bookboon.com

An Introduction To Holistic Time Management

Harold L. Taylor



Download free books at

bookboon.com

Harold L Taylor

An Introduction To Holistic Time Management

An Introduction To Holistic Time Management 1st edition
© 2016 Harold L Taylor & bookboon.com
ISBN 978-87-403-1206-5

Contents

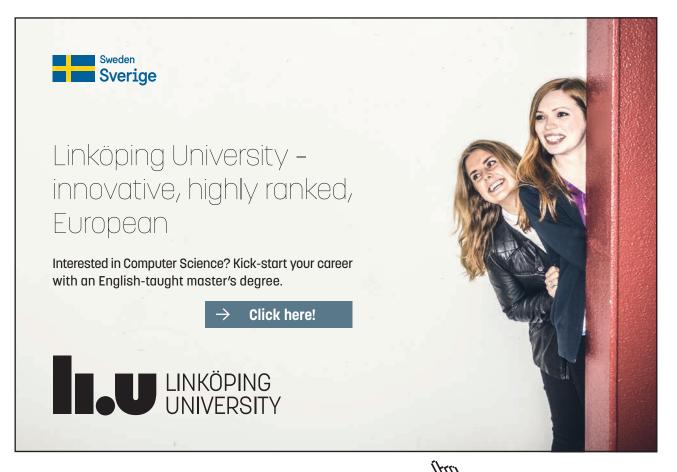
1	What is holistic time management?	8
1.1	Time is not life; it simply measures it	8
1.2	Components of the holistic approach	9
2	Consider the whole person, not just their work habits	11
2.1	The trend towards a holistic approach	11
2.2	A new look at an old topic	12
2.3	The same symptoms can reveal different problems	13
3	The time management continuum	15
3.1	Time management is a journey, not an event	15
4	The hygiene theory of time management	17
4.1	Getting organized does not mean you will excel	17
4.2	A new theory of time management	18



5	The clock in your body vs. the one on the wall	20
5.1	Internal time management	20
5.2	Parts of your past are missing	21
5.3	Slowing your perceived pace of life	21
6	Treating the whole person	26
6.1	Health	26
6.2	Organization	26
6.3	Lifestyle	27
6.4	Internal body time	29
6.5	Spirituality	30
6.6	Time use	31
6.7	Interpersonal relationships	31
6.8	Cognitive skills	32
7	Executive function	33
7.1	The CEO of your brain	33
7.2	Executive skills play a major role in holistic time management	34
7.3	Strengthening your executive skills	35



8	Weaknesses that keep you stalled	36
8.1	Response inhibition:	36
8.2	Sustained attention	37
8.3	Task initiation	38
9	Weaknesses that block your intentions	40
9.1	Planning/prioritization	40
9.2	Goal-directed persistence	41
9.3	Metacognition	42
9.4	Organization and time management	43
10	Weaknesses that hinder your progress	45
10.1	Working memory	45
10.2	Emotional control	46
10.3	Flexibility	47
10.4	Stress tolerance	48



11	Keeping your brain young and healthy	50
11.1	What to feed your brain	50
11.2	Exercise your brain	52
11.3	Are we over-dosing on technology?	53
12	Resources	57
12.1	Books referenced:	57
13	About the author	59

STUDY FOR YOUR MASTER'S DEGREE THE CRADLE OF SWEDISH ENGINEERING

Chalmers University of Technology conducts research and education in engineering and natural sciences, architecture, technology-related mathematical sciences and nautical sciences. Behind all that Chalmers accomplishes, the aim persists for contributing to a sustainable future – both nationally and globally.



1 What is holistic time management?

1.1 Time is not life; it simply measures it

We hear a lot about the increasing life expectancy in North America. Well, after visiting nursing homes and talking with caregivers and from personal observation, I can't say that *most* older people – but I can say with certainty that *many* older people – are not living longer; they are simply taking longer to die.

Time measures the passage of life; but it does not measure of the quality of life.

Longevity is important, but only if by longevity we mean living longer, healthier, and happier. What prompted me to design programs and write articles and books about holistic time management in the first place were those hundreds of time management books, including a few of my own, whose main theme seemed to be efficiency at all costs.

One old book, by an author long deceased, actually had a section titled "How to add two years to your life," the premise being that if, through efficiency, you're able to save 10 minutes here and 10 minutes there on a daily basis, year in and year out, you could eventually add the *equivalent* of two more years of work-time to your life.

Well to me it makes more sense to simply live two years longer. Not only would we gain the two extra years of results, even if we didn't increase our efficiency, but we would also have two more years to enjoy whatever life had to offer.

As soon as you bring longevity into the equation, you must include health. And since you don't want your body to outlive your mind, you must pay attention to cognitive skills. And since you want to maintain purpose and fulfillment throughout your lifetime, you had better include spirit. Consequently, holistic time management must include everything that affects body, mind and spirit. It encompasses both internal and external (traditional) time management as well as health, stress, lifestyle and environmental issues that affect body, mind and spirit. Then it is truly holistic – and would cover a lot broader area of study than the traditional time management.

Holistic time management includes the strategies necessary to lead a happier, healthier, longer, more productive & fulfilling life.

If we are in top shape physically, mentally and spiritually, obviously we will be more productive as well as have a much greater chance of extending our lifespan. In designing a course in holistic time management, I arbitrarily chose eight areas to represent the things we must work on in order to extend our lifetime of effectiveness using the holistic approach.

1.2 Components of the holistic approach

The components of holistic time management fall nicely into an acronym spelling the word

HOLISTIC.

Health. Although time has been touted as your greatest asset, it is really your health that is your greatest asset. And too often, health is being put at risk in order to save time. Health management is the most important component of holistic time management.

Organization. You can still be successful in spite of being disorganized; but it takes greater effort and uses more of that precious resource called time.

Lifestyle. Overlapping with health, your lifestyle is one of your greatest allies in managing your time and life. It includes everything from your sleeping habits to your eating habits.

Internal body time. Overlooked in most traditional management workshops, working in sync with your biological clock makes life easier and allows you to accomplish more things with less effort. It also recognizes the brain's role in your concept of time; if you don't remember it, for you, it didn't exist.

Spirituality. It takes body, mind, and spirit, working in unison, to produce a long, healthy, happy, productive life. Holistic time management involves the development of all three. Your beliefs, attitude, purpose in life, personal policies and outlook all impact the way you manage time.

Time use. You can't ignore traditional ways of managing time efficiently and effectively. Setting goals, planning, scheduling, prioritizing, and focusing remain integral parts of holistic time management.

Interpersonal relationships. We do not work or live in isolation. How we interact with others – communicating, networking, delegating, socializing and collaborating – impacts our success in managing our time.

Cognitive skills. As mundane tasks are outsourced, innovative thinking, creativity and problem solving will become the gold rush of the future. With the advance of technology, effective time management is becoming more mental than physical. We must understand how our brain works, and how we can take advantage of its untapped power to enhance our time and life management skills.

Holistic time management looks at the total life of the individuals, as opposed to simply their environment, the equipment and methods they use, and their personal habits. Just as holistic medicine treats the whole person, so holistic time management goes beyond the quest for efficiency and effectiveness and looks at all aspects of a person's life.

Holistic time management recognizes and addresses the fact that there can be more than inefficiency and disorganization that impact an individual's performance. For instance, speed can generate stress, and stress can cause insomnia. Sleep deprivation can cause poor performance, a lack of focus, reduced creativity and so on. It goes beyond the symptoms and traces the individual problems to their source. It treats the whole person, not just their work habits.

You might define holistic time management differently than I do. You can Google it without finding much of significance online because the holistic approach to time management is a relatively new concept. Holistic health, yes. Holistic medicine, yes. But not holistic time management. I started writing and speaking about holistic time management about six or seven years ago. Whether I was the first to do so I don't know, and it doesn't matter. But I believe that you'll be hearing more about it in the future. You will hear the term applied to other disciplines as well, as we finally catch up with Socrates, who, in the 4th century BC, warned against treating only one part of the body when he said, "For the part can never be well unless the whole is well."

In chapter six I will provide more information on each the eight components of holistic time management as I have described them.

Consider the whole person, not just their work habits

2.1 The trend towards a holistic approach

It seems that holistic medicine has been around since time began, but as a separate field, and not quickly embraced by the medical community. Holistic health is a concept that upholds the belief that all a person's needs, psychological, physical and mental, should be taken into consideration and seen as a whole.

There is also holistic retirement planning, holistic marketing and other areas where a more holistic approach is being taken without it actually being called such. For example, an article in one of our local newspapers, the Toronto Globe & Mail, some time ago discussed the banks and their recent innovative holistic approach to retirement planning for their clients.

The Bank of Montréal (BMO as it is now called) has hired a life coach and gerontologist to coach clients on retirement planning from a holistic lifestyle perspective - as opposed to simply advising from a financial perspective with financial products and investment strategies. Similarly, the Royal Bank of Canada, (RBC), has hired a gerontologist and executive MBA to advise on retirement strategies.

The banks realize that as many as one in three Canadians are fast approaching retirement age and that the Boomer generation is expected to inherit \$1 trillion between now and 2029, so it's important that they offer retirement planning advice consistent with the times. The holistic approach to retirement involves all aspects of retirement, not simply financial considerations.

Research shows that if you have good social support as you age, you will live longer and healthier both mentally and physically, and less likely to end up in a retirement home. Other facts, such as a third of seniors who drink abusively didn't start doing so until retirement, and that more than half of a person's lifetime health-care expenses arise after age 65, and that depression is particularly a concern for men who leave the workforce, are all factors to consider - not just that they will need x dollars earning y interest in order to retire comfortably. But banks can't ignore traditional advice either, since 81 percent of retirees in Canada have no retirement savings.

The change in direction by the banks to address retirees' total needs as opposed to simply their financial needs is recognition of the whole person. The various needs do interrelate.

The holistic approach isn't confined to just a few disciplines or organizations. Holistic child care looks at all the areas of development of a child, including physical, emotional, intellectual and social. Businesses are taking the entire organization into consideration in its policies and processes. Anthropology, marketing, education are all involved in the holistic approach. And the time manager's and organizer's time has come as well.

2.2 A new look at an old topic

Trainers and consultants have been calling their programs "time and life management" when in fact the "life" part of it has simply been a reference to the fact that life involves time. During an interview about a previous book, Slowing down the Speed of life: a holistic approach to time management, I was asked, "Why did you write this book? Was your book, Making Time Work for You, not good enough?"

I told him that Making Time Work for You was good enough at the time - 35 years ago - and is still relevant since it is updated every few years, but that it is a basic book on traditional time management. It will keep you from being disorganized, inefficient and even increase effectiveness; but, it will do little to help you actually thrive in today's environment.

In thirty-five years, times have changed. The environment has changed. Thirty-five years ago we weren't so closely linked to computers, and certainly not to the Internet. We didn't do shopping and banking online, send electronic greeting cards, download eBooks and mp3s - nor were we bombarded by email messages, spam, text messages or cell phone calls.

Most of us weren't sleep-deprived or under as much of a time crunch. We didn't have 200 to 300 hours of backlog, spend 3 hours a day on social media or spend 18 hours a week playing video games. Nor did we spend up to 90 minutes just getting to work in the morning, and most of us didn't have to cope with gridlock, road rage or parking problems.

Thirty-five years ago, eating was not considered an inconvenience; speed-eating had not developed into a fine art, and the average time spent playing with our children each week was measured in hours, not minutes. Children weren't spending more time interacting with media than they spent sleeping or going to school.

In general, thirty-five years ago we didn't have to cope with the magnitude of anxiety, burnout, obesity, hurry sickness, addictions, depression, heart disease or cancer that we faced today. Many of didn't live long enough to encounter many of today's afflictions such as dementia and Alzheimer's - and our families didn't have the added role of caregivers.

Technology is increasing and along with it the fears of everything from an increase in ADHD to the possibility of brain tumors. The traditional time management we practised 35 years ago is no longer adequate if we are to regain control of our time and our lives.

2.3 The same symptoms can reveal different problems

Traditional time management is still essential. Holistic time management is an addition to, not a replacement of, the time management and organizing strategies that we have been promoting all these years.

But in many cases, time management consultants have been treating symptoms rather than problems. I have seen it happen many times and have been guilty of it myself. For example, someone might complain that they can't get anything done at the office because of the constant interruptions, and we immediately mask the underlying problem by treating the symptom – the interruptions.

"Close your office door when working on a priority project. Have specific times when staff members know they can reach you. Don't have chairs at your desk. Stand up as they enter. Ask what the problem is and set a time to meet with them later. Position your desk so there's no eye contact." And so on.

But the underlying problem might be a lack of communication on her part, and staff members may have to continually interrupt for clarification. Or maybe she keeps supplies, equipment or information in her office that people need to access. Or maybe her management style is such that they are afraid to make a decision on their own. It could be a lack of proper delegation. Or perhaps there are one or two staff members with an insatiable need to socialize.



You cannot offer workable solutions until you have fully understood the situation.

The holistic approach increases the possible number of underlying problems as well as the possible solutions. For example, a client may complain that they cannot get everything done that they should be doing in a day. Rather than assume that they could automate some things or work faster or smarter or eliminate the non-priorities or delegate, a little more digging might reveal that the cause of their problem is something seemingly unrelated to work.

It could be that they are actually not working effectively due to sleep deprivation, which could result in lack of focus, decreased energy level, and proneness to error and so on. Or perhaps they are in a job that requires making decisions constantly, which produces a greater energy drain, making them less productive as the day goes on. They may actually be unwell for a variety of reasons or be under a lot of stress from a personal situation in the home or any number of things that are related to mind, body or spirit, and which might require completely different recommendations.

In a holistic time management approach, a consultant would have to determine whether they are getting enough sleep or if they are working too fast or getting enough exercise or suffering from anxiety or stress, and so on. They could be addicted to technology or to the Internet or multitasking excessively.

A holistic approach requires additional questions, such as: How much sleep do you get on average each night? Do you have a keen sense of time urgency?

To whet extent do you use technology and the Internet?

Do you multitask on a regular basis?

Do you have a daily exercising routine?

What are the major stresses in your life?

What time do you normally turn off your computer & smartphone?

What are your working hours on average?

Does your job involve a lot of decision-making?

Could you describe a typical working day?

What are your eating habits?

3 The time management continuum

3.1 Time management is a journey, not an event

Time management is on a continuum – just like health and a lot of other things. For example, when most people think of their health they think of being either sick or healthy. But just because you are not sick does not mean you are healthy. Health is on a continuum. If you drew a straight line from the left of the page to the right of the page, at the extreme left you could mark "sick" and on extreme right you could mark "healthy." In the middle of the line would be the notation, "not sick." The majority of people are probably in this "not sick" area.

As I see it, organization and time management are on continuums as well. If you drew that same line from the left side of the page to the right side of the page, on extreme left you would be disorganized, inefficient, ineffective, and unproductive. On extreme right you would be very organized, very efficient, very effective, and very productive. In the middle of that line you would be "not disorganized", "not inefficient", "not ineffective, and "not unproductive."

And you *do* need traditional time management ideas to get you to this mid-point – and perhaps even further along the continuum. But you need *holistic* time management to take you to the far right, where you are not just surviving but are thriving.

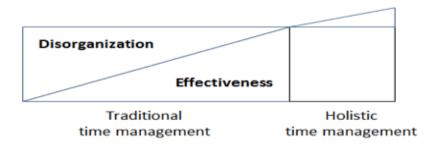
The first diagram below represents the impact of traditional time management and organizing strategies over time. You gradually become more effective as you implement the strategies, but eventually reach a limit,

Time Management Continuum



What makes you really excel at being productive and maximizing your results is the holistic approach to time management – those things that also impact body mind and spirit. This increase in effectiveness is illustrated on the second "Time Management Continuum" diagram below.

Time Management Continuum



The wedge-shaped area at the top right hand side of the diagram represents the further increase in effectiveness that can be realized through the application of holistic time management principles.

Factors to consider in applying holistic time management include exercise, getting adequate sleep, keeping your brain healthy and active, avoiding excessive stress, developing your executive, brain-based skills, watching what you eat and so on. You need to control technology, your workload, your emotions and even your attitude. And your spiritual and mental conditions have a big impact on your health, longevity, and state of mind.

I believe that in the future, greater emphasis will be placed on the holistic approach to time management. In fact, it is vital if we are to counteract the destructive aspects of technology and its concomitant impact on the pace of life, information overload, distress, and our health and wellbeing.

As indicated in chapter one, I have arbitrarily chosen 8 areas, in the form of an acronym, spelling out the word HOLISTIC to represent the things we must work on in order to extend our effectiveness using the holistic approach. I will be discussing most of them in greater detail. Others are already covered in detail in books that I have already published or will be publishing within the next few years. As indicated by the title, this is simply an introduction, or overview of the holistic time management approach.

One area that I will emphasize is cognitive skills, including those brain-based executive skills that are primarily responsible for executing tasks.

4 The hygiene theory of time management

4.1 Getting organized does not mean you will excel

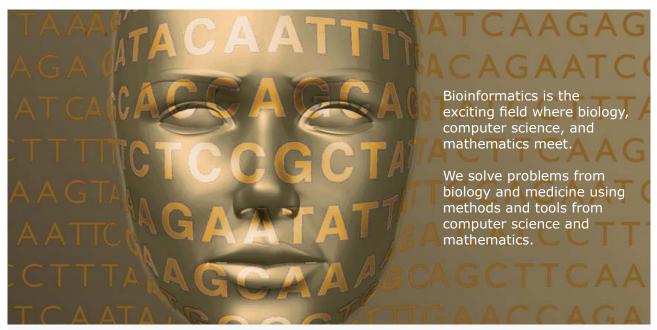
What keep you from being disorganized are not necessarily the same things that makes you effective. Here again, it can be compared to health. Flu shots, vaccinations, blood pressure pills and other medications may keep you from being sick; but they won't make you healthy. It's usually things like proper diet, adequate sleep, exercise, a positive attitude and relaxation that make you healthy.

Traditional medicine focuses on making us "not sick." And even that is frequently ineffective. If you have a headache, you take an aspirin and the headache disappears. Does that mean you are now healthy? No. In fact you're probably still *sick* but now you don't know it. An aspirin may cure the symptom, the headache – but it won't cure the underlying problem. It only masks the problem.

It's as if your car engine light came on and you promptly disconnected it. You would have eliminated the symptom only, and have done nothing to solve the problem.



Develop the tools we need for Life Science Masters Degree in Bioinformatics



Read more about this and our other international masters degree programmes at www.uu.se/master

Similarly other drugs such as Lipitor reduces the cholesterol reading, but does it treat the underlying problem? Perhaps it masks the problem. Physical activity has been shown to reduce total LDL cholesterol (the bad stuff), while raising HDL cholesterol (the good stuff). But diet and natural supplements can help control cholesterol levels as well. I'm not saying don't take medications for your problems; but I am suggesting that you do everything in your power to prevent problems in the first place.

In the same way, computers, may be masking time management problems. We can mask our inefficiency and keep productivity the same level by simply getting things done faster. But you will never be as productive as you would be if you solved your time management problems *before* delegating work to a computer. You have probably heard the expression that all computers will do, if you are disorganized, is to speed up your disorganization.

4.2 A new theory of time management

I got the insight from Hertzberg's hygiene theory of motivation. I always thought it was a great theory, and when I taught management theories and leadership at college, we were able to bring Frederick Herzberg to Toronto under the auspices of the *Canadian Institute of Management* and was fascinated by his approach to motivation in the workplace.

Frederick Hertzberg, developed his motivation-hygiene theory back in 1959 so there's nothing new about it, although at that time it was quite revolutionary. Basically it states that the things that motivate people are not the opposite of the things that de-motivate them. For instance, money, good working conditions, fringe benefits, good supervision etc. are all necessary to keep a person from being be de-motivated, just as garbage removal is necessary to keep you from becoming sick.

But those same factors won't motivate people to perform at their full potential any more than garbage removal will make them healthy. He called these things *maintenance* or *hygiene* factors and they involve the environment in which people work.

What motivate people to excel in their jobs are such things as recognition, challenge, a sense of achievement, promotion and opportunity for growth – factors that relate to the job itself.

Similarly, in time management, I see many traditional time management and organizing strategies as simply keeping you from being disorganized, non-productive and ineffective. You could call these strategies maintenance or hygiene factors as well.

But they won't necessarily make you a great time manager. What make you excel at being productive and maximizes your results are those things that we recommend in the holistic approach to time management – those things that also impact body mind and spirit.

I call them effectiveness catalysts and they include such things as the ability to focus, self-discipline, selfcontrol, decision-making skills and judgment, which are all executive skills, and lifestyle habits such as adequate sleep, exercise and diet, plus a few traditional time management skills such as planning, visualization, goal-setting and scheduling.

In motivation theory, hygiene factors involve the environment while motivators involve the job itself. Similarly with holistic time management, most hygiene factors involve the environment while effectiveness catalysts involve the persons themselves – or more specifically, their body, mind and spirit.

Hygiene factors for managing time include such things as having a focus hour, streamlining your handling of e-mail and meetings, the use of computers, smart phones, electronic communications and the Internet. Although they allow you to keep pace with everyone else and not fall behind, some of them also place additional burdens on the individual, such as multitasking, speed, 24/7 connectivity, reduced time for sleep, family and creativity. They also negatively impact many cognitive skills such as memory, focus and judgement.



5 The clock in your body vs. the one on the wall

5.1 Internal time management

Holistic time management considers body time, not just clock time. Most people are familiar with the concept of *early birds* and *night owls* and the necessity of using your peak energy times wisely. But internal time management also considers our mind's perception of time, not just our biological clock. Your brain stores the record of your life, and if files are missing, so are parts of your past.

The reason I wrote the book, "Slowing down the speed of life", is that I was fascinated and also concerned by the fact that time seems to go faster as you get older. Not only that, but it seems to be increasing exponentially with time. When you're in your seventies and you look back, it doesn't seem like 50 years or more since you started your first job. I would like 70 years to seem more like 70 years, not 30 or 40. To do this, I had to deal with our *perception* of time, not clock time. With the advent of functional MRIs and all the research being done on the brain these days, it is possible to study our brain's perception of time and recommend certain strategies that would influence that perception. Some of the strategies might be similar to things we recommended 35 years ago. But some of it is in conflict with what has been recommended by traditional time management experts over the years.

Why then does life still seem to go by faster the older you get? The popular explanation for this is that the brain perceives time as a rough percentage of total life lived. For a 10-year old child, one year represents 10 percent of their existence to date. That's a long time. But to a 60-year old, one year represents less than 2 percent of their life experience to date, giving the impression of it passing much faster. (*The rough guide to the brain* by Barry J. Gibb).

It is true, the older you get the faster life will seem to pass. But there is more to it than simply your age. Memory plays an even more important role. If you don't recall an event, for you in didn't exist, and there's a chunk of time missing from your life. Perhaps the best proof is to live to a ripe old age. So far, in my early eighties, I find this to be true.

Most people aren't very good at judging the passage of time. People are now even worse at judging time than they were 10 years ago. The speed at which time seems to be passing is relative. It depends on many factors, including what you are doing, the speed at which you are doing it, the environment in which it is being done, the way in which you are doing it and so on. In this fast-paced electronic age, where speed is the new commodity, time seems to be passing faster than ever.

We have all experienced times when we thought the day would never end, and other times when we wondered where the day went! That could be because of any of the factors that I just mentioned. It could be a boring job or an exciting or fast-paced one or whatever. Even your personality could affect your judgment. If you're a "Type A" personality with a keen sense of time urgency, waiting five minutes could seem like fifty.

I have had students in my workshops stand up, close their eyes and try to relax. Then I asked them to sit down after they thought that one minute had gone by. On the screen I had a PowerPoint slide ticking off the actual seconds. When they sat down and opened their eyes, most of them were shocked at the little time that had actually passed. Counting to themselves doesn't seem to help because "Type A" people simply count faster.

The first people start sitting down after 29 or 30 seconds, and it ranges all the way to 70 seconds or more. But over the years, more and more people are sitting down earlier. This is in line with our ever-increasing pace of life.

5.2 Parts of your past are missing

As mentioned earlier, when it comes to *past* events, time is all in the mind. If you don't remember something, for you, it didn't exist. And if there are chunks of your life that you don't remember, then of course time will have seemed to have passed very quickly. So *internal* time management, as I call it, which is included in the holistic approach, involves forming memories and keeping them intact. That's what my book, *Slowing down the speed of life*, is all about. And the same strategies that help you form and recall lasting memories happen to be the same ones that you would consider when taking a holistic approach to time management. They will take you from being merely organized to flourishing in your job and life.

In that book, I discuss ways to do this. In most cases they involve a change in the way you work and live. A fast-paced, multitasking life where you are constantly checking email and jumping from job to job is not conducive to forming long term memories. Neither is it healthy or productive. You have to control technology and be in more control of your life.

Here is a summary of the strategies for slowing the perceived passage of time as you age. For a more complete discussion please refer to my earlier book, *Slowing down the speed of life*.

5.3 Slowing your perceived pace of life

The book *Slowing down the speed of life* discusses in detail at least ten ways to do this. In most cases they involve a change in the way you work and live. First of all the brain is programmed to remember only those things that are significant. So the first strategy is to make sure there are memorable events in your life.

Have significant goals that are meaningful to you. This is a strategy of traditional time management as well. When you think about the past, what you recall are those significant things that happened – graduation, marriage, maybe a car accident or an illness and so on. Goals that you establish are significant items and they are more easily transferred into you long term memory. But limit the number of goals. Busyness is the enemy of both traditional and holistic time management. A few goals that are written down are best. Putting them in writing makes a bigger impression on your mind. You are more likely to remember them.

Work for shorter periods of time.

If you work on them in chunks of time rather than days on end, you have a better chance of recalling that time later. I usually recommend a maximum of 90 minutes at any one sitting. That way you have more starting times and ending times. For instance, when you memorize a list of items, you usually recall the items at the start and the end, but not in the middle. So you are more aware of what you did after the fact. What you are doing is making it easier for your brain to store the experience in long-term memory. Of course it has other advantages as well, since it increases your focus, reduces the number of interruptions, and makes you available to handle urgent priorities that tend to arise throughout your day. So this is one strategy that satisfies both traditional and holistic time management.

Add variety to your life.

You should add variety to your life and avoid too many routines such as going to the same place with the same people at the same time each year. Ten days of fishing off the same dock is not going to seem like ten activities to your brain. So don't be a creature of habit. Mix it up a little. Try different golf courses, vacation spots, theatres and so on. From a business standpoint, this tends to conflict with traditional time management, which promotes specialization, standardization, and an assembly line approach to getting things done.

Don't multitask.

By this, I don't mean you shouldn't set the table while the kettle boils or send email while a document is being printed. In those examples, your mind is not trying to concentrate on two things at the same time. You are simply utilizing idle time. But texting while listening to an audio recording or driving while on the cell phone or thinking about work while helping your child with homework are examples of dividing your attention between two activities. It is not conducive to getting either of them into your long-term memory. Of course if you get into an accident as a result of talking on a cell phone while driving, you will remember *that* because it's a memorable event. This doesn't necessarily conflict with traditional time management as it is taught today, but it certainly conflicts with general practice.

It's important to control your use of technology, not only because it facilitates and encourages multitasking, but researchers claim that being constantly connected to digital devices deprives our brain of the down time it needs to process information and consolidate memories.

Slow down

Some people are actually addicted to speed. They hurry even when there is no need to, and they only succeed in increasing their errors and making other people nervous. Speed is not conducive to long-term memories and the faster you go, the faster life seems to go. And of course it encourages unhealthy habits like eating fast food, driving faster, not listening properly and so on. And it certainly increases our stress level. Here again, there is a conflict because most people want to work faster, not slower.

Be in the moment.

Always focus on what you are doing, not on what you are going to be doing next. Enjoy the moment. Have you ever seen someone rushing down the street continually glancing at his watch? If you asked him the time, he probably couldn't tell you without checking his watch again. He wasn't looking at his watch; he was looking *through* it at the meeting that he was going to attend, how he would be embarrassed by being late or how they might be holding up the meeting because of him. That's why we are frequently poor listeners. During conversations we are frequently thinking about we are going to say next rather than paying attention to what was being said at the moment.

Scheduling activities in your planner helps because you are writing things down. I even write things down after the fact. For instance when we attend a restaurant I write into my planner the name phone number and perhaps address of the restaurant we had just attended. This reinforces it in my memory. You want to capture the present so it will become a part of your past.



Simplify your life.

Don't be an activity packrat. Don't take on too many commitments for yourself or your family members. In general, people's lives are too busy. The more that they crowd into their lives, the fewer things they will remember. Keep your life free of clutter. This refers to both material things and activities. Leave time to fully enjoy what life has to offer. We will never be able to stop the clock, nor slow down time's passing. But we are able to make life *seem* longer by appreciating what we already have instead of spending all our time striving for what we have not. *Traditional time management is not about doing more things in less time but rather doing fewer things of greater importance in the time that we have.* Even schools find that they can boost exam results by cutting back on the amount of homework assigned. This does not conflict with traditional time management recommendations – at least it shouldn't!

Exercise both your body and your brain.

Keep your mind active as you get older. Do crossword puzzles, read, take courses, be creative, and challenge yourself. If you retire physically, don't retire mentally. Studies suggest that maintaining intellectual activity throughout life can preserve memory in later years. Physical exercise is even more important. You need to keep the blood flowing to the brain with the oxygen and glucose that it needs to operate at its peak. Exercise helps guard engaged cognitive decline.

People who exercise regularly in middle age are one third less likely to get Alzheimer's disease in their 70s as those who don't exercise. The brain is only 2% of the bodyweight but consumes over 20% of the oxygen. The brain is responsible for our memories so we better look after it. This includes proper diet. In traditional time management, we tell people to make time for exercise; but don't necessarily suggest exercise itself as a time management strategy. This is true for several of these recommendations, including the next one.

Get enough sleep.

That's when memories are thought to be transferred into long-term storage. New things you have learned are being processed and memories are being organized and stored. Also old and worn out cells are being replaced. And losing sleep can lead to weight gain. Research proves that obesity, diabetes, hypertension, cancer and depression are related to the amount and quality of sleep. But people get 90 minutes less sleep today than they did 100 years ago. In my lifetime the average amount of sleep a person gets has dropped from just over eight hours to 6.7 hours. Anything less than six hours and you're considered to be sleep deprived. So sleep itself becomes a time management strategy.

Follow your biological clock

Our brain has an accurate biological clock. An article in the March, 2008 issue of *Scientific American Mind* states that even when deprived of external time cues, people will complete the cycle of sleeping, waking and eating on a somewhat regular cycle. We would be more productive if we followed our biological clock rather than the one on the wall, and ate when we were hungry and slept when we were tired – instead of pumping ourselves full of coffee and burning the midnight oil. It's a fact that students do better on exams after a good night's sleep. Also there is an optimum time to do your more difficult, critical work.

Be in control of our own life.

At the root of most stress is the feeling of being out of control. I'm sure you know the feeling if you have ever been stuck in traffic, or waiting in a long line or suddenly told that the unrealistic deadline on your project has suddenly become more unrealistic. That's where traditional time management such as planning and scheduling and managing your e-mail and managing technology comes into play. If we are in control of our lives, and not being swept along by the demands of others, it's a lot easier to slow down, be in the moment and practice many of the things we have just been discussing. It's also imperative that we take breaks throughout the day as well as regular vacations. 24 percent of Canadians, for example, are not using up all their allotted vacation time. And researchers tell us that Americans have less reflection time than almost any other culture in the world.



6 Treating the whole person

6.1 Health

Although time has been touted as your greatest asset, it is really your health that is your greatest asset. And too often, health is being put at risk in order to save time. Health management is the most important component of holistic time management.

When you feel sick you couldn't care less about productivity; you only care about getting better. All the things you thought really mattered, like money, possessions, your goals and aspirations, suddenly don't matter.

Unfortunately most people don't think about their health until they're sick, and then it could be too late. Regular check-ups, diet, exercise, adequate sleep are all strategies that help keep you healthy, but have the added impact of increasing your energy level, personal productivity and mental agility as well.

My book, *Sleep: a time management strategy* covers in detail the benefits of sleep. Insufficient sleep slows reasoning ability, logical thinking and reaction time as well as motor skills and manual dexterity. Performance suffers as well as your health. It lowers the tolerance for frustration & heightens interpersonal sensitivity. It impairs focus, problem solving and memory. People who brag that they get by on 5 hours a night and it doesn't affect their productivity or energy level at all, don't realize that it's their sleep-deprived brain that's telling them that.

As research for my book, I increased my sleep time from an average of 6 hours a night to 7 hours a night, and I *know* it has increased my personal productivity and energy level as well as my mood. That's why I refer to sleep a time management strategy. I now view the one hour of additional sleep as a time investment that pays dividends in terms of what I can achieve.

What you put into your body is important as well. Fast food is tempting in this age of speed – especially when you live alone as I do, and are responsible for cooking your own meals. I facilitated a seminar in Mexico last year, and handed out a grid of what I put in the oatmeal that I cooked each morning for breakfast, indicating the ingredients such as blueberries, flax seed, cinnamon, bananas and honey, and indicating why they were added – to reduce cholesterol, high blood pressure etc. It pays to eat healthy foods.

It's a good idea to consult health practitioners but you have to participate actively in your own health as well.

6.2 Organization

You can still be successful in spite of being disorganized; but it takes greater effort and uses more of that precious resource called time.

When you are organized, you consume less energy in getting things done. We all have limited energy to spend each day, the amount depending on our physical condition, sleep habits and so on. When the energy is at low ebb or depleted, you are less productive, have slower reaction time, and make poor decisions.

An article appearing in the *New York Times* described the results of this energy drain on a parole board's decisions. After examining more than 1100 decisions over the course of a year, it was found that prisoners who appeared before the board early in the morning received parole 70% of the time; but those who appeared late in the day were paroled less than 10% of the time. In at least one incidence, two prisoners were serving the same sentence for identical crimes and yet the one appearing at 8:50 a.m. was paroled while the one appearing at 3:30 p.m. was denied.

Ruling on case after case throughout the day caused decision fatigue and warped their judgment. And it can have a similar effect on all of us if we do not manage our energy as well as our time.

And there are a lot more advantages of getting organized than simply conserving energy. That's why I include both traditional time management and organizing in workshops on holistic time management.

For instance an article in the April 6th 2013 issue of *The Globe & Mail* claimed that being orderly is a necessity, and that one U.S. study found that employees lose 76 hours per year as a result of disorganization. And an earlier 2010 article in the same publication claimed that organizing one's workload and prioritizing tasks can help lead to less stress as well as big gains in efficiency. UCLA researchers discovered that even the sight of clutter can induce the production of stress hormones – yet another reason to get organized.

A *Toronto Star* article (May 3, 2012) described a case study in which a woman running three businesses out of her home hired a professional organizer (Clare Kumar of Streamlife) and claimed that after getting control of her workspace, she increased her productivity and has more free time. She further recommended that if anyone is struggling to adjust to a home-office environment, organization is the key.

6.3 Lifestyle

Overlapping with health, your lifestyle is one of your greatest allies in managing your time and life. It includes everything from your sleeping and working habits to your leisure time and physical activities.

We also know that not getting enough sleep has been associated with reduced blood flow to the brain, which leads to bad decisions, and I already mentioned that decision-making consumes energy. But putting a heavy demand on the brain through continually working on cognitive tasks without sufficient breaks can have a similar effect. That's why you're more easily distracted when you are tired, and have trouble remembering things. Always do your prioritizing and planning when you are fresh.

In my book on sleep, I mention a survey conducted in the U.S. and Europe, surveying 500 managers and 500 employees, which showed that employees are working earlier in the morning and later in the evening whether they are at the office or not. Reported in *CBS MoneyWatch*, the survey found that the average person starts checking email at 7:42 a.m. but gets to the office at 8:18 a.m. 60 percent of employees check their work email after 6:30 p.m. and the average American worker puts in almost an hour of work before arriving at the office. 80% of bosses say it's okay to call staff in the evening.

Research shows that adults working 11 hours a day or more had a 67 percent higher risk of developing coronary heart disease, the nation's leading killer, than those who worked 8 hours a day. Those who worked 10 hours a day had a 45 percent higher risk of heart disease than those who worked 8 hours a day.

Stress is another factor to consider. It continues to increase as technology and the pace of life and working hours increase. To build stress tolerance, make sure you schedule adequate leisure time, build quality relationships with others, laugh often, keep healthy and physically fit, participate in relaxation exercises and massages, get plenty of sleep, and don't take yourself too seriously.

Meditation or mindfulness can also help you change the way you perceive potentially stressful situations. A *Newsweek* special issue, *Your Body* (October, 2014) suggested that taking 15 minutes a day for silent meditation can help lower stress levels and prevent it from increasing in the first place. Studies showed that even taking a few deep breaths can lower cortisol levels.

INNOVATIVE LIKE YOU.

If you're hoping for a truly modern education, one where you're encouraged to speak your mind and to think long-term, both when it comes to your own future and the future of the planet. Then the University of Gothenburg is the place for you.

Study a Master's programme in Gothenburg, Sweden | www.gu.se/education



6.4 Internal body time

Overlooked in most traditional management workshops, working in sync with your biological clock makes life easier and allows you to accomplish more things with less effort. It also recognizes the brain's role in your concept of time – if you don't remember it, for you, it didn't exist.

When we sleep, we do so in approximately 90-minute cycles throughout the night, each cycle consisting of five stages – four stages of non-REM sleep (about 75 percent to 80 percent of our sleep time) and one stage of REM sleep (about 20 percent to 25 percent of our sleep time.) The first REM stage begins about 90 minutes into sleep and then the cycle begins again about every 90 minutes until you wake up.

What most people don't realize is that these 90-minute "sleep cycles" run through the entire day. We obviously don't sleep during the day if we have slept during the night, but the cycles become waves of high and low energy and are referred to as *ultradian* rhythms. Our internal clocks are critical to our personal performance as well as our health and well-being. Our body has many internal "clocks," each operating independently but in constant communication with one another.

In a few of my books and articles and all of my seminars, I talk about scheduling projects in 90 minute segments. I have always known that I was more productive working in sixty or ninety-minute chunks of time, and I suggested all kinds of reasons for it – such as it was the maximum amount of time I could work without having to be interrupted or even interrupting myself. But I never knew until recently that ultradian waves of high and low alertness had actually been identified.

One study of young violinists back in 1993 revealed that the best violinists all practiced the same way – in the morning in three segments of no more than 90 minutes with a break between each segment. The same thing was noticed among other musicians as well as athletes, chess players and writers.

I recommend that people find their high energy time in the morning and start working on their top priority for about 90 minutes. Then take a break of about 15 or 20 minutes before starting the next task. Following the second 90-minute work session there should be a break of at least an hour before resuming. (This could be lunch and a brief walk.) It will take time to get into the right pattern. You have to listen to your body to determine the best start time and the actual duration of your high-alertness cycle.

You don't necessarily have to take a coffee break, go for a walk or do stretches during your breaks as long as you switch to a different type of task. There are three basic types of activity – mental, physical and emotional. If you have been working on a mental task requiring intense concentration, cleaning your work area, filing or checking messages on Twitter or Facebook for twenty minutes might be just as relaxing to the mind.

The problem is that people have been fighting their natural body rhythms with coffee and other stimulants and developing inefficient working habits just as they have short-circuited their natural sleep cycles with late nights, artificial lighting and stimulating electronics.

Another example of internal time is the difference in the high energy times for early birds and night owls, referred to earlier. And yet another example is how quickly or slowly time seems to pass. I discussed this in detail in chapter 5.

6.5 Spirituality

It takes body, mind, and spirit, working in unison, to produce a long, healthy, happy, productive life. Holistic time management involves the development of all three. Your beliefs, attitude, purpose in life, personal policies and outlook all impact the way you manage time.

Spirituality means different things to different people. When Hans Selye was asked "what's the most stressful condition a person can face?" his response was "Not having something to believe in." Death camp survivor Viktor Frankl, author of the book *Man's search for meaning*, defined it as having a sense of meaning and purpose in life. I have seen the power of purpose in action where a dying person stayed alive long enough to see a loved one or witness an event. But I've yet to hear of one case where a person lived longer because they didn't want to die. It is not fear that motivates us; it is purpose.

Spirituality has been described as everything from religion or belief in God to having a personal set of values, attitudes and practices. Some people feel they have spiritual experiences when they are in contact with nature, listening to music, participating in yoga or in relaxation exercises, meditation and so on. For me it's simply faith in God, and I have witnessed the power of prayer in my own life and that of my family.

One thing is certain; spiritual people tend to live longer, happier, healthier lives. Research from the *University of Toronto* showed that thinking about God or other spiritual beliefs keep you calm under fire. People with depression who believe in a caring, higher being are 75% more likely to get relief from medication. 99% of the physicians in 1999 meeting of the American Academy of family physicians said they believed that religious beliefs aid healing. Doctors and scientists have found that praying for someone in their presence has remarkable results in healing some patients.

Weekly attendance at church services and religious study at home may cut your risk of high blood pressure by 40%. People who go to services more than once a week have half the risk of major depression as those who attend less often. Many of these facts could simply be the result of being with like-minded people, experiencing a sense of belonging, the power of the mind and so on, and not necessarily have anything to do with the existence of God.

Some doctors are starting to take "religious histories" during office visits as well as health histories and about 30% of US medical schools offer courses on spirituality and health.

6.6 Time use

You can't ignore traditional ways of managing time efficiently and effectively. Setting goals, planning, scheduling, prioritizing, and focusing remain integral parts of holistic time management.

Relatively few people have learned to take advantage of their natural body rhythms and surf the waves of high and low energy level throughout the day.

Starting in the mornings we tend to get sleepy every 90 minutes. As mentioned earlier, these 90 minute cycles are ultradian rhythms, which determine when we feel alert and productive. We perform best during these 90 minute cycles, with about a 20 minute "sleepy zone" in between.

If you force yourself to work on high energy tasks after the 90 minutes, your performance suffers and you get a very low return on your invested time. It makes sense that when you are concentrating on the same task for a long time, your brain needs a break. But a change in itself is relaxing, and doing low-energy work like checking e-mail is usually okay.

If we are to be productive at work and energetic during our personal or family time, we must listen to our body clocks and not just the ones on the wall. The world was created with built-in cycles. The earth has its seasons, the flowers bloom at different times, and we have our cycles of waking, sleeping, hunger and so on. It has been found that our bodies even have clocks in our lungs, liver and pancreas, not just our brain. It may be discovered that we have a clock in every cell in our body.

The traditional time management ideas that I promote are to have a personal mission statement, a set of personal policies and annual goals. Time is then blocked off in your planner to work on those goals. During these work sessions, Email, telephone and text messages are ignored.

6.7 Interpersonal relationships

We do not work or live in isolation. How we interact with others – communicating, networking, delegating, socializing and collaborating – all impact our success in managing our time.

Although we tend to blame our time problems on others, including socializing at work, interruptions and meetings, the higher the quantity and quality of your relationships, the longer you live. That's the message we get from examining the research in that area. Strong relationships lengthen your life, boost your immune system and cut the risk of depression.

Data collected from *Brigham Young University* showed that people with active social lives were 50% less likely to die of any cause than their non-social counterparts. Low levels of social interaction evidently have the same effects as smoking15 cigarettes a day – and even worse effects than being obese or not exercising.

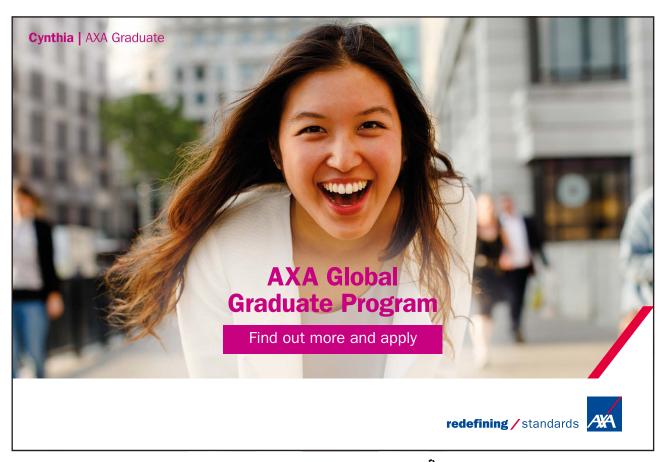
Research by Sheldon Cohen of *Carnegie Mellon University* suggests that the more social connections you have, the greater your ability to fight infection. A *University of Michigan* study of 3500 people revealed that the more time spent with friends was associated with higher scores on memory tests. And interaction with people provides greater brain stimulation than a computer monitor or TV set.

Researchers at the *Mayo Clinic* say that having friends can increase your sense of belonging and purpose, boost your happiness, reduce stress, improve your self-worth, and help you cope with traumas such as divorce, serious illness, job loss or the loss of a loved one.

6.8 Cognitive skills

As mundane tasks are outsourced, innovative thinking, creativity and problem solving will become the gold rush of the future. With the advance of technology, effective time management is becoming more mental than physical. We must understand how our brain works, and how we can take advantage of its untapped power to enhance our time and life management skills.

What I mean by this is that systems, procedures, organizing tools and technology will not improve your time management skills as much as such things as willpower, self-discipline, the ability to focus and to resist distractions. These are examples of our executive skills, which will be discussed in the chapters that follow.



7 Executive function

7.1 The CEO of your brain

Sometimes referred to as "habits of the mind", a person's *executive skills* are those brain-based skills required to execute tasks – that is, such things as getting organized, planning, initiating work, staying on task, controlling impulses, regulating emotions, and being adaptable and resilient.

Up to twelve executive skills have been identified, according to recent books, and these skills primarily reside in the front part of the brain called the prefrontal cortex. As David Rock, author of *Your brain at work* explains, without the prefrontal cortex we wouldn't be able to set goals or visualize a future we had never seen before. We wouldn't be able to think creatively, make decisions, solve problems or control the flood of information entering our brain.

The executive skills take about twenty years to fully develop – and some never fully develop. Teenagers sometimes make poor decisions and do things on impulse – their brains are not fully developed yet. In general, people with weak executive skills are those who have trouble getting organized, managing time, planning ahead and staying focused. They tend to be impulsive, get side tracked easily, and procrastinate. Children with these characteristics would probably be diagnosed as having ADHD. Many researchers believe that ADHD is a disorder of executive skills.

The executive skills I'm describing seemed close to what we used to teach managers or executives in workshops and business students in college. The functions of a manager are planning, organizing, staffing, directing and controlling – and includes innovating, decision-making and representing. When we were training managers we tried to show them how they should plan, organize, staff and so on in order to become better managers.

In retrospect, it would appear that some students were already good in those areas because of some highly developed brain skills. In fact the prefrontal cortex, where the executive skills are believed to be located, is sometimes referred to as the CEO of the brain, drawing on the feedback from other areas of the brain and making the decision whether to take one course of action or another.

Although there are similarities between the management functions that we teach and executive brain skills, the executive skills, as we are describing them here, relate to brain skills acquired through normal development.

Executive skills are critical in today's world because life is getting more and more complicated with increasing numbers of choices and decisions to make and less time in which to make them. The ability to set goals, plan and prioritize, and stay on course is vital if we are to remain effective in this digital age of speed.

7.2 Executive skills play a major role in holistic time management

In holistic time management, we take into consideration whether certain executive skills should be strengthened, whether we are fully taking advantage of the body's biological clock, whether we are taking into consideration all aspects of body, mind and spirit, rather than simply addressing the surface symptoms of a disorganized desk, procrastination or inadequate planning.

The "executive center" is the calm, cool and collected manager in our brain that sees the whole picture; but there is also the reactive part of our brain as well, which is interested in our survival, and anything it sees as a risk, it resists. A long, arduous project, such as writing a book is seen as a threat. A brief 90-minute stint at writing is not. The *reactive* brain thrives on short stints. (That's why interruptions come so easily and frequently, and why I am writing this book and many others in brief 90-minute stints.)

What you are really doing when you work in shorter periods of time is making it easier to do the right thing. In other words, you're making it easier to stick to the task at hand as opposed to interrupting yourself.

Recent research explains self-discipline versus a lack of control as a battle between two emotional systems – our impulses and our power of reflection. The May/June, 2011 issue of *Scientific American Mind* explains that the strength of these impulses to go with the interruption – which may seem more pleasurable at the time – varies depending on the individual and the situation.

For example, if you're hungry, the aroma of coffee and muffins might trigger an interruption to the task you're working on. It's more difficult to ignore a strong impulse than a weak one. That's why they tell you not to go shopping on an empty stomach. And that's why I recommend that you work in an environment that does not favor interruptions.

Reflective thought on the other hand, involves reasoning and planning and is one of the "executive skills" which reside in the prefrontal cortex part of the brain. When you set a goal, plan a project and schedule time for a task, that's when reflective thought comes into play.

Executive skills can still be strengthened when we are adults, and that's one of the strategies encouraged in holistic time management training.

If you want to read up on executive skills, there are two books in particular that I would recommend. One is *Smart but Scattered* by Peggy Dawson and Richard Guare. It is directed primarily at parents and takes one skill at a time and discusses ways of working with your child to strengthen that skill.

A more recent book, where the same authors teamed up with Chuck Martin, who has been researching this area, is called *Work Your Strengths*: a Scientific Approach to Identify your Skills and Match Them to the Best Career for You, published by AMACOM, New York in 2010. It doesn't focus on strengthening these skills, but rather, matching your stronger skills with jobs that require those skills in order to excel.

7.3 Strengthening your executive skills

In the next three chapters are descriptions of the various executive skills described in the book, *Work Your Strengths*, by Richard Guare, Peg Dawson and Chuck Martin. The authors claim that people are usually strong in two or three skills and weak in two or three, and average in the rest. The theme of their book is to position yourself in a job that requires your particular strengths and does not rely heavily on your weaknesses.

But everyone can benefit from a conscious effort to strengthen all the executive skills and I have included some actions you might take to strengthen each skill as it impacts your time management. I have grouped the executive skills into three groups; those that prevent you from getting started and sticking to a task once you start, those that prevent you from setting clear goals, planning and organizing your work, and those that hinder your progress once you are underway. I have devoted a chapter to each group; but please note that both the groups and the individual skills (and their weaknesses) overlap.



8 Weaknesses that keep you stalled

8.1 Response inhibition:

Response inhibition is the ability to think before you act. If you're not impulsive, and take a methodical approach to things, you're probably strong in response inhibition. But if you are impulsive, tend to say the first thing that pops into your mind, do things without thinking the long-term impact of these actions, you are weak in this skill.

Suggested action:

If you are impulsive, you can practice willpower. For example, break your favorite chocolate bar into 7 pieces and have only one piece a day. Grab water when you have an urge for a coke. Give up dessert for a week. Decline invitations you don't enjoy. Don't respond to an emotional email until the following morning. Use the stairs instead of the elevator, and so on. The more you practice self-discipline, the more your inner strength grows, just like exercising at a gym increases your physical strength. Your brain will be rewired through the repetition of good habits so keep at it until it becomes a habit. Start small with actions that require minimal expenditure of willpower energy and gradually work up to more mentally demanding behaviors.

Walter Mischel, in his book, *The Marshmallow Test* (September, 2014), suggests there is a limit to how much self-control we can exert before fatigue take over, so don't take on more than you can handle. It took about 20 years for your executive skills to develop so it will take more than a few weeks to strengthen them.

It's important that you have goals and objectives and plans to achieve them. Then you have a reason to resist the temptation to go wherever your impulses take you. The more you resist temptation, the easier it becomes. Self-discipline is the rejection of instant gratification in favor of something better – a higher and more rewarding goal.

To strengthen this and any other executive skill, you must buy into the fact that you are not your brain. You can control these impulses and actually rewire your brain with sufficient effort. If you delay answering a derogatory e-mail until the following day or count ten before responding you will eventually get into the habit of thinking before you act.

Of course with all of these skills, if you find you are weak in them, you should try to create an environment that does not support them. For example, in the marshmallow tests kids were best able to delay gratification if the candy or marshmallows were out of sight. So when you're working on a project, don't have a work area with a beautiful view or if you do, close the drapes. Close e-mail programs, close the door, face the wall, have proper lighting, a comfortable chair, get rid of distracting photos, trophies or memorabilia, choose a pleasing color scheme, have a clutter-free desk and so on.

8.2 Sustained attention

Sustained attention is the capacity to focus on a task despite fatigue or boredom, being able to maintain attention and not be easily distracted or side tracked. If you are strong in in this skill, you are able to screen out distractions and complete a task even if it is boring and you're tired.

But if you're easily distracted, have trouble completing tasks, interrupt yourself to deal with e-mail etc. then you have weak sustained attention skills.

Suggested action:

There was an experiment conducted over 12 years ago that involved subjects watching a video of a basketball game. The psychologists showed the same video to everyone. A person dressed in a gorilla suit walked across the playing court during the game. Half the viewers never noticed. They coined the phrase "illusion of attention" to describe the fact that we are unaware of how much we are really missing in our visual world.



When you are focusing on a task, whether it is watching TV or working on an article or thesis, the mind tends to filter out distractions so that "intentional blindness" is a side effect of your power of concentration. If you're not looking for it, chances are you may not see it. As a case in point, 75 percent of the cases where DNA evidence frees someone previously convicted of a crime, the accused had originally been convicted by the testimony of eye witnesses.

You can use this fact to work more efficiently by focusing on a task even in a noisy environment or one in which people are forever walking past your field of vision. If you are interested and focused on what you are doing, you will be less susceptible to self-interruptions.

Most people seem to be able to pay attention to things that they do well, whether it is texting, drawing or working on jig saw puzzles. But they may have problems with common tasks that bring no sense of pleasure or sustained interest. John Ratey, in his book, *Spark: The revolutionary new science of exercise and the brain* (2008) explains this by saying that the reward centers of the brain send messages of satisfaction or pleasure to the prefrontal cortex when they are engaged in pleasurable activities, providing the motivation to continue. Focusing on something that is of little interest or more difficult for you also consumes more of your energy. It has even been shown that making decisions consumes a lot of energy – to the extent that decisions made later in the day are not as sound as those made earlier in the day.

Also, the brain is goal-oriented, and if the expectation of achieving a goal is strong, and the rewards are great, attention is strong for longer periods of time. Therefore it would help if the tasks were reasonably easy, took shorter periods of time, were connected to a definite plan of action or schedule, and offered benefits that were clearly evident.

Although the obvious solution seems to be to work on projects and tasks that you enjoy, this is not always possible. So work on them in shorter periods of time.

Those who think they are good at multitasking are usually the worst at it. Although researchers have identified a few "supertaskers," who can focus fully on two or more things at the same time, chances are we're not one of them. Stick to one task for only 90 minutes – less if you find you can't focus that long. If you are able to get two of these work sessions into each day, you will be head and shoulders above most people when it comes to personal productivity. And you will be strengthening your attention skill in the process.

8.3 Task initiation

Task initiation is the ability to begin tasks without undo procrastination; you have no problem digging right into a task at the scheduled time. You don't keep putting things off. You have no trouble getting started at the beginning of work day. But if you tend to procrastinate, are slow getting started, do a lot of preliminary stuff like read the paper, have a coffee, straighten your desk etc. then you are low on task initiation.

Suggested action:

Most people procrastinate occasionally. Weak task initiation skills are one of the major causes of poor time management. Piers Steel, a *University of Calgary* psychologist, after analyzing psychological literature, concluded that 95 percent of people admit that they sometimes procrastinate.

Telling other people about your specific goals and making commitments rather than just voicing intentions have been known to help. Also recording starting times – including blocks of time in which to do your priority tasks – is a good idea. Having all materials ready before you start so there's no excuse to interrupt yourself, and doing unpleasant tasks first are good ways to partially compensate for weak initiation skills.

Forming a habit of starting for early in the morning, having policies as to when you work on various tasks and choosing a quiet location all might help.

Through environmental and procedural changes it will be easier to resist the temptation to put things off. And the more you practice self-discipline, the stronger the neural connections in the brain, and the stronger those task initiation skills will become.

Trust and responsibility

NNE and Pharmaplan have joined forces to create NNE Pharmaplan, the world's leading engineering and consultancy company focused entirely on the pharma and biotech industries.

Inés Aréizaga Esteva (Spain), 25 years old Education: Chemical Engineer

– You have to be proactive and open-minded as a newcomer and make it clear to your colleagues what you are able to cope. The pharmaceutical field is new to me. But busy as they are, most of my colleagues find the time to teach me, and they also trust me. Even though it was a bit hard at first, I can feel over time that I am beginning to be taken seriously and that my contribution is appreciated.



9 Weaknesses that block your intentions

9.1 Planning/prioritization

Planning/prioritization is the ability to determine what's important and to develop a road map to arrive at a predetermined goal, following a step by step action plan to complete a project. You think clearly about each project, think through various steps, and set target dates.

If you have trouble prioritizing and don't know where to start, and have trouble making plans, you are weak in this skill.

Suggested action:

You could start by making a "To do" list or checklist of tasks, activities and projects to be completed. Checklists are normally used for repetitive activities such as packing for trips, preparing for meetings or shopping for supplies. These become standing plans since they are used over and over again. "To do" lists change daily and are best recorded directly into your daily planner, either hard copy or electronic. The problem with separate single-sheet "To do" lists is that they are easily misplaced or overlooked – especially if you have a weak organization skills.

When you see all your tasks listed you are more easily able to compare them and select those of greater importance. Ask yourself which ones would have the greatest impact on your personal and business goals, and ultimately your success in life. At this stage you could put checkmarks on those of greater importance. Then take the more important ones and actually schedule them into your planner as though they were school classes or appointments with other people. For example, you might put a box around 9 a.m. to 10:30 a.m. and write "Work on article." This becomes a commitment to meet with yourself from 9 a.m. to 10 a.m. to work on your article. Making two or three such appointments throughout the week will ensure that the article is completed on time.

The items of lesser importance could be left on your "To do" list and you can do them later if you still have time after completing the priorities. Don't be fooled by items that are urgent, but not important. If not getting them done will have little impact on your job or life, leave them on your "To do" list to die a natural death.

As you practice this technique, your planning/prioritization skills will strengthen, as well as many of the other executive skills such as time management and organization.

You can make planning and prioritization a habit if you schedule planning time in your planner every day. For example, set aside twenty minutes or more every afternoon or evening to compare the priority of those tasks that you have already scheduled for the balance of the week with those that you have added to your "To do" list in the meantime, and make any necessary adjustments. Priorities do change; but if you are constantly reviewing them, you will be certain to get the important things done.

9.2 Goal-directed persistence

Goal-directed persistence is the ability to have a goal and follow through until its completion. If you are strong in this skill, you have a good record of achieving goals that you set. You are steady, persistent and reliable, and seldom let setbacks or obstacles prevent you from completing a project on time.

But if you are controlled by your environment, and others, and have trouble focusing beyond the present moment, you are weak in this skill.

Suggested action:

Setting goals, recording them in your planner, using the chunk method of taking small steps at a time, working towards deadlines, having plenty of breaks, will both help you to be productive in spite of this weak skill – as well as help you to strengthen it.



It's important not to overwhelm yourself with too large a goal. Our short-term memory, discussed earlier, allows us to hold only a limited amount of any project in our mind at any one time. So it is important to break a large goal into smaller segments and work at these segments step by step.

For example if you want to organize your office, you would select one area, say a filing cabinet, and focus entirely on that, one drawer at a time. Setting a deadline of one drawer a day, and picking a specific time, say 3 p.m. to 4 p.m., will allow you to schedule each task as though it were a business meeting. When scheduling the time for each session, be sure to allow more time than you think it will take. And if it takes two or more sessions to finish the first drawer, don't let that bother you. You can adjust the time allowance for the other drawers.

The important thing is to build the habit of spending a certain amount of time each day working on a specific goal-related task. You can then apply this habit to any goal, no matter how large, whether it is writing a book one chapter at a time, completing a self-study course one lesson at a time or becoming a super salesperson one sale at a time.

You will also encounter both internal and external distractions that could impede your progress. That's why the other executive skills discussed in these chapters are important as well – such as response inhibition, sustained attention and emotional control. Internal distractions could include such things as stress and tiredness as well as self-interruptions. So it's important to get adequate sleep, a healthy diet and plenty of exercise. These are especially important to strengthen your goal-directed persistence and other executive skills since we are more easily side-tracked and lack energy when we are tired, stressed or ill.

9.3 Metacognition

Metacognition is the ability to observe yourself in a situation and make changes so you're better able to solve problems. If you are strong in this skill you can see a situation objectively and evaluate how things are going.

But if you don't think through the possible results of your decisions, tend to make quick decisions, often repeat the same mistakes, and don't think through long-term consequences, you are weak in this skill.

Suggested action:

Metacognition is not an easy skill to develop because we have to step outside of ourselves – and our subjective thoughts, habits and biases – to look at each situation objectively. As David DiSalvo says in his book, *Brain changer (2013)*, we have to "think about our thinking," Although the prefrontal cortex is responsible for higher- order thinking and reasoning, multiple brain areas are involved in metacognition as well as in other executive skills.

We all have memories from the past – many unconscious ones – that influence how we think, feel and react to different situations and behaviors. With a strong metacognition skill you are able to actively examine each situation on its own merit while resisting the impulse to react involuntarily. By doing so you can more easily adapt to change, make better decisions and become more creative and successful.

Since our brain is plastic, we can train ourselves to improve our metacognition; but it takes a conscious effort to reject unconscious and false beliefs and reasoning. As mentioned previously, the brain is more flexible than most people realize. Through practice you can strengthen any skill, and maintain conscious control of your thinking. You can't stop thoughts and feelings from popping into your mind; but you can question their validity.

I choose to view the mind as a separate entity that can control the brain. The brain is a computer that will never be duplicated in its complexity and amazing functionality. But the mind is who you are, and the brain is at your disposal. But it doesn't come with a user's manual, except for the findings of the neuroscientists, and you must learn how to operate it yourself. And just as we can be controlled by technology instead of the other way around, we can be controlled by our brain if we don't take charge.

You must do your own programming and updates. You must service your brain regularly with proper diet, exercise and mental challenges to keep it in good working order. Read. Continue with lifelong learning. Maintain an active social life. Never compromise on sleep. Manage stress. And question your own thinking so you don't feed it faulty information. Apply the old GIGO acronym to your brain – garbage in, garbage out.

9.4 Organization and time management

Time management an organization are usually treated as two separate skills, but they are so closely related I will discuss them both together. Organization is the ability to arrange according to a system. If you are neat, detailed and orderly, generally have a place for everything, and have no trouble keeping track of everything, you have strong organization skills. But if you're messy, continually lose or misplace things and have no system for filing or handling e-mail or organizing other information, you are likely weak in this skill.

Time management is the ability to estimate and allocate time effectively. You are good in the skills if you have little trouble meeting deadlines, have a good sense of time passage, and know the importance of time. You're seldom late for meetings or appointments, set target dates, schedule your time and meet commitments. But if you're always running late can't account for where half your time went, have trouble estimating how long things will take, and fail to meet target dates, you are weak in this skill.

Suggested action:

If a person is weak in these skills – or in any of the executive skills being discussed in this blog – they can actually strengthen the skills by adopting systems that partially compensate for these weaknesses.

In the case of time management and organization, you could use of hardcopy planners and reverting to the old habit of writing things down and doing one thing at a time. This does not mean that you should abandon the use of technology, including the Internet, e-mail, iPhone's or texting. But forgetfulness, lack of focus, distractions, impulsivity, procrastination and other time wasters are reduced considerably when you build structure into your day that is both visible and actionable.

With the average Canadian spending over 45 hours online each month, there's not much time left to focus on what's important. And research suggests that Internet use is having a negative impact on how we think and behave, affecting our ability to focus, store memory, and interact with others.

The *Taylor Planner*, for instance is an ADD-friendly planner that I developed over 30 years ago. And it is still used by people who are very much into the latest technology. It contains a weekly "Action List" of things to be done and space each day to block off time to work on the important tasks. Working in chunks of time rather than marathon work sessions makes it easier to maintain focus and avoid distractions. You can see a copy of the planner at www.taylorintime.com.

Blocking off time to work on specific projects a little at a time avoids procrastination. Marking down the time you have to leave for an appointment prevents lateness. Notes in the daily "Follow-up" section remind you to check up on things asked for previously. You also have a permanent record of what you have accomplished.

Other suggestions include organizing your work area before you call it a day, placing the top priority (or a reminder of it) on your desk before you leave work, and always preparing for the next day, whether that includes putting out the clothes you have to wear or leaving your computer bag, ready to go, at the front door. Also, set alarms on your smartphone to signal when it's time to stop working on a task or when it's time to leave for an appointment.

The more you are reminded of things you have to do or times you have to leave or places you have to visit or errands you have run, the less you will have to be reminded – since new neural connections are being strengthened in the brain.

You could attend a time management course for assistance or hire a professional organizer initially to organize your home, work area desk, file system, and set up procedures or systems for e-mail, handling paperwork and so on. The important thing is to develop systems that will work for you and stick to them until they become second nature.

10 Weaknesses that hinder your progress

10.1 Working memory

Working memory is the ability to hold information in memory while performing complex tasks. In the middle of a hectic day when you're going from one crisis to another and you still remember that you were supposed to phone someone at a specific time, you have a strong working memory. Or you're interrupted by a phone call and you don't forget where you left off.

But if you are absent-minded, need frequent reminders about things you said you would do, or forget your BlackBerry at the coffee shop, you have weak working memory skills.

Some researchers feel that working memory is critical and that there is a link between working memory ability and general cognitive performance. Studies of pilot errors in fatal airline crashes indicate that problems are rarely due to the pilot not knowing what to do or when to do it, but more often due to the failures in resuming a task after being interrupted, even perhaps by a need to visit the washroom.



Suggested action:

An article in the May 5, 2011 *Toronto Globe and Mail* titled *The brain can juggle only so much* by Mark Fenske, co-author of *The winners brain*, showed that practice can improve working memory. He did this through a study in which computer-based tasks required information to be held in mind while updating it.

The exercises and recommendations in my brief eBook, *Boost your memory & strengthen your mind*, available at Amazon, (http://amzn.to/1H4OGYP) should help as well.

An important aid for coping with this weakness is to write down things and make lists. If you have to leave a project, write the next step before you leave. Before you answer the phone, or greet a drop-in visitor, jot down the first few words of your planned next sentence.

The best thing for strengthening your memory, both working memory and long-term memory, is to exercise both your body and your brain. Do brain-training puzzles, read articles and books, take educational courses, study a new language, practice creativity exercises, and continually challenge yourself. If you retire physically, don't retire mentally. Studies suggest that maintaining intellectual activity throughout life can preserve memory in later years. The *Victoria Longitudinal Study* in Western Canada revealed that middle-aged or older individuals, who participate in intellectually challenging activities and projects, including reading, are less likely to suffer declines in cognitive functioning.

Physical exercise is even more important than mental exercise. You need to keep the blood flowing to the brain with the oxygen and glucose that it needs to operate at its peak. Physical exercise and other important factors such as sleep, stress reduction and brain-boosting foods will be discussed in later.

10.2 Emotional control

Emotional control is the ability to manage emotions in order to achieve goals, keeping unemotional and cool under pressure. You're not easily side-tracked, resist temptation, don't get over emotional if criticized, and are not easily discouraged, you have emotional control. But if you dwell on criticism, have difficulty controlling your anger, and are easily frustrated, you have low emotional control.

Suggested action:

This is a difficult one to control since so many people seem to anger easily and take comments personally. And a negative attitude and emotional state can cause stress and lower the body's immune system. One Harvard study showed that those with the most negative attitudes at 25 suffered the most illnesses in their forties, fifties and sixties.

According to an article in the December 2009 issue of *Scientific American Mind*, research showed that "the more we dwell on negative thoughts, the more the threats feel real, and the more they will repeat in our skulls, sometimes uncontrollable."

If you use the same suggestions as under impulsiveness and you don't answer contentious e-mail until next day or at least count to ten before answering, you might avoid the emotional impact. And if you view your mind as separate from your brain and use the "thought-stopping technique whenever you find yourself slipping into anger mode or negativity or worry, you can gain control of your brain. You have to learn to press the "delete" button when non-productive thoughts start surfacing, and you might do this by actually saying, "Stop that!" and start thinking happier, more positive thoughts instead.

A happier, healthier lifestyle is more important than ever, and along with it, an attitude that tends to stress-proof your life.

10.3 Flexibility

Flexibility is the ability to revise plans in the face of obstacles and setbacks. With strength in this skill, you're adaptable and can easily adjust to a change in plans. You are good at coming up with alternative courses of action if conditions change. But if you have trouble adapting to change, and are reluctant to change plans, and don't handle crises well, you are weak in this executive skill.

Suggested action:

"Neurobics" is a word popularized by Lawrence Katz and Manning Rubin in their 2014 book, *Keep your brain alive*. Neurobics is a take-off on aerobics, and refers to exercises for the brain. The authors describe Neurobics as helping you to maintain a continuing level of mental fitness, strength and flexibility as you age. The exercises described in the book use the five senses (vision, smell, touch, taste and hearing) in novel ways to increase the brain's ability to form associations among the different pieces of information that you encounter.

An example would be to get dressed, brush your teeth and find your way around your home wearing ear plugs and a blindfold. By doing this you are stimulating rarely used pathways in the brain and increasing your range of mental flexibility, touch and flexibility.

The brain itself was created to be flexible, and all you have to do is nurture this innate ability. To give you an example of how our brains can be rewired, in the year 2000, a study of London taxi drivers revealed that they had a much larger *posterior hippocampus* than men with a similar profile, but who did not drive for a living. That part of the hippocampus is responsible for a person's navigational skills.

As far as our brain is concerned, it seems to hold true that if we don't use it, we lose it. Another example appeared in the December 12, 2009 issue of the *Toronto Star*. It was an article on handwriting, which seems to have been replaced by the keyboard – at least by the younger generation. It concludes, based on research, that handwriting works the brain differently and builds distinct cognitive skills. It reinforces reading and spelling, develops motor memory as it becomes automatic, teaches students to focus, and may help them remember what they learn. So as keyboards replace handwriting, new neural pathways are created and new cognitive skills replace the old.

10.4 Stress tolerance

Chuck Martin, Richard Guare and Peggy Dawson, in their book *Work Your Strengths*, include *stress tolerance* as an executive skill. I would think that being strong in many of the other executive skills would help you to tolerate stressful situations, including emotional stress such as that caused by illness. But being able to manage stress is critical since it can weaken the immune system, raise cholesterol levels, accelerate hardening of the arteries, disrupt the digestive system, and lead to overeating and obesity. And according to Tiffany Chow, in her book, *The memory clinic*, it can also increase the risk of developing dementia. So we will include stress tolerance as one of the executive skills.

Stress tolerance is the ability to thrive in stressful situations. You take things in stride, and work well under stress. If you don't handle stress well, panic during crisis, feel uncomfortable when things don't go smoothly, you are weak in this skill.

Sharp Minds - Bright Ideas!

Employees at FOSS Analytical A/S are living proof of the company value - First - using new inventions to make dedicated solutions for our customers. With sharp minds and cross functional teamwork, we constantly strive to develop new unique products - Would you like to join our team?

FOSS works diligently with innovation and development as basis for its growth. It is reflected in the fact that more than 200 of the 1200 employees in FOSS work with Research & Development in Scandinavia and USA. Engineers at FOSS work in production, development and marketing, within a wide range of different fields, i.e. Chemistry, Electronics, Mechanics, Software, Optics, Microbiology, Chemometrics.

We offer

A challenging job in an international and innovative company that is leading in its field. You will get the opportunity to work with the most advanced technology together with highly skilled colleagues.

Read more about FOSS at www.foss.dk - or go directly to our student site www.foss.dk/sharpminds where you can learn more about your possibilities of working together with us on projects, your thesis etc.

Dedicated Analytical Solutions

FOSS Slangerupgade 69 3400 Hillerød Tel. +45 70103370

www.foss.dk

FOSS

The Family owned FOSS group is the world leader as supplier of dedicated, high-tech analytical solutions which measure and control the quality and production of agricultural, food, pharmaceutical and chemical products. Main activities are initiated from Denmark, Sweden and USA with headquarters domiciled in Hillerød, DK. The products are marketed globally by 23 sales companies and an extensive net of distributors. In line with the corevalue to be 'First', the company intends to expand its market position



Suggested action:

Working memory, as discussed previously, allows you to hang on to memories long enough for them to be consolidated as long-term memories in the hippocampus area of the brain. And if we don't protect the hippocampus from excessive stress, we may lose the ability to file these new memories, putting us at risk for Alzheimers.

Things we should *not* do to relieve stress is turn to drugs, alcohol or cigarettes. Tiffany Chow, in her book, *The memory clinic*, claims that smoking is a risk factor for heart disease, heart attacks, and high blood pressure and she mentioned that one study reported that it doubles the risk for dementia.

It's frequently impossible to relax, do deep breathing, meditate or go jogging when you're in the midst of a stressful situation. And you're *not expected* to relax. The "flight or fight" response that you experience under stress is not something that you can avoid. It's a product of your automatic nervous system, which regulates the release of adrenaline, blood pressure, heart rate, hand temperature and other physiological changes. It's an automatic response to perceived danger. If it were someone threatening you with a knife, the response could save your life. Your increased strength and heightened awareness could get you out of danger. And the adrenaline would be used up as you take action.

But with an unrealistic deadline or an overload of projects, you're not engaged in physical activity. The excess adrenaline causes you to feel terrible. You experience palpitations, dry throat, trembling. You're nervous and upset. You weren't meant to feel the adrenaline; you were supposed to be too busy to feel anything.

Relaxing is not what you should be trying to do. Relaxation is something you acquire when you're not under stress. It's preventative medicine, so to speak. It makes stress easier to handle. What you need at the moment is stress management. You need to take control of the situation, change your attitude, be assertive and accept life's challenge.

Combine healthy attitudes with action and you have stress management. When you are faced with a stressful situation, accept the challenge. Take a positive approach and look at the bright side. You can't do the impossible. The important thing is to be active, take control and be assertive. Activity dissipates the adrenaline, and along with it, the worry and ravages of stress. A *Yale University* study revealed that those who changed their outlook on stress after watching a video urging them to rise up to whatever challenge faced them, showed improved psychological symptoms and better work performance.

11 Keeping your brain young and healthy

11.1 What to feed your brain

If you want to keep your brain healthy you should know which foods in particular have been found to be good for the brain. Proper nutrition can help prevent cognitive decline. For example, blueberries are believed to reduce the risk of age-related diseases such as dementia and Alzheimer's. Janet Maccaro, in her book, *Brain boosting foods*, mentions supplements such as gingko biloba, known for its ability to improve memory and concentration. It is used in Europe to treat dementia.

Avocados are thought to be good for the brain because of their monounsaturated fat, which increases blood flow through the brain and lowers blood pressure, and organ meats because they are high in brain-healthy nutrients such as vitamins A, D, E, K, B12, as well as folic acid.

Egg yolks are rich in choline. A shortage of choline has been linked to insomnia, memory problems, and fatigue. Egg yolks also contain ant-inflammatory omega-3s, as do salmon, herring and sardines. Most nuts are also a source of vitamin E, which protects the brain's iron from exposure to oxygen. According to a special issue of *Newsweek* published in October, 2014, 90 percent of Americans overlook vitamin E in their diet.

Any food that reduces high blood pressure or helps the cardiovascular system in any way is good for the brain, since the brain's blood supply is critical. This includes such foods as oatmeal, brown rice and grain breads.

EPA omega-3 fish oil is also recommended since it keeps the cell membranes in the brain flexible. There is evidence that omega-3 fatty acids – the ones found in many types of fish such as salmon and rainbow trout – slow up cognitive decline and reduces the risk of Alzheimer's disease.

Researcher Rodney W. Johnson, PhD, claims that chamomile tea, rich in luteolin, is not only relaxing, but also guards you against forgetfulness. He says it works by preventing brain inflammation that contributes to age-related memory lapses. Luteolin is also present in carrots, celery and green peppers.

Dr. Mehmet Oz, RealAge expert and host of a national TV show, recommends five important foods to give your brain a boost:

Blueberries, to help shield against harmful processes tied to Alzheimers disease and premature aging. *Eggs*, since they are loaded with selenium, a mineral that could help make your brain years younger.

Mustard, because it contains turmeric. He claims that getting just 17 milligrams of it a day (about a teaspoon of mustard) can help genes control the clean-up of cellular waste in the brain.

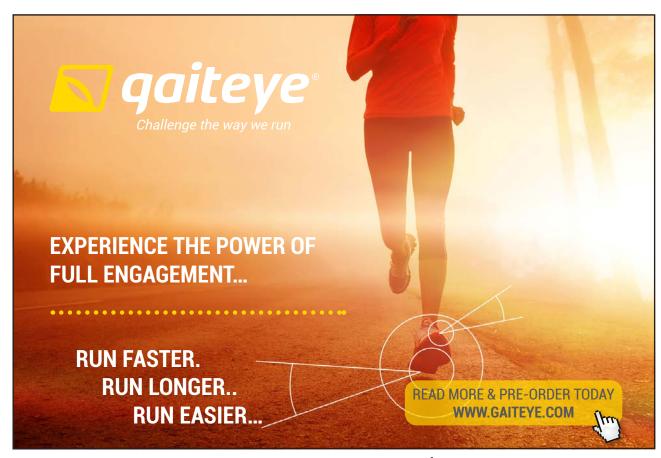
Salmon, since it is a great source of omega-3 fatty acids, including the type thought to have the most anti-aging effects on the brain.

Kale, since getting at least three servings a day of these leafy greens high in carotenoids and flavonoids can slow mental decline associated with aging.

Drinking water may also sharpen your recall skills according to research conducted at University of East London. The UK researchers believe that bringing water into an exam room can raise students' marks. Studies indicated that those who drank water while writing exams outperformed those who didn't. In one study the scores averaged 4.8% better. One explanation is that students are in a mild state of dehydration when taking exams and it is corrected by drinking water.

Skipping breakfast is a not a good idea. Studies have shown that children and adults who skip breakfast do not perform well on tests at school or tasks at work.

Obesity leads to high blood pressure, which lowers cognitive function so watch your weight as well. A study published in the journal *Neurology* showed that people who are obese in middle age have almost 4 times the risk of developing dementia later in life than those of normal weight.



11.2 Exercise your brain

You can exercise your brain and keep your brain active as well as strengthen neural connections by learning new skills. You might start by doing everyday tasks differently. Use your left hand to control the computer mouse (if you're right-handed), or to brush your teeth.

Exercising your brain – even without moving from your chair – could reap physical benefits. *Cleveland Clinic Foundation* research has indicated that just *thinking* about exercising a muscle will strengthen that muscle.

In stressful situations, your weakest skills fail first and become more pronounced. Fatigue and information overload tend to weaken them further. Avoiding, releasing or being able to manage stress is important. Also you should re-examine your workload. Keep organized, plan, and allocate your time to things of importance. Simplify if possible. Delegate and outsource. Pace yourself. Too much exertion without breaks taxes the executive skills. In fact studies have shown that people who exert themselves mentally, such as resisting the temptation to eat chocolate or whatever, gave up on problems sooner when presented with them immediately afterwards. (*Scientific American Mind*, May/June, 2011)

Many of these skills have to do with self-discipline and that definitely can be improved through practice. For example turn down desert or second cup of coffee once in a while,. Give up your favorite TV program or sporting event and so on. You could have a glass of water instead of a milkshake and resist that chocolate bar after golf.

Neuroscience has proven that the more you use a circuit in the brain, the stronger it becomes. The reverse is also true, so don't relinquish all your tasks to a computer. Training your memory, creative writing or any skill can be strengthened through practice. But variety seems to be the key. Improving one executive skill does not necessarily improve all the others. Doing crossword puzzles may only increase your ability to do crossword puzzles. And this is true for most computer games as well.

There are exceptions, however. Physical exercise, for instance, stimulates the creation of new neurons not confined to the region of the hippocampus that stores new memories. Art Kramer of the *University of Illinois* at *Urbana-Champaign* found that a year of exercise can give a seventy-year-old the connectivity of a thirty-year old. Harvard researchers have linked aerobic exercise with improvements in food choices and the ability to resist temptation. They feel it may inspire healthier choices by altering structures in our brains that deal with regulation and impulse control while also making us happier and calmer. This could account for weight loss in addition to the calories you burn through exercise.

Other activities such as meditation and certain video games can change brain structure so that brain processes are more efficient. Meditation has been shown to have a positive effect on the immune system and cardiovascular function as well as the brain. In one study, those who meditated showed less activity in the brain area associated with negative emotions such as anger and anxiety and more activity those areas associated with optimism and confidence.

And learning a second language can sharpen many of the executive skills. Ellen Bialystok of *York University* in Canada found that the workout the brain gets in bilingualism carries over to improve such skills as problem solving and attention switching.

11.3 Are we over-dosing on technology?

A study of over 200 students at the University of Rhode Island found they were losing an average of 45 minutes of sleep each week because of their cell phones. The average American spends 75 hours per year playing video games, according to David Pink in his book, *A whole new mind*.

Mike Byster, in his 2014 book, *The power of forgetting*, says the average working professional spends roughly 23% of the workday on email, and glances at the inbox about 36 times an hour. And figures quoted in the book, *In search of balance*, by Richard A Swenson; the typical corporate users send and receive about 167 messages daily and will spend 30% of their day creating, organizing, reading and responding to email. 58% of American adults now own smartphones.

Social networking is now the fourth most popular online activity, ahead of email and behind search engines, general Internet portals such as Yahoo & AOL, and software downloads. The amount of time spent using social networking sites is growing three times the rate of overall Internet usage, according to the February, 2010 issue of *Scientific American Mind*.

Technology is a beautiful and wondrous thing. We can shop online, do online banking, send electronic greetings to our family and friends, download music, watch movies on our laptops, dictate to our computers using voice-activated software, and read electronic books on portable handheld devices — among hundreds of other things, most of which were unavailable in our grandparents' lifetime.

I see nothing wrong with reading e-books or performing any of the above activities with the aid of technology. But we should limit our use of technology. What will happen to us if we stop reading altogether and remain cocooned in our homes, infrequently meet personally with friends and relatives, and spend more time watching movies than interacting with our children and others.

Nicholas Carr, in his book, *The Shallows: what the Internet is doing to our brains*, claims he has noticed changes in his own reading. He loses concentration after a page or two, becomes fidgety, loses track of the story line and looks for something else to do.

We still don't know the long-term effects of using technology. For example, research published by Kenneth Hansraj in the *National Library of Medicine* indicates that bending your neck over a smart phone for hours a day could lead to early wear and tear on the spine, degeneration and even surgery. And smartphone users spend an average of 2 to 4 hours a day hunched over, reading e-mails, sending texts or checking the social media sites. (*The Toronto Star*, November 24, 2014)

Known as *text neck*, this problem is caused by an increase in the weight of the head as it bends forward. The weight on the cervical spine varies from 27 pounds at a 15° angle to 60 pounds at a 60° angle.

What about people sitting at their computers all day? If you're sitting too long, you can't be getting much exercise. A February, 2013 Australian survey of over 63,000 middle-aged men found that those who sat for more than four hours a day, were significantly more likely to have chronic diseases like high blood pressure, heart disease, diabetes and cancer.



Is there a danger of becoming addicted to technology? Digital addiction, claims McMaster professor Nick Bontis, is having negative repercussions such as high levels of anxiety if their phones are not nearby. One survey showed that eight in ten smartphone users say they don't leave home without their device. (*The Toronto Star*, July 30, 2013.)

My greatest fear is that the functioning of the brain itself may change for the worse. What will be the impact of being spoon-fed everything from problem-solving to navigation? If our GPS tells us turn by turn exactly how to get from point A to point B, will we eventually lose our ability to navigate on our own?

For example, the study of the brains of London taxi drivers, mentioned in chapter 9, revealed that they had a much larger posterior hippocampus – that part of the brain responsible for a person's navigational skills. The plasticity of the brain can work *against* us as well. If we don't use it, we lose it.

The ability to focus is one of the most critical brain functions according to Barbara Strauch, author of *The secret life of the grown-up brain*. And this ability depends on the strength of our executive skills, which are currently under attack by the unrelenting impact of both technology and our fast-paced lifestyle.

Multitasking taxes the brain, and gets progressively worse as we age. Have you ever been distracted by a telephone call only to forget what you were going to do before the distraction? The other morning I found myself brushing my teeth with after-shave lotion! (But others might attribute this to senility.) Research indicates you can have several motor programs running simultaneously, such as steering a car, chewing gum and reaching for a cell phone; but you can only focus your conscious attention on one thing according to Shelley Carson, author of *Your creative brain*, because your brain thinks sequentially.

Our lifestyle seems to be changing to one of constant rushing to get more things done, and researchers studying people's behavior at traffic lights have spotted people combing their hair, applying makeup, eating breakfast cereal, reading newspapers, talking on cell phones and even using laptops. To quote Barton Sparagon of the *Meyer Friedman Institute* in San Francisco, "Hurrying is a struggle against time – and that's unhealthy."

Cramming more activities into a day causes stress, and stress causes sleeplessness, and lack of sleep causes impatience and the ability to concentrate (among the other ailments mentioned in my brief book, *Sleep: a time management strategy.*) It's a vicious circle. Is technology to blame? No, we are to blame. We have allowed technology to manage us rather than the other way around.

Controlling technology and taking action to strengthen our brain-based executive skills, we can not only cope with the rapid increase in technology, information and speed, we can increase our productivity and our ability to manage our time and our lives as well.

Although technology is evolving exponentially, our brains are not. The allure of e-mail, according to one techno-psychologist, is similar to that of the slot machine: You have intermittent, variable reinforcement. You don't know when you will be rewarded next so you keep pulling the handle.

Self-discipline or self-control, focus, attention, prioritizing and planning are essential if we are to remain effective in this digital age of speed. These are functions of our executive center in the prefrontal cortex area of our brain. That's why we must look at more than just efficiency and the pursuit of increased productivity; we must look at their source – a healthy body, mind and spirit.

Holistic time management's day has come.



12 Resources

12.1 Books referenced:

Brown, Jeff, Mark Fenske, and Liz Neporent. *The Winner's Brain: 8 Strategies Great Minds Use to Achieve Success.* Philadelphia, PA: Da Capo Lifelong, 2010.

Byster, Mike, and Kristin Loberg. *The Power of Forgetting: Six Essential Skills to Clear out Brain Clutter and Become the Sharpest, Smartest You.* New York: Harmony Books, 2014.

Chow, Tiffany. *The Memory Clinic: Stories of Hope and Healing for Alzheimer's Patients and Their Families.* Toronto, Canada: Penguin Group, 2014.

Dawson, P., & Guare, R. (2009). Smart but scattered: The revolutionary "executive skills" approach to helping kids reach their potential. New York: Guilford Press.

Carr, Nicholas G. *The Shallows: What the Internet Is Doing to Our Brains*. New York: W.W. Norton, 2010. Print.

Carson, Shelley. Your Creative Brain: Seven Steps to Maximize Imagination, Productivity, and Innovation in Your Life. San Francisco: Jossey-Bass, 2010. Print.

DiSalvo, David. Brain Changer: How Harnessing Your Brain's Power to Adapt Can Change Your Life. Dallas, TX: BenBella Books, 2012.

Frankl, Viktor E. Man's Search for Meaning. Boston: Beacon Press, 2006.

Gibb, Barry J. The Rough Guide to the Brain. London: Rough Guides, 2007. Print.

Katz, Lawrence, and Manning Rubin. *Keep Your Brain Alive: 83 Neurobic Exercises to Help Prevent Memory Loss and Increase Mental Fitness.* New York: Workman Pub., 1999.

Maccaro, Janet C. Brain-boosting Foods. Lake Mary, Fla.: Siloam, 2008.

Martin, C., & Guare, R. (2010). Work your strengths a scientific process to identify your skills and match them to the best career for you. New York: American Management Association.

Mischel, Walter. The Marshmallow Test: Mastering Self-control. New York: Little, Brown & Company, 2014.

Pink, Daniel H. A Whole New Mind: Moving from the Information Age to the Conceptual Age. New York: Riverhead, 2005. Print.

Ratey, John J., and Eric Hagerman. Spark: The Revolutionary New Science of Exercise and the Brain. New York: Little, Brown, 2008.

Rock, D. (2009). Your brain at work: Strategies for overcoming distraction, regaining focus, and working smarter all day long. New York: Harper Business.

Strauch, Barbara. The Secret Life of the Grown-up Brain: The Surprising Talents of the Middle-aged Mind. New York: Viking, 2010. Print.

Swenson, Richard A. In Search of Balance: Keys to a Stable Life. Colorado Springs, CO: NavPress, 2010.

Taylor, Harold L. Boost your memory & sharpen your mind. Copenhagen: Bookboon.com (Ventus), 2014, eBook.

Taylor. Harold L. *Sleep: a time management strategy*. Copenhagen: <u>Bookboon.com</u> (Ventus), 2014, eBook.



13 About the author

Harold Taylor, CSP, CEO of *Harold Taylor Time Consultants Ltd.*, and partner, Taylor in Time, has been speaking, writing and conducting training programs on the topic of effective time management for over 35 years. He has written 18 books, including a Canadian bestseller, *Making Time Work for You*. He has developed over 50 time management products, including the popular *Taylor Planner*, which has sold in 38 countries around the world. He has had over 300 articles accepted for publication.

He served for 12 years as Quality Control Manager and Plant Manager in industry, and 8 years as teaching master in the business division of Humber College of Applied Arts & Technology in Toronto, Canada before launching his own consulting firm.

A past director of the *National Association of Professional Organizers*, Harold Taylor received their Founder's Award in 1999 for outstanding contributions to the organizing profession. He received the CSP (Certified Speaking Professional) designation in 1987 from the *National Speakers Association*. In 1998 the *Canadian Association of Professional Speakers* inducted him into the Canadian Speaking Hall of Fame. And in 2001, he received the first *Founder's Award* from the *Professional Organizers in Canada*. The award has been named the "Harold Taylor Award" in his honor.

Since 1981, when he incorporated the original time management company, he has personally presented over 2000 workshops, speeches and keynotes on the topic of time and life management.