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It is important to stay updated by reading academic articles. What is even more important is to recall what has been read

You will not remember this

Recently, a student asked me in front of a crowded auditorium: «Do we need to read the entire chapter for the exam?» He saw no sense in reading it all, since most of it would be forgotten anyway.

What was it about, the last summary that you read? Who was the first author? And what did the discussion say? If you can answer all these, it is impressive. There are many who cannot. Articles that have been read are soon forgotten. Moreover, it is a formidable task to keep track of everything that is committed to print. So does it really make any sense to read research articles on a regular basis? If the research literature is not committed to memory, it is most likely true that most of the material which is published can safely be overlooked (1).

Why is recalling research literature so difficult? This is a hard question to answer, since there are many factors that influence the ability to recall, such as sleep, blood-sugar level, concentration, visual and auditory function and mental health. As regards doctors in particular, some have expressed that they become fed up with maintaining their knowledge after having worked in a particular field for a long time (2).

To be able to carry out high-quality diagnostics and treatment of patients, evidence-based knowledge is required. But what about the research literature that is being read out of interest for purposes of enjoyment, with no direct clinical benefit – does it matter if we forget it? Yes, because when someone can recall new research results in their field, this bears witness to their academic attitudes.

We still have a fairly insufficient understanding of the workings of the human memory. Even though models of how the brain stores memories are gradually improving, most people harbour outdated notions of how memory works (3). Examples include the belief that memory works like a video camera, or that our memory can be improved through hypnosis (3). We also have a greater trust in memories that have a strong emotional content, but there is no reason for this (4). Memories are always reconstructive and will therefore be characterised by inaccuracies and contain small or large errors (5).

In contrast to what many people appear to believe, repeating what is being read is not sufficient for recalling it well. For example, medical students recall more of what they have learned by rote if this knowledge is tested (6). Another method for strengthening memory

is to process the material actively, for example by such a simple procedure as making notes (6). Furthermore, it is an advantage to repeat the material at regular intervals, without letting too much time elapse from the first repetition (6). This is easier said than done in a busy clinical setting, but we can all benefit from exercising the grey matter.

Daniel Kahneman, psychologist and Nobel Prize laureate, tells a story of a student who had listened to a beautiful symphony for 20 minutes. Towards the end came a dissonance that «ruined the entire performance» (7). For 20 minutes, the student had enjoyed the experience of the symphony – the dissonance ruined the *memory* of the experience. Health personnel who have let themselves be inspired by exciting introductions, thought-provoking discussions and illustrative tables of attractive p-values may be left with indistinct memories, such as «the discussion was quite lengthy, and I have no idea what the conclusion was» or «I'm rather convinced that the study confirmed previous findings» or «I skimmed through the meta-analysis last week, but don't ask me what its message was». Such forgetfulness is quite common and may also destroy the *memory* of the reading experience and thus reduce the urge to read further academic literature.

My student ought to have asked: «Is it necessary to repeat the academic material in several ways and still be left with only a fraction of the knowledge?» The answer is yes, because such is the academic reality. Despite the fact that people are born with an intense craving for knowledge, our memory determines a natural framework for what can in fact be learned. Academic literature should nevertheless be recalled. Nobody will be harmed by using their brain a little more – keep that in mind!

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