Minimise Study Time
Maximise Scores

VCE Exam/Study Tip 28: Leveraging Your Power Hours

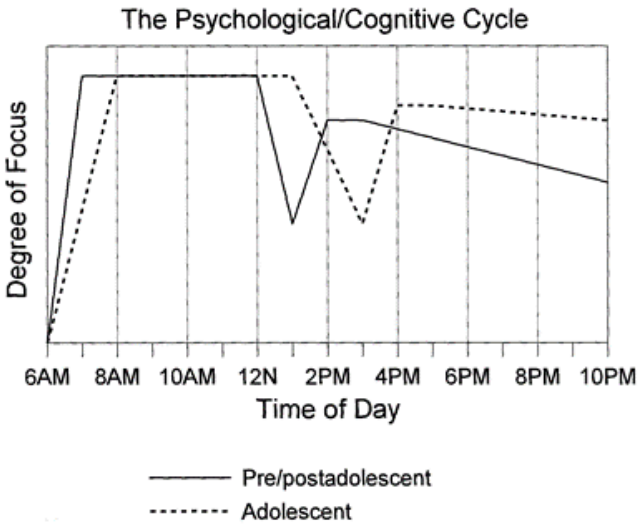
Not all hours are created equal. Therefore, the key to increasing productivity is to spend the right time, on the right things, the right way, and with the right energy.

We all have power hours or peak performance periods where we're in "the zone", ploughing through tasks with maximum efficiency and ease. Some of these periods are quite obvious, but many are camouflaged by daily activities that could be carried out during less efficient parts of the day.

Identifying and using our power hours in the best way is one of the most powerful, and least used time management techniques that can be used to cut down on study time without negatively impacting results.

Concentration and Focus

The psychological-cognitive cycle plays a significant role in memory and learning, and is heavily influenced by the sleep-wake cycle or circadian rhythm. The psychological-cognitive cycle regulates our ability to focus on incoming information, which means that our concentration levels fluctuate throughout the day.

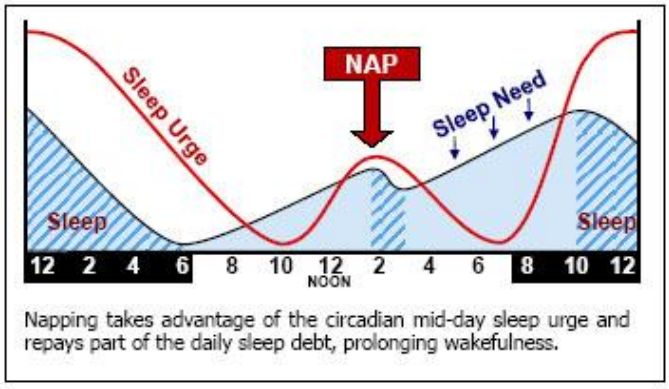


In general:

Research has shown that although the psychological-cognitive cycle is very similar for preadolescents and adults, it is quite different during adolescence.

If wake-up occurs at 6am:

- Teenage concentration levels are at their lowest in the morning with peak alertness occurring between 8am and 1pm. Students undertaking very early morning studies report being less alert, wearier, and having to expend greater effort whilst studying.
- Concentration levels begin to decrease from about 1pm, reaching half of the maximum value by 3pm. During this period, learning can still occur, but it does require more effort.
- Most teenagers experience a drop in energy and feel drowsy somewhere between 2pm and 4pm. This is a great time to take a 15 to 30-minute nap. Not only will you feel more alert and focused on waking, you'll be replenishing your levels of brain chemicals (neurotransmitters) that play a critical role in memory and learning.



Napping takes advantage of the circadian mid-day sleep urge and repays part of the daily sleep debt, prolonging wakefulness.

- Following the mid-day slump, concentration levels quickly rebound to about 80-90% of the maximum value, and remain at these high levels until around10pm.
- The drive for sleep becomes very strong between 11pm and midnight. This means that the majority of teenagers don't fall asleep until at least 11.30pm.

Note:

- People can be loosely categorised as early risers (larks) or late risers (owls).

  Morning people tend to wake up and go to sleep earlier and are most productive early in the day. Evening people tend to wake up later, start more slowly and peak in the evening.

  If you're an "owl", each stage described in this tip will occur between 1 and 4 hours later.
- If you're a morning lark, your peak productivity times will occur in the morning. Night owls are more productive and concentrate better in the evenings.
- Alertness tends to slump after eating a meal.

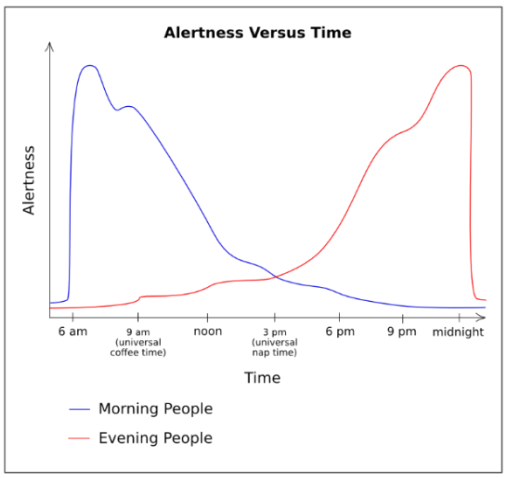
Using Your Circadian Rhythm to Improve Productivity

As there are individual variations in daily rhythms, it's a good idea to chart your energy, concentration and motivation levels across the day. Once you determine your internal biological clock's daily schedule, you can then plan your study sessions around those times of day when you're most alert and motivated.

Working with your circadian rhythm will not only increase your daily efficiency and productivity, it will also help maintain a healthy body and mind. Your confidence levels will also improve, and you'll be less likely to procrastinate future studies!

Note:

Don't be concerned if your study regime differs from other students – it's not uncommon to see large variations in alertness, as shown below.



Identifying Your Most Productive Hours

Step 1: Record focus, energy and motivation levels out of 10, across a 1 to 3-week period. Use the definitions and rating scales detailed on the back page.

Note:

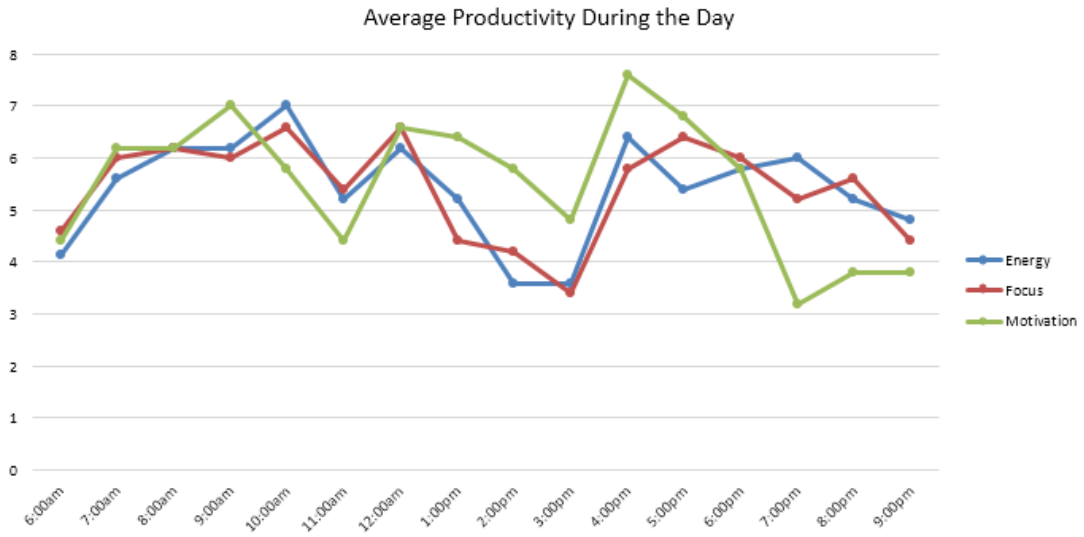
Take measurements at the same times every day so the data isn't skewed.

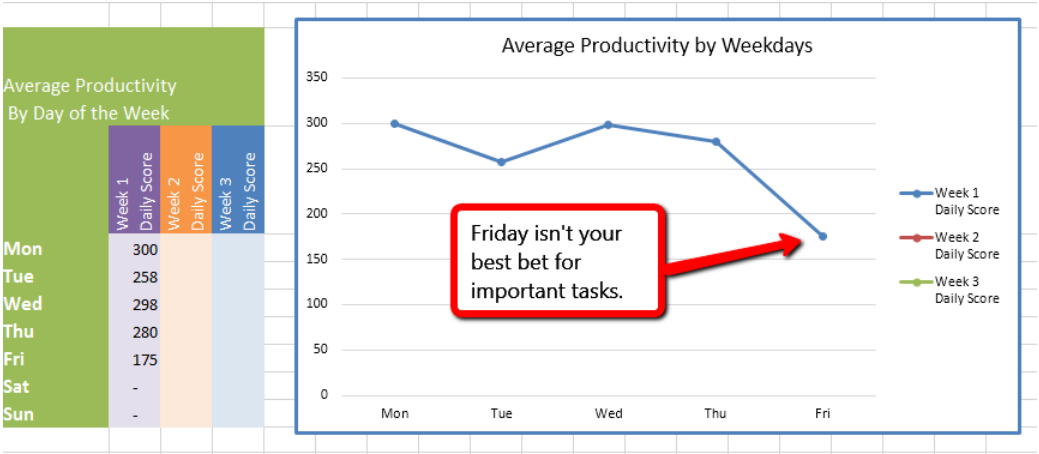
Although you may see trends within the first week, the longer you collect data, the more reliable your graphs will be.

Step 2: Enter your data into the 'Productivity Spreadsheet' that has been supplied with this study tip.

Week #1	6:00am			7:00am			8:00am			9:00am			10:00am		
	Energy	Focus	Motivation	Energy	Focus	Motivation	Energy	Focus	Motivation	Energy	Focus	Motivation	Energy	Focus	Motivation
Mon															
Tue															
Wed															
Thu															
Fri															
Sat															
Sun															
Average															

This spreadsheet will automatically calculate averages and produce your personalised productivity graphs. Examples of such graphs include:





Step 3: Use the "Notes" column to document what motivated or demotivated you and whether you did something that could have affected your energy levels. For example, sleep duration, exercise, the number of cups of coffee, diet, exposure to light etc).

In Summary

The graphs will show you WHEN you're most productive
The NOTES may give you the reasons as to WHY

Step 4: Every time you record your levels, ask yourself the following questions:

What makes me more productive?
What activities, foods, conditions, times etc drain my energy?

Where possible, apply your findings so you can increase the number of power hours in each day.

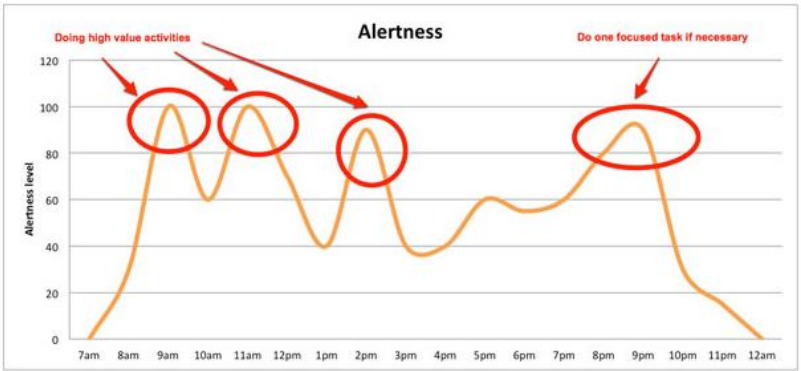
Additional Suggestions:

- Identify which of your regular tasks require high levels of focus and concentration and which ones do not.
- Make a list each evening and designate time frames for each of the tasks you need to accomplish on the next day, arranging lunch and fresh air breaks for the times when your focus is low (and hunger is high!)
- Each Sunday, put together a rough schedule for the upcoming week. Make a list of the major tasks you want/need to complete and assign them to the most ideal days.

Leveraging Your Concentration Cycle

- Numerous studies have shown that when we operate at our optimal times of day, our ability to filter out the various distractions around us greatly improve, which is why we're capable of focusing more intensely on the tasks to complete.
- Large efficiency gains can be obtained by rearranging the order in which tasks are performed i.e. according to the level of focus and concentration that will be required for their completion.

  For example: Difficult or high value tasks should be addressed when concentration levels are high.



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- Don't work on concentration intensive tasks when your alertness and energy levels are low. Not only will you make avoidable mistakes, tasks will require more time and effort to complete, increasing the likelihood of you becoming overwhelmed or demotivated. Use these times to eat, relax, clean, sort, research or answer emails.

- Most people are more easily distracted from noon to 4 pm.

- Do not fight your natural biological clock. For example:

  Don't force yourself to work through an energy slump, particularly if you're in the middle of a high-concentration task. You'll waste more time plodding through that task than if you were to stop for a while and pick up a low concentration activity.

- After identifying your power hours, protect them so that you can spend them where you need them most. Don't use these periods to attend appointments, play sport, socialise, clean or sleep in. These hours should be used for tasks that require high levels of concentration or motivation.

- You can also create additional power periods using the techniques discussed in the next study tip.

Daily Productivity Stages

Stage 1: Upon Rising

6am to 7am (0 – 1 hours after waking)

Concentration levels	Nil → 60% of maximum	
Physical & Mental State	Tired, sleepy, groggy, light headed, slow. Unable to focus or concentrate well. Alertness levels are low.	
Best types of tasks	**Low level concentration tasks** Tasks you can execute no matter how low your energy level or mental capacity is. Tasks that you enjoy. Tasks that can be completed when you feel slow or drowsy.	
Examples	Light stretching Relaxing Organising your desk Getting ready for school or another event Sorting notes	Mindless chores Errands Reading for pleasure Taking a bath or shower Eating breakfast
Suggestion(s)	Avoid difficult tasks or learning sessions unless your energy and focus levels are high.	

Stage 2: Early Morning
7am to 8am (1 – 2 hours after waking)

Concentration levels	60% of maximum → 100% (maximum)
Physical & Mental State	Alertness, focus and concentration levels increase from average to high. You feel alert enough but aren't quite ready for mentally taxing activities. Some students (eg. owls) may still be in the process of waking up.
Best types of tasks	**Mid-level concentration tasks** Tasks that can be done when your ability to focus or concentrate is at an average to above average level. Examples include: Routine, unimportant or uncomplicated tasks. Tasks that only require small bursts of focus. Tasks that you enjoy.
Examples	Reading flash cards Most correspondence Brainstorming Researching Reading texts or A+ samples Writing notes Revising

Stage 3: Peak Period
8am to 1pm (2 – 7 hours after waking)

Concentration levels	100% (maximum)
Physical & Mental State	Concentration levels are 75 to 100% of the maximum value. You feel fresh, well rested, focused, alert, motivated and energetic. Mental capacity is very high.
Best types of tasks	**High level concentration tasks** The most difficult, challenging or high value tasks. Tasks that require deep thinking or analysis. Tasks you dislike the most or find boring.
Examples	Writing essays and speeches Delivering a presentation Practicing your musical instrument Studying for an exam Strategic planning Analytical tasks Making important decisions Problem-solving tasks Solving questions Memorising information Tasks involving analytical skills, such as reading complicated text, problem solving, planning activities and writing reports.
Note(s)	Concentration levels reach their maximum value somewhere between 8am and 10am.
Suggestion(s)	Leave large, complex tasks **to the days** when your concentration across long periods is at its best. Testosterone production and hence alertness are at their highest levels between 11am and 1pm. This is the best time to tackle tasks that require high focus and attention, such as Mathematics. Use this time to make important decisions. If you're presented with an important decision to make late in the day, where possible, defer it to the following peak period.

Stage 4: Before the Big Slump
1pm to 2pm (7 – 8 hours after waking)

Tackle mid-level concentration tasks.

Stage 5: The Mid-Day Slump
2pm to 3.30pm (8 – 9.5 hours after waking)

Concentration levels	< 65% of maximum	
Physical & Mental State	Tired, sluggish, drowsy or sleepy. You may have experienced a large drop in energy levels. Easily distracted, losing focus whilst reading, daydreaming.	
Best types of tasks	**Low level concentration tasks** Tasks you can execute no matter how low your energy level or mental capacity is. Tasks that can be completed when you feel slow or drowsy.	
Examples	Light stretching Relaxing Organising your desk Sorting notes Mindless chores Errands	Reading for pleasure Taking a nap Taking a bath or shower Most correspondence Reading flash cards Eating lunch
Suggestion(s)	Avoid difficult tasks or learning sessions unless your energy and focus levels are high. Where possible, take a long break when concentration levels are at their lowest levels i.e. between 2pm and 3.30pm. Heavy meals require large amounts of energy to digest and process. Therefore, having a light, healthy lunch often helps to reduce the severity of the mid-day slump. If you must study during the mid-day slump, implement strategies that will increase focus and concentration. Examples include reading out loud, exposure to cold, drinking 1 – 2 glasses of water and brief spurts of exercise. Do some light stretching for 5 – 10 minutes after lunch to improve your circulation.	

Stage 6: After the Big Slump
3.30pm to 4pm (9.5 – 10 hours after waking)

Work on mid-level concentration tasks.

Stage 7: Late Afternoon & Evening
4pm to 10pm (10 – 16 hours after waking)

Concentration levels	80% of maximum → 75% of maximum	
Physical & Mental State	Concentration levels are 75 to 100% of the maximum value. You feel fresh, well rested, focused, alert, motivated and energetic. Mental capacity is very high.	
Best types of tasks	**High level concentration tasks** Difficult, challenging or high value tasks. Tasks that require deep thinking or analysis. Tasks you dislike or find boring.	
Examples	Writing essays and speeches Practicing your musical instrument Studying for an exam Strategic planning	Analytical tasks Problem-solving tasks Solving questions Memorising information
Suggestion(s)	Leave large, complex tasks **to the days** when your concentration across long periods is at its best. Between **4pm to 6pm** your mind and body have the fastest reaction times and the best coordination. Use these times for activities that require you to think fast, respond quickly to questions or to participate in difficult conversations. As the body has the greatest cardiovascular efficiency and muscle strength between **6pm and 8pm**, this is the ideal time for physical activities such as cycling, tennis, golf or the gym.	

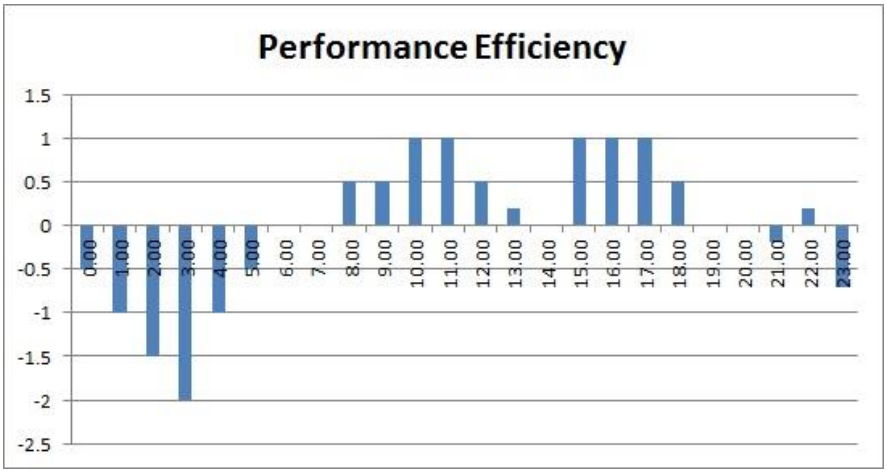
Early evenings (adult lark):

- As natural light fades and the evening approaches, it becomes easier to become drowsy and harder to stay focused on the work at hand.
- This period may be the best time for physical exercise, even if it's just a short brisk walk around the block.
- Reaction times are naturally higher at this time of day (about 3:30pm), body temperature increases, cardiovascular efficiency and muscular strength peak, making late afternoon the best time for physical labour.

Stage 8: Sleep
10pm to Midnight (16 – 18 hours after waking)

Concentration levels	Low
Physical & Mental State	You are starting to feel tired. The ability to focus and concentrate typically starts to slide. Efficiency becomes strongly compromised.
Best types of tasks	Low level tasks.
Examples	Relaxing, reading.
Suggestion(s)	

Research shows that getting a good night sleep helps us focus the next day, and supports a healthy mind and body. Getting to bed approximately the same time every night helps with the body's natural cue to go to sleep.



Productivity Chart

Definitions & Rating Scales

Productivity = A measure of the output achieved per hour or the amount accomplished in a given period of time.

Motivation = A person's interest or enthusiasm for doing/completing something or achieving a goal.

Rating	0	1	2	3	4	**5**	6	7	8	9	10
Descriptor	Worst Ever	Very Low	Low	Below Average		Average	Above Average		High	Very High	Best Ever
Efficiency & Productivity	←	Task Completion is Slow Productivity is Decreasing					Task Completion is Fast & Effective Productivity is Increasing				→

Focus = Ability to pay attention and/or concentrate.

Rating	0	1	2	3	4	**5**	6	7	8	9	10
Descriptor	Worst Ever	Very Low	Low	Below Average		Average	Above Average		High	Very High	Best Ever
Specific Terms		Drowsy, Foggy Apathetic		Easily Distracted Daydreaming			Attentive		Engrossed Engaged		
Efficiency & Productivity	←	Task Completion is Slow Productivity is Decreasing					Completes Tasks Quickly & Effectively Productivity is Increasing				→

Energy = The available power or capacity to take on a physical or mental activity fort an extended period or without interruption.

Rating	0	1	2	3	4	**5**	6	7	8	9	10
Descriptor	Worst Ever	Very Low	Low	Below Average		Average	Above Average		High	Very High	Best Ever
Specific Terms		Drowsy Fatigued, Very Tired		Idle, Lazy, Slow Sluggish			Attentive		Engrossed Engaged		
Efficiency & Productivity	←	Task Completion is Slow Productivity is Decreasing					Completes Tasks Quickly & Effectively Productivity is Increasing				→