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David Strong* (david.strong@pepperdine.edu), Pepperdine University, Natural Science Division, 24255 Pacific Coast Highway, Malibu, CA 91214. *Meaning and context in teaching linear algebra*. Preliminary report.

In a linear algebra course we often present and develop a new concept without much motivation, real-life meaning or context. Textbooks typically do a good job with the “what” and the “how,” but not as well with the “why.” Often it isn’t until subsequent sections that students begin to understand the importance and use of the ideas learned in the previous sections. While this is sometimes the inherent nature of mathematics, it doesn’t usually have to be this way. Instead, we (textbook authors and course instructors) have a golden opportunity to simultaneously motivate the need for the ideas and motivate the students to want to learn about those ideas.

I will discuss how we can better address the “why” through relevant and thought-provoking examples to better motivate the need for the ideas taught in the course and to simultaneously pique the interest of the student. I will also talk about how we can give better context and meaning to ideas to enrich student learning. (Received September 25, 2017)