

Using Diversity Statements to Promote Engagement with Diversity and Teaching

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For many engineering educators, the often controversial topic of diversity can be frustrating and difficult. Even for those who acknowledge that diversity is an important issue for the engineering education community, translating understanding into tangible actions that support diverse students can be problematic. This paper provides results from a program using written diversity statements to encourage thinking and dialogue about the topic of diversity among graduate students interested in a faculty career.

Implications of Findings

Based on the success of the diversity statement exercise, the team is encouraged to believe this activity has potential to generate dialogue that can advance the cause of diversity. Moreover, through the research we gained insight into the ideas that graduate students are able to bring to the table when asked to discuss diversity and teaching.

The hope is that these two elements – the idea of a diversity statement and the insight that graduate students are prepared to discuss diversity and teaching – will help others as they grapple with the challenge of addressing diversity in engineering education.

Method and Background

Although percentages of underrepresented students in engineering have increased over the past 20 years, the current numbers of minorities and women in student populations are still well below parity with the distribution in the US population. Current and projected demographic changes and the economic realities of the global economy have resulted in mounting pressures to meet future demands for a workforce that includes engineers more representative of the diversity present in the US population.

Some engineering faculty find it difficult to relate the broad subject of diversity to their specific courses and teaching practices. The team believes this occurs because the connection between teaching and diversity is not obvious or well-defined and open forums for discussing how to address diversity in the classroom are lacking.

Writing and sharing diversity statements in a supportive environment has the potential to generate dialogue that can advance the cause of diversity.

Writing and sharing individual diversity statements is one strategy for empowering educators in their efforts to address diversity in their teaching. The results discussed below focus on a subset of the data collected during the first implementation of the new Engineering Teaching Portfolio

Program (ETPP) during the summer of 2003. The diversity statement exercise is only one of the topics explored by ETPP participants in the eight-week program. Two research questions about the diversity statement exercise guided the analyses: 1) does the diversity statement exercise show promise as a means of enabling participants to engage with diversity issues in engineering education, and 2) how prepared are engineering graduate students to grapple with issues of diversity and teaching?

The peer-led and peer-focused ETPP provides engineering graduate students with the opportunity to examine, reflect, and revise their beliefs and goals as teachers through a series of eight portfolio development exercises, weekly meetings, and peer review. The diversity statement exercise provides participants the opportunity to explicitly connect abstract concepts of diversity with the routine instructional actions taken by engineering educators.

The diversity statement exercise took place over two meetings. In week 6, the exercise was introduced, and a common starting point was established from which discussion could proceed. Participants also discussed format and feedback issues to guide their writing. Additional resources were made available through a Web site, but participants were not required to access these materials. Participants prepared the diversity statement on their own prior to the week 7 session. At the week 7 session, participants shared challenges experienced while writing the diversity statement, identified the types of feedback most useful during peer review, and proceeded to review each other's statements.

Data were collected from field notes from observation of weekly group meetings, a group interview, individual participant interviews, and individual surveys. This research brief reports results based only on the field notes from the conversation surrounding the diversity statement exercise for one of the two peer groups established at the start of the program.

What We Found

Analysis of the discourse surrounding the diversity statements suggests that there is reason to be encouraged about the usefulness of such an exercise in enabling participants to engage with diversity issues in engineering education (research question 1). The data reflect a conversation with a continuous interplay of three topics (diversity, teaching, and task), and concerns about the purpose of the diversity statement were restricted to the early part of the conversation. All participants were involved in the conversation and had similar overall contributions that continued throughout session 7 and included all three primary themes (diversity, teaching, and task). The conversation covered a variety of challenges associated with thinking about diversity and teaching, but also included concrete strategies for integrating diversity issues into teaching, including both in-class actions and outside of class activities.

Analysis of the data also indicate that the participants were capable of discussing, writing, and thinking about diversity in engineering education (the focus of research question 2). Participants' perspectives on teaching went well beyond traditional lecturing, and they had sufficient awareness of diversity issues to begin and sustain the conversation. Participants engaged in this complex discourse without any external authority figures managing the discussion or providing additional information. We conclude that the graduate students in this study were prepared to discuss issues of diversity and teaching on engineering.