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In Their Own Words: The Career Stories of Women Leaders in STEM Professions

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ABSTRACT

While STEM professions exhibit rapid growth in both employment opportunity (Carnevale, Smith, & Strohl, 2013) and earnings potential (Talakjowski, 2018), many of these careers – especially those in IT and engineering fields – have traditionally been and still remain male-dominated. For example, the workforces of large technical firms such as Google and Amazon consist of about 30% women with only a few of those women attaining leadership roles (Cheng, 2015). There has been extensive research exploring reasons explaining why women are underrepresented in STEM professions. However, there has been relatively little research investigating reasons why some women not only choose to enter STEM professions but also thrive in their STEM-oriented careers. This study seeks to fill that gap by reporting results from a grounded theory exploration of the career stories of successful women leaders in STEM professions.

Our interest in this study is obtaining an understanding of women's career stories from the perspective of the women themselves. We conducted and analyzed semi-structured interviews with 22 women leaders in STEM fields. The interview protocol included questions beginning with family and childhood influences and progressing through adolescence and college choices before examining career progression and aspirations. We also asked about significant individuals who influenced their careers, both positively and negatively, and about their perceptions of both career advantages and disadvantages attributable to gender.

While the women included in this study represent a varied group, there are some common themes that are beginning to emerge as we progress with the analysis. Many of the women report strong childhood emphasis on work ethic in their families with some coming from very humble beginnings including both agricultural workers and first-generation immigrants. Most of the respondents reported that they participated in competitive activities in their school years. The women respondents chose to study STEM-related fields both because of an affinity for math, science, and logic and because of the influence of respected family members and mentors. As these women entered their careers, many of them found themselves decidedly in the minority in their male-dominated environments. Two interesting themes are found in the stories of how the women navigated those circumstances. In some cases, the women made deliberate efforts to adapt and fit into those environments; for example, one related an account of how she cultivated an interest in watching sports and playing golf. In other cases, the women credited their ability to build networks and relationships in the workplace as a critical factor in their success. Further discussion of these and other themes as well as the supporting evidence from the interviews will be presented at the conference. Findings from this research will help to develop recommendations both for women interested in STEM professions as well as for organizations that would like to recruit and retain women in their workforce.

Keywords

Women in STEM, qualitative research, career stories

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