Teaching Matters: Increasing Library Visibility through Integrated Classroom Instruction

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Abstract

This paper addresses the need for academic librarians to teach and reach out to undergraduate engineering students in their own space — engineering classrooms. The Science & Engineering Library team at the University of British Columbia (UBC) believes that teaching students the importance and relevance of using library resources in their first and second years of study will better prepare students to complete their assignments. Each year the Science & Engineering Library team presents to 850 first and second year students per term. In an investigation of our efforts, 20 more advanced, third and fourth year undergraduate engineering students were asked what informational tools and sources they used for their assignment in APSC 263 - Technology and Development: The Global Engineer. The results showed that 90% of the students in the study planned to use UBC library resources for their assignments. This positive result supports our belief that our commitment to providing extensive library instruction is creating a greater awareness of engineering librarians and the resources the library has to offer.

Keywords

engineering library; information literacy; library awareness; engineers without borders; library-faculty collaboration
Each year, the University of British Columbia Science and Engineering (SciEng) Library team reaches out to every engineering student, through library instructional sessions tailored to students’ curriculum needs. We present to and interact with approximately 850 first and second year students per term by teaching these sessions to Applied Science students in APSC 150 - Engineering Cases, APSC 176 - Engineering Communication, and APSC 201 - Technical Communication. Moreover, we often see these students more than once per year, as their APSC 150 and 201 courses occur in the first and second semester of their school year. Our ability to connect with and provide library instruction to the vast majority of engineering students at UBC increases awareness of UBC Library’s resources and encourages students to use these resources more frequently when completing their assignments. Additionally, the SciEng Library team has developed highly detailed course pages for the students to use; each individual page provides an extensive list of library resources that are tailored to each specific class. These course pages have proven to be extremely popular with students — their usage has increased substantially over the past few years, and is currently at over 3,000 hits per year.

The SciEng Library team is also very active in keeping instructional sessions relevant and updated. Every summer, the team works closely and collaboratively with professors to ensure that the material we are teaching provides useful information to the students. Callison (93–106) points out that the most important benefit of collaborating with faculty members is to create and present a relevant, cohesive learning environment for the students. Through our close and extensive work with the engineering faculty members here at UBC, we believe we are providing the most relevant and current information to students for their assignments. The faculty help the students see the value of the Library by stressing the importance of using library resources for research before a librarian visits the classroom; this increases the students’ interest in library instructional sessions — a facet of library instruction that Stitz (189–199) mentions as essential in order to provide the librarian with more credibility and relevancy in the eyes of the students.

This year, as part of our continuing library collaboration with engineering professors, the SciEng team is researching the following: “what information sources do engineering students use to address authentic socio-technical problems?” In this study, working with two engineering instructors, we asked third and fourth year engineering students in APSC 263 - Technology and Development: The Global Engineer about the information sources they would consider using for their assignment. The main focus of the course is to provide a set of real socio-technical problems identified by artisans in India. The problems are ambiguous and open-ended, and students are asked to address them by conducting a conceptual study. Students are required to complete a progressive series of interrelated assignments regarding one of the socio-technical problems. Specific information about these problems is sparse and transmitted to the class by the social entrepreneur on an irregular basis, so students often struggle when they begin to look for research. Furthermore, the students often experience difficulties applying highly
technical academic research skills and information to a context that is considerably less technical.

Our study focused on asking students three questions in order to acquire predominantly qualitative data. The process occurred as follows: students were asked to identify in writing the information tools or sources they planned to use to conduct their research. Then, one of the engineering librarians visited the students and provided a one-hour session that served to introduce them to several science and engineering databases, as well as advanced search commands in Google. Immediately after this teaching session, students were asked to again identify the information tools and sources they would use and, if their answers differed from the first question, to explain their reason for the change. Finally, once the students had submitted their final reports, they were again asked to list and comment on the information tools or sources they actually used and why they chose them.

Interestingly, 18 of the 20 students in the class mentioned that they used UBC library resources for their assignments — 90% in total! From this group, 14 of the students (70%) mentioned that they used the library for textbooks and monographs, and 8 students (40%) stated that they used library journals, articles or databases for their research needs. These statistics are a clear indication that the importance and effort we place on providing instruction to all the engineering students within a school year is generating a positive correlation with the students’ desire to use library resources for their assignments.

These results compare favourably to regular library awareness reports as is indicated in the literature. For example, the University of Washington report (Head A.) reveals that student awareness of library resources is below 10% — a depressingly low number. It also shows that librarians themselves were generally used infrequently for research questions, and that students only referred to them for advice in an instructional setting. Therefore, if these findings are any indication, it is vital for librarians to have the opportunity in an instructional session to explain to students why and how the use of library resources, along with requests for help from librarians, will benefit them.

The SciEng Library team at UBC strongly believes that reaching out to engineering students in their own space (engineering classrooms) correlates with a higher usage of library resources. This small sample of 20 students has served to illustrate that our efforts in library instruction have been fruitful. Roberts and Bhatt (243–251) emphasize that students are more likely to learn new skills and concepts when they perceive them to be relevant to their lives or their studies. By reaching out to each and every engineering student in their first and second year, we have the ability to teach them about library resources for engineers and to demonstrate how they are essential to finding valuable research information for course assignments. Our goal as instructional librarians is to provide a friendly, positive and welcoming face to students: we must demonstrate that we are here to help them, we want to help them, and we are prepared to help them with any research or academic needs they may have. Through our close collaboration with engineering faculty and our commitment to providing extensive library
instruction, we believe that we are creating greater awareness of engineering librarians and the resources our library has to offer. We hope this awareness translates into lifelong learning and assists students in their future employment in engineering firms, where they will be expected to do research.
Works Cited


