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Listening to Our Students: Enhancing Library Instruction Through a Qualitative Assessment of Student Feedback

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Abstract: In our ongoing effort to foster a culture of customer service excellence, Texas A&M University Libraries uses LibQUAL+ to conduct annual reviews of service quality as measured by those who matter most; our patrons. This yearly practice reflects our belief that, "only customers judge quality … [and that] … all other judgments are essentially irrelevant." (Zeithaml, Parasuraman, and Berry, 2006). In an attempt to apply this philosophy to library instruction the authors examined approximately 25,000 post-instruction questionnaires collected from undergraduate and graduate students between 2005 and 2010. Free-text comments from the questionnaires were transferred to ATLAS.ti and the data was coded to identify common themes, patterns and issues across a range of demographics.

This study had two aims. Our first objective was to capitalize on the rich source of qualitative data that student feedback provides as a basis for the development of instructional training programs. This is in contrast to the typical situation in which librarians, reflecting in isolation, seek to improve only their own instruction sessions. Using student feedback at a programmatic level, however, introduces a new dynamic; peer-to-peer learning. This simple initiative, we argue, takes the use of qualitative data to a new level and, in doing so, represents a significant advance in the training and development of instruction librarians. Our second objective was to expand and enrich the discourse on the scholarship of teaching within bibliographic instruction. We feel there should be a greater consideration within the literature of other voices, especially those of our students.

Keywords: Library Instruction, Assessment, Student Feedback, Questionnaires, ATLAS.ti, Qualitative Research, Academic Libraries, Students, Customer Service

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1. Introduction

The Texas A&M University (TAMU) campus resides in College Station, Texas and is centrally located to the major cities of Houston, Dallas and Austin. The University is home to over 50,000 students and 5,000 faculty members and ranks as the sixth largest university in the United States. Texas A&M is classified as a Carnegie Doctoral/Research University-Extensive institution and has designations as a land-, sea-, and space- grant institution.

The TAMU Libraries is comprised of five facilities on the College Station campus, as well as one international facility in Qatar. Total holdings include over 4.5 million printed volumes, and approximately 900,000 e-books, 67,000 electronic serials, and 900 databases with a yearly expenditure of approximately $40.1 million for both print and electronic resources. In 2011, the University Libraries served a total of 3,271,402 physical users and 3,260,168 web visitors. Ranked 18th amongst fellow Association of Research Libraries in 2010, Texas A&M University Libraries strives to continually seek opportunities to assess and enhance services provided to the campus community.

As part of the Libraries' commitment to a university-wide focus on integrative and lifelong learning, the teaching and learning mission of the Libraries' Bibliographic Instruction Program directly supports the information literacy, critical thinking, and life-long learning needs of Texas A&M students. Subject librarians and select staff at the TAMU Libraries participate in an extensive program of course-integrated instruction, as well as general outreach and instruction activities in the form of basic classes, tours, and campus-wide orientations. On an average year library instructors provide approximately 535 instruction and orientation sessions to over 23,000 students.

2. Literature Review

Assessment of bibliographic courses in academic libraries has been a common practice to determine the effectiveness of information literacy. Many higher education institutions have adopted the Association of College and Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education to structure and develop adequate bibliographic instruction. Samson and McLure (2007) state, "assessment can identify learning outcomes and effective pedagogy: did students learn what was intended and how could the delivery of instruction be approved?" (p.11). The perception of the students and how they relate to an information literacy session can contain insight into improvement, measurement, and learning outcomes in an academic library setting.

There has been a shift in emphasis from inputs and outputs as measures of institutional effectiveness, to users and outcomes for improvement of quality learning and instruction (Tancheva, Andrews & Steinhart, 2007; Rabine & Cardwell, 2000). Libraries still conduct the standard practices for assessment to meet accreditation requirements, however, the question remains: Are students

receiving quality information from their bibliographic sessions? Wilder (2005) argues that "the library must do a better job of reaching more students, more often." Through assessment of qualitative data and comments directly obtained from the students themselves, insight into perceptions and personal learning experiences can be utilized to improve instructional information literacy sessions to reach more students.

3. Objective

The purpose of this paper is to report on the preliminary results of our qualitative analysis, as well as discuss next steps for further study and data analysis.

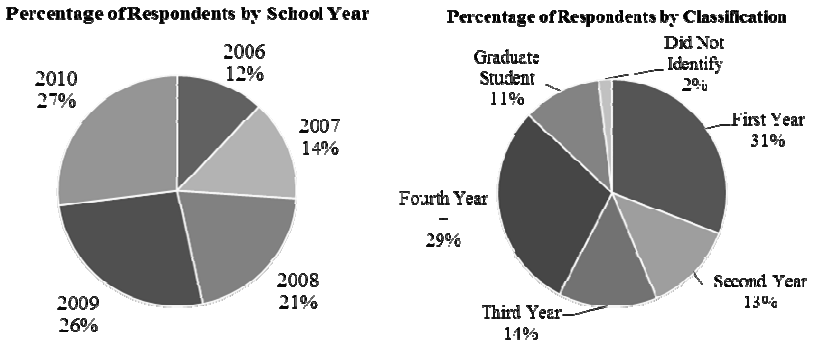
4. Methodology

Participants

This study focuses on feedback forms that were completed by TAMU students during five school terms covering the period of August 31, 2006 through August 31, 2011. The students attended an instruction session conducted by library faculty or staff on the TAMU College Station campus located within one of our five library facilities. A total of 28,942 feedback forms were collected and entered into a data management system. From the respondents, a random sample of 637 feedback forms was analyzed. The online tool *Random Number Generator* provided through www.random.org was used to calculate the random sample from our population. The sample size was determined using a Confidence Level of 99% and Confidence Interval of ±5%.

The sample population is presented under Figure 1 illustrating the percentage of respondents by school year and the percentage of respondents distinguished by classification. Note that each school year covers September 1st through August 31st. From the feedback forms sampled, 55 library instructors were identified and 43 majors/programs were represented amongst the respondents.

Figure 1. Sample Population



Assessment Tools

As noted above, student comments used in this study were collected using the Libraries' standardized *Student Feedback Form*. The distribution of feedback forms is a required component for all in-person library instruction sessions that take place in the library or on campus. Forms are distributed and collected at the end of each session. While not mandatory, students are asked to fill out a form before leaving the classroom and most oblige.

The form solicits basic demographic information such as student year, major, and previous classes attended, as well as both qualitative and quantitative feedback. The quantitative component measures student satisfaction related to session content, instructor delivery, and overall satisfaction using a 10-point Likert-scale. The form also includes a measure for "pace of instruction" with the option to circle either "too fast," "too slow," or "just right." The qualitative component allows students to provide written comments about the session. The comment segment of the form includes the following prompts:

- Was today's session useful? Yes __ No __ Why or why not?
- What do you wish we had told you more about?
- Please enter any additional comments

The goal of this project was to see if an analysis of feedback across library classes and instructors would reveal any common themes related to student perceptions about the quality and usefulness of the sessions they attended. To do so, only the free-text comments from the feedback forms were analyzed for potential common themes, patterns, and issues across a range of demographics. ATLAS.ti was the assessment tool chosen to help with the analysis. ATLAS.ti is a data analysis software program used primarily for qualitative research. It was selected because of its ability to assist with analyzing and systematizing large amounts of textual data. While the software itself does not perform the actual textual analysis, it enables the researcher to easily track and document themes using a system of codes and code categories.

Data Collection

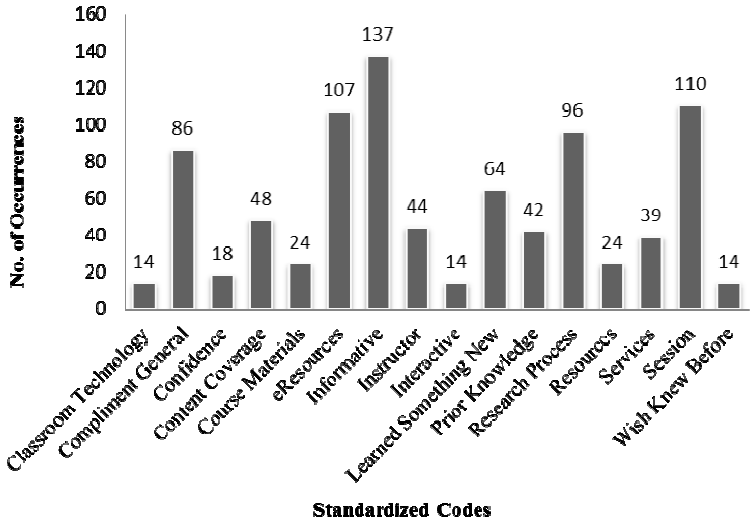
During the period of August 31, 2006 through August 31, 2011, 28,942 student surveys were completed and entered into the Libraries' bibliographic instruction database. From these surveys, a sample size of 637 randomly selected records were uploaded into a working spreadsheet for analysis. All data fields in the spreadsheet were supplemented with a main heading plus a colon for clarity when transferred to ATLAS.ti [e.g. *Comments:* ...]. This technique was necessary for accurate subdivision of data in record entries in the data analysis software.

Once the data was refined for consistency, the spreadsheet file was imported into ATLAS.ti for coding and evaluation of individual comments. Codes were only assigned to textual comments residing in the main headings of *Useful:*

Why/Why Not, *More Info*, and *Comments*. Note that these three main headings are a condensed representation of the three prompts taken from the *Student Feedback Forms* as listed earlier under *Assessment Tools*. Record entries were divided evenly between authors and were coded independently. Minor overlap did occur with use of identical codes such as *No Comment* and *Compliment*.

All totalled, the authors created 527 unique codes. After the individual coding was completed the authors met to create a list of standardized codes based on the initial 527 unique codes applied to each comment. Sixteen standardized codes were agreed upon. These codes were developed from language and themes predominantly evident in the original coding analysis. Each of the original 527 codes were then analyzed and assigned to one or more of the 16 standardized code themes, resulting in a total of 881 occurrences of the standardized codes applied to comments in ATLAS.ti. The frequency of the standardized codes specifying total number of occurrences is presented in Figure 2. The merging of individualized codes into standardized codes was administered in a spreadsheet format for easier tracking and to provide detailed notes and trends for further analysis of the standardized code themes.

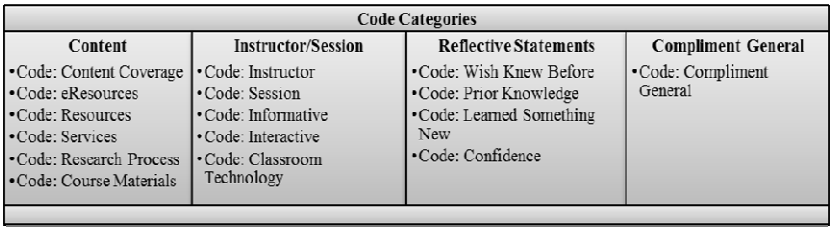
Figure 2. Frequency of Standardized Codes



5. Initial Results

To help organize and make sense of the results, the 16 standardized codes were grouped together according to the broader categories of *Content*, *Instructor/Session*, *Reflective Statements*, and *Compliment General*.

Figure 3. Standardized Codes by Category



Content

Six standardized codes were grouped together to form the category content. This category represents the sum total of 338 applications of the specific code occurrences noted below:

- Content Coverage (48)
- E-Resources (107)
- Resources (24)
- Services (39)
- Research Process (96)
- Course Materials (24)

Forty-eight comments were associated with *Content Coverage* and included general statements about the amount of material covered during the session. Some concerns were related to the feeling of information overload: "I felt like this was information overload, too much to process." Other concerns pointed to a lack of information provided or a wish for more information on certain topics. Positive comments associated with content coverage included general statements like, "Well presented with sufficient depth" and "You basically touched on everything."

Feedback that mentioned library services and resources, by name or in general, were assigned the codes *Services*, *Resources*, and *e-Resources*, with comments related to *e-Resources* (107) substantially outnumbering *Services* (39) and *Resources* (24). This was no surprise given most instruction sessions focus on the wealth of electronic resources available to support student research projects. The introduction of databases in class was noted by many students as particularly useful. For example, "It's good to know where to go to access information via reliable databases" and "Never heard of these databases before!" A number of databases were named as examples of what students found most useful about the session such as Ebsco, ERIC, JSTOR, Endnote and Refworks, the Libraries' catalogs (Chiron and LibCat), and Google Scholar. Additional comments noted a wish for more information about specific e-resources, particularly databases. Other comments of note associated with e-resources related to citation software and citation features within databases.

Students either expressed a desire for more information about these particular types of e-resources or, conversely, they commented on their usefulness. For example, the comments ranged from "learned how to save articles, citation format," to "the citing information was very helpful," and "Refworks is awesome!"

Ninety-six comments included mention of various activities related to the research process and were coded accordingly as *Research Process*. Positive comments included "how to" statements such as "learned how to navigate through the libraries system" and "learned how to search efficiently." Other *Research Process* comments related to the usefulness of in-depth search tips, help with search strategies and efficient search techniques, step-by-step search demonstrations with relevant examples, tips on how to find scholarly sources, and help with how to cite material. These same themes also emerged as stated concerns or suggestions. For example, one student remarked, "If you are going to present a tool be more practical with it's [sic] use." Other suggestions included, "Show an example of where to find primary source documents" and "Give example about how to use resources in detail."

Last, the code *Course Materials* which was applied 24 times included mention of handouts and online research guides. On the whole, students indicated that the use of handouts and online guides were of value. Their comments were expressed as either a concern that no supplemental material was provided or as a complement in that the supplementary material received would provide them with further assistance after class.

Instructor/Session

Five standardized codes were grouped together to form the category *Instructor/Session*. This category represents the sum total of 319 applications of the specific code occurrences noted below:

- Instructor (44)
- Session (110)
- Informative (137)
- Interactive (14)
- Classroom Technology (14)

Forty-four comments were associated with the code *Instructor* and included statements about the individual teaching the class. Almost all of the comments associated with this code were positive in nature. At a general level, there were many comments like "good job", "great instructor", "awesome instructor", as well as remarks related to instructor attributes like their friendliness, helpfulness, and even loveliness. More specifically, students commented about the quality of the instructor's delivery and overall expertise. One student exclaimed, "[instructor name removed] is an expert in this field, she has truly helped me in my time at TAMU!" Other students remarked on presentation style

such as "instructors exciting and knowledgeable" and "instructor did well in presenting and explaining."

The 110 comments associated with the code *Session* were very similar in nature to the comments associated with the code *Instructor*. Here, however, emphasis was placed more generically on compliments and concerns related to the overall instruction session rather than the specific instructor teaching the session. Again, at a general level there were many complimentary comments like "great session", "good session", and "amazing". More specifically, students remarked about the session being very helpful. For example, "this presentation was very helpful, I was very impressed." There were a few comments expressing concerns about the session. Largely, these comments tended to focus on the pace of the session being too fast or too slow.

Three additional codes were assigned to comments that fell within the category *Instructor/Session*, namely *Informative*, *Interactive*, and *Classroom Technology*. Each of these codes touched on more specific themes about the quality of the sessions attended. There were 137 comments associated with the code *Informative*. These comments were all complimentary in nature and focused on the usefulness of the session because it was either considered "informative", "informational" or "educational". Comments ranged from "she gave information that was helpful" to "this was a fabulous and informational session." The 14 comments associated with the code *Interactive* were expressed as either compliments or suggestions for improvement. For example, "I liked that you asked about our specific industries and tried to use those throughout the presentation." Suggestions included, "try to get the students attention more, more interactive" and "maybe a little more interactive to enhance attention from students."

Finally, there were 14 comments associated with the code *Classroom Technology*. Some students commented on the usefulness of having computers during the session, such as "I liked how we all had computers during the presentation" and "using computers or laptops would be helpful so the students would be able to search" and "I would like to be on a computer learning this because I would remember better." There were also a few comments about technology problems that occurred during class. Of particular note were the student suggestions for better preparation in order to deal with technology glitches: "Be prepared, the poll thing was cool but it didn't work right!" and "I think before class starts make sure that all the computers are connected."

Reflective Statements

Four standardized codes were grouped together to form the category *Reflective Statements*. This category represents the sum total of 138 applications of the specific code occurrences noted below:

- Wish Knew Before (14)

- Learned Something New (64)
- Prior Knowledge (42)
- Confidence (18)

What set these coded comments apart from others were their more personal tone and reflective nature. Many of the comments began with "I" statements or included a "me" statement somewhere in the text ("I wish", "I learned...", "...helped me to..."). The code *Wish Knew Before* was applied to comments where students intimated the knowledge gained during class was new to them and would have been useful to have known already, either earlier in the semester or earlier in their student careers at Texas A&M. Comments included such laments as, "The presentation was very informative and helpful. I didn't know any of this before. It would be beneficial to have more information on database and research sources presented to freshmen as part of their classes. I would have loved to have known this as a freshman" and "I wish I would have known this earlier in my college career."

The codes for *Learned Something New* and *Prior Knowledge* were applied to comments where students indicated having at least some level of library or research knowledge prior to attending class. These two codes were somewhat similar in nature. Both were associated with student comments, expressed either directly or indirectly, that indicated some of the material covered in class was considered "common knowledge". The 64 comments associated with *Learned Something New* included general positive statements from students about having literally "learned something new" during the session. Some students provided more specific comments about the discovery of new resources and information: "I didn't realize there were all these sources for landscape."

The 42 comments associated with the code *Prior Knowledge* more directly pertained to students who either positively remarked that the session in some way helped to build on what they already knew or more negatively remarked that the session did not provide them with any new knowledge. Some positive remarks included, "helped solidify my knowledge of how to use library resources", "I have heard this information before but hearing it again is helpful" and "refreshed my memory of all the different services the library has to offer students online." Conversely, others expressed concern about having attended previous sessions, "I have seen it twice before." Yet others remarked the information presented was nothing they didn't already know, "I'd already discovered most of these through my own researching, so there wasn't much new material."

Finally, the 18 student comments associated with the code *Confidence* all evoked a personal and emotional component about the process of conducting research and using the library. Some comments were an expression of relief. One student talked about feeling more comfortable, "I feel a bit better about using the library/being comfortable with it." Two others used the term

confident: “I feel very confident to use the library and website. Thank you very much.” “Made me feel more confident about researching using databases.” Other comments expressed anxiety. For example, “It looks easy when watching, but hard to find on own.”

Compliment General
The category for *Compliment General* represents a total of 86 applications of the single code *Compliment General*. Comments in this category included short statements like “this was great” “thanks”, “thank you”, “:)”, and “awesome”. While the comments in this category did not yield much in the way of specifics, they did indicate overall satisfaction with having attended a library instruction session.

6. Next Steps

The preliminary findings have provided the authors with a starting point for further research and analysis. Further study will be conducted to examine comments and codes from the sample population according to user group demographics to see if any themes emerge. For example: Are certain standardized codes or themes associated with first year students that are not present for fourth year+ students? What about the differences between undergraduate students and graduate students? Etc. If relevant themes do emerge, are there any implications for the delivery of instruction? Further, as instruction programs increase their reach from year to year the likelihood for “repeat” customers rises. Is there anything we can learn from this particular user group?

The comments coded under the *Reflective Statements* category are also of particular interest to the authors. These comments referenced personal and emotional statements in regards to the information provided in the students’ bibliographic session. Although only 18 occurrences of the sample comments were coded as identifying with *Confidence*, the authors would like to explore this further with additional survey tools or focus groups. A student may walk away from a session with more knowledge of the library and its resources, but the question remains - do they feel confident to successfully find the information they are looking for on their own?

Further, the authors would like to consider using the feedback received to potentially revise the feedback form itself. Identifying purposeful responses to our services will allow for revision of the form. To encourage completion of the three free-text prompts, the authors suggest verbally stating the importance of these questions and encouraging student engagement while distributing the forms during the instructional session.

Finally, the initial results will also be compared to TAMU Libraries LibQual+ data to look for similar trends and/or discrepancies with regard to feedback from the student population. In doing so, the authors believe they will have a broader

understanding of student perceptions of the library and the process of conducting library research.

7. Conclusion

This study has provided justification for further research, as well as regular analysis of student feedback comments at the programmatic level as part of the Libraries' overall assessment toolkit. It is important to note that at the time of this study, only quantitative feedback was being used at the programmatic level to analyze indirect student learning outcomes and thus meet the University's accreditation standards and guidelines. Library Instructors, however, were regularly reviewing their own student feedback comments in an effort to modify and improve their individual classroom sessions.

What do the student feedback results mean for library instruction programs in general? How can we apply what we have learned to bibliographic instruction training programs? Based on the findings thus far, the authors recommend several activities to help enhance the quality of instruction in the classroom:

- Engage in a yearly assessment of student feedback at the programmatic level.
- Disseminate results to all library instructors for review.
- Hold a yearly meeting to discuss the results with all participating library instructors in order to raise collective awareness of student identified best practices and common classroom concerns.
- Incorporate themes from the feedback results into regular bibliographic instruction training sessions.
- Harness local talent (your library instructors) with relevant strengths to help provide short "tips and tricks" sessions to share successful teaching methods and classroom techniques related to students concerns and compliments. As needed, bring in additional experts to address areas where skills and knowledge may be lacking within the organization.

Sharing student feedback comments across the libraries and encouraging reflection about the quality of our teaching from the perspective of our largest customer group, our students, can serve to enhance our instructional training programs, overall user satisfaction, peer-to-peer learning, and scholarship. The library provides a vast array of services and resources that are utilized daily by the students we serve and it follows that they continually create their own experiences through testing, reviewing, and accessing the resources. Their perception of the library and its products holds value when assessing learning outcomes.

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