- For secondary teachers · independent study and revision

ATTENTION AND WORKING MEMORY

Does putting your phone in another room actually change how well you think?

Evidence from a US university psychology lab, translated for UK secondary classrooms and study routines.

A signal about visibility, not willpower: in two university experiments, a phone visible on the desk quietly narrowed people's working memory and reasoning even when nobody touched it or thought about it, but only "in another room" clearly beat "on the desk" (a phone in a pocket or bag landed in between and wasn't clearly different from either), and the effect hasn't shown up reliably in every later replication.

●●○ **Evidence: Promising**

Well-powered trials with school-age learners during real classwork, confirming benefits beyond memory tasks and North American laboratory settings.

Ward, Duke, Gneezy & Bos (2017). 'Brain Drain: The Mere Presence of One's Own Smartphone Reduces Available Cognitive Capacity.' J. Assoc. Consumer Research, 2(2), 140-154. doi.org/10.1086/691462

WHAT HAPPENED

A phone on the desk quietly cost people some thinking capacity

Two experiments with 795 university learners in total tested whether a phone's mere presence, never touched, never ringing, changes how much mental capacity people have left for a task. Participants left their phone on the desk face down (or face up), in their pocket or bag, or in another room entirely, then sat two standard tests: a working memory task and a set of reasoning puzzles. Those with their phone in another room scored higher on both, even though almost everyone said afterwards that they had barely thought about their phone at all.

Approximate scores, Experiment 1 (520 learners), read from the study's own published chart. Working memory scores (a separate test) followed the same pattern in both experiments, and a second experiment with a new group of 275 learners replicated the desk-vs-other-room gap almost exactly. "Pocket or bag" was never clearly different from either "desk" or "other room" in either experiment, so the safest reading is "another room measurably beats the desk," not "anywhere but the desk works."

What the study actually tested

1

Full separation, not just silence

Face down, face up, silenced or fully powered off all made no difference. Only physical distance changed the result.

2

A phone in a bag isn't "gone"

This middle condition sat between the other two and wasn't clearly different from either in either experiment.

3

Biggest cost for the most attached

Those who said they depend most on their phones lost the most capacity from its presence, and had the most to gain from its absence.

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MAKE IT YOURS

Across your subjects and classes

This is lab research on university learners doing short, computer-based memory and reasoning tests, not a classroom trial. What follows are sensible ways the same idea, a visible phone quietly costs some thinking capacity, could translate to real lessons and revision: worth trying, not proven for your subject or your learners.

Context	How the finding could translate
Maths / multi-step problems	Before non-calculator or multi-step problem-solving work, ask for phones in bags at the front of the room, not just face down on desks.
English / extended writing	Before independent essay writing or unseen analysis, the same "right out of sight" separation may help learners hold a plan in mind while they write.
Science / practicals	For multi-step calculations or method-heavy write-ups, keep phones fully away rather than "nearby but off."
Revision and past papers	Treat "phone in another room" (a locker, a box at the front) as part of exam-condition set-up, not just "phones away" on the desk.
MFL / vocabulary tests	Vocabulary recall and translation lean on working memory, exactly the kind of task this study affects most.

Adapt it to the class in front of you

Learners anxious without their phone

Make separation an expected routine announced at the start, not a surprise collection: the study's own separation was expected, not a shock.

Learners highly attached to their phones

On this evidence they have the most to gain from full separation, not the strongest case for an exemption.

"Phones down and silent" classes

Silencing and face-down placement didn't remove the effect here, so a tidy desk may look calmer without doing much.

Mixed, general classes

Start with the tasks that most need sustained working memory (extended writing, multi-step maths), not every lesson.

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HOW SOLID IS THIS?

A real effect, smaller and patchier than the headline suggests

Developing

This rates the evidence's firmness, not our endorsement of the idea. Two well-designed experiments show a consistent pattern, but later replication attempts have been inconsistent.

- The clean, statistically solid result is specifically "another room beats the desk." A phone in a pocket or bag sat in between and wasn't clearly different from either end in either experiment (some comparisons had p as high as .20), so this isn't evidence that "pocket away" works as well as "fully separate."
- Both experiments tested university learners doing short, computer-based memory and reasoning tests in a lab, not school-age learners doing real classwork or revision, and effects were measured in a single sitting, not across a lesson, a school day or a revision period.
- A 2023 meta-analysis pooling dozens of later studies found the overall effect was real but small, and held up clearly for memory-type tasks, but not for general attention tasks, and not, specifically, in studies run in North America, the same setting as the original research.

What that means for you: treat "phone fully out of the room, not just silenced nearby" as a small, evidence-backed nudge worth trying before working-memory-heavy tasks like exam practice or extended writing, not a guaranteed fix, and don't expect "in a bag" to do quite the same job as "gone."

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TRY IT THIS WEEK

Your first small step

THIS WEEK

Before your next timed past paper, extended written task or multi-step problem set, ask learners to put phones in bags at the front of the room or a box, not just face down on the desk, and tell them why so it's an expected routine, not a surprise search.

Try it and watch: notice whether learners seem to settle into the task faster, or produce more in the same time, compared with a lesson where phones stayed on desks. That's your own evidence, not ours. The research behind this measured small average differences in a US university lab, not what happens in your specific classroom, and its own later replications have been mixed, so treat what you notice as a genuine test, not a formality.

Go deeper

Our Thinking Framework tools · structural-learning.com/thinking-framework

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