Diversity in Computer Science Academia

Purpose:

It's no secret that the computer science major is heavily dominated by Caucasian and Asian males. The purpose of this lab is to help you consider the importance of diversity. Different people bring different but equally important perspectives to the field of computer science and it is the intention of this lab to examine how a more diverse student body would benefit the major. While diversity in development teams offers advantages, it also raises some serious issues such as sexual harassment.

Procedure:

Code of Ethics:
What provision(s) in the Software Engineering Code of Ethics apply to this lab? Give a brief justification for each that you choose.

Pre-Lab Readings:
Numerous studies have been conducted in this area. Prior to continuing with this lab, carefully read the following studies, focusing on the conclusions that were drawn from them. Read through the lab before you begin and consider the questions you will be answering.

Gender and Communication Issues in Computer Science Education: ieeexplore.ieee.org/iel5/4116829/4116830/04117020.pdf

Cal Poly Sexual Harassment Policy:
http://employequity.calpoly.edu/sexual_harassment.html

Cal Poly Statement on Diversity:
http://www.academicprograms.calpoly.edu/academicpolicies/Diversity-statement.htm

1. Your Experience
    a. Think back to your 308/309 work groups. How diverse was your group? (for example, how many males and how many females) The class? What were the ratios?
    b. How do you think the diversity (or lack of it) affected your group/class performance? How were duties assigned? How were positions assigned? What did various people contribute to the project? Were there any communication issues within genders or cultures? Across genders or cultures? (Consider a broad definition of "cultures" here: sexual orientation, race, religion, nationality are but a few possibilities.)

c. How might your group dynamics have differed if there had been only one gender or culture? If there had been a mix of genders or cultures?

2. Faculty Interview
Each member of the group must interview a computer science/computer engineering professor about his/her experience with diversity in the classroom. No two members can interview the same professor, and multiple aspects of diversity (for example, both genders) should be represented in your interviews. Prepare a list of at least three questions about issues they might have to deal with in academia. *Be very accommodating of the Professor's time and effort, prepare short, simple questions, be polite and grateful for any answers they offer. If you sense they do not want to answer questions, back off with grace, and find another Professor who is interested in the topic. It is important that individual Professors do not get a lot of students asking them questions, be sure to choose one who is not busy and happy to take a little time.*

Optional:
Instead of a CSC or CPE professor, interview a teacher from the MIS concentration of the Management Degree program in the College of Business. For this interview, focus on differences in diversity between CSC and MIS, in both educational and job-related environments.

3. Discussion (be prepared to have this discussion in class)
   a. In your group, discuss your experience with diversity (or lack thereof) in your 308/309 classes and in any professional environment where you may have worked. Discuss and share your personal answers from above, focusing on how the presence or absence of diversity affected group progress, communication, and the eventual end result of the class. List other people's experiences and how (or if) they differed from your own.
   b. Compare and contrast the responses members of your group received from professors.
   c. What are some benefits of having diversity in a development team such as the ones created in 308/309? What are some drawbacks?
   d. Present objective reasons beyond "political correctness" for diversity in software engineering and computer science.

4. Deliverables
On the date due, provide a single, professional lab report with the following:
   1. Code of Ethics Provisions (one list per group)
   2. Individual responses to Part 1

3. Details of each faculty interview – more than what questions you asked, and what his or her response was. What can you conclude from what you have learned from this person?
4. Answer Part 3.c. in a single paragraph (one per group). Why should we care about diversity in our educational environment? Should we?
5. Group response to following question: What can we do to improve this lab exercise? What parts about it did you find worthwhile, and how can they be brought out more? What parts did you find unnecessary, and what would you replace them with?