



Cost benefit analysis of mobile phones

How are you currently using your mobile phones in TSS/during study periods in general?

- **Honest discussion time:**
 - How frequently (or for how long) are you spending on your phone for things like social media or choosing songs to study to?
 - How frequently are you spending responding to friends who are trying to contact you?
 - In what ways are you using it as a system to organise yourself?
 - In what ways are you using it for the specific purpose of revision/study?

Benefits of smart phones for study

- In your opinion – why are smart phones a helpful study aid?
- Accessing ClassCharts for home learning?
- Accessing study timetables?
- Listening to music to help with focus?
- Use for Quizlet/revision resources?

But...

- In all honesty:
 - Social media?
 - Spending too long selecting music for study?
 - Playing games?
 - Watching TV/films?
- Evident that phones are being used in this way in the common room, TSS, wider study.
- Disagree? Or disagree that it makes a difference?

The distracted student mind – Larry Rosen

- Professor of psychology who has studied the impact of technology on students over the past 30 years.
- Research produced in 2017 found that:
 - College students unlock their phones 50x a day, using them for close to 4.5hrs (i.e. checking every 15minutes all day long).
 - Teenagers are almost always attempting to multitask, even when they know that they cannot (and are not) doing so effectively.
 - Teenagers become highly anxious and visibly agitated when they have their phones taken away from them.
 - The average young adult finds it difficult to study for 15 minutes at a time, and when forced will spend at least 5minutes in a state of distraction.

Jeffrey Kuznekoff, “The Impact of Mobile Phone Usage on Student Learning” (2013)

- Three study groups.
- Examining impact of mobile phone usage during class lecture on learning.
- Students who were not using their mobile phones:
 - Wrote down 62% more
 - Were able to recall more detailed information
 - Scored a full letter grade and a half on a multiple choice test.

Ward, Duke, Gneezy and Bos, “Brain Drain: The Mere Presence of One’s Smartphone Reduces Available Cognitive Capacity” (2017)

- Two experiments conducted.
- Results:
 - Even when people are successful at maintaining sustained attention on a task (i.e. they are not looking at their phones) the mere presence of the phone being nearby reduces ability to learn and retain information.
 - For those that are “smartphone dependent” (i.e. on their phones a lot of the time) the impact is even more significant as they are waiting to use them again.

What about actual evidence of impact on grades?

- Felisoni and Godoi, “Cell phone usage and academic performance: an experiment” (2018)
 - 43 students had their phone usage recorded in real time via an app over a period of 2 weeks.
 - Negative relationship between usage and performance found – every 100 minutes a student spent using their phone lead to that student dropping 6.3 places in school ranking.
 - Effect was doubled when students used their phone during lesson time.

What about actual evidence of impact on grades?

- Tanil and Yong, “Mobile phones: The effect of its presence on learning and memory (2020)
- Aim = examine the effect of smartphone’s presence on learning and memory amongst undergraduates.
 - 119 undergraduates completed a memory task and Smartphone Addiction Scale.
 - Those without smartphones had higher recall accuracy compared to those with smartphones.
 - Significant negative relationship between how often they thought about their phone/using it and their memory recall.
 - Smartphone proximity had a negative effect on learning and memory.

What about music then?

Benefits of music for study	Negative impact of music for study
<ul style="list-style-type: none"> • 2013 study found that 60 female volunteers were more successful in a testing scenario when listening to relaxing music or white noise. • 2019 study suggests that music can activate the same reward centre in your brain as other things you enjoy → can therefore give you motivation to learn new information • 2007 study showed that classical music can help brain to absorb and interpret new information. • 2014 study showed that classical music helped older adults to perform better on memory tasks. 	<ul style="list-style-type: none"> • It is a natural distractor – i.e. we listen to favourite songs to lift spirits when down etc. • 2017 study shows that listening to music can reduce working memory – if you already find this hard, it can make it harder. • Music with lyrics or instrumental music that is fast and loud make it harder to understand the information that you are reading. • Success of using music is therefore dependent on genre/style: <ul style="list-style-type: none"> • Avoid lyrics • Avoid surprising/experimental music • Avoid loud music – volume low! • Avoid songs you have strong feelings about – it will take your attention away from what you're doing!

So what's to be done:

- Mobile phones are very useful, but they do negatively impact your ability to recall information.
- Based on what you have learnt today, how are you going to approach mobile phones differently when it comes to study.
- What are you going to change about your mobile phone usage?