

In BUCCS 6 there was a change in format. Instead of having one main idea, the discussion allowed small groups to focus one of three areas of literacy: quantitative, technology or communications, followed by whole-group discussion across all three topics.

### **Quantitative**

Over the course of three conversations, several themes on quantitative literacy (QL) emerged. The perceived need for increased quantitative literacy was almost universal and several common areas for improvement were noted. However, the suggested means of obtaining this improvement showed more variation.

A theme from all three conversations surrounded students' need for quantitative skills in order to interpret the information they are exposed to every day. A working understanding of statistics and probability is considered vital to this endeavor. To meet this need, there was broad support for problem-based learning or learning through application. Real-life scenarios are seen as necessary for contextualizing information for students.

The specific definition of quantitative literacy was the subject of some debate. A broad view incorporating communication, problem solving, service learning, and collaboration was described. Others defined QL simply as an appreciation of mathematics with some ability to do it or identified very specific skills including the ability to use and interpret graphs. The understanding that not all information can be quantified was also noted as a part of QL.

As with writing skills, a real need is seen for quantification across the curriculum. There is strong support for clearly articulating a quantitative component in all core courses. This is one approach to teaching the same skills with a variety of different approaches and emphasizing concepts, rather than memorization of formulas. Other specific suggestions included: a year-long problem-based learning course linking English, math, and the fine arts, and identifying a quantitative component to all courses. As part of this endeavor, a need to challenge the cultural ambivalence towards quantitative literacy was identified.

In order to obtain a cultural shift on campus and to ensure a faculty buy-in for cross-curricular quantification, faculty development opportunities should be put in place. Faculty development can be used to encourage incorporation of quantitative skills in creative ways. The goal is to increase faculty comfort with quantitative skills and to demystify numbers for both students and faculty. Both a teaching forum on quantitative literacy and a series of special dialogues focusing on how to increase quantitative literacy while connecting to students were suggested as possible development activities.

While a need for cross-curricular quantitative literacy was clearly identified, there was no clear consensus on whether or not there should be one math course that all students are required to take. Assessment was also noted as a need. There was concern that courses could claim a strong quantitative component without delivering one. How strongly we

are committed to a curricular change was also questioned. Do we accept small changes as victories or is QL across the curriculum an expectation?

### **Technology**

The discussion related to technology literacy revealed few, if any, points of major disagreement. Participants concurred that the six broad areas presented by the International Society for Technology Education: Creativity and Innovation, Communication and Collaboration, Research and Information Fluency, Critical Thinking, Problem-Solving & Decision-Making, Digital Citizenship, and Technology Operations and Concepts, captures important aspects of what we should be characteristics of our graduates. References were made to technology literacy as it relates to ethics, legal issues, communications, creativity and research. It was also noted that while there are common objectives related to technology, there are also areas that are specific to different areas of professional studies. Transference of learning needs to be addressed.

The means to these ends was received a good bit of attention. The discussions highlighted the importance of attending to issues related to both students and faculty. The University must recognize the dramatic change in today's students related to technology use and skills and should establish a mechanism for assessing the technological literacy of incoming students. Different courses should be developed to match the differences found in the in-coming students. University faculty members need to enhance their own technological capabilities and their acceptance of the need to incorporate technologies across the curriculum and into pedagogical approaches employed. For this to occur substantial and sustained faculty development opportunities need to be provided. The importance of technological resources in the form of equipment and support personnel was also noted.

### **Communications**

Technology received frequent attention in the groups discussing literacy related to communications. Concerns were expressed related to decreased fluency in areas of written, oral and interpersonal communications caused, in part, by the amount of time students spend with communicating informally through technologies that have lower communication standards/expectations. The question of how far what we do should be responsive to the students' approaches to communications in WEB 2.0 world was discussed in relationship to connecting to students, yet maintaining appropriate standards.

Concerns related to communications were also raised. These included:

- Lack of university-wide expectations for written communication
- Limited transference of knowledge and skills from general education courses as students communicate orally and in writing in later courses or to translate knowledge to other context
- Inadequate attention to visual communications as a part of curriculum design
- Insufficient sharing across the University that could provide insights and strategies regarding how to improve approaches being used to build students' expertise in communication and ability to connect knowledge gained across courses

The need for faculty development and adequate resources expressed in the technology

groups was also included in the discussions related to enhancing our work with students' ability to communicate. There is a need to use experts within and outside of the University to move faculty members' and students' forward.

### **General Areas**

BUCCS 6 also included comments that were not focused specifically on any one of the three areas summarized above. These related to the need for:

Faculty and student buy-in of the need to systemically develop key areas of the curriculum that promote citizenship and common areas of literacy important for all  
Clearer connections between core curriculum areas in general education and students' lives -- clarification of the applicability of what is being taught  
Clarification of general education relationship to our mission  
Discussion of plausibility of common experience for all Bradley graduates and if it is plausible, how is it designed and delivered so that it is meaningful  
Addressing our community's ability to change