**Abstract**

The work of the Science Learning Activation Lab is to understand the role of “activation” in igniting persistent engagement in science learning and inquiry. One line of our work involves a retrospective study of adults who work in science. A life-history interview explored influences on and experiences with science engagement across the life-span. Specific questions focused on the role of families, peers, schooling, and out-of-school science during during grade-school, middle-school, high-school, university, and post-graduate years.

**Objectives**

While the Lab generally believes that early (by age 11) activation is critical, it has been acknowledged that the role of activation in other stages of life may also be critical. The goal of the Retrospective Study was to explore how activation manifested itself throughout the life course among people who chose science-related careers and to try to uncover what other influences were especially important to their career paths. Would it be enough to activate young people by age 11 and then be assured that they would maintain that interest until they were firmly rooted in a science-related career? Or would results of the retrospective study show that “successful” outcomes required “boosters” of activation at other critical ages? Did activation look different at ages older or younger than 11? How? These were some of the theoretical ideas that launched the Retrospective Study.

**Sample**

Sixty-nine adults in science-related professions are included in the ALR11 database. The sample consists of 34 women and 35 men in three different career outcomes: STEM professors, STEM non-professors and STEM communicators. STEM professors are active researchers and teachers in academic settings and all hold PhDs. STEM non-professors work in applied settings and not professors, though some hold PhDs. STEM communicators include high school science teachers, engineering, those who work in science-related industries or research facilities but are not professors, though some hold PhDs. STEM communicators include high school science teachers, agricultural extension agents, museum educators and science journalists. Some STEM communicators hold PhDs. An interview protocol and data collection design were used to stratify the sample. All participants were members of the Baby Boom generation (born between 1946 and 1964) or Generation X (born between 1965 and 1981) and ranged in age from 30 to 64.

The scientific disciplines represented in the sample of STEM professors and STEM non-professors include biology (14), chemistry (10), physics (9), engineering (11), and one each in meteorology, paleontology, robotics and neurology. Self-reported data on race/ethnicity are incomplete. However, for the 56 who did self-report race/ethnicity, 47 are white, four are African-American, two indicated multiple races/ethnicities, two indicated other race/ethnicity categories, and one did not respond to this question (94% white, 7% African-American, 7% multiple or other).

We have also conducted interviews with science hobbyists and, to enable comparisons to science activation, some artists. These data are not currently included in the ALR11 sampling frame and analysis, but may be the focus of future work.

**References (partial list)**


