Abstract: Our poster presentation will involve an on-going project concerning the assessment of technology skills students from various backgrounds bring with them to Grand View College. We have developed a survey instrument, have tallied initial results, and have reported the results to interested parties at our colleges. Technology skills were being taken for granted; our survey indicates that students are not as comfortable and proficient with technology as we (or they) would like to think. This research is especially important for teacher education candidates in preparation for meeting national standards. It is also important across all other majors and content areas as our colleges begin work toward authentic assessment via use of electronic portfolios.

Computer proficiency is an enigma at the college level. Some students come to campus with very little computer experience, others have lots of “experience”, but don’t know how to apply concepts to use computers and technology as learning tools. Our project was to research the idea of “computer proficiency”, to break down concepts into specific, measurable behaviors, and use the resulting data to develop appropriate technology experiences.

Last year we identified and defined the problem(s): How to determine what technology skills students need, what technology skills students have, and how to get those two skill sets to be one and the same.

Our work began by surveying instructors about what technologies they required their students to use. This was followed by a “customized” self-assessment for students within specific classes. The initial pilot study led to some immediate revisions and redirection of the data collection process. Last year’s survey was presented to a cross-section of students (various majors, year in school, etc.) because we lacked a baseline reference.

Based on information received from instructors the first semester, we were able to determine that there is a reasonably narrow skills set required for most classes, with some broader and/or more specific skills requirements in other classes. In the second semester, the assessment forms were modified. The initial request to faculty members was not repeated. The information obtained the previous semester was nearly identical for all faculty members who responded. The student survey was also modified. For instance, nearly all students rated themselves competent in the very basic skills, like inserting a floppy disk. As a result, the self-assessment process is considerably shorter and faster.

After the fall and spring surveys were administered and tallied, preliminary data analysis was done each semester to determine what steps would be effective in the future. If a significant percentage of students lacked a skill identified by a faculty member, the class was invited to the computer lab to receive appropriate instruction. Several classes took advantage of this opportunity. We found, not surprisingly, that in many cases bringing the entire class was not the way to go, but focused on providing individualized sessions for technology novices.

Data for the Fall 2002 semester is now complete, and the results are not surprising, but do support the idea that some kinds of basic technology skills instruction is still required by at least some of the students.

The technology survey process is dynamic, and will always be so. Technology skill requirements will be changing constantly as new technologies become available and as faculty and students “think up” new ways to use those technologies.
The original idea has divided itself into several strands.

- One, administering a similar survey to faculty and staff to assess technology skills levels.
- Two, continuing to administer the ever-changing student survey to new students to keep abreast of incoming skill levels.
- Three, to develop workshops or other vehicles to deliver instruction on technology skills to faculty, staff and students.

The goal at the beginning of this project was to find alternatives to a required CPSC101 class. This project has been a success in one very important way. Faculty and administration are seeing the need to assess a student’s incoming technology skills and provide the necessary technology instruction rather than relying on a computer proficiency exit requirement at the end of their college experience.