

Describing the Experiences of a Professor Teaching within Two Learning Contexts:
A 12-Month Qualitative Study of Undergraduate Students and PK-12 Classroom Teachers

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Little research exists examining the thoughts, feelings, and perspectives of university professors in the process of developing, implementing, and reflecting on the teaching practices between undergraduate students and PK-12 classroom teachers. This study aimed to correct that by examining a university professor's perspectives over the course of three semesters in two distinct learning contexts: teaching undergraduate students in a science lab and leading in-service PK-12 classroom teachers in professional development seminars. By collecting interview data from the perspective of a professor in these contexts, researchers sought to analyze and understand the relationships between how university professors describe and interpret different learning environments. Using a grounded theory research model, three semi-structured interviews were conducted with a university science professor, one student focus group interview made up of four undergraduate students in a science lab, and one teacher focus group interview made up of four PK-12 public school teachers in professional development seminars over the course of twelve months. Qualitative data collected were analyzed in three stages: coding, comparative analysis, and theme identification. A total of 216 codes were generated during data analysis and coding of the three professor interviews. From the coded professor interview data, four preliminary themes emerged: positive learning environment, student engagement, personal relationship, and teacher confidence. Creating an environment in which learners felt safe to ask questions in turn allowed the professor to more easily facilitate discussion and have productive meeting time. Undergraduate student and PK-12 teacher focus group interviews were also analyzed for initial codes, categories, and themes. This study contributed to the knowledge of effective science education by focusing two distinct learning contexts from the professor's perspective. Future research could enhance data triangulation by including robust fieldwork through classroom observations to detect the mechanisms that contribute to a positive learning environment in both contexts.

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