

Rethinking an Established Information Literacy Program: How Leveraging Assessment Data Can Improve Teaching and Promote Change

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Over the past two decades academic librarians have been exploring the use of assessment to communicate and demonstrate to campus stakeholders the importance of libraries and librarians when it comes to student learning.¹ This has not been an easy road. While faculty and librarians are often in agreement that students need certain information literacy skills, they often disagree as to how students should learn these skills and which ones are most important.² Some of this disconnect may be due to faculty and librarians not speaking the same language when it comes to information literacy.³ Another difference may be that faculty think students absorb these skills through the ongoing process of researching and writing within their disciplines.⁴ However, librarians recognize that students are not attaining these skills as they advance through college.⁵ In fact students often overestimate their abilities.⁶ Assessment data is imperative to bridging these gaps as teaching faculty and librarians work towards a greater understanding of the library's role in improving student achievement.

Librarians increasingly understand the need to collaborate with faculty to improve student learning.⁷

There is a strong case to be made for moving away from service-oriented approaches to true partnerships with faculty.⁸ Presenting results from an assessment project can often convince unwilling faculty.⁹ Assessment results can also create more meaningful partnerships with faculty already open to collaboration.¹⁰ Working together with faculty on an assessment plan leads to a greater understanding of the necessity of these partnerships in fulfilling information literacy goals across the curriculum.¹¹ In fact, merely conducting the assessment process can open doors previously closed to librarians.¹²

With this in mind librarians at University of Nebraska Omaha developed assessment goals in tandem with a change in instruction pedagogy, with the idea that both the assessment process and the results of the assessment would foster stronger communication and collaboration with a specific group of faculty, in this case English Composition instructors. We opted to use a rubric to assess students' final papers because rubrics are recognized as authentic assessments for evaluating whether or not students are successfully applying the information they have learned.¹³

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Overview

Composition II (Comp II) is an introductory English class required for undergraduate graduation at UNO. Students who do not test out of it or do not transfer in to the university must enroll. Because of the high number of students that pass through the class, in 2002 librarians at UNO's Criss Library decided to focus library instruction efforts on Comp II, thereby reaching a majority of students at the university. Over the following years, the Comp II library instruction program became well established; 85%-90% of Comp II instructors now bring their classes into the library for a week of instruction. Library instruction for Comp II is carried out by the Research Services Unit (RSU), which consists of six librarians and four library associates. Traditionally, this instruction consisted largely of demonstrations and handouts, with an aim to teach students how to access and evaluate articles for a final argument paper. Instruction was assessed by the use of pre- and post-tests on various aspects of information literacy.

The Research Services Unit decided in the Fall of 2013 that a more active model for instruction would be beneficial to student learning. There were several components to this plan, and the English liaison librarian spearheaded the initiative. Tutorials were created on several facets deemed important to successfully writing an English Comp II argument paper: Deconstructing Your Research Question, Supporting Your Thesis, Evaluating the Credibility of a Resource, and Synthesizing Information. Collaboration was sought with the English Comp II instructors; a committee of RSU staff met periodically with two representatives from the English Department, and in the pilot year, instructors could opt in to a flipped instruction model. English instructors that chose to participate in the flipped classes assigned the tutorials to their students to watch, and the library instructors modeled their classes after the concepts covered in the tutorials, using active learning activities as the basis for the classes. RSU staff that felt unsure about using a new teaching model received support from fellow instructors in several ways: weekly RSU meetings were

used to share experiences and tips, an online activity bank was created which included expected learning outcomes and ways to incorporate activities into lessons, and staff were encouraged to observe other RSU instructors teaching active learning-based classes.

This program is receiving ongoing assessment by evaluating the final papers produced by students in the Comp II classes. This was regarded to be a better means of assessment than the tests previously used, because, rather than simply testing for comprehension of information literacy concepts, it focuses on students' ability to apply the material they have learned. To evaluate the final papers, we developed a rubric. After consideration of other rubrics designed by librarians, we modeled our Comp II rubric after an information literacy assessment rubric developed by Oakleaf, Millet, and Kraus.¹⁴ The final draft of the rubric measures four aspects of information literacy: accessing, evaluating, synthesizing, and citing. Each of these categories is rated as "beginning," "developing," or "exemplary," with descriptive characteristics listed for each. The rubric was refined over the course of a semester, while assessing the first round of final papers.

Methodology

In Fall 2013 library staff taught a total of 40 Comp II or Honors Comp II sections out of 44 potential sections and reached an estimated 680 students. The total number of students was calculated by averaging the total number of students taught in each individual class and multiplying by number of sections taught. For the Fall 2013 semester library raters received 26 Comp II papers, about 3.8% of total papers.

In Fall 2014 out of 48 Composition II sections (including 2 honors sections and 4 partially online), library staff provided a week's worth of instruction for 39 sections and reached an estimated 665 students. From those sections we received 47 papers, about 7%.

Roughly 30 minutes was spent assessing each paper, so an estimated 120 hours total was spent rating both sets. Some papers were assessed twice, inflating the total hours. The RSU staff who worked on scoring

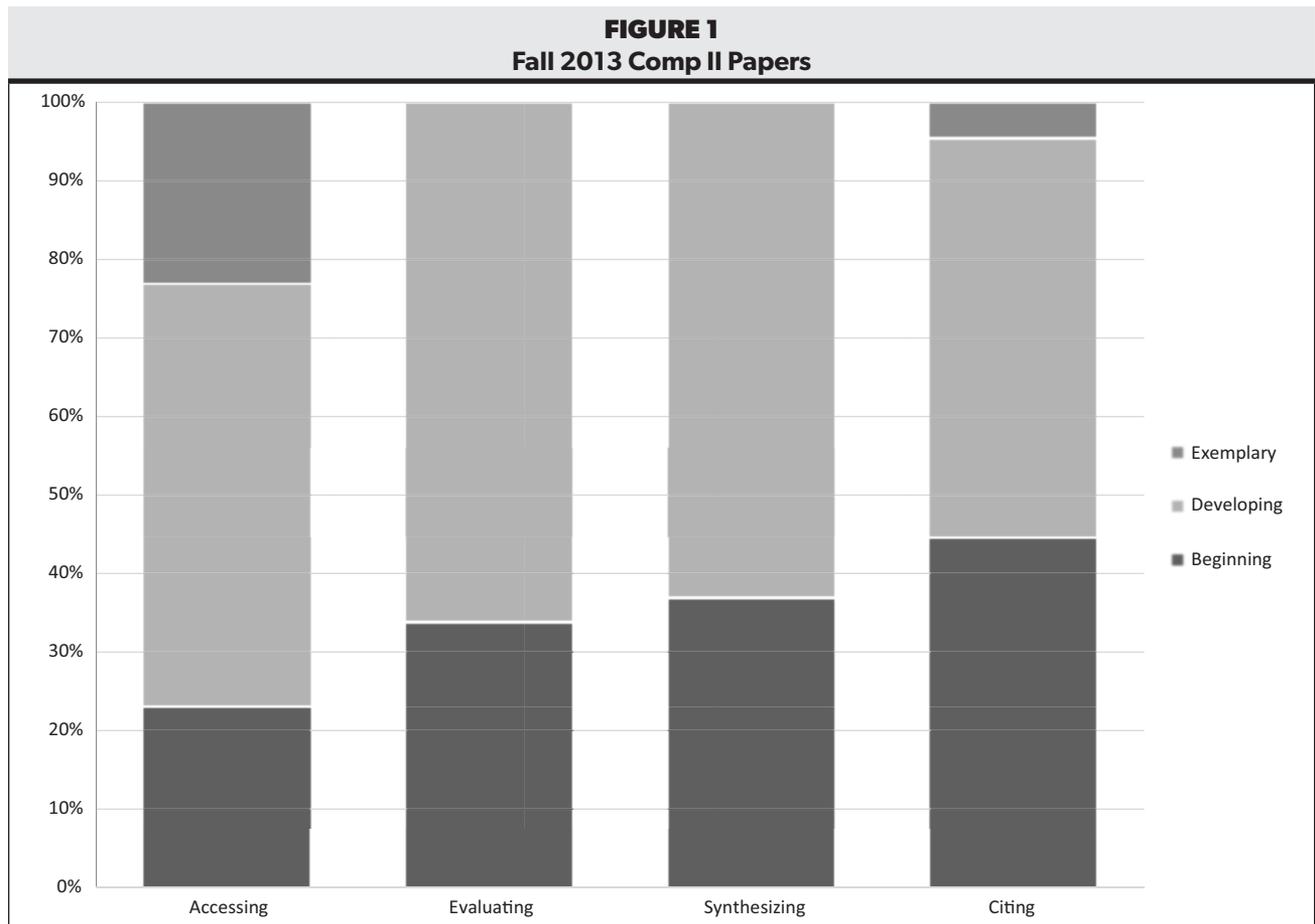
the papers (two librarians and one library associate) each rated the papers individually and then met after each batch of five to six papers to norm the rubric. During these meetings, we discussed our individual scoring process and our reasoning behind our results, which helped us to clarify and improve aspects of the rubric.¹⁵

Results and Discussion

The English liaison librarian presented the results of the Fall 2013 papers to the Composition II faculty prior to the Fall 2014 semester. Even though we received a very small sample of student work, we were able to make a strong case for more active learning in the library instruction sessions. In these initial results, there were no “exemplary” scores in either the “evaluating” or “synthesizing” categories. Students struggle with higher order skills, such as evaluating and synthesizing.¹⁶ In our experience, these skills cannot gen-

erally be taught through lecture and resource demonstrations alone. However, faculty often only view library instruction as an overview of general research skills, or to help steer students away from only using sources found on the open web. Critical or higher order thinking skills are rarely mentioned as being part of library instruction.¹⁷ By presenting these results, library instructors were able to communicate a need to adjust the current methods to teach students these higher order skills during the library sessions.

Also noted were the rather lackluster results in the “citing” category. While Comp II library instructors do not generally address citing in the library sessions, citing, and ethical use of information in general, is still considered an important aspect of information literacy.¹⁸ The “citing” results show us an aspect of our instruction to be aware of, and a reason to get feedback on whether Comp II faculty want the library sessions to more explicitly address citing and plagiarism. Ad-



ditionally, Comp II instructors were very interested to learn of these results, to the effect that they may pay closer attention to teaching proper citation standards going forward.

While the original call for papers in 2013 resulted in far fewer submissions than we had hoped, it did provide a starting place to refine and norm the rubric we used. Furthermore, by presenting the results, we were able to convince more faculty of the merits of our new program and to gain additional support for the active learning methods.

The two Comp II instructors on our assessment team serve as our liaisons to the Composition II faculty. These liaisons are also members of the English First Year Writing (FYW) Committee, which discusses the curriculum for all composition courses including design, outcomes, assessment, and policies. After the initial presentation of results, we asked the liaisons to take the rubric to the FYW Committee for thoughts

and feedback. Because of our relationship with the liaisons and their positions on the committee, we were able to present detailed results to a smaller, more influential subset of the Comp II faculty. After the FYW Committee had reviewed the rubric, we met as a group with the liaisons to discuss the committee’s reaction to the rubric, and our future assessment goals and collaboration opportunities.

Members of the FYW Committee were concerned that there could be a potential disconnect among the librarians using the rubric and the Comp II faculty. The “exemplary” category was viewed as more advanced than Comp II students were capable of reaching. When library staff explained that the “exemplary” category was meant more as an aspirational goal than something most students would be expected to reach after Comp II, these concerns were alleviated. Another misunderstanding resulted from confusion over our use of the word “ethical.” English faculty were not

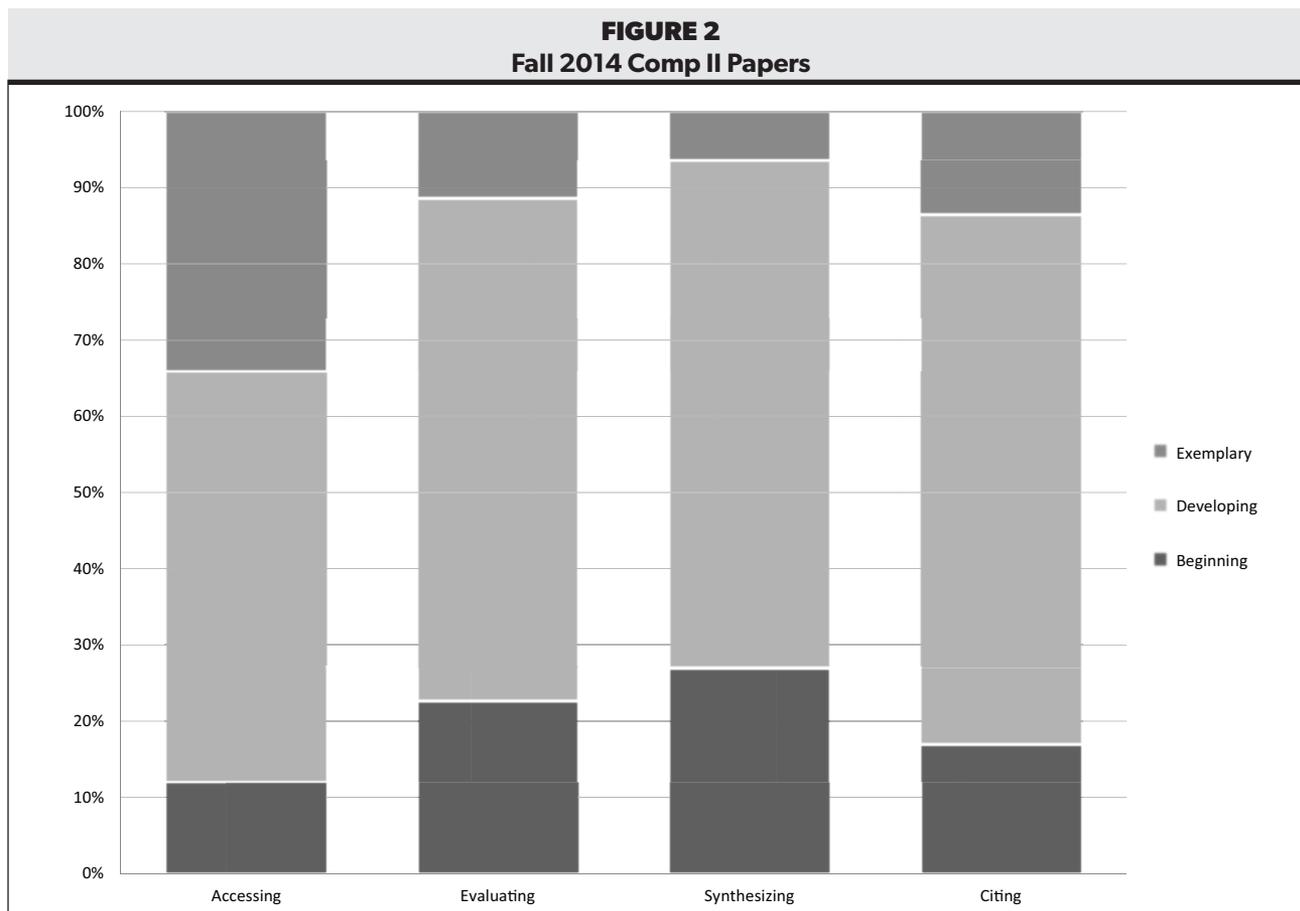
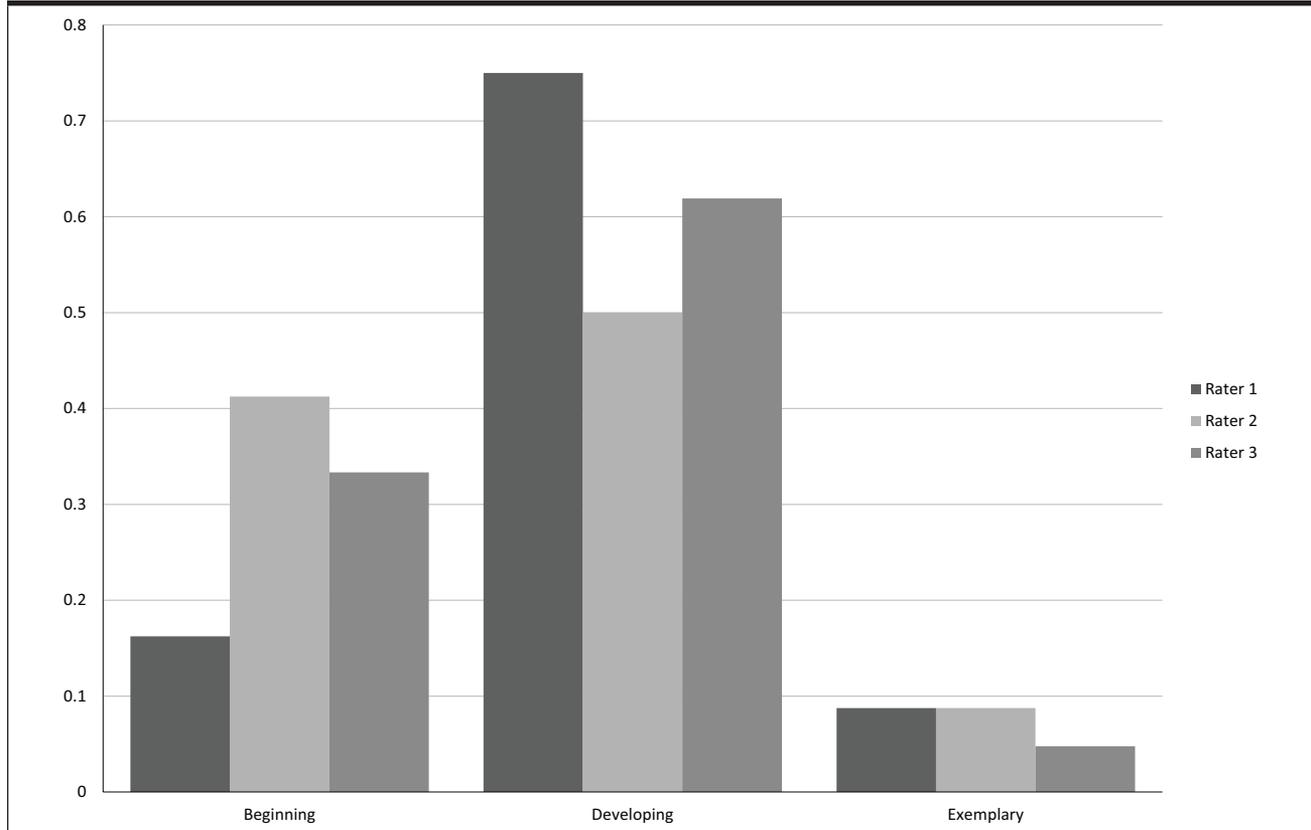


FIGURE 3
Fall 2013 Total Ratings



familiar with the word “ethical” used in an information literacy context and objected over its inclusion in our rubric. This served as a “teachable moment;” we were able to communicate effectively with the objecting English faculty and eventually everyone came to see the value in its inclusion. We also discussed potential baseline goals for the three categories with “beginning” ratings landing below 25% in each category. We particularly appreciated the feedback from the FYW Committee indicating that these results were already providing valuable information regarding students’ accessing and using information.

Through our liaisons we were able to disseminate our findings and obtain buy-in from the FYW Committee. One direct result of this was that we received more papers to assess for the Fall 2014 semester. As one can see from these results, student papers improved in every area from Fall 2013 to Fall 2014. Most striking is the “citing” category in which the begin-

ning scores decreased by more than 27%. These results have been presented to our Comp II liaisons who are enthusiastic about the value of the program; we look forward to presenting the results to the full Composition II faculty during their Fall meeting.

Interrater Reliability

While conducting this assessment we were concerned about interrater reliability. As rubrics become increasingly popular, discussions of methodology and interrater reliability will become more common.¹⁹ With our first set of student papers we met often, generally after assessing each 5-6 papers, to discuss our ratings and make sure our scoring was consistent. As one can see from figure 3, there were some discrepancies in the overall percentages of “beginning,” “developing,” and “exemplary” as scored by the three raters for the Fall 2013 set. This is because we made several changes to the rubric as we assessed student papers, at one

point removing an entire category.²⁰ While rater 3 re-assessed all papers after major changes the other two raters did not.

For the second set of papers the percent agreements were much more similar across the three raters, although one rater is clearly “easier” on the papers than the other two. This higher level of agreement is attributed to the amount of norming conducted while assessing the first set. Norming is important not only to help ensure that raters interpret the rubric the same, but also because it allows for fruitful discussion among library staff regarding our information literacy goals for Composition II students.

While we were generally pleased with our ratings results, running a Fleiss Kappa interrater reliability test demonstrated only “slight” to “fair” agreements in overall ratings.²¹ Using Cohen’s Kappa to compare each of the three raters to each other, rater 1 was least consistent while raters 2 and 3 were most consistent.²²

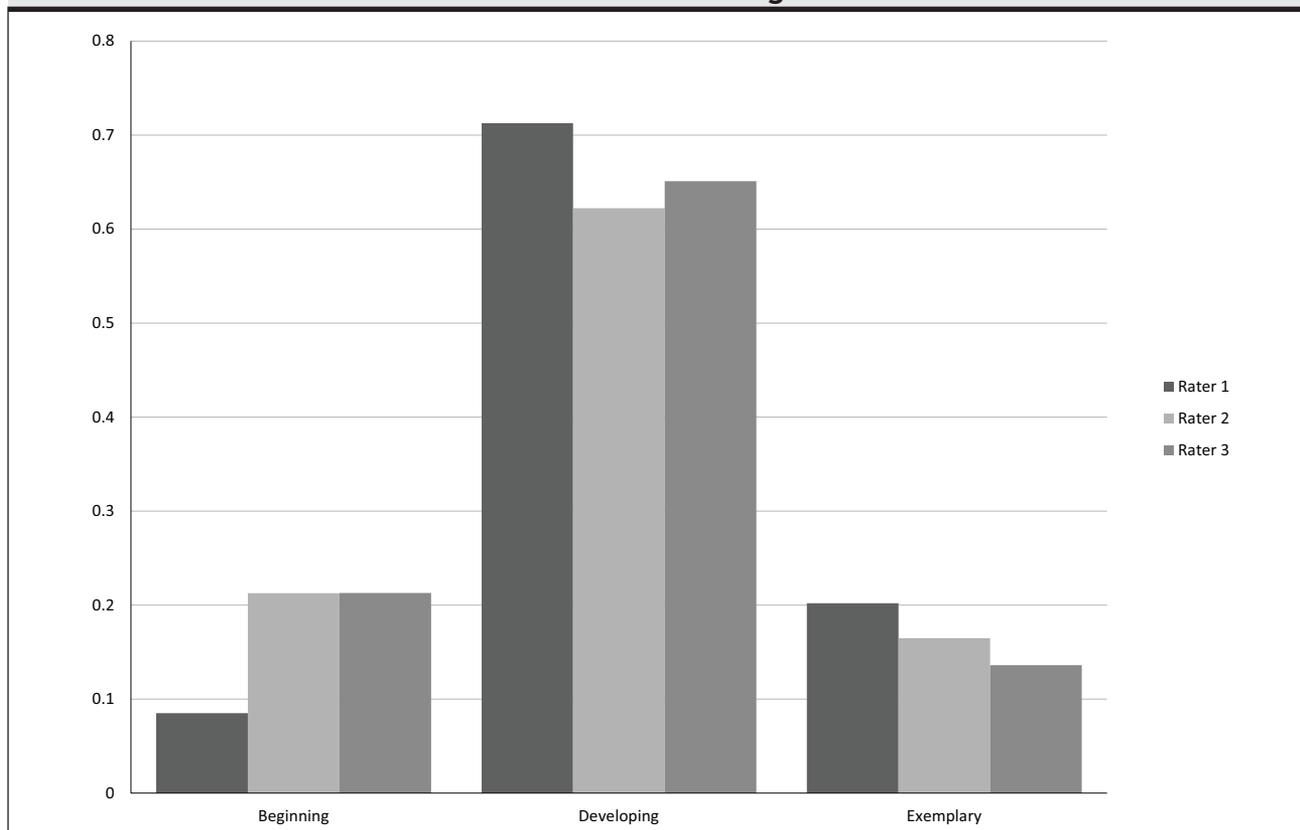
While this case study is not primarily focused on interrater reliability, addressing the causes of these inconsistencies are an important factor to consider when using rubrics to assess student output.²³

Conclusions

Both library staff and Composition II instructors were pleased with the improvements in the rubric results between Fall 2013 and Fall 2014. While we cannot conclude that presenting our Fall 2013 results had a direct impact in any changes, anecdotally Comp II faculty were very concerned about the initial results, and may have altered their emphasis on citations when teaching their Composition sections. Library staff worked to fully incorporate active learning into their Comp II library instruction between Fall 2013 and Fall 2014.

Ultimately, we met or exceeded our baseline goals in every category except synthesizing. Because of the

FIGURE 4
Fall 2014 Total Ratings



vast differences in sample sizes, we cannot state any statistical significance in our findings, however, we have successfully used our assessment results to argue for changes in our pedagogy, promoting active learning in our instruction sessions, both to the Comp II faculty and the library staff.

Future Plans

As we move forward to assessing the Spring 2015 papers we have a clear set of priorities based on our past assessment results. As Comp II faculty come to expect active learning in each library instruction session library staff will need to improve our resources to facilitate active learning. Because Comp II sessions have some variety with their approaches to the final paper, we will need to expand our current list of class exercises and the learning outcomes associated with each activity. This menu of active learning options will allow library staff to select which activity/outcome they judge will be most suited to the students in any particular session. Students will receive a more tailored, point-of-need library instruction session.

Library staff are also in discussion with the FYW Committee regarding the tutorials. As assigned, the tutorials are not often actually viewed by students, according to self-reporting by “show of hands.” In addition, the tutorials have not been updated since their initial implementation. Further dialogue needs to be had regarding the tutorials’ quality and usefulness. If we do continue with the tutorials, we need to encourage Comp II instructors to make the tutorials required through use of grades or points.

In addition, the results from the interrater reliability tests demonstrate that the raters continue to need more training. For the Spring 2015 papers, raters will grade the first several papers at the same time and discuss results more fully. After this first scoring session, raters will meet at regular intervals to ensure the scoring is consistent. With these additional steps, we are confident that our new instruction model will continue to improve.

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