

How To Concentrate *before* It's Too Late...



First Edition

by **ABDERISAK ADAM**

Copyright © 2010 Abderisak Adam

All rights reserved.

No part of this book shall be reproduced, stored in a retrieval system, or transmitted by any means—electronic, mechanical, photocopying, recording, or otherwise—without written permission from the publisher, except for the inclusion of brief quotations in a review.

Every effort has been made to make this book as complete and as accurate as possible, but no warranty of fitness is implied. The information is provided on an as-is basis. The authors and the publisher shall have neither liability nor responsibility to any person or entity with respect to any loss or damages arising from the information contained in this book.

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

Table of Contents

Forewords	5
1. The fundamentals of concentration	6
- <i>What it means to concentrate</i>	7
- <i>Important factors to consider</i>	9
- <i>How to deal with deadlines</i>	15
- <i>What you lose by not concentrating</i>	16
2. Things you need to watch out for	19
- <i>Multi tasking could be your worst enemy</i>	20
- <i>Are pills really the way to go?</i>	21
- <i>Worries & concentration</i>	22
- <i>Procrastination</i>	23
3. Doing something about it	26
- <i>The source for your inability to concentrate</i>	27
- <i>How to find the right conditions</i>	31
- <i>The effects of exercising</i>	37
- <i>When you start losing focus</i>	40
- <i>Making a plan</i>	42
- <i>Mind mapping</i>	45
4. Quantifying concentration	48
- <i>How to measure concentration</i>	49
- <i>Applications of the concentration factor</i>	56
Appendix I: Brief guide to getting up early	61
Appendix II: How to overcome writer's block	68
Epilogue	71

Foreword

Welcome on board! This book will attempt to clarify how you can become more focused and attentive. Being able to concentrate is a difficult task indeed but one you need to master.

In the coming chapters we will first discuss the basics of concentration, covering its interesting definition as well as the causes to inattentiveness. This will be followed by a brief look at some of the things you need to watch out for if you wish to be focused.

We will then try to pursue remedies to the problems mentioned earlier; how can we learn to concentrate better? This will be given a lengthy discussion in order to make sure the matter has been dealt with sufficiently. Finally we will take a look at a possible way to numerically quantify your level of concentration. We will then explore some applications of this method and see how it works in real life scenarios.

Best of wishes,
Abderisak Adam,
Gothenburg, Sweden

Chapter I

The fundamentals of concentration

To truly understand a subject one needs to first be acquainted with its foundation.

Once you've understood the basics you can then move forward to grasp higher meanings.

“Not everyone who chased the zebra caught it, but he who caught it chased it.”

- **South African Proverb**

“It is easier to cover our feet with sandals than to cover the earth with carpets”

- **Indian proverb**

• What it means to concentrate

Before we can dive in to the large ocean that we call concentration, it's important to understand the very basic fundamentals of concentration. You can't start building the house until the foundation has been firmly established; likewise you can't take the necessary measures to tackle the lack of attention and inability to concentrate without first recognizing the essentials of concentration.

Let's begin with defining the term attention, according to Princeton University WordNet it means:

Definition • Attention

*“the process whereby a person concentrates on some features of the environment to the (relative) **exclusion** of others*

So in order to concentrate on something you have to – by definition – not concentrate on other things. It is thus almost paradoxical in nature, that in order for you to be more concentrated on something (for instance your studies) you have to be less concentrated on *other things*.

In short, if you wish to concentrate *more* you have to concentrate *less* (on other things).

Let that *sink in* for a moment.

What this means is that instead of posing the question; *how can I be more focused on Subject A* what you should be asking is; *what other Subjects B, C and D are stopping me from concentrating on Subject A.*

Start out by identifying these time consuming activities prior to dealing with your intended subject. You need to understand this concept and start to incorporate it into your daily life in order to become more attentive.

If you're the least bit unsure about your priorities you won't be able to focus. Always make sure that you have your priorities straight, this is what they in the medical community refer to as *triaging*. The patient with the most severe ailment is treated first; likewise you need to focus on the tasks that are the most important right now and thrust aside those of less importance.

By constantly examining the importance of your tasks and the actions relating to them you are in fact setting the ground for a more fruitful environment, one in which you can concentrate without the agony of distractions.

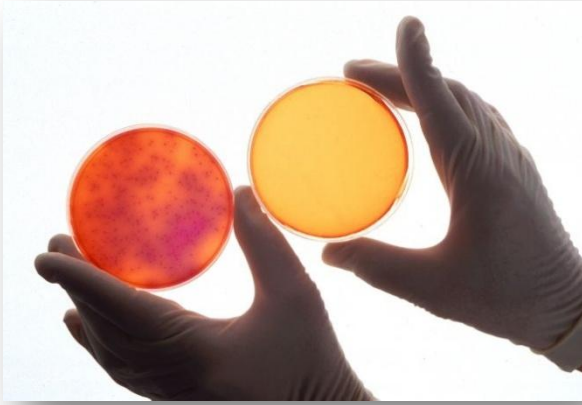


Figure 1: *Triage, the process of prioritizing patients based on severity.*

• **Important factors to consider**

There are many different factors that play a role in how well you can focus or concentrate on a given subject. Among these we find:

- a) Environment
- b) Health & psychological state
- c) Willingness to understand
- d) Skillfulness
- e) Other factors

Let's begin with the first one and work our way down the list.

Environment

The more suitable environment, the better you will be able to concentrate. This is something that we all recognize and have come to accept. It is also important to keep in mind that we're not all the same and therefore this so called "*suitable environment*" varies from person to person.

For instance some people get more work done when directly supervised while others need a more secluded area to get things done.

While some can only study in quiet rooms others find the stark silence somewhat agitating.

It's not always easy to know the type of environment that suits you best. It may be that you've always done your tasks in a certain place (for instance in your home office) but in reality that wasn't the most suitable place.

So how do you go about finding a more suitable environment?

You start testing of course! Testing will make it easier to know what works and what fails, always be keen on testing whenever possible.

Lessons from history • H. Ford

Never underestimate the value of testing, it is said that Henry Ford (founder of Ford Motor Company) wouldn't hire someone unless he first had lunch with the person.

As the person began eating his lunch Ford would always see if he tasted his food prior to salting it, if he did salt it first Ford wouldn't hire him. He didn't want to hire someone who did things without testing them out.

¹

Once you've tested getting your tasks done in a few different locations (such as your desk, your basement or your office etc) you can establish which environment worked out the best.

We'll cover one way of measuring your level of attention in chapter four. You can then use that method to derive the best location to get things done. You may be surprised; the most comfy room isn't always the best.

¹ The authenticity of this story is doubtful, interesting anecdote nonetheless.

Health and psychological state

There's a strong correlation between the level of concentration and your health & cognitive abilities. Obviously, good mental health facilitates a higher level of attention. You ought to keep that in mind when you're eating. By eating too much one becomes tired and loses the ability to focus, the same results can of course be achieved by eating too little as well. The key is moderation. Moderate how much you eat, neither too *much* nor too *little*.

Furthermore, a study published by researchers at the University of Toronto² showed that exposure to fast food can make us impatient. This in turn, one could expect, leads to greater difficulty to concentrate. It is without doubt difficult for the impatient to learn. So if you don't wish to become impatient and lose your ability to focus you should avoid eating too much junk food.

Willingness to understand

If you're not willing to put some effort into achieving whatever you've set up to achieve you won't be able to get there. Rarely do things come to us free of charge, if you want it, you'll have to pay for it with your time and with your efforts. The

² Chen-Bo Zhong Sanford E. DeVoe. *You Are How You Eat: Fast Food and Impatience*. Psychological Science, (in press)

more you strive, the easier it becomes. A great way to improve your willingness to understand is found by reexamining your initial goals and aspirations. Questions such as *why do I want that job* and *why did I pick this course* are important in order to understand the underlying motives behind your decisions. The stronger the sense of purpose is, the more motivated you will become.

By understanding your goals and motives you'll have a much easier time dealing with the issue of concentration.

Skillfulness

There are certain things that we are better at and certain things that we are worse at. By making sure you've picked the things that you are better at (which are usually the things you enjoy) you've made it easier for yourself to focus on that subject.

Albeit, there are certain things we need to focus on which we may not be very skilled at doing or other things which we enjoy but nonetheless are difficult to grasp. To focus more easily on the latter you need to become more skilled in those areas that you find difficult. By becoming more skilled you're in fact facilitating concentration.

A friend of mine who at the time was in his freshman year studying mechanical engineering

used to claim that you truly enjoy a subject only when you understand it. He even went so far as to claim that subjects one despised could later one become interesting once one comprehended them. I of course laughed at his silly proposition and viewed it as mere rhetoric. Little did I know that his predictions would come true one after the other.

Even things I had despised starting growing on me as soon as I started comprehending them. This of course doesn't hold true for everything, I still till this day detest chemistry from the bottom of my heart.

The lesson is; *if you want to focus you need to understand.*

Becoming skilled at something takes time and can't be rushed. The more you try to be focused the more focused you'll become; it's as simple as that. It may not seem as you're making any progress in the beginning but by persistently engaging in activities while trying to be focused you'll become more attentive as time goes. In chapter three we'll discuss some methods that can be used to address the lack of concentration, be sure to keep reading.

Other factors

There are of course other parameters that we need to take into consideration, however many a time

these are not only difficult to measure and grasp but also difficult to change. For instance, your emotional state affects your life in a profound way. We all know this to be true. People who have been emotionally hurt or people who have fallen in love tend to have greater difficulties in concentrating on their work or studies. Factors such as these are hence difficult to evaluate and I will therefore leave them unattended.

• **How to deal with deadlines**

You can't spell *deadline* without the word *dead*. Deadlines aren't always easy or fun to deal with, however they are an important part of life. If you wish to be more focused you need to start setting deadlines. If you never set any deadlines it becomes far too easy to slack off and do nothing.

Don't let your aspirations end up as dreams, living in your dreams means *spending your whole life in sleep*, as the Chinese would say. You need to be a doer, not a dreamer and in order to accomplish this you need to set clear and explicit deadlines for all your major projects. If you wish to learn how to cope with your deadlines you need to have a very firm mindset.

Firstly, understand the importance of your deadlines and what they mean for your future.

Secondly, make sure they are both challenging and achievable. If they're not challenging you are not getting much done and if they're not realistic you won't be able to achieve them. There's a fine line, learn to walk that line and don't transgress it.

Also, make sure that you're keen to keeping your deadlines. In order to do this it's absolutely imperative that you keep track of all your important deadlines. Write it on post it notes or keep it on your computer, cell phone or whatever.

The important thing is; write it down on something you won't throw away.

• **What you lose by not concentrating**

If you are truly interested in being able to focus on your priorities you need not only to understand what you could gain by being more attentive but also what you could lose by not focusing. It's the sad state of the human species that we tend to understand the value of something once we no longer possess it.

Hence the old Arabic proverb;

“Good health is a crown on the heads of the healthy that only the ill can see.”

This applies to more than just health; it also includes wealth, prosperity, and knowledge among

other things. Once we lose something we tend to understand its true value. This is why it's of huge importance to understand the value that you lose by not concentrating on your tasks. If you're a student this could mean not attending the university you wish to attend or get the grades you've been aspiring to or possibly *not even graduating*.

If you're a professional the loss can be expressed in money, how much money could the inability to concentrate cost you? You could perhaps even lose *your job, your house* and so forth. The consequences of being inattentive can be staggering.

These are *real* possibilities, treat them as such. Foolish is the one who sees things from a light perspective, you need to strive for *perfection* but be prepared for *rejection*. This method of assessing the magnitude of the possible loss is what we in the economic society refer to as the opportunity cost. The opportunity cost is defined by Bristol University as:

Definition • Opportunity Cost

“The cost of doing an activity instead of doing something else - applied to the time involved in unproductive activities.”

By not being fully attentive when you're working or studying you are in fact losing value. Every minute that you indulge in inattentiveness is a minute that could have been spent doing something of value. In chapter four we will cover this in more detail and use some relatable examples in order to hit the point across.

Chapter II

Things you need to watch out for

The smart learn from their mistakes, the wise learn from the mistakes of others.

This chapter will show you those mistakes; it is up to you if you wish to learn from it or not.

“Often he who does too much does too little.”

- **Italian Proverb**

“Prevention is better than cure.”

- **English Proverb**

- **Multi tasking could be your enemy**

Multi tasking is something that sounds sort of short and sweet but in reality it can be both bitter and grim. Several studies have shown that rather bad consequences stem from multi tasking

Recall what we discussed earlier, if attention is defined as the ability to focus on some elements while ignoring others then by the mere definition of attention multi tasking is a threat. This is because multi tasking advocates several things to be considered where as attention focuses on one thing at a time. It is, of course, true that some people have the ability to focus on more than one thing at the time but this is rather unusual and doesn't apply for most people.



Figure 2: *Multi tasking, a cute thing in disguise?*

Having said that I also want to point out that multi tasking mustn't necessarily lead to a lowered level of attention. We do some things simultaneously whether we think about it or not. For instance, to take a very robust example, we have the ability to breathe and control our respiratory system while at the same time being able to engage in other activities such as conversing or writing.

This means that multi tasking is only a threat when it can divide your attention from one thing at the expense of the other but if you can (and this can only work on some things) focus on one particular task while at the same time performing another without losing any attention in respect to the former, then multi tasking is certainly a good thing.

A fine example of this is a person who's learned to cook while talking on the phone or someone who revises their notes in their head while paying a visit to the lavatory.

• **Are pills really the way to go?**

This section does not deal with prescription drugs that have been issued by your physician. Rather this section deals with enhancements drugs whether legal or illegal. There a lot of websites out there claiming to possess a pill that can keep you more focused and more attentive. The problem that may not be mentioned is of course the *side effects* of

such drugs (assuming they work in the first place). It's very possible that these things do make you more attentive *temporarily* but in the long run they probably cause more problems than they fix.

Looking for a quick fix isn't the way to go. The one who wants to become more attentive shouldn't be deluded by these kinds of things and should instead genuinely try to improve their condition through more appropriate ways.

• **Worries & concentration**

You'll have to deal with your worries in order to concentrate properly. Don't let your worries overwhelm you and hinder you from getting things done. A colleague of mine used to worry about his studies constantly, day in and day out, at the end of the day we thought he'd explode due to all the internal pressure.

If he were to put some of that energy into actually studying he'd get a lot more things done and in return become less worried. Instead of worrying about something you should do something about it, sitting down and thinking won't do you much good. This is not to say that stress can't be beneficial, a moderate amount of stress actually tends to get you going. The keyword here being the word moderate".

A great way to focus on your work and stop worrying can be found by remembering your past successes. Take just a few minutes to contemplate over all the things you've been given, how far you've come and what great obstacles you've passed before. This instills a sense of comprehension that is not possible without this type of reflection. If you managed to get through it before you should be able to do so again. Let history be your *ally* and not your *enemy*.

On the greater picture, think also about those who weren't as fortunate. Not only in your particular sphere of interest whether it be studies or your profession i.e. reflect on the one who lost his job or never got promoted, the one who didn't pass that exam you passed and so forth but also give a minute to think about the people who truly has it more difficult than you. These types of thoughts should not only make you grateful for all the things you have but should help quench your worries just as water quenches your thirst.

• **Procrastination**

Procrastination³ is without a doubt one of the most destructive methods to destroy your ambitions and certainly among the biggest foes hindering you

³ The act of delaying tasks to a later time.

from concentrating. Always complete your tasks as soon as possible; don't wait until the last moment because of the following two reasons:

- a) It might never be finished
- b) Things will start piling up

How often haven't we started a project only to put it off to a later time then forget about it and end up losing out? There's absolutely no reason why one should behave like that. The risk of it never being done becomes greater for everyday that you chose to put it off.

Furthermore, things tend to pile up when we don't deal with them immediately. Instead of neglecting all your important tasks and thus punishing "the future you" with an immense workload you can chose to finish your tasks gradually and avoid both the stress and the anxiety that follows from procrastination.

If you truly want to stop procrastinating you have to make a firm intention to do so. Don't let it be a spur of the moment kind of thing where you complete the work immediately one time and put it off on all other occasions. Instead be firm with your decisions and try to finish as much of the workload as possible.

Not only will it be easier on the future you, it will also make you feel more content that you actually got some work done.

That's a good *feeling*.

The feeling that comes from knowing that you actually accomplished something today. Compare this to slacking off and waiting for your problems to be taken care of later.

There's really *no* comparison.

Chapter III

Doing something about it

Once you've diagnosed the problem you need to deal with it.

Never put your problems on the shelf to gather dust, they will only grow bigger.

"Who is lazy today, regrets it later."

- **Albanian proverb**

"Do not look where you fell, but where you slipped." - **Unknown**

"Work involves work"

- **German proverb**

• **The source for your inability to concentrate**

In chapter 1 we covered the fundamentals of concentration. We said that concentration is really related to discarding some things in order to focus on *one* thing. If you feel it's difficult to concentrate on your tasks, whether they are studies or work related⁴ chances are you are distracted by something else.

Before we can solve the problem we need to find its roots and cut it off at the source. Otherwise, we would only be treating symptoms instead of the actual causes of the inability to concentrate.

Sit down for a minute, right here and now, and start thinking of what type of unnecessary distractions stand in your way. This could be everything from electronics (TV, computer etc) to people. Once you've located the source of the distraction, get rid of it. If you know that you can't get anything done in front of the computer, then don't sit next to it when doing important work.

Finding the source of the problem is *essential* before we can proceed.

⁴ Or something else for that matter.

We're not finished once we've located and dealt with the problem, we still need to *focus* on our tasks. To do this, there are a few things to keep in mind.

Your goals

What do you wish to achieve with your work? What are your long term goals? If you don't have any, make sure you write them down immediately. Having explicit goals that you want to reach is essential in order to concentrate. When you know your goals you can strive towards them, if you don't know them you won't know where you're going.

There a number of things to take into consideration when expressing your goals. Among these are the stated duration until you've reached a goal. When do you intend to reach it? How many steps are left until you get there?

By dividing your goal into sub steps you'll have a much clearer view of what's ahead, the greater the clarity the easier you'll have to concentrate.

Your goals should motivate you to strive on. Whenever you get tired and start to drift away you should remind yourself why you're doing all of this. You should remind yourself of *your goals*.

Give yourself incentives

This is one of the most underrated ways to become more attentive. Sure your long term goals can work as incentives but it could also be difficult to grasp a reward that is far away so what you need to do is offer yourself small incentives to continue.

You could for instance say; *“if I finish writing this document today I will give myself a cake”* (or something specific that you enjoy).

Incentives work because they project a vivid image in your mind that motivates you to focus and finish your work. Generally, the bigger the incentive the more focused you'll become. That's why it's safe to assume that people work harder if they know that their reward will be greater.

In the context of business, money is used as a form of reward. However this isn't the only type of incentive that works. We also value leisure time, the work environment, the nature of the work itself among other things. Don't start out assuming money is the only incentive because it isn't.

Perhaps you may want to focus more so you'll be able to spend more time with your family and loved ones.

Apply the 5 more rule

If you're in the middle of some work and start to become tired and lose focus what you should do is tell yourself to do only five more things and then you'll quit or take a break. This is a great way to harness those last drops of energy. Remember, in order to concentrate you need to be perseverant and force yourself to concentrate.

The marvelous thing with this particular method is that it changes your perception of the project at hand. You begin believing that a large project is actually small in size because all you're dealing with is five small tasks. If you continue this way, you'll notice that you'll be getting a lot more done as the five short tasks turn into 10, 15, 20 or more, all of which have been accomplished.

Think globally and act locally.

Take short breaks

You can't always be 100 % focused, we are human beings after all and at times we become tired and weary. Some people prefer to schedule their breaks evenly so they might work for 1-2 hour straight and then take a fifteen minute break.

I however prefer to take my breaks intermittently depending on when I *need* to take a break. There are times when things are going really well and

you're getting lots of work done, the last thing you want to do then is to take an unnecessary break that could destroy all the momentum you've built up. Take the break when you need it, this way you won't miss out on such delicate opportunities.

In addition to that, you have to make sure your break lasts no longer than what you intended unless you have strong reasons for doing so. It's not unusual that a ten minute break turns out to become an hour long instead. Don't let this happen under your *watch* (no pun intended).

You could for instance use a timer to monitor your break, as soon as it goes off you go back to work.

• **How to find the right conditions**

There are, as earlier stated, a number of different aspects to consider when improving your level of concentration. If you truly want to improve it you'll need to optimize every parameter so it facilitates a high level of concentration. What I mean by this is, always try to find the best possible conditions that lead to you being more attentive and focused.

These conditions aren't always easy to discover and to be honest; they could differ greatly from person to person. Hence, I will not try to give any recommendations based on any specific conditions

but instead I'll share with you some recommended practices grounded on general principles.

Let us start by looking at two important factors that we could begin optimizing, these are;

a) time b) location

Time

Time is your most important asset, use it and don't abuse it. There are times during the day when you're more focused and on top of your game, make sure you get work done during these hours.

Try getting your tasks done during different hours of the day to see when you focus the most. For most people, the early mornings are the most crucial. If you're not already an early bird, try waking up 1-2 hours prior to your usual wake up time. You can then utilize these 1-2 hours to get some work done during the most productive hours of the day. Please refer to Appendix I for a full discussion on how to get up early in the morning. It contains a list consisting of 10 different tips on how to wake up early.

Location

All locations shouldn't be treated as equal. There are places where get a lot of thing done and other places where you get almost nothing done. Take for

instance a crowded venue; if you decide to get some work done in such a place you would most likely find it to be difficult. This is due to all the possible distractions that are present which naturally leads to an inability to focus. However, just because a particular location is empty doesn't necessarily mean it's a good place to be.

How do we then go about finding this special place?

Well since there's really no simple formula for finding the best location *-in terms of concentration-* what we should do is what any scientist would do, namely start testing. Try a few different locations, including the place you're working at now, and see how much work you actually get done. The location where you get the *most* work done is obviously the place where you could focus more easily and should be your workplace henceforward.

Another important thing to be aware of is that you don't want to wander around to get things you need. Always keep all the stuff you need near hand. Create a list containing all the vital things you need to bring with you, this could include:

- Pens, rulers, calculators and other office supplies
- Some form of beverage such as water or soda
- Perhaps some snacks or food in case you become hungry
- All the important notes and documents you'll need

- Other things such as your cell phone, computer etc.

These are tools to *aid* you in your endeavors and not the opposite! This means that you should remove your cell phone or computer if they're causing you more trouble than good.

Also be sure you have access to a bathroom nearby, it's extremely annoying to have to walk long distances just to visit the toilet. The lesson here is to minimize the loss of time and energy by planning ahead.

Tip • Minimizing unnecessary waste

This is a concept that the Japanese have popularized. The Japanese car industry is well-known for its high levels of efficiency. Waste is eliminated as much as possible and concepts such as *JIT* (Just in Time) and more broadly *Lean Management* tries to eliminate anything in the production environment that doesn't contain value to the end customer.

This is a simple yet extraordinary concept. By thinking in such terms i.e. *how can I eliminate all unnecessary things hindering me from concentrating?*

You are in fact optimizing your efficiency level and thus your ability to focus in accordance to the given circumstances.

Avoid sitting next to some people

Your work place is place where work gets done, period. If you try to turn it into a place of entertainment you'll lose focus and get fewer things done. If possible, avoid sitting next to people who will make you unproductive. Some people would specify and say avoid sitting next to friends. I would personally disagree with that. It is true that

your friends could very well be the ones who cause you to become inefficient however if they are striving towards the same goals as you are, they could also be a huge asset.

If all you do is joke around and talk sports which is unfortunately a common trait among men or likewise for the ladies sit around and gossip all workday than you should definitely find someone else to sit next to.

The same holds for the classrooms, lecture halls or anything else for that matter. It doesn't have to be a friend who's causing you to lose focus, it could be someone you hate, someone who annoys you or someone who arouses you.

Avoid such people at all cost, if the person next to you is causing you to become inefficient you need to sit somewhere else. It's that simple.

Miscellaneous

If you can locate anything else that can be optimized don't hesitate to do so. If for instance you tend to be more focused when working individually then you should do so and avoid working in group or in conjunction with someone else.



Figure 3: *Much like the story of Goldilocks and three bears you must search for the optimal conditions. She insisted on eating the porridge that was neither too hot nor too cold. Finding the optimal settings is much like finding that perfect bowl of porridge.*

In short, search for any parameter that can be improved and then optimize it to reach its full potential.

• **The effects of exercising**

Take a few minutes in the morning to do some basic exercises. It's healthy and helps keep you more focused and alert. I'm not talking about something serious like jogging for an hour but more about simple exercises that can be performed at home in less than 20 minutes. This will rile you up and get you started.

Your heart rate increases, you start to sweat and you get a healthy blood circulation going. Once you take a shower you'll feel rejuvenated and ready to meet the world.

A joint study conducted by the University of Leeds and the university of Aberdeen showed that kids who exercised as little as 15 min per day improved performance on cognitive tests conducted later that day. They also scored significantly better in tests of concentration than those who hadn't done the exercise.

Don't forget about breakfast

You've probably heard it a million times but it doesn't matter, useful information shouldn't be heard only once.

Eat breakfast!

Breakfast is of huge importance, studies from as far back as the 1950s have consistently shown that children who eat breakfast perform better academically than those who don't.

Tip• If you're in a hurry

What do you do when you don't have time for breakfast?

We could be in a hurry to get to our jobs/classes or any other important appointment. If you don't have the time to eat breakfast you can't do much about it and you'll simply have to leave. But there must be another way, mustn't it? Yes there is and the solution is rather simple.

Prepare a breakfast box!

The clever person plans a head you see, instead of panicking that one day the alarm clock didn't go off what you should do is maintain an emergency breakfast box just in case you don't wake up in time.

This breakfast box is always in the fridge, ready to be used in case of emergencies. If there's no emergency, you can always eat your intended breakfast later on as a snack.

A win-win for all involved.

The type of food you eat during breakfast is also important. Avoid fatty foods during the morning; instead eat lots of fruits, grains and vegetables.

Drink water

You can't expect to get much done if you're dehydrated all the time. Be sure to always have a water source nearby whether that source is a bottle, a shop or just the good o'l water tap makes no real difference.

It's fairly easy to go overboard and drink too much. Taking in excessive amounts of water could actually be harmful⁵ so watch out for needless consumption. If your lips feel dry that doesn't necessarily mean that your body is thirsting for water. That's why it's rather unintelligent to drink water to cure dry lips. You'll only end up consuming way too much water while continuing to have dry lips.

• When you start losing focus

If you start losing focus in the middle of doing something important you need to do *something* to get back on track. This '*something*' depends on your given situation and should be adjusted accordingly. There are many different ways you could deal with this problem, for instance you could step away from your desk and go to the bathroom and splash your

⁵ Rhoades RA, Tanner GA (2003). *Medical Physiology* (2nd ed.). Baltimore: Lippincott Williams & Wilkins

face with some cold water. This could be quite effective, especially if you're losing focus due to fatigue. It could also be because of hunger, that's why it's usually a good idea to bring snacks with you. Whenever you feel you need a rush you simply eat a little. Fruits are highly recommended in this regard.

If however your inability to concentrate is due to something else besides exhaustion and hunger it may be a good idea to simply remind yourself of the goals you wish to achieve. This is usually very effective, if you can visualize your goal then you know where you're heading and you won't mind the difficult journey. Promise yourself a simple reward when you're done and make sure you fulfill that promise.

Remember though, there's only that much you can do to fight it off. If you're really hungry there's no way you can avoid eating without losing focus, likewise if you're very tired you won't be able to continue until you rest for awhile. Don't try to push it beyond the limits that your body can handle.

If you don't wish for your brain to start wondering off you should keep it active as much as possible. Whenever reading/writing becomes difficult you should pause for a moment and start asking yourself questions about what you just read/wrote.

Try looking away and see if you can remember what you just read. By constantly challenging yourself in such a manner you're making sure the brain is active and on duty.

Alternate every now and then. Try dealing with one subject for an hour or so and then take a break and switch to something else. Variation makes it easier to concentrate; it's only natural to feel fatigued if one is doing the same thing all day long.

The same thing holds for the environment you're in. If you've been in the same room for the whole day it might be a good idea to take a few minutes break from that location. Finally, if you find a particular topic or task to be boring or difficult, sandwich it between two other topics that you enjoy. This way you'll start out with something you enjoy and end with something you enjoy.

- **Making a plan**

In this section we will deal with the making of a plan to organize your thoughts and thus become more focused. One of the most delicate things relating to concentration is the issue of shifting from one task to another. The transitions between different tasks are often more time consuming than the tasks themselves.

This is due to the natural confusion that can arise when you're finished with one task and has to start another. You can feel almost lost and bewildered. By constructing a clear and concise plan discussing the activities to come you free yourself from that particular distress.

It's easier to concentrate when you know what your goals are. To make it even more digestible, you can divide these goals into yearly, monthly, weekly and daily goals.

Yearly

Where do you want to be in terms of your business or your studies in a year from now? What about 3 to 5 years from now? Questions such as these are important to pose in order to get an understanding of where you wish to be in the near future. Obviously, none of us know how long we'll live but we still have to plan ahead.

Remember to keep track of your progress. Have you reached the goals you had set two years ago or are you exactly on the same spot as earlier? Reevaluate your situation and then try to formulate possible solutions to the problems you faced if you didn't accomplish your goals. Likewise if you did succeed in meeting your goals try to derive lessons to be used in future projects. History, as we all know, tends to repeat itself.

Monthly & Weekly

How much work did you get done during this month/week? Are you behind your yearly schedule? If yes, why so? Hold yourself into account, make sure you don't drift away and forget your goals.

If you're not moving towards your goals you're moving away from them.

By meticulously planning your activities prior to actually executing them you avoid the mind numbing task of trying to decide what to do next. Pick a day during the week which will function as a day of planning. You construct all your most important plans during this day and then the rest of the week you simply follow through to keep your schedule. It's *that* simple.

Daily

Don't underestimate the amount of work you can get done in one day. Recall that a year is nothing more than a few hundred days, one day matters! Don't let a single day go to waste without having done at least something important that day. This concept is referred to as the MIT (Most Important Task).

Ask yourself what task relating to your work or studies is the most important to have accomplished during the day. What task, if you finished it, would

have the most impact on your work? Be sure to begin your tasks by first tackling this MIT, by constantly doing this, your whole year will have lots of MITs that have been accomplished.



Figure 4: *If you're not planning for success you are planning for failure.*

- **Mind mapping**

Mind maps are extremely useful tools to help visualize your thoughts. They can be used for many different purposes including but not limited to problem solving, planning and brain storming. By creating a mind map containing all the relevant data that you need you are making it easier for your brain to see all the vital pieces of information as well as the different connections between them.

The image below shows an example of a typical mind map.

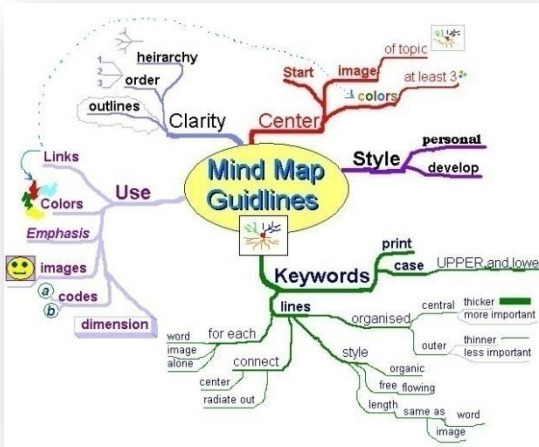


Figure 5: Image by Danny Stevens.

Place your main idea or keyword in the center of your mind map and start thinking about anything that might relate to that keyword. List all the things you came up with on a piece of paper (not on the actual mind map) and then write them all down on the mind map by interlinking each idea to an appropriate category.

There are of course more than one way of constructing a mind map, feel free to find your own style of doing it. It is after all a very subjective tool to use and should reflect your ideas; you're the only

one reading it. Instead of following guidelines on making a mind map it's more important that you develop your own style in order to fit your specific needs.

Tip• Make it personal

Try emphasizing certain elements in your mind map by using colors to make the mind map more vivid and easier to digest. The more personal it becomes the better.

In the end, remember to keep it clean. It's not uncommon that people try to scramble in as much information as possible without keeping the format. If your mind map is all disheveled and cluttered up you won't be able to comprehend it and thus undermine the purpose for using it in the first place.

Finally, mind mapping is something you do to help yourself concentrate. Make sure that you can understand and interpret it properly even if no one else understands it.

Chapter IV

Quantifying concentration

To be able to quantify how well one concentrates we would need some sort of parameter that can be easily measured and tell us how well we concentrate.

In this chapter, we will set out to find such a parameter. Use it wisely; math can be a dangerous tool.

“Sometimes it is useful to know how large your zero is.” - **Author Unknown**

We've now arrived at a crucial place in our discussion on concentration. Once you've understood the causes of your lack of concentration and started taking measures to try to improve your condition you'll need some sort of way to measure how much progress you've made. That is, in order to evaluate where you are in terms of attentiveness and how much you've improved after taken the necessary measures you need to have some sort quantifiable parameter that can be measured.

Just like a doctor uses your blood sugar level and your heart rate to measure your condition and see how and if it improves you also need data to accurately assess your condition. In this section I hope to provide just that, a method that I've developed to try to measure the level of concentration. It builds upon some basic correlations between attention and retention. I will later on discuss how it can be used to measure your overall progress as well as how it can be applied in some real life examples.

• **How to measure concentration**

Before we can proceed to the actual formula I think it could be helpful to understand the theory behind it. This will enable us to understand its domain of relevance as well as its shortcomings.

In order to accurately measure attentiveness one needs to find some sort of parameter that can a) be precisely calculated and b) is applicable

This is indeed not a very easy task. There's no simple way to calculate your level of concentration, albeit there are simple ways of calculating your level of *retention*. Since retention is closely linked to concentration, by measuring your level of retention we get an indication on how well you concentrate.

There are of course limitations to this theory.

For instance, we can all agree that if someone retains a lot of information from a text that they just read that has to mean they were focused while reading it. The more they focused the more they should retain.

However, the opposite doesn't necessarily have to be true. If someone had a rather low level of retention that *doesn't* equate a low level of concentration, they could have been focused and still produced rather unpromising results.

This could be due to how well they remember information; some tend to have better memories than others or it could also be because the subject in question was extremely difficult to grasp.

Nonetheless, I would argue that measuring retention is a good way of measuring concentration due to the following reasons:

a) In general, the more you concentrate the more you remember. This is something we all know from experience.

b) Even though the correlation between concentration and retention isn't absolute, it still gives an important relationship between how well one has improved their *overall* cognitive ability.

If you score 65% on retention and then after a couple of weeks hit 76% then the increase could be due better concentration or improved memory either way your overall cognitive ability to process information was improved.

Calculating η_c

I will now introduce what we'll refer to as the concentration factor (η_c) from here on, it's defined as following:

$$\eta_c = \alpha \cdot \beta \quad \{\text{also } 0 \leq \eta_c \leq 1\}^6$$

α = the rate at which you read.

⁶ Simply means that η_c is between 1 and 0, you can't concentrate more than 100 % or less than 0 %.

β = the level of retention.

The easiest way to measure the η_c value would be through picking a piece of literature that you haven't read before, compiling 10 questions that can be answered through reading it. Make sure you note the length of the document. We need to know how many characters it consists of in order to measure the rate of speed (the "α" value).

The faster you can read while keeping retention, the more focused you are. For this reason I would recommend you to use a digital document, it's easier to count the number of words through software such as using Microsoft Word for example (number of words is usually displayed on the bottom left).

Once you've compiled your questions you are ready to start the test. Make sure you have a watch nearby so you can begin tracking time as soon as you start. Once you've finished reading the text as fast as you can while trying to understand as much as possible (which demands concentration, the very thing we are trying to estimate) you can make note of how long it took you to get through it.

Then all you need to do is divide the number of words with the time it took you to read through the text. For instance if you read a text consisting of

1000 words and it took you 5 minutes to read, then you read at $1000/5 = 200$ wpm (words per minute).

This equals 25% (*i.e.* $\alpha = 0.25$) of the maximum reading speed if we define 1000 wpm as the *highest reading speed*⁷ (divide 200 wpm with 1000 wpm).

Tip • Waiting for a while

It's actually preferable that you wait for a while before you begin reading. This is because you've already been exposed to the material while compiling the questions.

Another option which would eradicate the need of waiting would be if someone else compiled the questions, for instance a text on the web with both the content and the questions given.

Now what you need to do is to measure how much information you retained from the reading session.

As soon as you've done reading you can begin answering the questions, without looking at the text. Once you've answered all of the ten questions you can open the document and see how many

⁷ This value was chosen on quite arbitrary grounds. It appears to be a very coveted number to reach in the speed reading community.

correct answers you've got. 10/10 equals 100 % (i.e. $\beta = 1$) while 1/10 equals 10 % ($\beta = 0.10$) and so forth.

Tip• A larger sample would be better

10 questions is a rather small sample. If you want more accuracy you should compile up to 100 questions instead.

This would obviously mean that you would need a larger text to work with. *For most purposes* we assume that it should suffice with 10 questions.

You've now calculated both your alpha value (α) and your beta value (β). All you need to do now is multiply them together to find out what your concentration factor (η_c) is.

Recalling that:

$\eta_c = \alpha \cdot \beta$ {i.e. alpha times beta}

The only way to score 100 % would be if you answered all your questions correctly while reading at the speed of 1000 wpm. This is of course not an easy thing to do, especially if the sample text is large and the numbers of questions are many.

Also, the only way to get a 0 % concentration factor is by either not reading the text at all and/or answering incorrectly on all the questions.

Once you've calculated this value for the first time make sure you write it down somewhere. You want to track your progress as it improves. The next time you do the test, perhaps after some days/weeks of training, you can take another text and repeat the process to see what your new concentration factor becomes.

Has it *improved* or *worsened*?

This is obviously the main question to ask. If it has changed, how much has it changed? The difference between let's say 62 % and 63 % is so small that it can't even be considered a real change, we say it's within the statistical range of error.

A change from 62 % to 89 % on the other hand shows a significant change worthy of our attention. In order to get a somewhat reliable number you would need to retake the test a couple of times, this will establish an interval instead of one value *e.g.* 59-65 % and then you could simple calculate the mean from that (in this case 63 %).

A small set of trials should do it but the more you redo it the more precise it gets.

Be sure to have a clear explicit goal in mind *i.e.* a particular value of η_c that you wish to reach. Also make sure you put it down on paper, you want to know where you're going otherwise you may never reach there.

• **Applications of the concentration factor**

O.K so now we've learned how to calculate the concentration factor, *what now?* Well as we covered earlier, the value of η_c itself gives you a good understanding of how well you can concentrate.

Besides this, there are however some pretty neat applications, one of which will be covered here.

If you recall, in the beginning of this book I promised you a way to calculate the loss of not concentrating which was similar to what the economists referred to as an *opportunity cost*. In our examples below we will also label it an opportunity cost, adding a sub "c" for concentration.

The formula we will use:

- $O_c = v \cdot (1 - \eta_c)$

O_c = the opportunity cost due to inability to concentrate.

v = Value over a specific time period, *e.g.* how much money you want to earn in one year.

η_c = Concentration factor as covered previously.

The higher value of O_c the worse, we want to keep this value to the *minimum*. If it's a large number that means you are losing out on value. The lower the better, this value becomes zero when your η_c is equal to 1 (*i.e.* 100 % concentration factor). In this special case, **the formula becomes:**

$$O_c = v \cdot (1-1) = v \cdot (0) = 0$$

Since zero times any number equals zero.

On the opposite, if your η_c value is equal to zero (you are not concentrating at all) then your opportunity cost will be equal to the value you specified, *i.e.* you lose *everything* you planned for.

The expression in this case becomes:

$$O_c = v \cdot (1-0) = v \cdot (1) = v$$

$$O_c = v$$

If you feel the formula is rather unclear or difficult to understand perhaps the following few examples will help clarify it.

(!) Example 1: David and his company

David works as a part time writer and design consultant. He started his own business a few years ago and has now decided he needs to focus more in order to maximize his revenue.

He wants to earn 50,000 USD this year but in order to do so he needs to strictly adhere to his day to day activities which consist of sending out new orders, speaking to potential clients and so forth. He has calculated his concentration factor to be around 59 % using the method described in this book.

Problem: Calculate how much money David is losing due to poor concentration.

Solution: Let us begin by listing the inputs that we are going to use.

$$\eta_c = 0.59 \quad v = 50000 \quad O_c = ?$$

With these we can now calculate O_c by simply putting everything into the formula.

$$O_c = 50000 \cdot (1-0.59) = 20\,500 \text{ USD}$$

This means that David is losing approximately 20 500 USD per year due to an inability to focus.

As you can see the lack of concentration can have a deep impact on your business venture. Every year

loads of small businesses owners are losing money because of the inability to concentrate on important tasks by either themselves or their employees.

Let's take another example, a little different this time.

(!) Example 2: Jasmine and her studies

Problem:

Jasmine is currently in her second year studying to become a physician. She is somewhat overwhelmed with med school so in order to motivate herself she wishes to calculate *the lowest value* of η_c she can have in order to graduate.

According to her academic advisor she needs to put at least 20 hours per week on her studies in order to succeed. However, from experience, she knows that 15 hours per week is sufficient to barely pass the exams.

Solution:

In this example we need to bring out our algebra boxing gloves, things might get a little ruff you see. As usual we begin by listing all the inputs we need to solve the problem.

$$v = 20 \text{ hours/week} \quad O_c = ? \quad \eta_{c,\min} = ?$$

Before we can calculate the minimum value of the concentration factor we need to find the cost of not concentrating, this time expressed in *time* rather than *wealth*. This will be equal to the *difference* between the recommended hours of study per week and the minimum hours per week, **that is to say;**

$$O_c = 20 - 15 = 5 \text{ hrs/week}$$

Now all we need to do is rearrange the formula and solve for η_c , a little formula gymnastics never hurts.

- (1) $O_c = v \cdot (1 - \eta_c)$ - The original formula
- (2) $O_c/v = 1 - \eta_c$ - Dividing both sides by v
- (3) $\eta_c = 1 - O_c/v$ - Solving for η_c
- (4) $\eta_c = 1 - 5/20$ - Inserting all the values
- (5) $\eta_c = 0.75$

She needs a concentration factor of *at least 75 %* in order to pass her courses.

Appendix I

Brief guide to getting up early

Learn to get up early. It will give you a head start to the new day and open up new opportunities.

“The early bird gets the worm”

- **English proverb**

We established earlier that time is an important factor to consider. Your level of attention varies according to the different times of the day. It's commonly known that you're the most alert and can concentrate the most during the early hours of the day. A "fresh" mind facilitates easy learning.

How do we then go about becoming early birds?

Before listing to any tips on the matter I think it's important to understand the underlying reason behind not being able to get up in the morning. It has to do with your mindset.

Think about it, if you have an important thing to do in the morning you plan for it and make sure you try your outmost not to miss it. Anyone who's ever travelled know this, we make sure we're up early so we won't miss the flight. We also make sure we're up early so we won't miss the exam, the job interview and so forth.

You need to value your morning activities in the same manner, by understanding the importance of your morning tasks you make it easier for yourself to wake up and not fall back to sleep.

Having that said, here's a list of 10 tips on how you can, *starting today*, become an early bird.

1. Go to bed early

A truism indeed, but nonetheless something lots of people neglect to do. You can't have it both ways. You either stay awake into the long hours of the night - *you won't get much done at this late hour anyway* - or you go to bed early in order to wake up early and actually start getting things done.

The choice is yours.

You need to set *boundaries*. As kids most of us had our parents deciding our time limits and telling us when to sleep and when to wake up. I'm afraid that those days are over; you'll have to regulate your own sleeping schedule.

2. Don't eat too much

Good things don't generally come from eating too much and this holds true for your sleeping patterns as well. Eating supper is one thing but eating too much supper is another. Not only is it healthy not to eat too much food during the night, *especially fatty foods*, but it also helps you to get up early.

3. Resisting the temptation

Fight the urge to sleep in. I know it's not easy but who's said anything about it being easy? Most things of value in this world are attained through a difficult process but the results once you persevere

tend to be sweet. Remind yourself of this when you're having problems getting up. Remind yourself of all the things you're missing out on, including those goals of yours. By putting things in perspective you get a better idea of what you're losing out on.

It should be noted however that you shouldn't use this as an excuse to keep lying down. It's easy to start fantasizing about your goals and then going back to sleep again. That's why the following words of advice is of huge importance.

4. Get up immediately!

Not soon, not after you've hit the snooze button a couple of times but *right now*. My uncle taught me this at an early age, as soon as the alarm clock went off he would jump out immediately. You will not only save valuable time that would have otherwise gone to waste just lying there, neither sleeping or getting up, but it also functions as a deterrent against falling back to sleep.

5. Place the alarm clock far away

I assume you use an alarm clock to get up, if not, then go buy one immediately! Once you've set the clock, be sure to place it as far away as possible, perhaps on a table on the opposite side of the room. This little tactic is highly effective.

You see, it forces you to get up in order to turn it off. If you're already *up and standing* it becomes a lot easier to resist the temptation of going back to sleep.

6. An old Native American trick

The Native Americans had a quite ingenious method to help them get up early in the morning. If they had a battle the coming day they would drink a lot of water during the preceding night and then simply go to sleep.

Consuming a lot of water naturally means you'll need to go to the bathroom, your body will alert you of this and you'll have a much easier time waking up (in quite a hurry may I add).

7. Avoid any of the following

There are some obvious things that make it difficult to go to bed early, among these are the usual suspects namely consumption of alcohol and/or narcotics.

Furthermore, one needs to be aware of more unusual suspects such as drinking too much coffee. The caffeine in coffee will, as we all know, keep us up so try to limit your caffeine intake during the late afternoon. Unlike what many people think, the caffeine effect doesn't take place immediately, it takes a few minutes (generally under an hour) for

the caffeine to kick in. A moderate dose wears off after 3 to 4 hours⁸, be sure to keep this in mind when/if you drink coffee.

8. Hold yourself accountable

If you wish to know if you've made any progress you need to keep yourself accountable. Be sure to make note of the days that you actually got up and the days when you had difficulties in getting up. After a month or so you may notice a pattern, perhaps you sleep in on some days and not on others. This is a great way of diagnosing the problem, revealing hidden patterns.

9. Going to sleep at the RIGHT time

The difficult thing isn't really to wake up early; it's to go to bed early. Adhere to the time that you've set to go to sleep. You could even go so far as to set your alarm clock so it goes off not only at the time that you need to wake up but also at the time when you need to go to sleep. Don't stall on going to bed unless it's very important.

10. Make it into a habit

Changing ones sleeping pattern isn't always an easy task. You'll be relieved to know however that

⁸ Bolton, Ph.D., Sanford (1981). "*Caffeine: Psychological Effects, Use and Abuse*". *Orthomolecular Psychiatry* 10 (3): 202–211.]

once you've initiated the "*mode of getting up early*" it will become difficult to go back. As we covered earlier, we are creatures of habit and that's why it's of such huge importance that you try to get up early everyday and not just some days.

This will enable you to become an early bird; once you've become programmed to wake early you won't generally drift back even if you were to sleep in once in a while.

Appendix II

How to overcome writer's block

You have an important assignment due next week and you have no idea where to start.

What do you do?

Writer's block is one of the biggest obstacles hindering you from concentrating on your work and getting things done.

In this final appendix we will deal with this matter and give you some advice on overcoming writers block.

We all know how it feels.

That perplexed feeling you get when you have to write a document and you have absolutely no clue what so ever on how to begin. Not only is it frustrating but it also incites you to become even more anxious over the fact that you haven't even started yet.

The way to combat writer's block is by constantly forcing yourself to write anything or something as long as it's comprehensible and even slightly related to your topic.

Don't be discouraged if it doesn't look that good in the beginning; you can always edit it later. The important thing is to keep up the motion, the more you think about how to phrase a particular sentence the more time it will take to actually get something down on paper.

The good thing with this method is that it results in a type of snowball effect. If you've ever rolled a small ball of snow down a steep hill you know exactly what I'm talking about.

It creates *momentum*.

It won't be long until a few words turn into complete sentences; a few sentences turn into paragraphs and a few paragraphs transform to become a whole and complete document. This is

when you start the true editorial process. Before this you were wearing your author's hat, now you're wearing your editorial cap.

Tip • What to do when you're really stuck

At times the situation could be so bad that you're completely lost all together. What you need to do in such a situation is to recap the original objectives. *Why* are you writing it? *What* is the purpose? *How* is it supposed to look? *Who* is it intended for? *When* is it due? *Where* can you go to find out more?

Questions such as these boggle the mind and get you to start thinking.

The famous British poet and Nobel Laureate Rudyard Kipling once wrote:

*"I keep six faithful serving men
who teach me well and true
Their names are **What** and **Where** and **When**
And **How** and **Why** and **Who**."*

Epilogue

It's not always about how hard you try to accomplish something, sometimes you may need to rethink your original strategy. Taking a few minutes to consider what you're doing could have staggering effects on the overall progress. It is said that every minute spent on organizing is an entire hour earned.

If the way you've been handling it was ineffective and wrong to start with you shouldn't continue doing it that way just because it's the way you've always done it. You may even have wasted a couple of hours because of a wrong approach; those hours can never be reclaimed.

The time you've lost is lost and there's nothing we can do about it. The sooner you start planning the sooner you'll realize the value of time.

Example • Road Trip to Washington D.C

Let's say you spent the weekend at New York City and you're now on your way heading north to get back home to Washington D.C. The trip is going excellent by all standards, the highway is almost devoid of cars, the weather is rather nice and you seem to be making record time.

However there's one little detail that you forgot to consider. New York isn't located to the north of Washington but to the SOUTH. You are going in the *wrong* direction!

Now knowing this, would you decide to keep on going for a couple of more miles or would you find the nearest cross road and change directions?

The answer is obvious, however a lot of people don't think in such terms when it comes to important life decisions.

This is the *core* lesson of this book. It's not always smart to try harder, sometimes you need to *rethink* the way you study, the way you do business and so forth.

If you wish to focus more on your work you'll have to rethink how you perform your work. It is way too easy to get stuck in destructive habits.

By considering the different factors involved in how you concentrate you get a more holistic picture of the problem and the solutions needed to solve that problem.

Don't try harder, try different!