ABSTRACT:
Are engineering students really as bad at writing as they are made out to be? What really is the problem?

With the ultimate goal of effectively preparing students to meet workplace writing expectations, this research project was developed to begin assessing, quantitatively, the current proficiency of civil engineering students’ technical writing. Using the work of a small group of civil engineering seniors, student writing samples were evaluated in three categories:

- grammar and syntax
- application of the scientific method
- conceptual understanding

Results of the study are expected to inform course development processes, so that emphasis can be placed on those areas of greatest need.

Students in the Traffic Engineering I course at Howard University submit technical reports as a part of standard course requirements. Selected reports from the Fall 2004 semester were anonymously assessed by the instructor, another student in the class, and a representative from the transportation industry.

Each report was assigned a numerical ranking in each of the three categories. The focus was on the perception of proficiency from the student, instructor, and industry perspectives.

CONCLUSIONS/LESSONS LEARNED:
Concerning Engineering Education Research...
- Select A Topic Of Personal Interest (provides motivation)
- Be Sure Data Can Be Relatively Easily Collected (provides encouragement through feasibility)
- Form A Community Of Similar Scholars (such as ISEE)
  - Regular meetings keep you on track.
  - Opportunities for collaboration on other projects result.
  - Expertise of others can be invaluable for:
    - Appropriately scoping your research question.
    - Suggesting “tried and true” methodologies.
    - Providing useful resources (like effective survey questions).
    - Recommending related literature for review.

Concerning Technical Writing Research...
- Lack of proficiency for student writing may be due more to lack of conceptual knowledge than to lack of skill in writing mechanics.
- Instructors may need to “grade harder” where grammar and syntax are concerned.
- Many students are prepared by their graduating year to meet workplace writing expectations.