

Expansion of Motivation Models for Engineering Doctoral Student Populations

While graduate education serves an opportunity to develop specialized domain expertise, national reports in STEM fields show that students and employers alike believe there is misalignment between the reality and expectations of how prepared students are for their future careers. In an effort to understand engineering graduate students' perceptions of career preparation, the purpose of this study is to examine how engineering doctoral students talk about their future career goals using an interpretative phenomenology-informed approach to directed content analysis. Findings from this work come from semi-structured interviews with fifteen engineering doctoral students across multiple institutions. Preliminary analysis of the interview data shows that when students have a internalized self-set reason for going to graduate school, have a specific career goal, have a plan to reach their career goal, and have systematic support they are more likely to be prepared for their future career. Future work will leverage exploratory factor analysis and structural equation modeling to examine the relationship between these four factors and the outcomes of students perceptions of graduating and being prepared for their future career.