

# STUDY SKILLS

## GUIDE

From the Elite  
IB Graduates at  
**Lanterna**  
education

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## App Your Way to IB Success!

Calling all serial procrastinators! Are you searching for a way to cure your phone addiction? What about turning the source of all distractions into your new source of motivation? Here's a list of the best study Apps out there to help you stay focused and productive without having to peel your beloved phone from your fingertips.

### Forest



Plant a virtual seed as you sit down to study, and watch the seed flourish into a beautiful tree! However, give into temptation and leave the app for even a second and your tree will die. Every tree you successfully grow to completion is planted in your forest, each representing one period of productivity and focus. What's more, Forest is partnered with a real-life tree planting organisation, meaning that each virtual tree you grow results in the planting of a real seed! This

way, you can study happy in the knowledge that you're making a positive impact on both your grades and the environment!

### Be Focused

If you're looking for another study App to help you stay on track, then Be Focused is brilliant. This App follows the Pomodoro Technique, whereby work is broken down into intervals (typically 25 minutes in length), separated by short breaks. Be Focused helps you get things done by breaking up individual tasks into more manageable chunks separated by regular breaks. You are able to specify how much time you want to split between focus and rest, and this is proven to be effective in retaining motivation and productivity. Be Focused also allows you to record how much time you're spending on certain activities, so you can keep a close eye on your study pattern!



### Strict Workflow

Chronic procrastinators, listen up! Strict Workflow also enables you to structure your study using a strategy called the Pomodoro Technique. The App promotes short, but intense, 25 minute bursts of productivity, each followed by a 5-minute break. Here's the deal. You give your work your full attention for the entire 25 minute period, meaning no phone, no YouTube, no staring aimlessly at your ceiling fan. A countdown timer appears in the tool bar to help you keep track of how long you've been working, and lets you know when it's time to break.

### Quizlet

If Be Focused or Forest have helped you stay concentrated and motivated, the next challenge is learning all the content for your IB exams. This is where the free app Quizlet comes in, allowing you to study on the go! With Quizlet, you can create your own sets of online flashcards or you can choose from loads of flashcards created by other students. Quizlet generates a number of games and activities for you and your flashcards to help you learn the facts! I loved using this app for revising my ESS (Environmental Systems and Societies) definitions. It can also be valuable for learning vocab for a foreign language.

### Evernote



After searching tirelessly for a good note-taking app, I finally stumbled upon Evernote and have never looked back. As we become more proficient with our laptops and tablets, many students are preferring to type their notes rather than handwrite them. Evernote is a platform for effective note-taking, allowing you to have all of your notes clearly organised in one place. What's more, everything you write automatically backs itself online. This

prevents all those last-minute panics when your computer decides to crash the night before an essay deadline.



## AnkiApp Flashcards

AnkiApp is a flashcard app similar to Quizlet and is designed to make memorising facts easier. This app monitors your progress, and subsequently tests you on the flashcards you are struggling with most. So AnkiApp helps you tackle the topics you find the most challenging. Again, you can either make your own virtual flashcards, or choose from a large selection and download easily.



## Memrise

This fantastic flashcard app lets you learn anywhere and anytime. Put your learning to the test by making your own flashcards or using one of the many sets already available. Memrise especially focuses on language acquisition; perfect for spicing up your Language B revision! However, it is not limited to this and can be used for anything! Track your progress and compete against friends.

## XMind

If you're searching for a study App to help you collect and organise ideas, then look no further! XMind is a mind mapping tool, meaning that you can effectively brainstorm ideas when you're on the go. This is perfect for you to get all your ideas written down in one place, and helps you create a clear and colourful mind map. This App is great for those of you trying to brainstorm ideas for forthcoming Internal Assessments, or that TOK essay!



## SelfControl

Ever found yourself sat at your desk perusing through your cousin's friend's girlfriend's holiday snaps from 2008 when you're supposed to be working? Be honest, we all have! SelfControl allows you to block distracting websites whilst you work, preventing your inner procrastinator from taking a BuzzFeed quiz to find out what piece of obscure furniture you are\*. Turn your computer on and off again, uninstall the App, but whatever you do, SelfControl ensures you can't access those sites.



## The Screen Time Feature

The Screen Time feature on all phones helps us to monitor our addiction to our devices. And the truth is, we've all been a bit shocked by the results...

Over three and a half hours each day spent staring at my phone screen? And of that time, almost two hours spent using Social Networking? That's surely not right, I told myself. But the figures spoke for themselves. The most surprising thing was that it really didn't feel like I was spending that much time on my phone!

## Set Restrictions

Are you someone who manages to spend hours on Snapchat or Instagram before starting any of your homework? Or perhaps you're slightly addicted to the games on your phone? If so, why not limit yourself to 1 hour (or even less!) of these activities a day. Do this in the 'App Limits' option through Screen Time. You can even customise it for different days, so treat yourself to a few more hours of Social Media over the weekend! Your phone will notify you when you only have 5 minutes left for the day, and will then log you out of all Social Media/gaming apps.

## Schedule Downtime

Through Apple's Screen Time, there is an option to schedule 'Downtime' away from your phone. During this time, only limited Apps (ones that you choose to allow) and phone calls will be available. My phone automatically suggested that I schedule Downtime between 22:00 and 07:00, but why not try scheduling this after school so that you can complete your homework? How about 15:00 to 20:00? This will be an effective way to stop you procrastinating on those distracting Apps, and hopefully you'll be able to focus much more on your studying!



## Staying Awake While Studying

I don't know about you, but I often find myself getting sleepy when I study. No matter how hard I try, after 30 minutes of work I often feel like I am about to doze off.

One obvious answer to this is caffeine. A cup of coffee is pretty effective at waking you up when you have an IA to get through. Coffee is not, however, always the answer. Sometimes I've already had a cup or two in the day and don't want any more. Sometimes I'm working late at night and don't want to stay up any later than I have to. I've therefore developed a few caffeine-free strategies for staying awake to share with you today!

### 1) Study at your desk

I know this sounds simple but when you are feeling very sleepy the temptation is to try and study in your bed. While there is no substitute for snuggling up under your duvet, this will ALWAYS make you fall asleep. It is so much easier to focus if you are sat up straight at your desk with your work laid out in front of you. When I still want to feel cozy I tend wrap myself up in a blanket and grab a hot chocolate to get me through!



(Where you study is crucial to your success)

## 2) Drink water!

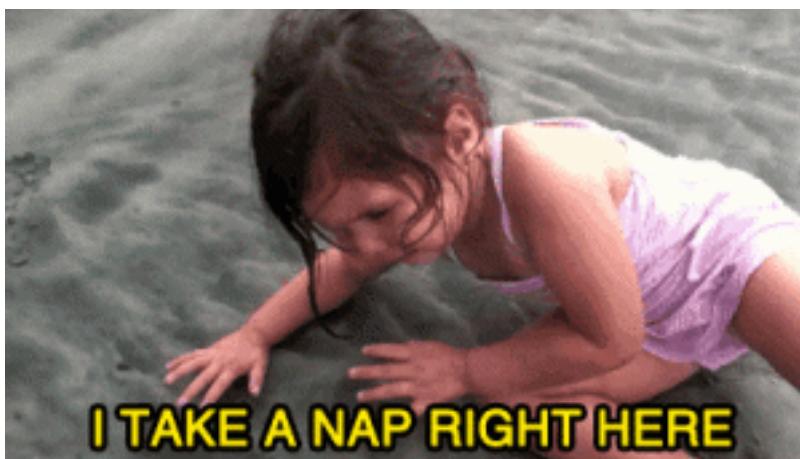
When coffee is a no-no, I find the second best thing to drink is water—preferably ice-cold. Not only is it always great to keep hydrated, I find that cold water particularly gives you a little kick to keep you awake. I tend to have a water bottle on my desk and regularly sip it. This also gives me a nice little study break when I can go and refill it, and this actually involves me getting up from my desk (sounds sad, I know, but very useful).

## 3) Have some snacks

There is nothing more motivating than having something nice to snack on while you study, and guess what? Your brain actually needs fuel to function. I'm a fan of having some mixed nuts which I can easily nibble on throughout the day, but I also enjoy dried fruit. When I fancy a treat I often go for chocolate buttons!. Check out [this article](#) for some creative study snack ideas.

## 4) Take a nap

This might sound counter-intuitive, but a nap before you study can work wonders. However, you need to be very strict with yourself- set a timer for 20 minutes maximum (any longer and your sleep will become too deep) and make sure you have some water to sip when you wake up. It can definitely give you the energy for a few extra hours of study!





## 5) Take a break

Perhaps the most important piece of advice: you need to take regular breaks from studying. I like to take a break for 5-10 minutes every 30 minutes to refresh my brain, but if you're doing something that needs more focus, then take a break every hour instead.

A couple of suggestions of what to do when you are taking a break:

- Stretch
- Take a little walk, even just around your house
- Reply to some texts (if you aren't going to get carried away!)
- Watch a 3-5 minutes Youtube video
- Eat your study snacks



## 6) Perfect your study playlist

Sometimes when you are revising something incredibly dull, you need a cracking soundtrack to keep you going. My personal favourites include the [Independent Ladies playlist on spotify](#) and the [Lord of the Rings definitive soundtrack](#). (no judgment please). You can also sit down with your friends and create your own personalised playlist that you can all listen to when studying. That way, when you listen, it will remind you of (slightly) better times!

## 7) Other people are the ultimate distraction.

If you get distracted at home by your family, then consider studying in the library or a coffee shop. If you're in school then ask your IB coordinator to find you a free classroom and go to study there. Computer rooms and school or public libraries are a good alternative.



## 8) Find yourself a study buddy



One of the worst parts of revision is having to go through it all on your own. When I am on study leave I genuinely crave human interaction. A great solution to this can be to join forces with one of your friends and [start studying together](#). I would recommend going somewhere where you can't actually talk like your school library. That way you can focus on your work but also have a friend to chat to when you're bored!



## 9) Get a study lamp

Your ability to concentrate is greatly affected by your environment. In one experiment, researchers gave students a 'study lamp' and told them to switch on the lamp whenever they studied. This created an environment that was associated with remembering content. Study lamp students showed a notable boost in the GPAs. You can use the same effect to boost your IB grade!

## 10) Think about your position

I used to try to study in bed, propped up against the wall but this often made me really sleepy. Also, whenever I got a message from a friend I would get easily distracted because I was so comfortable. Try sitting upright at a real desk to make sure you stay focused.



## Using Mastery Learning to Master IB

We all know how it feels. We're sitting in a lesson. We're following what the teacher is saying. But there's something that we just can't get our head around. Maybe the binomial distribution, or Plato's Theory of Forms. We try to reread what we've written in our notes. We think it through and... blank. It's just not making sense. By the time we focus back on the lesson, the class has moved on. We've all had this problem. We now feel a little like this:

This is a very common problem, and it's hard to avoid in a typical classroom setting.

All of us learn at different speeds and think in different ways. Something that might seem as clear as a bottle of Evian to one person might look as muddy as a puddle of rainwater to someone else. In the IB Diploma, where each student studies 6 very different subjects, it's inevitable that we'll be faster at picking up some subjects than others.

So what can we do about this problem? How can we find the missing pieces?

### Keep Track of the Gaps

The first step to filling in knowledge gaps in a subject is to keep track of each gap. Each time you realise that you're not quite understanding something or making it stick, make sure you at least remember that it exists. Trust me, I know it's tempting to just block the difficult things from your memory, but the truth is, you have to really understand everything to get the highest marks in the IB.

To keep track of the gaps you can:

- Colour-code your notes and highlight anything you don't understand.
- Keep a checklist of all these things, and make sure this is accessible and visible!
- Even better, add them straight to a To-Do list of 'things I'm going to learn'.

Stop thinking of the gaps as things you don't understand. Instead, think of them as things you're going to understand!

## Take Time to Fill in the Knowledge

Often even when an entire topic feels impossible, there are actually just a few specific things that you don't understand. This is especially true in subjects like Maths, where each step of the process builds on previous understanding. The only way to make sure everything is fully understood is to take time to go through the subject outside of the lessons.

- Work on the problem by yourself with the textbook (and some chocolate) next to you.
- Ask a friend or a teacher to explain it to you.
- If you're still struggling you could look into getting a tutor who can help support your studies.

Make sure you set aside extra time as part of your regular schedule so you know that you are always staying on top of the work. Treat each gap in your knowledge as an individual problem and fix them one by one, starting with the simplest thing first. If you have that checklist, go through it and tick it off as you go.

## Mastery Learning

Mastery learning is a strategy where students must have mastered each topic or concept before they move on to learn something else. In other words, studying follows the student's pace, and no topic is left until that student understands it.

Even though this is hard to achieve in a classroom setting, it is possible, and most helpful, if you are studying by yourself or with one-on-one tuition. In fact, a 1984 study by Benjamin Bloom looked into this method of teaching and found that students who had received individual mentoring performed better in tests than those who had only been taught in bigger classes. Not just a little better, but 98% better!



## The Art of Making Awesome Notes

The art of note-taking, or at least of taking effective notes, is often underestimated. Yes, almost all of us make them in lessons, but it's easy to forget how valuable they can be later on. Making awesome notes for the IB is especially important, as there is so much information across the 6 subjects, which all needs to be remembered for the exams. Good notes aren't just about taking in information as you go along, but are a way to save time, effort and frustration ("what was that thing my teacher said I'd have to remember for one of the exams again?") in the long-term.



With the Winter break approaching it can be really helpful to think about how you can make your notes more useful. How will the notes you make in class during the last couple weeks of term look in January when you return to school? This is the perfect time to sit in front of a seasonal film and make some attractive, colourful notes, whether for mocks or for later in the IB Diploma!

I'm going to break this down into two sections: content and form. And to quote the master composer and lyricist Stephen Sondheim, "content dictates form". So on that 'note', I'll talk about content first.

## Content

### Use your own Words

Don't just copy what the teacher or textbook says. I know it's tempting, both because it's easier and because you might feel like you'll never be able to phrase a point quite as perfectly. However, it's a fact that you will understand and remember the information far more easily if you write it in your own words. Think of your notes as messages to yourself in the future, so think about how you would explain it to make sure you actually understand.

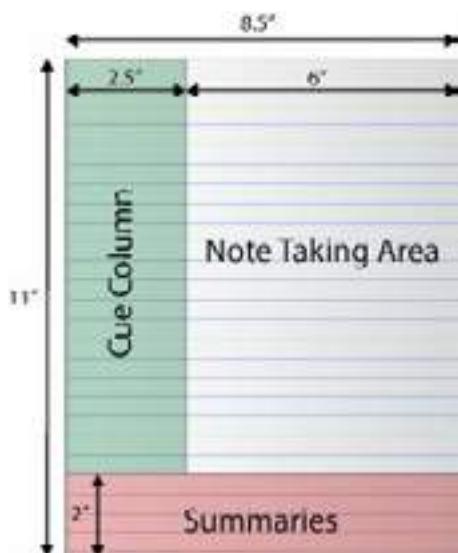
### Stick with the Essentials

The whole point of notes is to preserve the information that you will find useful later. Don't write down everything, just write the key points that you can imagine yourself actually using later. For Mathematics and Sciences, these will include facts, formulae, and methods. For Literature and Social Sciences, write down facts, ideas, quotes. For Languages, think about vocabulary and grammar.

For Literature, Social Sciences and Languages, it's also okay to order your notes according to what you consider to be the most essential information. You'll save yourself time later if you do this as you go along. Rank the information from 1 to 3 according to how important or useful you consider it to be. Then, when you come to revision, learn it in that order.

### Keep them Brief

When it comes to notes, less is more. Make sure you have enough so that you actually understand it later, but don't write so much that it just looks like a block of scrawl. Keywords, facts and formulas are the most important. Stick to short, simple sentences and phrases that you can easily remember. This isn't an essay.



### Make them Personal

This is different from using your own words. What I mean by this is remember that they are for you. If you don't understand a word you've written down, make a note or mark in the margin to point out that you'll probably have to go back to the topic later. Think about how you can write notes about your own notes (Ooh, meta...). For example "personally I think that David Copperfield is a flawed and one-dimensional character". You might want to think about dividing up the page before you start so you can break up your thoughts, like in the [Cornell System](#).

### Visual Diagrams

Ideal for: Literature, Social Sciences, Natural Sciences

Spider diagrams, mind maps, or whatever you call them, are the perfect option if you know you'll never remember lines of notes on a page. They work by letting us associate ideas and information visually. Start with the key topic in the centre, and work outwards by connecting the facts and topic areas most closely associated with the topic. The key to making these work is to:

- Actually compress each idea into minimal words. This isn't about writing mini essays on different parts of the page.
- Make them look nice. These try to aid visual learning, so they won't work if they're ugly to look at.
- Think about new connections and associations as you go. You should feel creative as you make them, so that you are making new connections as you go.



You can read this article [here](#) on how to create a mind map, and also you can download a programme that will let you create one online.



### Classic notes on paper

Ideal for: Mathematics, Natural Sciences

Here, I'm talking about what most of you probably imagine when you hear the word 'notes': basic lined paper with the points written down in order of how you learned them. There are a few things to keep in mind:

- Be as neat as you can. Please. Even if it takes you twice as long than using your typical messy writing, they will be twice as easy to read when you are going over them later.
- Embrace the space. Double-space the notes if you can, or if you are conscious of wasting paper then leave at least a line between each section. Make them as pleasant as possible to read later.
- Use highlighters to colour code the information.
- Use codes to indicate how you want to treat the notes later, e.g. an asterisk next to any points you think are particularly important\*, or a question mark to indicate that you want to look at it again later?



## The Wall

Ideal for: Literature, Languages

What do I mean by the wall? I mean post-it notes everywhere. Use different coloured paper or pens, write in big, clear letters. This is perfect if you want to surround yourself with the information, and ideal for memorising individual words or quotes. N.B. this method is not for the weak! It's really only for those of you who feel up to immersing yourself in your subject, and I'd probably recommended it only if you're revising for exams.

## Digital Notes

Ideal for: Literature, Social Sciences

As much as I like to recommend physical notes that you can hold, touch and annotate, rather than whatever programme is on your laptop, I know that digital notes are the simplest option for most of us. I'm not going to tell you how to make these (you don't need me to do that!), but the same rules apply as for classic notes: think about how they look. Format your notes as if you had to print them out to hand in to your teacher. And when it gets to the stage of actually revising, make sure you print them out! They will be so much more effective than reading them off a screen.

Useful programmes for these aside from Word include Evernote and Simplenote, both free!

### Flashcards

Ideal for: Languages, Natural Sciences, Social Sciences

If any of you ever handwrite Christmas cards (now there's a dying art form), or if your parents write them, you can make sets of flashcards the same way; with snacks at the ready and music playing. They're a great way to compress topics into just a few bullet points or summaries. They're also perfect for travelling if you want simple notes to go through during your journeys to and from school later in the year. You could even write them on Christmas cards – they will be pretty, colourful, and more useful in the long-term!

### The Notebook

Ideal for: Everything

If you like having all your notes and topics in one place, this is perfect for keeping track of all your subjects and also for making your notes consistent. Like flashcards, these are great for when you are travelling. However, do make sure you that remain concise when using a notebook! Just because you have all that paper available does not mean you need to fill it. Keep your notes to the bare minimum so you don't end up writing *The Odyssey*. And do use dividers or coloured indicators between the pages so you can easily flick between subjects. Better yet, leave the first few pages at the front free so you can create an index!





## Study Group Guide

When I started high school, I quickly realised that things were not the same as they used to be. Nobody was feeding us knowledge anymore. So much of our studying required us to be more independent and we needed each other to help get through the course.

The IB is a two year course. That's a long time. It is also quite difficult. To make these two years easier and more fun you can use 'study groups'. In this guide I am going to help you to figure out 1) Why a study group is useful 2) How you can run a study group 3) How to avoid any problems and make your group really useful. ***Study groups are great because they give you an advantage over all the other students, around the world, who have failed to form a group.***



### Why learn in a group?

- You can help each other understand difficult material.
- Learning is more exciting together – textbooks don't make good friends.
- If we talk through a subject, we remember that information much more easily than if we study alone.
- The IB is hard but you don't have to face it alone. If you work together you can help each other through exams, coursework etc. without feeling like you're alone. You can support and encourage each other.
- Teaching and working with other people will increase your confidence.
- You can learn some study habits from your brainy classmates.

So, obviously study groups can be really helpful, but how can you make yours work?

### **Handling your first meeting**

- Make a Facebook group to share documents and resources
- Find out which topics each person finds easy or hard. Make sure you cover the most tricky topics together!
- Figure out a good place to study – and ask a teacher for a room if you want to use the school.
- Plan meetings for a regular time, like ‘Wednesday straight after school’ – this way everyone knows when the sessions are. Also send out invites for each session on Facebook to remind people.
- Give your group a funny name – don’t be too serious!
- Create a Whatsapp group to stay in touch.

### **What to Do at Meetings**

- Go through class notes together, discuss anything anyone did not understand. Remember, teaching helps stronger students as well!
- Discuss key ideas from class. What’s hardest? What’s easiest? Why?
- Do your homework tasks and help each other if anyone’s stuck.
- Students who feel more confident should do extra homework questions and help others
- Study for tests or exams. Use exam past papers and help each other mark them!
- Discuss what questions you expect to be on the tests and exams
- Take breaks and chill out together every 30 minutes

### **Help Each Other Out!**

- Listen carefully to each other and encourage each other to ask questions
- If you do not understand something, ask your friends what they / the textbook mean.
- Ask people to explain what they mean. This helps both of you.
- Everyone should work on the same topic at the same time. This makes everything clear and consistent.
- Discuss how well the group works and how it could be better.



## Worst things first – doing the hardest task first can boost productivity

I am always tempted to start by revising the easy topics and end up putting off the difficult stuff. I might start the weekend with doing the reading the English teacher had set. I might work on a project I found interesting for my Philosophy IA and then do some French practice by listening to a podcast.

Unfortunately doing the easy thing first often means that the hard work gets put off for so long that you end up not doing it at all! But why does this happen?

There's an interesting psychological phenomenon that means that **people prefer the difficult or stressful part of a task to come first** and for things to get easier from then. This means that if you start with the easy work it's actually **even harder** to motivate yourself to do the difficult bits later! Don't worry though, you can actually benefit from this psychological quirk.



If you have a project or even a task list, one really great way to make things *easier* is to *start with the hardest task*. If you start with the difficult stuff then you know that things are only going to get easier and you're going to get a boost from doing every single task! Plus there's a double benefit: if you



use the **hardest-first technique** for studying you will have a more enjoyable experience. This is because we enjoy the most the experiences where things get easier over time. Have you ever had to stay up all night trying to finish an essay? Horrible isn't it?! Part of that suffering comes from the fact that you left your hardest piece of work until the end of the day. Beat this problem by using the **hardest-first technique!**



This applies in the long run too, not just over a weekend. So let's say you're taking Physics HL (lucky you!). Maybe you find understanding the theory OK and don't have too much trouble with definitions, but get tripped up trying to remember how to plug the numbers into the equations. Well, in that case you should put

half an hour everyday into making sure you can manipulate the equations you've been studying in class properly. Then when it comes to the end of the term you can just brush up on your theory and definitions. This use of the **hardest-first technique** will mean that you are not as stressed or busy right at the end of the term (and that you have a better term too!).

We can all use the hardest-first technique to improve our work. For many people the hardest step is getting started. If this sounds like something you struggle with, head over here and get a wall planner. Make a plan of your work (starting with the **hardest-first**) and dive right in. I promise you won't regret it. When you've reached your goals you'll look back on the day you learned to do the **hardest-first technique** and be glad that you started putting the effort to get what you want!



## Revision hacks: The 15-minute rule

With exams approaching fast, I know many of you may be starting to get thinking about revision. However, given the vast amount of in-class tests and assignments you have left, it may feel impossible to get started. If this is the case, I have the perfect solution for you; **the 15-minute rule!**

### 15-Minute Rule

To make sure I felt as though I was getting somewhere with revision early on, I decided to make small weekly targets for myself. These targets were always realistic, specific and consistent. For example, rather than promising myself to do two past papers in Maths each week, I promised myself I would do 2 questions a week. Targets are meant to help you maintain focus on the goal ahead, rather than immediate progress. Think of your IB as a marathon, not a sprint. Having realistic, specific and consistent targets will ensure that you are not overworking yourself and creating unrealistic expectations. As you set targets for your revision, you should recognise that some subjects or topics will require an incredible amount of time and patience.



One of my favourite revision hacks is setting myself the target of doing 15-minutes of revision. The 15-minute rule advocates that once a week, you sit down and do 15 minutes of your hardest subject.

My hardest subject throughout the IB was Maths. Therefore, at 8 pm every Thursday, I would sit down and do 15 minutes of Maths. Whether that was looking over my notes from class or doing a past exam question, I promised myself I would do a focused 15 minutes.

This really helped me achieve two things:

- Get started with revision early on!
- Ensuring I was making progress on my most difficult subject!

## Dead Time: the quick-fix solution to productivity

Time management is a true art. One which few ever totally master. IB students are forever complaining that they don't have enough hours in the day to get everything done. But 24 hours is a lot of time, right? So where does it all go? And how can you better use your time to become more productive? The secret to productivity is hidden in your dead time.

Dead time will enable you to make more time available in your day-to-day life. Or rather, to make *use* of the time you were otherwise wasting.



### What is it?

Dead time is time in which someone or something is not acting productively. Perhaps the time spent when you are waiting for something, or when you do something without a real purpose.

Dead time is everywhere...

Your journey to school. The five minutes you spend between lessons. The two minutes it takes for your laptop to load up in the morning – dead time is everywhere. Although seemingly insignificant in isolation, it really adds up. If you can get into the habit of using this dead time to do little bits and pieces of larger tasks, you'll be able to use those random, useless moments in your day to your advantage.

Here are some examples of situations where dead time tends to hide, and how you might make use of it:

### On your journey to school...

- Download [Duolingo](#) and practice your language B
- Make yourself a set of flashcards on [Memrise](#) to help you revise for an upcoming test
- Listen to podcasts. Whether related to your studies or not, listening to podcasts can make you feel worldly-wise! There are some great IB specific podcasts out there – find some suggestions in this guide to [the best IB internet resources](#).



### Whilst you're brushing your teeth...

Take a pack of post-it notes. On each, write a definition that you need to learn, a buzz-word or a quote. Stick these around your bathroom mirror. Then, every morning and evening when you stand there mindlessly brushing your teeth, glance over the notes. Remember – dead time adds up. You may only brush your teeth for 2 minutes, twice a day. But that's half an hour a week. Two hours a month. Now that's time well spent.



### Waiting for an appointment...

Carry a small revision guide around with you in your backpack. When you find yourself stuck in a waiting room, or outside a teacher's office, take it out and flick through. Perhaps even bring a highlighter too.

Make mind-maps. At the end of each topic you study, make small A4 or A5 mind-maps containing buzz-words and key points you need to remember. Keep them all in a little notebook – something that is light and easy to carry around. When you're sat waiting in a quiet place for a while, take it out and flick through the topic summaries to ensure you are constantly reminded of the bigger picture of the topics you're studying.



## Improve Your Memory + Remember Your Studies = Higher IB Score

“If I had a better memory, all this work would be no problem”. Does this thought sound familiar? Does it creep up on you before a test? Day to day in school?



While there is of course more to the IB than just remembering facts and figures, being able to recall all these facts, formulas, words and ideas is a massive part of getting the top grade. It's not enough to be able to understand something in class. Wherever stage you're at in the IB, you're going to have to remember all the things you're learning when it comes to the final exams.

You might think that this is what revision is for, and that revision still feels a long time away. But actually, there's a lot that you could be doing to improve your memory right now. And given that some research suggests **the adult attention span has got worse by roughly 12 minutes in the last decade**, you might want to think twice before relying on the technology around you to get by! From techniques developed over the course of centuries to practical things you can do every day, here are my top tips for improving your memory.

### Mnemonic Devices

Mnemonics are techniques created to help us remember large chunks of information, and they use methods such as association, sense memory and reorganisation to give your brain shortcuts to what it needs to know. A study of mnemonic devices back in the 60s showed that students who regularly used these devices increased their test scores by up to 77%!



Examples include:

*Acronyms and Acrostics:* playing with the words and letters in the information you need to remember can be really effective in turning things that are hard to remember into something, well, memorable. These are especially useful for subjects with hard facts, like sciences. You can create your own or find ones already in use. e.g. “How I wish I could recollect pi” – count the number of letters in each word to get the sequence of digits: 3.141592

*Chunking:* breaking down big pieces of information into smaller ‘chunks’ of information. We already do this to remember things like telephone numbers, when we’ll break down a list of 10 digits or more into a few smaller chunks of 3 or 4 numbers.

*Music mnemonics:* how many song lyrics do you think you’re holding in your head right now? Did you sit down and learn them? I doubt it. Music, especially catchy melodies, does wonders for helping words stick in our brains. That’s why half the adverts on TV contain some sort of jingle, or set the brand name to music in some way. You don’t have to be a composer to make this technique work for you though, and you don’t even need to write a whole song (although if you want to, go for it!), but reciting information or words to a melody is a great way to make it stay in your head.

### **Don’t Repeat – Reorganise**

Repetition is probably the most common method of revision and memorising information, but it’s actually one of the most inefficient methods. Most of us find it boring, and that is exactly because repetition alone involves only the most basic, surface level of the brain. Instead, find a way to reorganise the information, and connect it with what you already know – **activate your brain**. In fancy terms this is called ‘elaborative rehearsal’. So, next time you learn something new in class, don’t just copy down what the teacher is saying, rewrite it in your own words. Next time you are reading a big chunk of text, make notes in your own words in the margins. Think about how this information connects with what you’ve learnt before, and how it changes the information.



## Stop Multitasking

I know, I know, this sounds like a weird one. Isn't multitasking what we do, every day, as an IB student? Not exactly. Yes, there are 6 different subjects to manage, plus Theory of Knowledge and all the social activities you might do. But that doesn't mean you need to do

them all at the same time. Studies show that it takes eight seconds to commit a piece of information to memory. What that means is, if we don't give the important information the time to find a place for itself, it will roll straight out of our brains, never to be seen again (at least until we try to learn it again).

In other words, focus on just one thing at a time. This lets you give your subjects the real time that they need. It might feel more productive to do your homework while you catch up on the latest season of Game of Thrones, or while you get the gossip from Facebook, but I bet the work won't stick as well as if you had separated those two things. When was the last time you had a conversation with someone who was texting someone else at the same time? Do you honestly think they heard every word of what you were saying? The same is true for your studies.

## Think (and Act) Healthily!

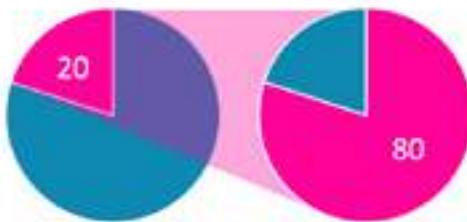
Getting enough sleep is still one of the best ways to improve focus, attention span, and memory. By 'enough', the recommended amount is 7 or 8 hours. So take note all you IB students who are proud of your 4-6 hours of sleep a night! Finally, exercise is another tried and tested way of improving our faculties. A recent study has showed that exercise increases the size of the hippocampus, the part of the brain involved in memory.



## The 80:20 Rule: How to spend less time studying but be more productive

We all know how it feels to be inefficient: spending many hours “studying” without getting much productive work done can be incredibly frustrating, and is a drain on time and energy for IB students everywhere.

What if you could spend LESS time studying, but still get MORE done in your day? If this sounds too good to be true, then prepare to be pleasantly surprised. The secret to maximising productivity is **The Pareto Principle**, otherwise known as **The 80:20 Rule**. Pareto was an Italian economist in the early 1900s, and he declared that in many aspects of life, 80% of effects come from 20% of causes. In other words, **80% of your IB exam success will come from 20% of the work you put in:**



You may have seen in the news recently that [Sweden has decided to shorten its employees' working day](#) from 8 hours to 6, after research showed that this leads to less sickness, lower stress levels, and greater overall productivity.

The same principle can be applied to your IB working life. Rather than dragging out your homework for hours and hours and half working/half procrastinating, you should focus on how you can maximise productivity when you sit down to work. This way, every task on your to-do list will take less time, but the result will be of a higher quality.

## The Power of Focus in the IB

If I ask you about how you want to do in the IB, you're probably thinking that you want to do really well! Okay, maybe you're just hoping to pass at this point – but either way you have a score in mind that you want to achieve. The struggle is attaining that score. But why is it so difficult?

Well one of the reasons is that your brain isn't very smart...Okay that's a lie. Your brain is actually incredibly capable – in fact it took a supercomputer with 1.4 million GB of RAM 40 minutes to process 1 per cent of 1 second of brain activity. So, the human brain is amazing. The problem is...it isn't very focused.

The problem is with the IB you need to focus incredibly well in order to get those high grades. The chances are that you want to do well in the IB, and this means you're probably always thinking about all the things you're going to do to achieve success. Do extra maths tests, stay in school after hours, get ahead in all the projects, catch up all the projects, score 100% in all the tests and be the **BEST STUDENT EVER!**

Well those are all great intentions – you can be the best student ever. But not like that. You need to be focussed, to identify clear targets for what you want – and need – to achieve and then work steadily toward them. Think less Flubber more Terminator.



So how is this God Mode focus even possible. It actually isn't all that hard. You start saying no to pointless things. 'But wise blog post, how do I know what is pointless when everything in the IB is so important?'. Ok good question, but that it mostly your panic talking. There's basically 3 rules we can use:



### The rule of the big picture

Always always always have the big picture in mind. This means you must think about your goals and what you need to get there, and then work on **only the things that help you get where you want.**

Maybe you want to study Engineering at university and need a 6 in maths, a 6 in physics and 35 points overall.

If this is the case then remember that getting a 7 in biology isn't the goal, and getting 40+ points isn't your *primary* goal. Your first and most important goal is to get those 6s in maths and physics (and to get yourself over the 35 pt boundary). This means understanding electromagnetism well enough that it doesn't drag your physics score below a 6. That is much more important than your history homework **unless** your history is pulling you below the magic 35.

Using the big picture will mean that you will get much less distracted by all the demands that every teacher and subject puts on your time.

And that's it! Follow the 3 rules to decide what is important and cut everything else out. If you do this you will find your scores shooting up in no time! Good luck!



## The rule of purpose

Identify the purpose of the task. This is the first rule in deciding what to spend time on. It's easy to panic if you have a test in maths and to think that if you fail it will be the end of the world. Actually, 99% of the time it will make no difference at all. So, you have to identify how important something is. Actual IB Exams = Very important, extra credit homework = not important.

Now you can see how that piece of work affects your Goal of a certain number of IB Points and you can **say no to things that aren't important**.

## The rule of diminishing returns

Ok so now you're just working on the important stuff and that's great. Now let's talk about diminishing returns. This is the idea that as something gets better *it takes more effort to improve it further*. Which makes sense when we think in terms of a piece of history coursework. Doesn't take that much effort to get a 3, but to push that up to a 5 is quite tricky. Getting that up to a 6 is hard and up to a 7 is really tough. The trick here is to know when enough is enough. If your teacher says you're almost up to the next grade then you better start putting in the effort to get over the boundary. However, if your teacher says your coursework is fine, then putting in an extra 20 hours might not be that useful – *especially if you could have used that time better somewhere else*.

So next time you're memorising definitions for physics, and you get 99% right, consider whether it is worth studying more of the same to try and get 100% or whether you would be better off spending time on something easier to affect.



## Remember Facts Quicker: Storytelling Techniques

If I sat you down and recited a list of historical dates, kings, and dynasties, would you remember those facts tomorrow? I'm guessing that for most of you the answer is probably not. What about if I played you a television drama showing the epic tale of those dynasties? A drama full of thrilling battle scenes, sweeping landscapes and human ambition. Maybe you won't remember all of the details. But the chances are that you'd remember a lot more of it tomorrow than that list I recited. The reason for this is that **our brain absorbs information much easier and a lot faster if we're faced with a story rather than a list of facts.** Why? Because the human brain is wired to chemically respond to stories. Therefore, in this blog I want to encourage you to use stories when it comes to memorising large chunks of information. I promise it will make your life easier when you study for the IB!



### Facts vs. Narrative

Take a look at the following examples:

#### Example A:

- *The Battle of Waterloo was fought on June 18<sup>th</sup> 1815, near Waterloo*
- *The French army, under Napoleon's command, lost the battle to two armies of the Seventh Coalition*

#### Example B:

*When Napoleon led his army onto the sodden battlefield, little did he know that this day would see his defeat. Over breakfast he had criticised the English troops and their pompous commander, the Duke of Wellington. Now, amongst the mud, rain and sweat, the 18<sup>th</sup> of June 1815 would be the day that decided Europe's fate.*

Example B is way more interesting, right? The reason for this is revealed by neuroscience. When listening to facts, the part of our brain that processes language and meaning is activated. But, when we are told a story, more parts are activated. In fact, all other areas that would be used if we were actually experiencing the story ourselves are activated!

You can **read more about the exact research into this here**. It could even be an interesting topic for a **TOK presentation!**

But what can we, as IB students, do with this knowledge? Well, when we study for the IB there's so much information to take in for lots of different subjects. You will naturally engage more with some subjects than others. However, **by incorporating tricks into our studying that make use of the brain's natural response to stories, we can retain information and facts more readily and enhance our engagement with our subjects.** Nice, huh? Read on for my **three easy steps to turn your IB facts into stories**. As you study for the IB, it should make your life so much easier!

### 1. Give information context

Originally, storytelling was a matter of survival. Back in the Stone Age, humans needed to hear how their cousin Wiglaf was injured by a wild bear in order to know that they should avoid bears themselves. Therefore, when they caught sight of a dark, furry shadow in the woods, they would remember the story of good old cousin Wiglaf, and run. The information: bears are dangerous.

To make this useful for us, let's reverse this process.

*Information: When caesium reacts with water to form caesium hydroxide ( $CsOH$ ) and hydrogen gas ( $H_2$ ) the reaction is exothermic.*

*When Fred decided to sneak into the chemistry lab and drop caesium into the tank of water, the reaction was so violent he singed off his eyebrows.*

Alternatively, watching videos that present this kind of information can do the same trick. This one [here](#) shows what happens when you mix especially reactive alkali metals with water...



## 2. Turn information into a narrative

Humans think in terms of cause and effect. That's how we go through the world every day, from brushing our teeth, to spilling the toothpaste on our shirt, to missing the bus because we had to change our shirt.

All of this means that **we remember things more easily when we can track the pattern of cause and effect**. So, when learning a list of facts, invent a narrative around them so that you remember everything more easily. This technique is great for subjects like History or Economics, but you can definitely use it for other subjects as well.



For example, you need to memorise a list of Spanish vocab:

*La ducha = shower*

*Tacones altos = high heels*

*El alce = moose*

Instead of remembering the individual words, put them together:

*El alce llevaba tacones altos en la ducha.*

The moose wore high heels in the shower.

### 3. Visualise the Specifics

The human brain thinks in terms of specific images, and not abstract terms. Stories work by helping us visualise and imagine a specific situation and so generate an image. That's why the example above in which we can imagine Napoleon stepping out onto the battlefield at the Battle of Waterloo is more effective than when we think about it as a list of facts only.

The keyword here is 'specific', because the brain hooks onto concrete details much faster than it does with generalisations. Taking the time to **visualise what specific facts would actually look like is a great way to help make that information stick.**

For History, thinking about how events and policies specifically impacted individuals will make the facts a lot more memorable. For example, when Mussolini was in power his party introduced the ONP to provide the Italian people with improved leisure activities. But a detail you could use to both enhance this fact and help it stick is the fact that by 1939 the ONP sponsored over 3,000 brass bands!

#### Recap

The thing is, even maths and science facts can be memorised in this way. Einstein himself, when coming up with  **$E = mc^2$**  in his theory of relativity, started off by imagining what it would be like to ride on a beam of light. He said:

*"My particular ability does not lie in mathematical calculation, but rather in visualising effects"*

I'm not saying that we can all be like Einstein. But if he used his imagination to visualise the facts and information he was working with, this is a piece of advice we can all follow!

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