has a set of systems such as the digestive system, the immune system and the nervous system, to name a few.
- has some vital organs - brain, heart, kidneys, liver, and lungs.

Obviously this is just the beginning of the beginning. You can jump in at any point and at any level of complexity – ranging from the first uses of terms like “hand” with an infant – to the detailed studies of a medical student. And note that the beautifully organized set of elements you come across may not always be right – or completely right – or fully up to date. Remember, for instance, my comment about there being three brains rather than one in Chapter 2.

Sometimes the essential elements will not be laid out as clearly. Then it’s up to you to think things through and locate them for yourself. Fortunately, the very process of looking for them is central to deeper learning and greater competence. The following four suggestions will get you started thinking through the whole process.

1. Feel free – VERY free – to ask for help

Sometimes there is nothing better than to have someone walk us through the basics. This seems obvious, but it is amazing how many people simply do not ask for help.

In my case I’ve come late to social networking. I’ve barely used my Facebook and Twitter accounts, though I do participate in LinkedIn conversations. I finally decided that I need to use Facebook if I want more visibility for some of my other writing. For instance I write what I call “Thts,” which stands for “short thoughts.” They are whimsical, semi-spiritual creations on invented topics, and give me great joy. You can read some at www.thtsnpieces.net. I then found my first expert quite by accident. He’s on the board of the local Arts Alliance and, as part of the deal for renting them a meeting room that I own for their shows, we arranged for him to guide me through Facebook. I had never thought that I might create a business page, or that without regular posts people might see my site

as stagnant. Then my second expert – a colleague – showed up. She pointed out the difference between a mechanical set of postings and posting in a way that feels relevant and authentic. And so on. Much of it seems so obvious! But it took them to help me find a way.

There are two core strategies for making the best use of expert advice.

- *The experts need to go slow!* Experts almost always go too fast. They jump from point to point because the details are so obvious – to them! One reason for this is lies in the very nature of expertise itself. Experts have learned how to organize a skill or body of knowledge in larger chunks or patterns, and they see those patterns directly. The classic example is the way that Grand Masters in chess look at a chess board. However, the same mastery of a bigger picture is present in all expertise, ranging from parenting to marketing to web design to history to all branches of science.

So look for someone who can keep the big picture in mind but who will slow down, let you absorb each step, and then allow you to explain it back or try it out. (Remember, however, to do this in the context of your goal-based scenario.) You could hire an expert – or perhaps find a friend or colleague who knows a bit more about the subject than you do. And don't forget... your "expert" could even be your own child! One reason why video tutorials can be great, even if they overlook lots of details, is that you can stop them. Go back and replay them. Jump to the parts you want to focus on and generally make them suit your pace.

- *Process-process-process.* As soon as your session with your friendly expert ends, or after you have had a rest and maybe a

snack, go back and review. Clarify your notes. Look for the key points. Take some preliminary action. And, perhaps, explain a little to someone else. As I mentioned earlier, learning is a little like eating. It is just as important to chew on and digest what you have been “fed” as to be fed in the first place.

2. Compare the new skill or body of knowledge with something you already know

Sometimes the way to build on current knowledge is obvious.

For instance:

- If you already have some skill with website design, moving to a new platform still has familiar elements.
- If you need to master breathing in order to sing better, it helps if you have been developing breathing techniques in yoga or an acting class.
- This issue emerges in spades as new tools for social networking loom into view and others vanish. Myspace has come and largely gone. Facebook prevails, but is losing popularity in some ways, and so on. The point is that familiarity with one or two platforms is a great launching pad for exploring others.

Sometimes you may need to stretch your thinking a little. Imagine learning to cook, for instance. In some respects cooking is a bit like conducting experiments in chemistry or being a sculptor working with clay and other materials. So even if the comparison to another subject isn't obvious, you can usually find something you already know about that can help you along the way. In fact, one of the best things your friendly expert or coach or advisor can do is help you work out how to capitalize on what you already know. Just make a point of asking for this help specifically.

3. Work at a level that feels natural for you

If you have ever watched very young kids learn to play golf, you will see that they use smaller clubs – sometimes half the size of regular clubs. Every sport operates in the same way, from Pee Wee Baseball to rock climbing. The same principle applies to every subject and topic under the sun. The key is to find the level that works for you.

When an academic subject seems difficult, much of the time is because core ideas are introduced at a level that is too complex or abstract, or because it consists of so many invented terms that don't make obvious sense. This applies equally to everyday business materials and skills.

Here is where it helps to search for material that suits you, whether it's surfing the web or buying a book or talking to an expert. One way to do this is to imagine that you are looking for material that would work for someone about 12-15 years old. Then use it for yourself. It is amazing how much superb introductory material is available when you look for it.

As a matter of personal interest I wanted to revisit the foundations of economics recently. The normal online options take me to Wikipedia and to a host of material that is very “dense” and “heavy.” I kept looking, and finally came across a website created by the Indiana Council for Economic Education. It has posters and other materials that worked beautifully for me as an introduction, even though they are intended to help teachers with kids in school.

It bears repeating that sometimes we are our own worst enemy by trying to go too fast or by aiming too high. Remember the rules of becoming good at any game. Find the entry level that works for you and get grounded in the basics.

4. Look for a key organizing frame or scaffold and map it in some way

There is always something that makes everything else hang together. Always. I call it an organizing frame – or a scaffold. One of the reasons why some instruction and advice is so overwhelming is that the thing that organizes it all is often invisible. The steps and concepts are all lumped together while the thing that makes everything hang together and make sense still lurks in the background.

Here are two extremely useful tools for finding an organizing frame and building your scaffold.

Is there a set of core principles?

Sometimes they will be obvious. One example is the principles of economics I mention above, organized into a poster on “The Six Core Economic Principles” at <http://www.kidseconposters.com>. Another is the “12 Brain/Mind Principles of Natural Learning” that my wife and I developed. I use them as the theoretical foundation in Chapter 2 of this book.

Sometimes, on the other hand, the best thing you can do – alone or with someone you might be teaching – is to work together to discover what seem to you to be the core principles. That’s what my wife and I did when we initially synthesized the research on learning.

Action steps for internalizing the core principles:

1. Diagram them in some clear, visually interesting way, making sure to write or draw BIG rather than small and neat, no matter how old you are. Color coding them is another way to make them easy to grasp and remember.
2. Memorize them using creative practice and rehearsal. (For hints on how to do this see the next chapter.)

3. Dig into them one at a time. Talk about what the words mean and look for ways to explain them to someone else. See if you can make them personal by, for example, experimenting with social networking in safe ways. Allow yourself to make mistakes and to only get things partially right.

Is there a structure with critical layers?

Everything has a structure. Sometimes the missing clue to skill and understanding is to see those layers and to know which layer you are working with.

In creating a website, for instance, there is a host server on which you have your account and where your website is “stored.” The host has its own set of rules. Next the host server provides another set of general software tools such as WordPress which has to be downloaded to your computer. This is the general tool for creating pages and working on your site. It has a set of properties that apply to every website on which it is used. Third, there may be other tools or templates that do much of the preliminary organization and design for you, or that add capacities to your website. These are called themes and widgets. There are thousands upon thousands to choose from. Each theme, for instance, has its own set of design features and properties, such as how many menus you can create on your site. And then you find that you have only just begun because all of it was created using different sorts of programming code such as HTML and something called PHP, and so a lot what you thought was fixed can actually be changed if you understand coding. The result? There are at least three, and possibly four, layers that one needs to “get” to become proficient in the creation of websites.

Action steps for internalizing and working with the layers:

1. The moment you see that there may be layers of some kind, buttonhole a friendly expert and have him or her explain them to you in simple English. If necessary, begin with just the first two or three. Make sure that your expert explains the critical purpose and function of each layer.
2. Map or diagram the layers in clear, conspicuous, visually interesting ways. Perhaps create a large chart with a box for each layer. Perhaps turn it into a flow chart that shows how the layers are linked. (There are very good online tools for flowcharting.)
3. Embark on a very simple project where you have to take a minimal amount of action using each layer and where the results don't matter. For example, create a website that costs very little, and use free tools.
4. Reflect on what you did and what seems to be coming clear.
5. Repeat any or all of these steps in any sequence you like.

Reminder: Slow down to speed up

We live in an age where there is enormous pressure to understand things quickly or to become skillful immediately. In this book we're going about things differently. I invite you to spread things out. Go deeper, give yourself time and space to breathe into what you are learning, and enjoy it! Thinking things through is a core aspect of this approach. And it is so much more effective and productive in the medium and long term.

ACTION GUIDE

Here, in overview, are the essential next steps to help you on your way. For the time being just take note of these actions. The following chapters spell out how to implement them.

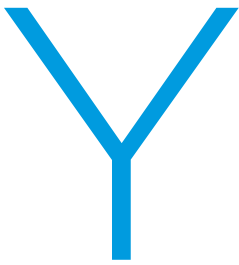
1. What are the essential elements of the ideas and processes spelled out in this chapter/book?
2. What is/are the organizing frame(s)?
3. What level feels right for you?
4. To what extent do the ideas and practices in this book seem like ideas and practices used elsewhere – from parenting to business to healing?
5. How might you either ask for help or discuss this book with others?

11

The Art of Committing Things to Memory

Study hard what interests you the most in the most undisciplined, irreverent and original manner possible.

— Richard P. Feynman



ou have to practice – there’s just no getting away from it. If you want to succeed, put in enough time. The good news is that we now know a lot more about practice and learning. With a little creativity we can make the time count for more and make practice easier, more enjoyable and a lot more effective.

To begin with, everything that you have done so far helps to build memories, so you are already well on the way. Fortunately, you can also do a lot more. Let’s begin with the fact that we all have several memory systems. Here I focus on two:

- *We all have the capacity for rote memorization of facts and procedures.* One technique for making rote memorization more successful is to get creative, as I discuss in the next section.
- *We all have an autobiographical memory system that naturally records the ongoing story of our lives.* One process for “placing” new facts and procedures in that system is to make the material more vivid and to “live into it.” (I’ll show you what that means.)

1. Memorize your scaffold or the details of some topic

Sometimes you need to memorize stuff such as the principles or layers that you identify, as we discussed in the last chapter. The

techniques you use depend on whether your focus is to remember a set of facts, elements of a complex idea, a series of steps in some skill, or something else. Here are some memorization techniques you might try:

- *Mentally or physically create a set of playful, vivid memory hooks.* The process is to think of a way, the crazier the better, to represent each step or element and then to imagine each one connecting with or leading into the next one.

One participant in a workshop I led on our 12 Brain/Mind Learning Principles used singers and their songs. The first principle is that Learning is Physiological. His mind went to Olivia Newton John singing “Let’s Get Physical.” (This was a long time ago!) The next principle is that “The brain/mind is Social.” So he imagined Olivia Newton John holding hands with Andrew Gold as he sang “Thank you for Being a Friend.” And so on.

Note that in this example understanding the concept is not the point. The hook method can be used as a very simple device for getting items to link together and stick in your mind quickly. You can then dig into the meaning over time, knowing that you will be able to recall them always.

- *Use the format of familiar games as tools for memorization.* Use a game that naturally organizes what you do and with which you can have some fun.

One of the most popular game formats to use is “Jeopardy!” Create your categories and questions on flashcards or slides on a computer. Then play the game using your own material to memorize the stuff you need to know.

- *Select a central aspect of what you want to remember, and*

pay attention to details. This means working a little bit like a scientist excavating old ruins or examining a botanical site. This method contrasts with the first two because here the details and the links are very meaningful. You are simply taking the time to examine them in rich, sensory depth.

I've seen people applying the process of examining details in a host of different ways. My favorite example is of a friend of mine who used to take school students into some local mountains overnight. He'd have them look at and discuss plants and bugs and other things that they found, but he would never give them the formal names. So in order to communicate with each other, they needed to be able to describe items such as "that tall flower with a fuzzy core with bright yellow petals all around that always seems to be facing the sun." The names and botanical facts came later, and were always remembered!

- *Visualization.* All professional athletes learn how to visualize the performance that they seek. You can do it too.

The key is to see in your mind's eye (perhaps with your eyes closed) a series of steps, one following the other, leading to success, with the greatest sensory detail that you can manage.

- *Imagine that you are already an expert.* Sometimes the key is to prevent ourselves from being blinded by our own point of view. One way to do this is to imagine, as fully as you can, that you are already an expert. Actually, this is what kids do all the time as they pretend, for instance, to be the sports heroes whose full length posters are plastered on the walls of their rooms.

Give yourself a new name, a new role, and then, with your

eyes closed and in your mind's eye, look at the topic or the skill being performed as though you were already an expert!

If any of this seems difficult, just remember doing all these things quite naturally as a child, and get back to being young again.

2. Break a skill into manageable subskills, and practice the subskills.

This is one of the core messages of a popular book on learning called *The First 20 Hours: How to Learn Anything . . . Fast*.

Although you are placing yourself in a whole context – a scenario, there is often a huge temptation to try to master all aspects of a skill at once. In a word, *don't!*

Where appropriate, take the time to look at a skill and break it into manageable elements or sub-skills. “Manageable” almost always should be smaller than you think. And then spend time practicing those individual subskills, doing your absolute best to practice in such a way that you get immediate feedback. This step is a very powerful ingredient in building your scaffold as well as developing mastery in the long term. Anyone who has watched or been a kid shooting hoops in the backyard or practicing playing an instrument in the garage (or bedroom) knows how this works. Just be cautious about how high you aim. Sometimes the drive to be great helps you – and often it gets in the way. The key? Set manageable targets and aim to do well enough – *for now*.

Over time, connect the sub-skills, combining and blending them in the bigger chunks that work for you.

3. Exaggerate moves, sounds and even ideas

Tai chi is very slow. But a sufficiently advanced practitioner can implement tai chi incredibly quickly if needed. This is an extreme example of going slow to go fast, but the overall approach can be

very powerful. Give yourself permission to exaggerate gestures, over articulate, move very slowly – or very quickly, or take ideas and thoughts to an extreme level (but only in practice!) In short, sometimes it helps to let your mind and/or body over-emphasize things in order to get the essence. Kids, of course, do this all the time, and we tend not to worry about it. After all, they're just playing. And so they are, and sometimes that is the absolutely best way for the rest of us to become proficient at anything. (A great example is the story in the next chapter about my Italian friend Domino, who was learning French at the same time that I was.)

4. “Interrogate” a skill or topic

The way to “interrogate” a topic or skill is simply to dig more deeply into it. For each element in the series of steps that you have identified, simply ask “why this and not that?” What if something else were to be done first or in a different way?

A classic example is the way that my actress friend Meg thinks about her role in a new play or movie. Rather than just try to memorize a script, she digs through the dialogue and action and ask such questions as “why does the actor say this and not that?” or “what sort of state of mind is he/she in?”

In essence, you are explaining things to yourself, and in so doing, making sense of things and connecting all the dots. The same process can be applied to any role or function or job. It's more than just “getting it.” As I mentioned earlier – it's a matter of **“living into it.”**

5. Bring the content to life

Movies and documentaries are fabulous resources, and there are a huge number online. They can provide the story-like setting or scenario that brings even complex content to life in a very vivid,

engaging and compelling way. Sometimes it may be just people telling their personal stories. This happens often in *TED* talks. One of my favorite examples was a talk given by a crippled woman who learned how to go scuba diving in her wheel chair!

Sometimes watching a living history is the best possible way to get into the heart and soul of complex ideas, ranging from math to physics to economics to almost anything under the sun. For teachers and parents, the larger point is that every subject comes to life when it is blended with other compatible subjects. That's why a good way to study history is to read novels from or about a particular period. Another is to compare developments in science with the visual arts of the time. In fact, there is a great book by Leonard Shlain simply called *Parallel Visions of Art and Science*.

6. Make practice social.

Pay attention to experts in any field and you will find that they regularly talk to other experts. Sometimes it's to solve a problem. Sometimes it's to clarify a procedure or element. Sometimes it's just gossip. All of these are part of what is called a community of practice, where people in the same walk of life both formally and informally connect with and help each other.

An artist friend of mine, for instance, has been meeting once a month for three years with a small group of fellow artists. In addition to becoming good friends, it's a great way to learn from and stimulate each other.

Sometimes it's a matter of just finding a friend, having some coffee, and talking it through. Work at making sense of the role or function or idea – enough sense that it begins to “feel right” or “fit into place” so that you begin to “feel at home” with it. Take your time. Do it again. Here's where getting a feel for things is just as important as mastering specifics.

Practice matters. But practice should also be creative and enjoyable most of the time.

7. Experiment with several little scenarios

Some of the greatest artists of all time did not jump into working on what was to become their masterpiece. They played around, changed the size and the scale and the look, and generally tried things out. It's much easier to do that now, and there are many software tools to help you. Actually, great scientists often do the same thing. The reason? It helps them see more clearly and gain a deeper understanding of what they are trying to do. And sometimes they do it just because it's fun. If it works for the very best, chances are it will work for all of us.

8. Alternate practice and rest

Sometimes there is a strong desire to rest, to stop, to do something else. And sometimes there is a drive to just keep going. Each has an element of truth, so honor both. The secret is that the brain often processes input in the unconscious, and so we have to give what we input time to incubate. But too much practice all at one time is not most effective. And not practicing is useless. So alternate rest and activity for the best results.

ACTION GUIDE

This chapter has a large number of techniques and strategies. I suggest that, having read it once you take a break and then scan it again. Having done that, take your time as you work through these action steps.

1. Practice building a scaffold by memorizing all the steps in this chapter. Not all the details, but all the headings and some core aspect of each one. You will have it when you can recite it anywhere at any time on demand.
2. Select at least two activities identified above to use. Write down what you want to do. Do it. Then do it again. What happened? What changed? What stuck?
3. Buttonhole a friend or colleague or partner and explain how you are going about practicing a new skill. Their job is not to cross examine you! It's just to help you get the various processes clear.

12

Get Real – Playfully

*All the world's a stage, and all the men and
women merely players: they have their exits
and their entrances; and one man in his time
plays many parts . . .*

— Shakespeare

The reason for mastering new skills is to use them in the real world. Surprisingly, one of the best things you can do is try new skills out early – before you are even close to mastery!

The first time I became aware of someone playing around like this I was quite annoyed. It was during a summer break at college many years ago when I went to Grenoble for six weeks to learn French. This was not a secret passion – I had not harbored hidden desires to acquire a European language, though I had had random thoughts about the romance of a few weeks in Europe. It's just that a scholarship became available and afforded me a great chance to holiday in France.

So I went to Grenoble, stayed with a French family, and took French lessons at a local college. In my class was an Italian who I'll call Domino. I was serious, and he, I thought, played the fool; I was polite, and he, I thought, played the fool; I studied, and he, I thought, played the fool. For example, not knowing a word of French, every time he opened his mouth in class he would gesticulate wildly, mimic a Frrrench accent, and invent words when he knew none. Our teacher let him have his head (by and large), and I and the others waited for him to fail ignominiously. Which he didn't. He became fluent at a pace that I believed to be impossible. Annoying and

frustratingly impossible.

Years later I discovered more about language. I found out that language is more than nouns and verbs and correct grammar. Every language has a rhythm and its own music. Research by Patricia Kuhl shows that infants begin to pick up the music of a language way before they master its cognitive content. Language is embodied. It is grasped all over the body, brain and mind. Language is used in context, and feeling at home in the context contributes to the making of meaning. And so on. And so my (almost) friend Domino was actually mastering more core aspects of the French language through his play than I even began to grasp. I'll never know whether he did this intentionally. He was, I thought, just playing the fool. Just playing.

The moral of the story? Look for opportunities to playfully (and sometimes seriously) get real. That is the way to get the skill in your bones and the way to use all of yourself to learn.

Here are four of the many things you can try

1. Find people who use the skills on which you are focusing and walk about in their world as much as possible

Have coffee where they have coffee. Find a way to visit their places of work and be exposed to how they function in real life. Watch them on movies or YouTube or on TV. In short – do what you can to be there. Respectfully, however! And without being too intrusive.

2. Develop another skill – the skill of noticing deeply

This skill takes many forms and you may just be built for doing it without knowing it. Perhaps you are an artist. Paint or draw or sculpt or (fill in the blank). Experience the skill in operation regardless of how it turns out. Perhaps you have a science background. Then treat your study of the skill as a research project.

Whatever profession or occupation or hobby you have, chances are that it comes with some tools for seeing or hearing details. Use those skills to examine and learn your new subject of interest.

3. Try the skill (or bits of it) in the real world where there is benefit without much risk

You might want to take a lesson from Domino – but perhaps be a bit less wholehearted so people like me don't take offense! If it's accounting, find a way to work with someone as they do their bookkeeping. If it's listening, perhaps you can work in the background to assist a lawyer or consultant as they interview clients and solve problems. It may be writing, gardening, website design, managing a store, becoming a better parent. Whatever it is, look for introductory, low risk opportunities to just try things out. Reflect afterwards. Keep a journal. And learn.

4. Role play in private, and then play the same role in the real world

Keep it simple and low key. Role play is powerful because there is nothing quite like action for learning anything. And play is the operative word because you're just giving it a go – doing it to learn it. So take the notion of role play into the real world with you. Select situations that don't matter too much. And role play the skill rather than imagine that you have to get it right.

Remember, the philosophy of this book is to go deep, take your time and enjoy. Another way to think of this is to play at what you're trying to learn, but remain childlike rather than childish. The real world is a great playground, a wonderful research lab, an absolutely great rehearsal hall.

ACTION GUIDE

Select at least one of the modes of getting real – playfully.

1. Write it down generally and spell it out for yourself.
2. Divide it into some action steps.
3. Take one.
4. Then take another.

13

And There's More ...

*Now this is not the end. It is not even the
beginning of the end. But it is, perhaps,
the end of the beginning.*

— Winston Churchill

It would be nice, sometimes, if there were an end to the learning. And the truth is, we can make that decision at almost any time. Sometimes we just decide we have done enough, and sometimes we set goals that allow us to call a halt. I did that when I decided that becoming a gourmet chef was not something I wanted to spend time on. Basic cooking was quite good enough. The stopping point is a choice. But the truth is that there is *always* more.

- Sometimes we can just get better at a particular skill in a particular context, like a counselor listening to a client, or a writer of business reports.
- Sometimes we find that the field of activity grows. So the counselor may decide to go into teaching and the writer of business reports may try to write a play.
- Sometimes the skill will morph. So a teacher may become a counselor, then see a role in administration, and perhaps ends up in politics.
- Sometimes . . . and so it goes.

There is no predetermined, finite end to all of this. The pleasure – and possible pain – lies in the fact that there is always more.

My preference is to minimize pain and maximize pleasure. And so I accept the fact that there is always more, but I allow myself, as much as possible, to choose how high and wide and deep I want to go. And I know enough, these days, to set limits on what I want and feel a need to learn, to take my time, to deeply enjoy the process, and generally to appreciate the opportunity for growth without feeling compelled to always push higher and further and deeper.

It's not always the popular way to go – but in my experience, it's wonderfully pleasurable! And lo and behold, it turns out to get you there more quickly and with less effort than you ever imagined.

So my strong recommendation, to almost everyone, is to slow down to speed up. Work smarter instead of just harder. Stop to play a game and enjoy the sunset. Learning is often tough. But most of the time, let's also make it a joy.

In the words of Lavinia Spalding:

Don't ever live vicariously. This is your life. Live.

About the Author

Geoffrey Caine has spent his life learning about learning and listening, both in the course of his career and as abiding interests. Amongst other things he has been a professor of law, education services manager for a software company, education consultant, and process coach. He spends most of his time writing, speaking, conducting workshops on deep listening and deep learning, and enjoying the arts loving mountain village of Idyllwild, California, where he lives with his wife, three cats, and four glorious seasons.

Geoffrey has written two e-books in his *Listening to Life* series, both available on Amazon Kindle. *They are 9 Skills for Listening to Life and 5 Essential Elements for Creating a Culture of Listening.*

Geoffrey and his wife, Renate, have also written nine books and many articles applying their synthesis of the research on learning from psychology and neuroscience to help improve teaching and enhance education at all levels. Their two most recent books on education are:

Strengthening and Enriching Your Professional Learning Community: The Art of Learning Together (2010, ASCD).

Natural Learning for a Connected World: Education, Technology and the Human Brain (2011, Teachers' College Press).

You can find Geoffrey on-line here:

www.Thewayofthelerner.com goes in depth into the inner shifts that learners need to make in order to see the world and themselves in new ways.

www.Cainelearning.com is a living archive of the Caines' work and writings on learning, listening and education for the last 25 years.

www.thts-n-pieces.net features Geoffrey's whimsical, semi-spiritual writing on invented topics.

His guest posts can also be found on www.Funderstanding.com

*The Key to Powerful Learning:
Slow Down to Speed Up*

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The scientific bases for this book are found in decades of interest in reading about and studying how people learn and listen.

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