

# Web usability and library instruction in the sciences: using a web usability tool to assess the effectiveness of library instructional sessions

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**Abstract:** We investigated the use of Verify, a web usability tool, to assess the effectiveness of library instructional sessions in the sciences. First year undergraduate science students completed a pre and post usability test immediately before and after library instruction. The tool provided valuable insight into the ability of students to correctly navigate to items on the library website. Strengths and weaknesses of using the Verify Click Test as a library instructional assessment tool are discussed.

## Introduction

Library instruction and web usability are closely intertwined, however, few studies have combined these two realms<sup>1,2</sup>. During instructional sessions, science librarians routinely demonstrate how to access/use resources through the library website and have the potential to strongly shape students' web behavior<sup>2</sup>.

A variety of web usability tools have the ability to track user behavior on a website. We investigated the possibility of using such a tool to assess the effectiveness of library instructional sessions in the sciences.

## Materials and Methods

This study was conducted in Fall 2014 during freshman science information literacy sessions. The science librarian provided "browse focused instruction", demonstrating pathways to resources via menu items on the library website. The content of the instructional sessions focused on introducing students to the library website, basic library resources and services, and an overview of resources for students to use in completing a career research assignment.

Before and after the instructional sessions, students were asked to perform a series of 20 information seeking tasks on the library website (for example, locating a specific e-book title, an article database, and information about basic resources available in the library). Verify<sup>3</sup>, a web based usability tool, recorded individual student use of the website during the completion of each of these tasks.

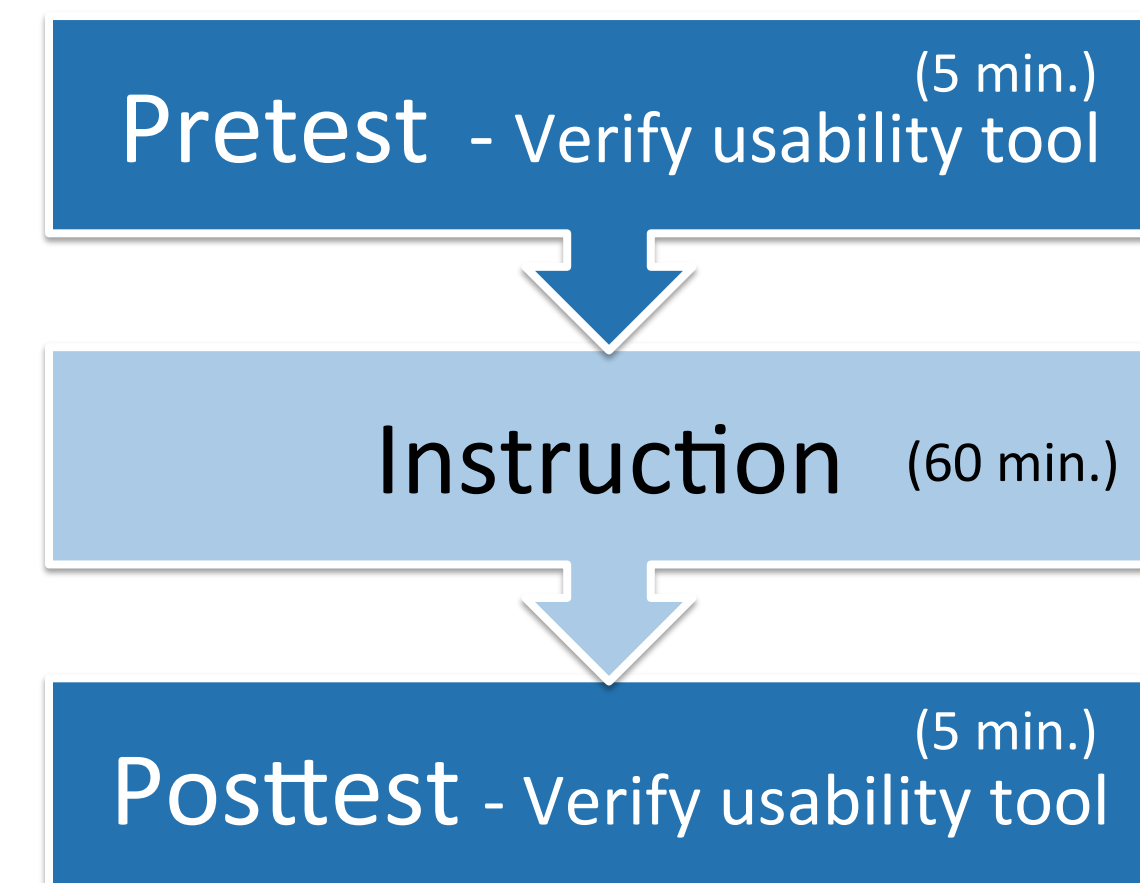


Figure 1. Class outline

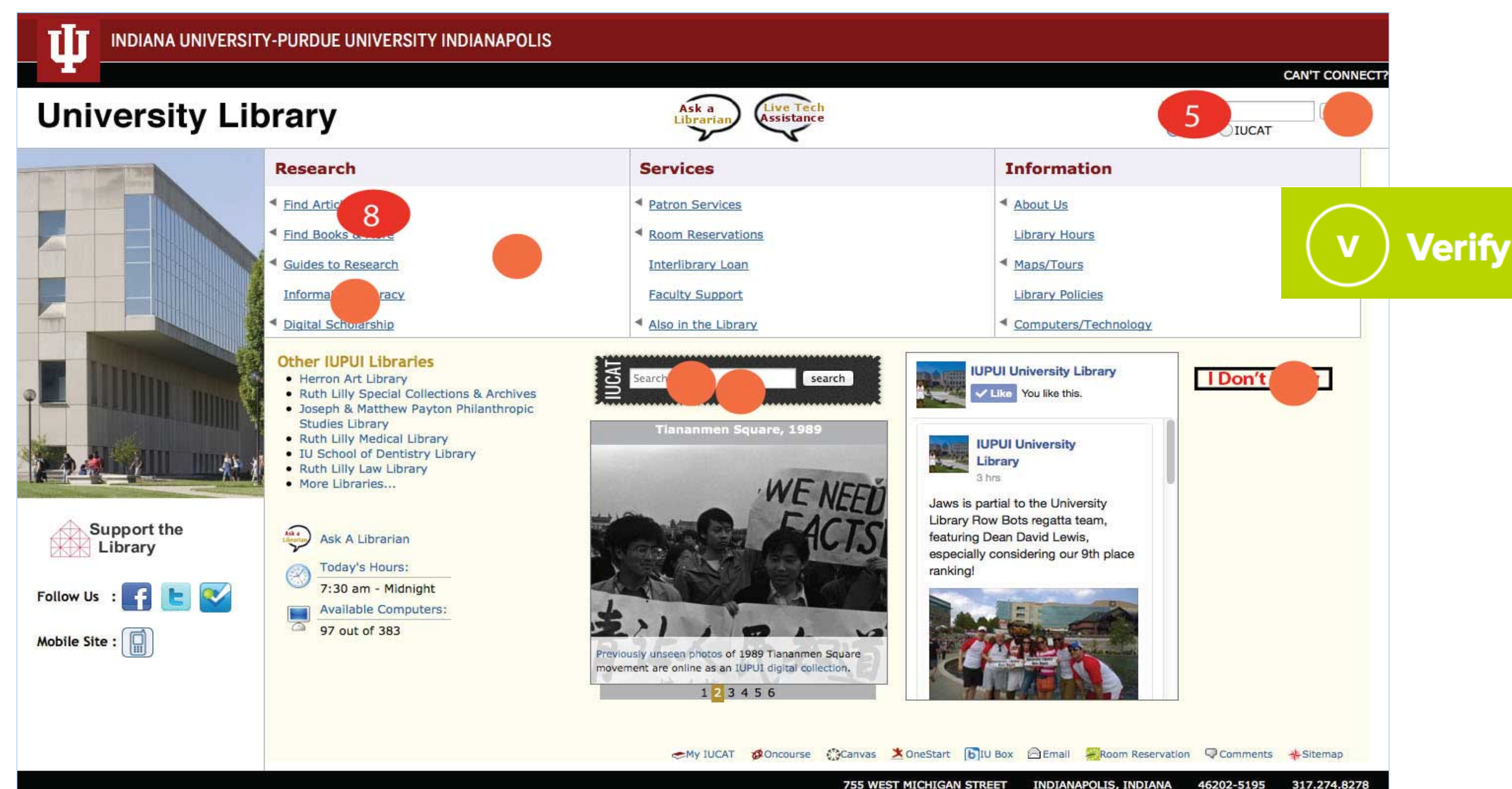
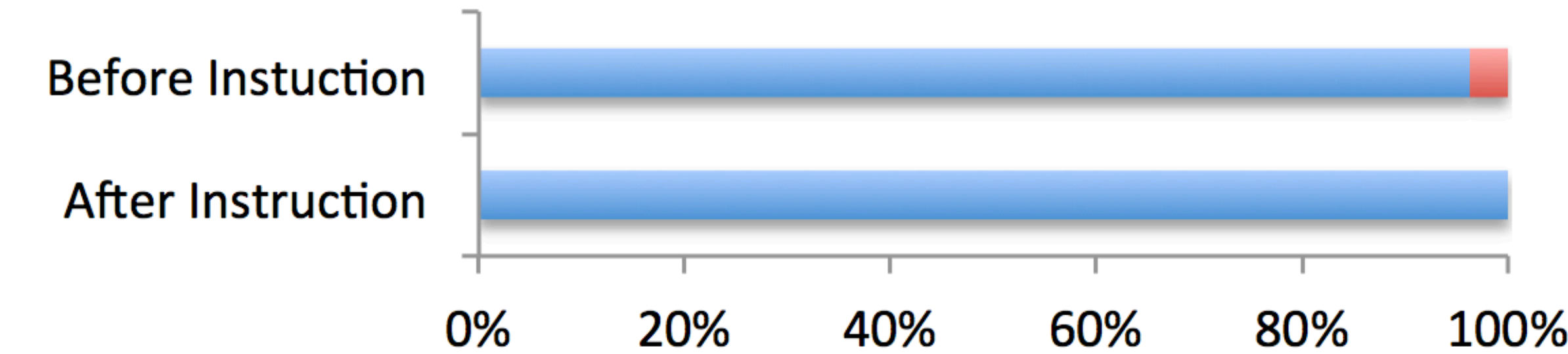


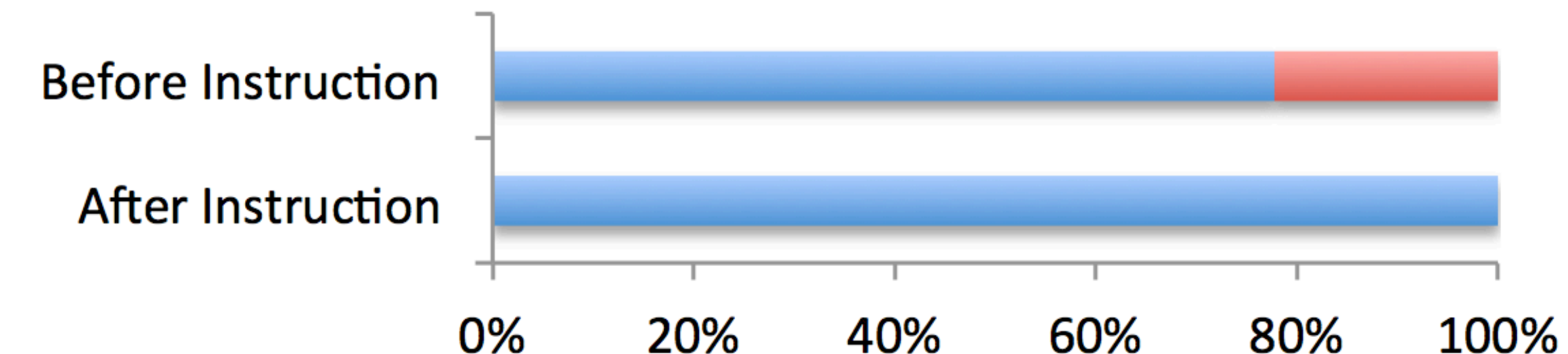
Figure 2. Class results of one task of the Pretest - Verify Click Test

## Results

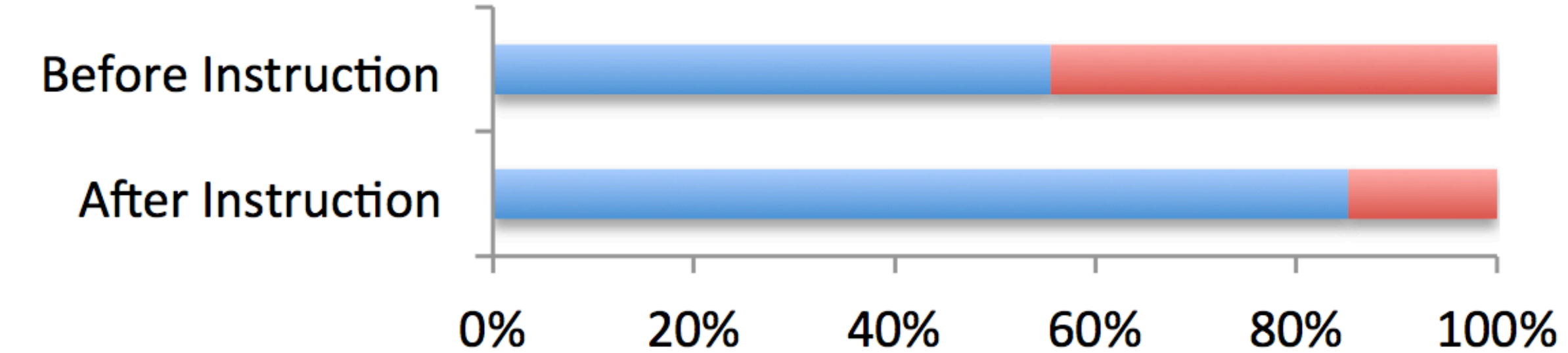
### Books - General



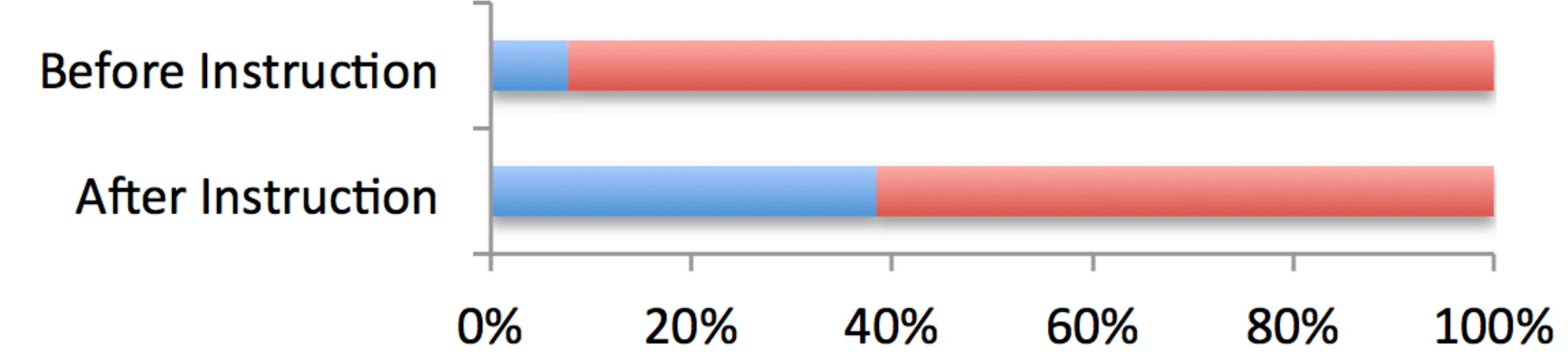
### eBook - Specific title



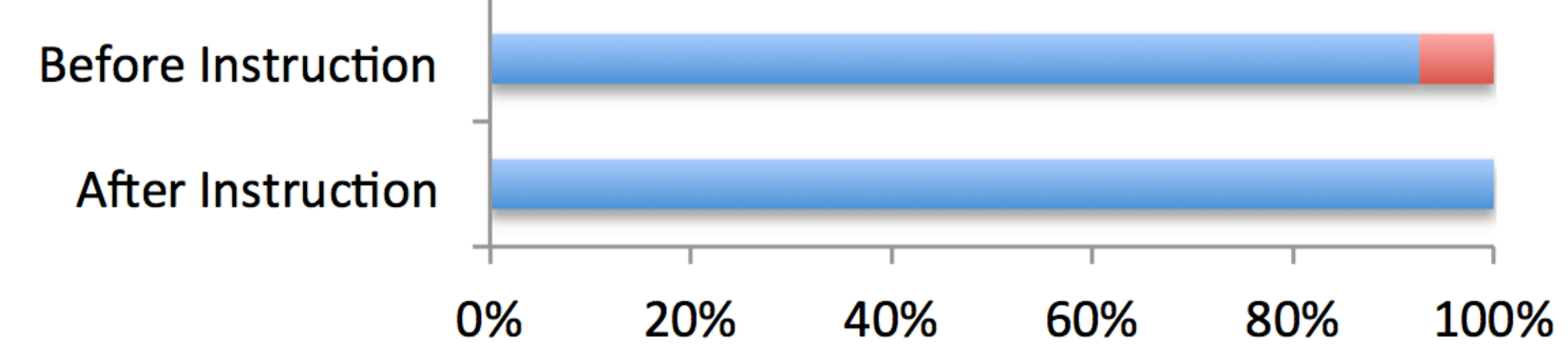
### Database - Academic Search Premier



### Rich Media Cluster (high end computers with specialized software)



### Group Study Rooms



Overall, the posttest yielded a greater percentage of correct student responses for each information seeking task.

After instruction, 100% of students were able to correctly navigate to locating books (in general) as well as a specific ebook title.

After instruction, 85% percent of students were successful in navigating to the Academic Search Premier Database, compared with 56% in pretest.

After instruction, 38% of students, were successful in navigating to "Rich Media Cluster" (info on specialized computers in the library), compared with 8% in the pretest

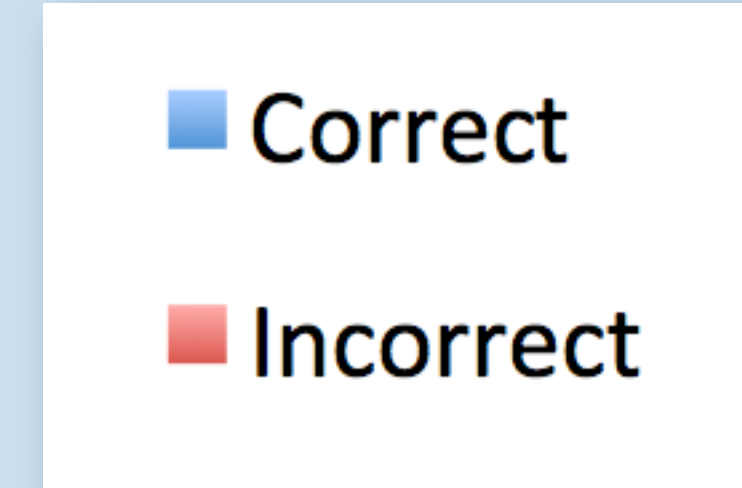


Figure 3. Results of 5 of the Pre and Posttest tasks - Verify Click Test

## Discussion / Conclusion

Overall, Verify confirmed that the instructional sessions improved students' ability to correctly locate specific resources on the library website. Verify revealed that most students were able to correctly locate books (including ebooks) and information on reserving group study rooms in the library even before instruction. Locating the Academic Search Premier Database proved to be difficult for students in the pretest. Instruction improved this, however, results from Verify identified this as an area that may need attention by the instructor. Most problematic for the students was locating information about the Rich Media Cluster (specialized, high performance computing tools) in the library. Over 60% of students still could not correctly locate this information after instruction. Therefore, it was identified as a key area of attention for the instructor when considering improving future instruction of this library resource.

### Strengths and weaknesses of using the Verify Click Test as a tool for assessing the effectiveness of library instructional sessions.

#### Strengths

- tracks where students click on a website allowing instructors to gain direct evidence as to how students behave on a website
- can provide revealing results as to where students are attempting incorrect pathways to resources
- compiles a summary report of clicks of all students for each information seeking task
- testing is simple and quick (students in our trials were able to complete a series of 20 information seeking tasks in less than 5 minutes)

#### Weaknesses

- only records student behavior on a static screen shot
- cannot track student behavior through a series of clicks or pathway of menu items
- access to the tool requires payment

The Verify usability tool provided a quick and simple pre and post test that provided insight into the ability of students to correctly navigate to items on the library website. Despite a few limitations, this tool can provide valuable assessment data for instruction librarians.

## References

1. Castonguay, R. (2008). Assessing Library Instruction Through Web Usability and Vocabulary Studies. *Journal of Web Librarianship*, 2(2-3), 429-455.
2. Lee, Y.Y., & Snajdr, E. (in press). Connecting library instruction to web usability: The key role of library instruction to change students' web behavior. *Journal of Information Science Theory and Practice*.
3. ZURB. (n.d.) Create Design Surveys. Retrieved September 7, 2014. from <http://verifyapp.com/>