

Reader Comment: On the Origins of the “Retention Chart”
An addendum to Subramony

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Deepak Prem Subramony’s article, “Dale’s Cone Revisited: Critically Examining the Misapplication of a Nebulous Theory to Guide Practice” in the July-August issue of *Educational Technology* makes reference to the many recent misattributions of a popular proverb to Edgar Dale, conflating it with his Cone of Experience. I’m referring to the frequently repeated “retention chart” that typically is phrased as: “People generally remember 10% of what they read, 20% of what they hear, 30% of what they see, 50% of what they hear and see, 70% of what they say or write, 90% of what they say as they do a thing.”

Subramony documents well a wide array of cases of misattributions of this chart to Dale. As he rightly claims, Dale had absolutely nothing to do with this formulation. Subramony also documents a dozen other purported alternative attributions, all of which are equally groundless. So where did the “retention chart” come from?

Having noted the same pattern of slipshod scholarship that Subramony did, I undertook a closer examination of the question. The key historical artifact was offered to me by Frank Dwyer of Penn State University, whose 1978 book, *Strategies for Improving Visual Learning* contains the most penetrating discussion of this bit of folk wisdom. When I contacted Prof. Dwyer to find out what he knew of the origins of the “retention chart” he kindly sent a copy of a letter he had acquired in the course of his own research. It was sent by Charles Cyrus, training specialist, University of Texas, Division of Extension, to Michael B. Callahan, head, Training Aids Branch, Department of the Navy in November 1963. In the letter Cyrus explains the origins of a mimeographed handout, “Some Training Principles” (TIM-151). He attributes the “retention chart” figures to Paul John Phillips who prepared training materials for the petroleum industry at

University of Texas in the summer of 1939 and 1940. Phillips then spent the World War II years as a training officer at the Ordnance School, Aberdeen Proving Ground, returning to Texas in 1947. Cyrus says “The percentages...are those set down by Mr. Phillips shortly after he returned to this office.”

I asked Pete Kinsvatter, historian of Aberdeen Proving Ground, to track down any records pertaining to Mr. Phillips or his training work. He warned me that the archives for that period were very sketchy, but he would find what he could. His response (Kinsvatter, 2003):

As promised, I checked the history of The Ordnance School that I have. It covers the period of 1940 to May 1943. To my surprise, it discusses Lieutenant Colonel P. J. Phillips and his Training Methods Branch. His branch was responsible for training instructors and evaluating training. Unfortunately, the history does not discuss any work done by Phillips on instruction methods versus retention of knowledge, although that would certainly fall within his purview.

One of the earliest published mentions of the “retention chart” is by Treichler (1967), who refers to it as a well-known finding, but gives no source. Treichler was affiliated with the oil company that was known as Socony-Vacuum Oil Co. prior to 1955, the Socony Mobil Oil Co. between 1955 and 1966, and Mobil Oil Corp. after 1966; hence some early references to Socony-Vacuum or Mobil Oil Corp. as the sources of the percentages. Since Paul John Phillips (who died in 1950) had prepared training materials for petroleum industry workers, it is quite likely that Treichler encountered the percentages in the University of Texas handout to which Cyrus refers.

Given the dearth of historical evidence at Aberdeen Proving Ground it is unlikely that definitive proof can be obtained to link the “retention chart” to Phillips and the Ordnance School. But the trail of evidence is quite compelling. The remaining issues are whether the percentages were based on controlled experiments or merely on anecdotal impressions and whether the percentages are a literal report of the research or a rounded estimate.

My guess is that there was some sort of research on training methods and retention at the Ordnance School, but that the “retention table” could only be a rounded

summary, since it is implausible that any field data would fall neatly into such even numbers. And, as Dwyer points out (p. 10), even the rounded figures would be pertinent only to some specific content, presented to a specific audience, in the context of some specific learning task, and measured in some specific way.

References

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