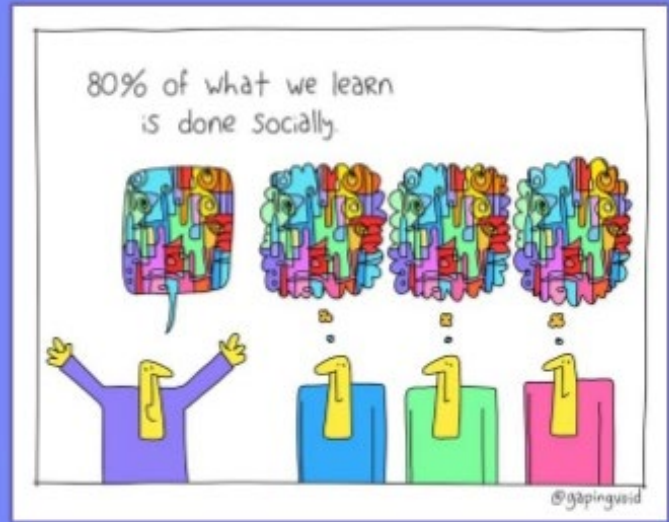


1 - The 2017 NAS report “Service-Learning in Undergraduate Geosciences”

emphasizes the importance of this concept in geoscience undergraduate education.

Service learning is a necessary element for recruitment and retention of early career geoscience professionals and historically underrepresented scholars who may be attracted to science more so through the **lens of application** than discovery.

Culture change
isn't simply
a business
initiative, it's a
social initiative.



2 – Creation of an **Advanced Placement Earth Systems Science (ESS) course**. Using guidance as set forth by the 2012 NAS report “A Framework for K-12 Science Education: Practices, Crosscutting Concepts, and Core Ideas” and the 2020 NAS report “Strengthening Sustainability Programs and Curricula at the Undergraduate and Graduate Levels” this course would ensure that U.S. citizens have a deeper understanding of Earth System processes along with the knowledge and skills needed to **make sounder decisions, take more appropriate actions, and enable a more knowledgeable workforce** to meet the geoscience workforce needs of today – Cheryl Manning