

Homework rationale

What are the benefits of completing homework?

The Educational Endowment Foundation have researched the benefits of many different methods of improving students' progress. They suggest that improved self-regulated learning skills adds 7 months of education to a secondary school student, whilst homework in secondary schools can add 5 months benefit. The potential benefit of developing our student's skills in these two areas is too big to ignore.

Feedback <small>High impact for very low cost, based on moderate evidence.</small>		+8
Metacognition and self-regulation <small>High impact for very low cost, based on extensive evidence.</small>		+7
Reading comprehension strategies <small>High impact for very low cost, based on extensive evidence.</small>		+6
Homework (Secondary) <small>Moderate impact for very low cost, based on limited evidence.</small>		+5
Mastery learning <small>Moderate impact for very low cost, based on moderate evidence.</small>		+5

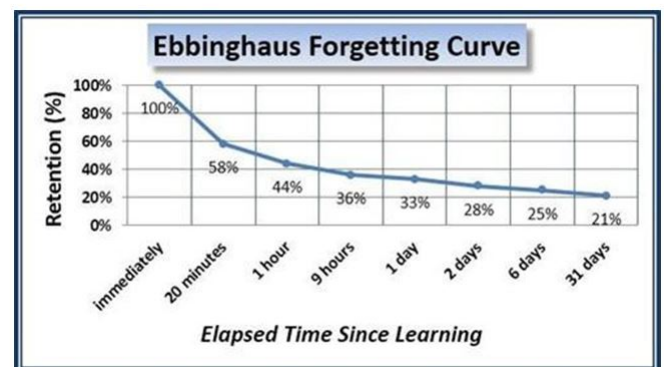
Students need to be able to select appropriate study skills, with the understanding that some are more effective than others. Many have firmly held, but incorrect beliefs that they learn in a certain way "I don't learn by writing...". Instruction in study skills followed by independent practice in using the most effective study skills will improve student performance.

Students with higher levels of self-determined motivation have better outcomes (Deans for Impact, 2016). What this means is that students who understand the benefits of learning independently will perform better in exams and future endeavours than students who have been forced to complete a homework. It is for this reason that we seek to engage and educate students into the benefits of completing homework before we enforce its completion. This is the same as the modern British values in policing – that engagement and education is often more desirable than enforcement.

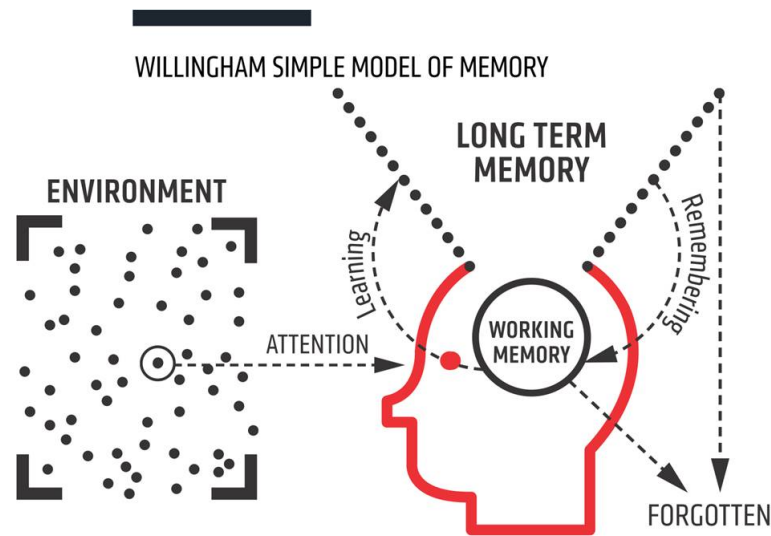
What research underpins our approach to homework?

The forgetting curve (Ebbinghaus 1885)

If students do not practice remembering (retrieving) information that they have learnt then it is very quickly forgotten. For students to be able to retain information almost indefinitely, they must practice retrieving it, and the time between retrieval practice should increase by approx. 2.5 times with each episode of retrieval practice.



Willingham's Model of Memory



Willingham's Memory Model – it is necessary for information to be retrieved from long term memory and brought into working memory otherwise it is forgotten. Repeated encoding and retrieval develops stronger mental models or schemas.

Hattie's (2008) work on homework in Visible Learning finds that:

- The highest effects in secondary are associated with rote learning, practice or rehearsal of subject matter
- Overall, the more complex, open-ended and unstructured tasks are, the lower the effect sizes.
- Short, frequent homework closely monitored by teachers has more impact than their converse forms
- Teacher involvement in homework is key to its success.
- The worst thing you can do is set students projects.

Dunlosky et al (2013) propose a hierarchy of independent learning techniques with low demand activities such as re-reading and highlighting at the bottom, and practice testing etc at the top.

Utility Level	Technique	Description
High utility	Practice testing	Self-testing or taking practice tests on material to be learned.
	Distributed ('spaced') practice	Implementing a schedule of practice that spreads out activities over time.
	Elaborative interrogation	Generating an explanation for why an explicitly stated fact or concept is true.
	Self-explanation	Explaining how new information is related to known information, or explaining steps taken during problem solving.
Moderate utility	Interleaved practice	Implementing a schedule of practice that mixes different kinds of problems, or a schedule of study that mixes different kinds of material, within a single study session.
	Summarization	Writing summaries (of various lengths) of to-be-learned texts.
	Highlighting	Marking potentially important portions of to-be-learned materials while reading.
Low utility	Keyword mnemonic	Using keywords and mental imagery to associate verbal materials.
	Imagery use for text learning	Attempting to form mental images of text materials while reading or listening.
	Rereading	Restudying text material again after an initial reading.

References

Deans for Impact (2016) *The Science of Learning* <https://deansforimpact.org/resources/the-science-of-learning/>

Dunlosky, J., Rawson, K., Marsh, E., Nathan, M. and Willingham, D. (2013). Improving Students' Learning With Effective Learning Techniques. *Psychological Science in the Public Interest*, 14(1), pp.4-58

Education Endowment Foundation (2020) *Teaching & Learning Toolkit*:
<https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/>

Education Endowment Foundation (2019) *Metacognition and Self Regulated Learning*. [online]
Available at: <https://educationendowmentfoundation.org.uk/evidence-summaries/teachinglearning-toolkit/meta-cognition-and-self-regulation>

Hattie, J. (2008) *Visible Learning*. Abingdon, Oxon: Routledge.