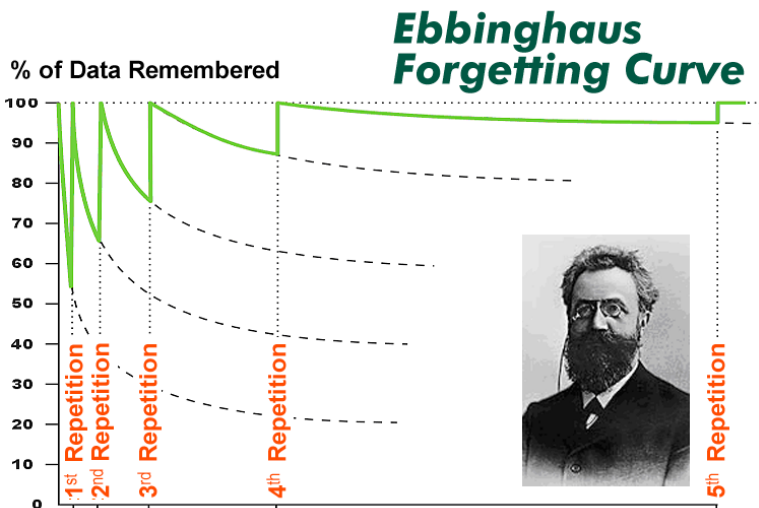


Scientific Background

phase-6 is a unique, web-based solution that assists students in locking vocabulary into long-term memory by making use of multimedia flash cards.

The phase-6 system is modeled after research findings from German brain-researcher Hermann Ebbinghaus and his “Forgetting Curve” theory. Over a century old, the Forgetting Curve theory has clearly stood the test of time and has been validated in hundreds of dissertations and follow-up studies. The curve depicts that, in the long run, only about 20% of information is remembered after initial memorization. Repetitions at exponentially increasing time intervals strengthen synaptic connections in the brain and thus counteract the process of forgetting. After knowing the correct answer five times in a row, the studied item will be locked into long-term memory. At the same time, short-term retention (e.g. for the next test) is ensured thanks to more frequent repetitions at earlier stages during practice.



“... practice that is distributed over longer periods of time sustains meaning and consolidates the learnings into long-term storage in a form that will ensure accurate recall and applications in the future. ... Effective practice, then, starts with massed practice for fast learning and proceeds to distributed practice later for retention.”

David A Sousa (2006) How the brain learns, 3rd edition, Corwin Press, page 99+100.

The famous Bloom’s Taxonomy is a multi-tiered model of classifying thinking according to six cognitive levels of complexity. Since the taxonomy is hierarchical, i.e. each level is subsumed by the higher levels, a student has to master the lower level learning objectives before being able to ‘climb to a higher level of thought’.

phase-6 specializes on the lowest level of Bloom’s Taxonomy – the knowledge level. Effective mastery of this foundational level is critical for students to be able to reach their fullest potential in higher order thinking and skills. Systematically spaced reinforcements based on the Ebbinghaus theory ensure long-term retention and thus free students’ cognitive space. Building automaticity therefore ensures accurate recollection in the future, and allows learners to fully concentrate on higher level learning objectives.

Bloom’s Taxonomy

For the cognitive domain

