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How the relevance of physics changes when a student transitions to an instructor: A longitudinal study exploring the relevance of physics to a life science student DEVIN LAKE, ABHILASH NAIR, VASHTI SAWTELLE, Michigan State Univ — Physics courses are often a degree requirement for non-physics majors, and students don't typically see the relevance of physics to their own interests. This is a challenge for physics instructors who wish to design curricula to target students' disciplinary interests. We present a case study of a life science student, Zoe, who was a student in an introductory physics for the life sciences and in the next year became an undergraduate learning assistant for that course. Utilizing qualitative research methods, the student was interviewed with a semi-structured protocol, and an iterative process was employed to construct a codebook that defines the different aspects of the course that this student found to be relevant. The first iterations of the codebook involved only data from when Zoe was a student in the course. After iterating multiple times, the codebook was refined and applied to data taken from when Zoe was a learning assistant for the course. The codebook was then altered to fit the expanded notions of relevance for a teacher of physics in addition to that of a student. Using these two codebooks, we explored the different aspects of relevance. We will present the changes to the student's conceptions of relevance that occurred as they transitioned between these two roles.

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