Instruction librarians at CSU Stanislaus are embedded in instructional programs in several ways, and team teaching the HONS 3500 course is one example. The catalog description is as follows:

Application-based introduction to information resources, with attention to issues of access and evaluation. Emphasis on learning how to conduct efficient and effective information searches and acquiring knowledge of basic research protocols. Includes independent research/discussions with research mentor leading to a provisional research proposal for Honors Thesis or Capstone Project. 3 Units. Satisfies G.E. area E1. (Spring of junior year.)

The goals of the course include developing flexibility and curiosity in academic research, as well as grounding research in discipline methods and questions. Students explore a topic of interest through compiling an annotated bibliography, poster presentation, and written research prospectus.

As a team-taught course, several aspects are shared, such as development of the syllabus, advising, grading, as well as some instruction sessions. Instruction time is otherwise divided roughly in half between the two instructors. The librarian teaches library and non-library research skills, with one-on-one guidance. The Honors faculty member teaches students to explore, identify, and narrow their research topic into a manageable research agenda for the senior capstone, as well as communicate it, also with one-on-one guidance.

The learning goals of the librarian-taught sessions are:

- Explore a topic of interest through information sources to make it focused and manageable.
- Gain experience with a broad range of research tools in and out of the library.
- Understand primary/secondary, popular/scholarly, and other dimensions of information production and consumption in order to critically evaluate information.
- Use information according to discipline and ethical standards.

Specific outcomes for the librarian-led sessions were shared with students in the first week of class, and students were asked to rate their progress on them in the final week. 19 students took this survey (figure 1).
Figure 1: survey responses to key outcomes.  \( n = 19 \)

(* "purpose, audience, and relevance" should have been "authority," so the question is flawed.)

On the whole, the majority of students felt they achieved exceptional or moderate progress on the skills taught, though level of progress varies. Some of these outcomes received more attention than others, depending on the student. For example, print books and IRB approval were covered, but if a student did not find those relevant to his or her particular research topic, progress would be lower than for students who did. On the other hand, identifying and retrieving articles from databases was practiced by all, so more progress on that would be expected by more students.

Another area of mixed rather than predominantly "exceptional" progress is in evaluating information or critical thinking measures. This continues to be an area of the course that merits more—or better—instruction by the librarian in order that students understand the dimensions of evaluating information, which is a relatively higher order skill compared to using library tools.
effectively. The new Framework concepts suggested by ACRL can help place emphasis on these skills.

On the other hand, students may be judiciously self-reporting their skills based on what they have learned. The "moderate" ratings may mean students learned enough not to overestimate their own skills. Also, "progress" may have been less for students who already had high level skills on entering the course. This survey is not a measure of actual skill, nor even of progress, but perception of progress and personal definition of exceptional. Nevertheless, the "moderate" on several criteria seems an opportunity for improving instruction in key areas.

More direct assessment of some of these outcomes can be gleaned from the work students turned in. For example, weekly homework can be assessed for process skills such as ability to use a range of databases effectively to find and evaluate sources. The final written prospectus can be assessed in the future for proper citing and synthesizing information. The annotated bibliography assignment can be assessed for students' ability to cite sources and evaluate information. A quick assessment of librarian comments on students' annotated bibliographies reveals that most students did well on describing relevance of a source, but many neglected describing authority indicators consistently well (see figure 2). This aligns with the above information that indicates critical thinking skills have room for improvement.

![Annotated Bibliography Assignment](image)

**Figure 2:** Analysis of comments on Annotated bibliography assignment. *n=20*

Citation skills demonstrated in the annotated bibliographies are mixed. Although most understood their citation style in general, and were able to create citations that were mostly correct most of the time, few could produce a completely correct set of citations in APA or MLA style, despite feedback on drafts. Though their self-reported progress on this may indeed be
exceptional, the actual citations of many are a work in progress. One citation challenge for students is understanding what type of resource they are looking at on any given results screen. For example, some documents on the web are scholarly articles, others are news articles, and still others are undifferentiated web site content. When students are unclear about the original format, their citations reflect that ambiguity. Also, automatic citation tools do not teach students this, so using them may not lead to learning. Finally, citing diverse resources correctly requires consulting the manual and an attending to a high level of detail, which many students are still learning to do.

In the comments section of this survey, only a few comments were offered. Two students wrote that continuous weekly assignments delving into different types of resources were not always relevant to the topic at hand. Although the intention of these assignments was to give students a range of academic research experiences in order to deeply explore their topic, these two students felt the opposite. This points out a balance to be struck between the goal of learning general skills vs. customizing content to the individual student project. The librarian can balance these two goals so that they are more complementary than conflicting. For example, an improvement may be to teach the array of research strategies with in-class activities, leaving the student to choose in homework which ones are most relevant to pursue for their topic.

Furthermore, co-instructors have already discussed changing the distribution of the course time so that library research predominates the first weeks and prospectus writing the latter weeks, instead of the current simultaneous research and writing tracks. Such a restructuring may help more logically coordinate the two halves of the course so that students first focus on finding sources, then using them. Finally, this course, which is a prerequisite for the Senior Capstone Honors course, can be improved further through feedback from the instructor of that next course in sequence to make sure students are properly prepared for it.

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