

# Template for Summary Report to CETL on Faculty Development Grant Projects

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## **Your name and discipline?**

My name is Dr. Monica Gray and my discipline is Engineering.

## **What was the focus of your Faculty Development grant project?**

The Faculty Development Committee graciously awarded me a travel grant this past summer to attend the American Society of Engineering Educators' (ASEE) 122<sup>nd</sup> annual conference and exposition in Seattle, Washington. The award afforded me the opportunity to present and publish a peer-reviewed article. The focus of my Faculty Development grant project was strategies for educating underrepresented and underprepared minorities to increase diversity in engineering programs and careers. My presentation and article was titled: *"First Learning then Lifelong Learning: Engineering Study Abroad to Increase Access and Retention among Minorities and Underrepresented Groups"*.

## **Why was this project important to you: what led you to propose it?**

In today's increasingly global economy, there is an urgent need for a diverse engineering workforce, representing self-confident and culturally literate individuals who are able to tolerate ambiguity as well as empathize with the socio-cultural nuances of different people groups. However, according to the American Society for Engineering Education's (ASEE), *Going the Distance* report, 53.6% Hispanics, 61.4% Native Americans, 61.7% African Americans and 49% Female students who enter engineering programs do not graduate in this major. This translates to an engineering workforce that comprise of about 6% Hispanics, 0.3% Native American, 4% African Americans and 13% females according to the latest National Science Foundation's report. As a female and minority engineer and educator, this statistics is unacceptable and I desire to do my part in changing our trajectory.

## **Where will the project go from here?**

The next step is continued research in to high-impact pedagogy to increase diversity in Engineering. I was awarded a book contract for a book to be published during the 2016-2017 cycle entitled, *"Strategies for Increasing Diversity in Engineering Majors and Careers"*

## **How has this project informed your teaching:**

- **What did you learn that has made a difference in your teaching?** More than anything, this research reinforced a lot of things that I already knew. I am even more excited to expand my

classroom beyond the four walls and include more experiential education pedagogy in my delivery.

- **What is the “takeaway” for other instructors?**

Students, especially women and minorities tend to dropout, not because of under-preparedness per se, but loss of self-efficacy or confidence in their ability to learn