

An introduction to Critical Skills

Critical skills encompass a range of study skills that are transferable life skills that can also be beneficial to the workplace. Reading, writing, spelling and grammar are academic skills that support life skills at various levels. In addition, collaboration with others promotes teamwork, reflective practice helps to improve standards and time management is an important factor in most people's lives. In academia it is vitally important for a student to manage their time, in order to schedule enough time for thorough research, evaluating, analysing, writing, and referencing time.

Three study skills that support critical thinking are discussed in this poster, that include time management, research, and referencing, vital to academic writing and learning.

Time management is using time that is available, in an efficient way, that proves to be effective and useful to your working day. (Cambridge University Press, 2021). Managing time is important in most areas of life, and for students, a large part of study will be carried out independently, requiring self-motivation. A variety of planning tools and techniques are available to assist in good time management. While there is no definitive way of planning, how effective a chosen technique will be, will often depend on the learner, considering the time they have available, how they learn and if they already maintain a healthy work-life balance. Undeniably, planning study time efficiently, using methods and systems that are best suited to the learner, can essentially help a student begin to create that healthy work-life balance, making the learning experience an enjoyable one. (Imperial College London, 2021).

The Pomodoro Technique is one such method devised in the late 1980's by Frances Cirillo. Laura Scroggs, (Doist Inc, no date), writes in her article that Cirillo, a university student, struggling to remain focused on his studies and assignments, decided to set a timer for ten minutes and commit to focused study during that time. A kitchen timer that was designed to look like a tomato, was used by Cirillo. The term Pomodoro Technique was so-called because pomodoro means tomato in Italian. Student, Yana Savitsky, discusses in a TED x LFHS presentation how the pomodoro technique has helped her with her studies. Savitsky explains that the simple method of focused study for twenty-five minutes, followed by a break of five minutes, helps her to work quickly in a focused way. As Savitsky, (2019), further suggests, working in a shorter amount of dedicated time produces a higher quality of work. The system consists of four twenty-five-minute Pomodoro's with three five-minute breaks. The fourth break lasts for thirty minutes allowing for activities such as a lunch break or maybe a walk before starting the routine again. The reasoning behind the length of the pomodoro is that it is believed to be long enough to focus on a task and effectively produce good work without being too daunting. Longer periods of time can lead to losing interest in the task and procrastinating. It creates a sense of urgency to stay focused and productive (Productivity Timer, 2021). As discussed by Cirillo Consulting GMBH, (2011-2021a), consistent use and practice of the pomodoro technique can support a student, to accurately predict how many Pomodoro's it will take to complete individual tasks and assignments. Cirillo Consulting GMBH, (2011-2021b), further suggests that timetables can be created using Pomodoro's, setting a limit, and motivating students "to complete a task within a set period of time". This effective use of time management allows for study time and free time which creates a healthy work-life balance.

Managing time effectively allows for thorough research concerning the topic that is being explored. As part of a student's research, one of the most essential things that need to be considered, is the reliability of sources that they are investigating. It is important that the student asks questions such as:

Who wrote the piece of information?

What are the author's credentials?

Is the author knowledgeable about the subject?

Sources should be from an academic background which likely include journals, books, articles, and papers written by other academics and theorists.

The importance of studying at a higher level is to look at other people's work, explore their ideas and study their websites in order to learn, absorb and then form one's own ideas, developing skills that help an academic finish their studies. (Swinburne Online, 2017) It is important to consider, academics and theorists may have varying ideas regarding the area under discussion, and each concept deserves equal contemplation and attention. Furthermore, it is crucial to reference and acknowledge academic writings of others. UNSW Sydney NSW 2052 Australia (2019) points out that referencing academic work gives accountability to one's own work, while recognising the works of others, and where it originated from. Additionally, referencing demonstrates skills to research, examine and analyse in order to give substance to one's work. Paraphrasing and referencing, shows capability and academic ability of the student, while validating one's understanding of what they have researched, read, and studied. According to Stella Cottrell (2019, p. 249) referencing also helps the reader locate the source for further reading. The writer can obtain the original source easily when practicing correct referencing. Accurate referencing helps to prevent plagiarism, while showing courtesy to others work that one used to support their own. Plagiarism is stealing, in the same way as if one was to steal another person's belongings and is taken seriously in academia. University of Wales Trinity Saint David (2019, 3.1.1.) states that plagiarism is looked upon as "Academic Misconduct", when a student shows the potential of gaining an unfair advantage, or assisting others to gain an unfair advantage, by using others work or presenting other's ideas as their own (University of Wales Trinity Saint David, 2019, 3.1.1.1). In cases where the findings are proven to be true, the outcome is stated on the student's record and the student may be monitored on probation. (University of Wales Trinity Saint David, 2019, 27.1.).



Locating and analysing relevant information develops research skills, with the purpose of conveying and presenting accurate information to an audience. Thorough research includes critical analysis and investigation, on an academic level, in order to respond to a hypothesis. Academic research allows the researcher to read and evaluate information, in order to contribute to their work, with knowledge and authority. (National University of Ireland, Galway, 2021).

According to Moore et al (2010a, p. 53) research can form the largest part of the task when preparing for assignments, therefore effective time management is crucial to allow adequate time for exploration and examination of the subject matter.

Knowledge concerning the topic or proposed question, can be expanded to a wider level when thoroughly explored and provide the learner with a deeper understanding. Research also helps to draw together skills that a student may have developed in both higher education and their personal life, of which can include memory and retaining information, reading and writing skills, social skills, confidence and presentation skills. (Moore et al. 2010b, p.54)

In an article from the university of Southampton, (2021), it states that developing research skills enables the student to find suitable information, to evaluate for quality and reliability. Broad and thorough research supports collecting and employing good use of information, helping to determine a resolution to a question or problem. Research skills promote critical thinking skills such as problem solving, understanding and knowledge, that can be transferred to daily life and the workplace. In-depth investigation offers deeper insight to the learner, together with comprehensive knowledge of the subject matter. Knowledge and understanding can contribute to self-assurance, enabling a student or employee to share information, confident in their convictions.

Good time management helps students to plan their study, facilitating wider and deeper research, leading to enriched knowledge, and developing enhanced critical thinking skills. Further learning about study skills, can be obtained through student services in most universities. For further reading, Stella Cottrell – The Study Skills Handbook, and The Ultimate Study Skills Handbook by Sarah Moore et al, are recommended.

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