ATI Library Long Term Follow-up Testing for Information Literacy Tutorials

The ATI Library implemented information literacy (IL) tutorials in Fall 2008. These tutorials were required in all orientation classes (FAES100 and T201). Students took a pretest to measure their IL skills prior to the tutorials, then took six tutorials covering sources/reliability, general searching, books, periodicals/journals, internet, and copyright/plagiarism. Immediately following each tutorial, the students then took a short post-quiz to measure their short-term retention in that topic area as well as reinforce important information. The pretest, tutorials, and post-quizzes were also required in Fall 2009 orientation classes. In Fall 2008 and Fall 2009, 535 students took the pretest and 462 students completed all the post-quizzes.

Then, from Fall 2009 through Spring 2010, the library did long term follow-up testing to measure these students' IL skills retention over time. The follow-up test was 31 questions, identical to the pretest with two added questions asking if they took the tutorials and how valuable they perceived the tutorials to be. The follow-up testing was done in three courses:
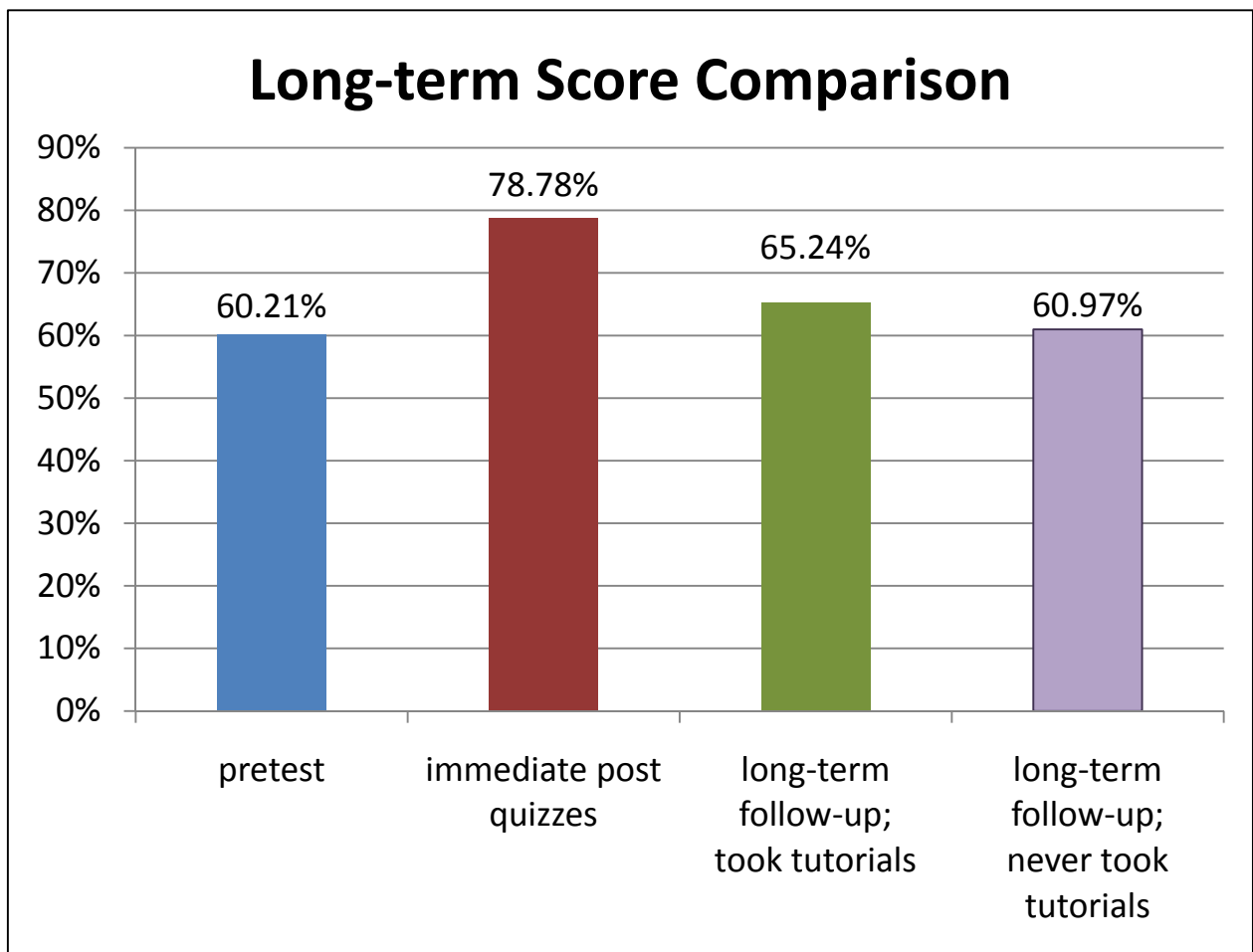- Gen Comm T113 (Technical Reporting)
- Gen Comm T114 (Business Communication)
- Ag Comm 367 (Agricultural Issues in Contemporary American Society)

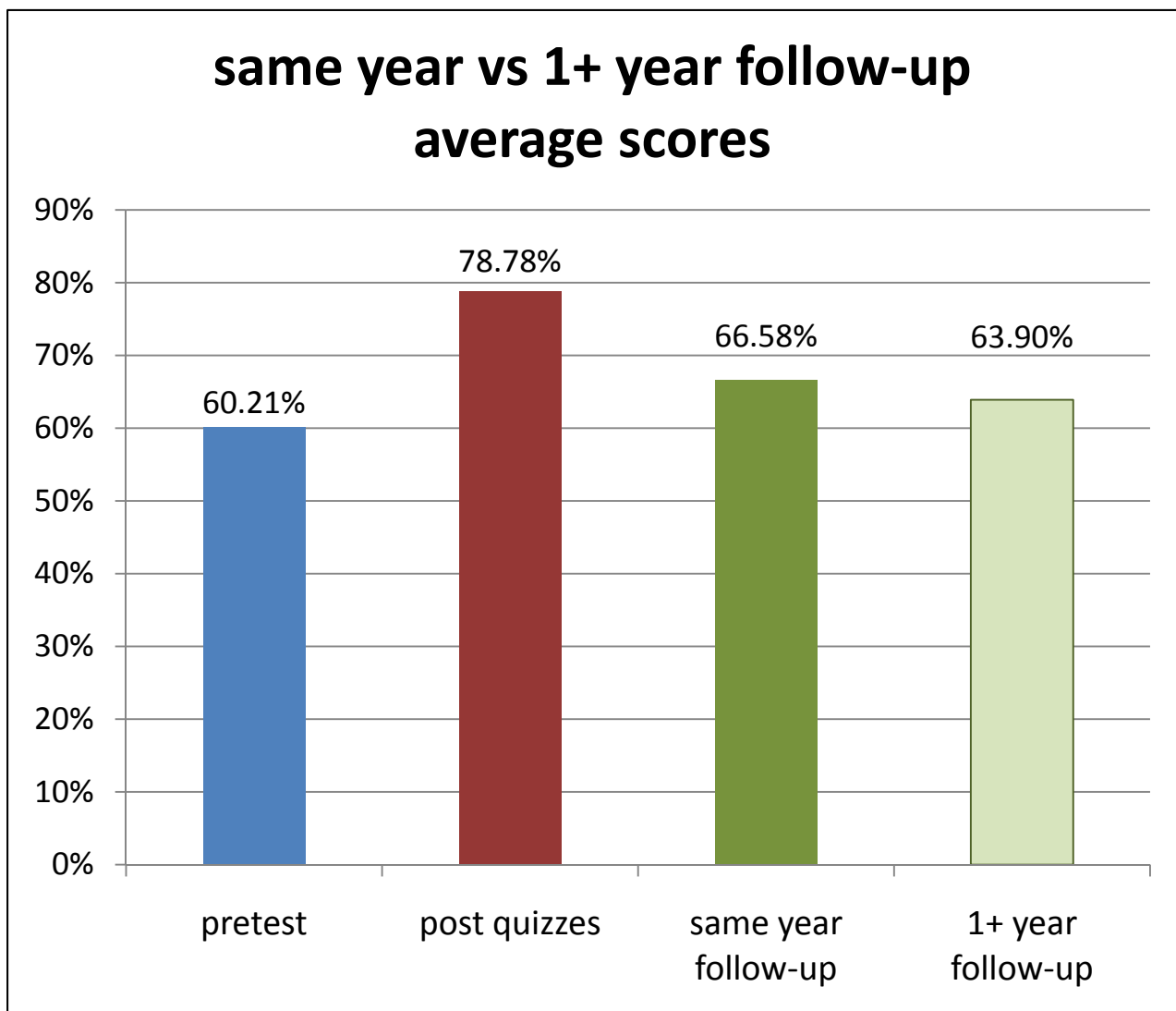The students in these three courses fell into one of three categories:
1. Took the tutorials the same year, 1-2 quarters ago (first year students who took orientation in Fall 2009, then took one of these three courses in Winter or Spring 2010)
2. Took the tutorials 1+ years ago (second year students who took orientation in Fall 2008, then took one of these three courses in Fall 2009, Winter 2010, or Spring 2010)
3. Never took the tutorials (did not take orientation, third year students who took it prior to Fall 2008, took orientation but did not complete the tutorials)

All three types of students took the follow-up test. There were 158 total students in the follow-up testing: 48 who took the tutorials the same year, 81 who took them 1+ years ago, and 29 who never took the tutorials.

The chart below shows students learned from the tutorials as evidenced by the higher post quizzes. Students retained some of that information as evidenced by the follow-up testing average score. Students who never took the tutorials scored lower on the follow-up testing compared to those who had taken the tutorials. Although their knowledge has decreased from the immediate post quizzes, the follow-up average score is still higher than the original pretest and higher than those who never took the tutorials at all.

Long-term Score Comparison

Category	Score
pretest	60.21%
immediate post quizzes	78.78%
long-term follow-up; took tutorials	65.24%
long-term follow-up; never took tutorials	60.97%

The chart below shows more details about the decrease in retention of tutorial information. The time between the post-quizzes and the same year follow-up scores is 1-2 quarters. These average scores indicate a 12% decrease of IL knowledge in those 1-2 quarters. Then over the next year there is an additional 3% decrease. The library will aim to decrease this loss of knowledge during the same academic year. This can be done by working with instructors teaching first year classes to incorporate IL skills into their coursework. Reinforcement of IL skills and knowledge in other ATI courses should improve students' retention of what they learned in the library tutorials.

same year vs 1+ year follow-up average scores

Category	Score
pretest	60.21%
post quizzes	78.78%
same year follow-up	66.58%
1+ year follow-up	63.90%

The last chart illustrates information retention by topic. Three topics show significant information retention for those students who took the tutorials during the follow-up test: sources/reliability, books, and internet. The scores on searching and periodicals/databases demonstrate a large decrease in retention from the post-quizzes to the follow-up test. The copyright/plagiarism follow-up scores for students who took the tutorials are lower than the original pretest scores. The reason for this decrease is unclear. This topic area has the highest average scores of all topics so although the score decreased, it is still over 85%.

all average scores by topic
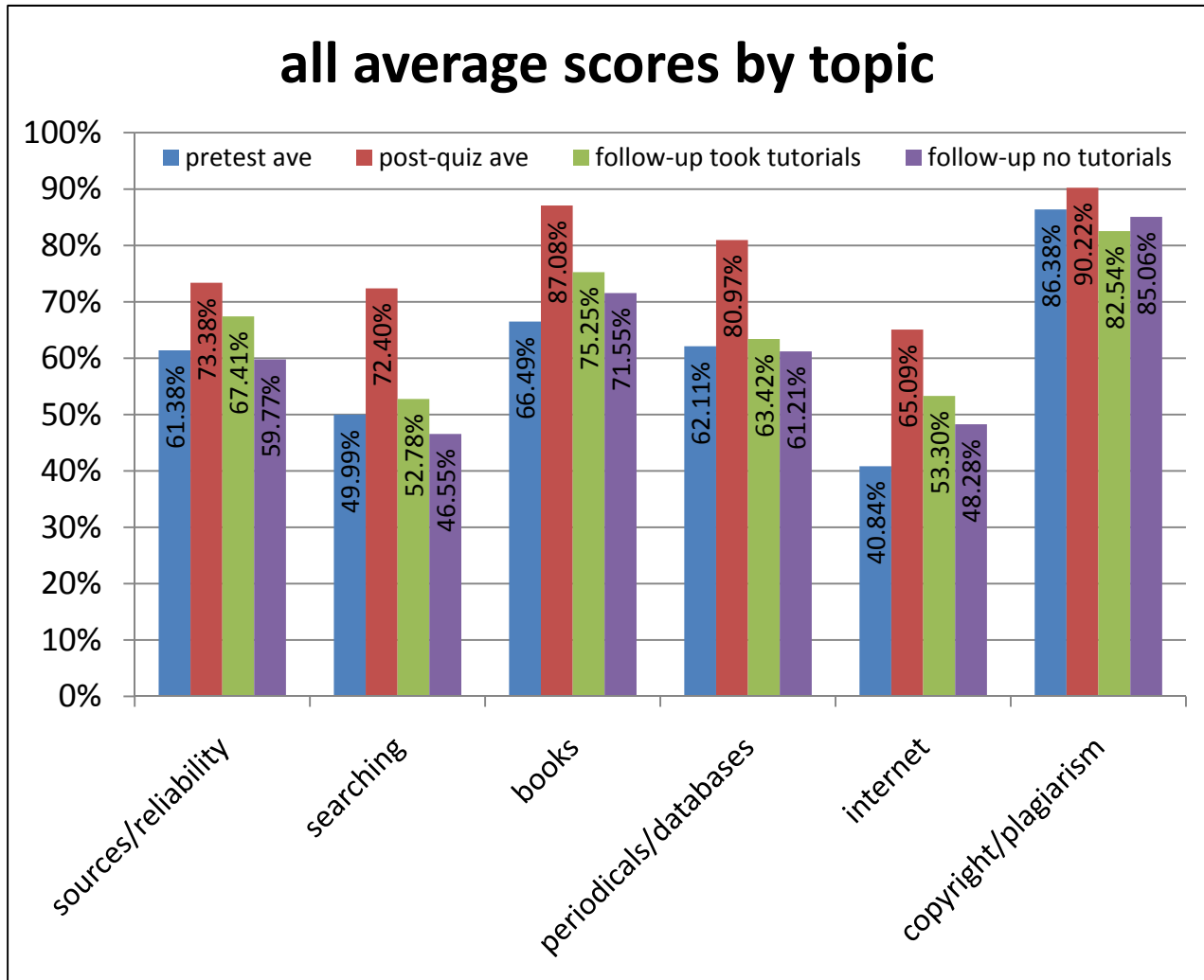
The follow-up averages of students who took the tutorial were higher than the original pretest and lower than the immediate post-quizzes in every topic except for the copyright/ plagiarism topic. This trend is to be expected since information retention typically decreases over time. However, the follow-up scores for students who took the tutorials are still higher than the original pretest scores and higher than students' scores who never took the tutorials. That illustrates there is learning with information retention.

All the tutorials and quizzes will be updated in Summer 2010. Changes will incorporate new search interfaces, new OSU Library website, and other visual changes that have happened since the tutorials were created in Summer 2008. The quizzes and tutorials will focus more on topics related to questions students answer incorrectly and focus less on questions on which students have scored consistently high. The tutorials and questions will be reviewed in the lower-retention topics (searching, periodicals/ databases, and copyright) to determine areas for improvement including more demonstrations, more interactivity, better examples, etc. The library will also be sure faculty and instructors are clear on copyright and plagiarism topics so they convey accurate information to the students. This can be achieved by distributing helping handouts and websites as well as holding short workshops/seminars about copyright and how it applies to their teaching and their students.