The Research Skills of Undergraduate Philosophy Majors: Teaching Information Literacy

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Abstract: This article presents a case study of how one school introduced a one-credit course for philosophy majors focused on effective searching for and critical evaluation of primary and secondary sources. The course curriculum is based on departmental learning outcomes, and is also aligned with the Association of College and Research Libraries (ACRL) standards.

Introduction
Undergraduate philosophy majors wrestle with texts and meaning. While they rightly focus on close reading of primary texts, they still need to develop research skills to understand contexts and influences, as well as to compare competing interpretations. Introductory level courses typically focus on basic philosophical concepts and key texts, while upper-level seminars cover major philosophers and various schools of philosophy in depth. These upper-level courses often require students to conduct research and contribute to scholarly conversation. This article presents a case study of how one school introduced a for-credit course for philosophy majors focused on locating and evaluating secondary sources as well as locating primary source texts. The course curriculum is based on meeting departmental learning outcomes, and is also aligned with Association of College and Research Libraries (ACRL) standards.

The University of Dayton’s Philosophy Department introduced PHL 240: Research Methodologies and Technologies in 2000 to address information literacy competencies that had been recently adopted by the university. For a number of years PHL 240 was a zero-credit course taught by the department chair. It met for two sessions on suc-
cessive weekends. Students were introduced to a few resources such as Philosopher’s Index and then completed an annotated bibliography. After a few years PHL 240 became a one-credit course and the chair asked the University Libraries to redesign and teach it. The Associate Dean, who also serves as the subject librarian for philosophy, and the Coordinator of Instruction took over teaching the course in 2006.

The course today consists of nine one-hour sessions that include lectures/demonstrations, workshops and student presentations. Throughout the course development we have been guided by the ACRL standards, the University and Department information literacy competencies, and examples found in the American Philosophical Association (APA) “Statement on Outcomes Assessment” (APA 2009). While we expect to refine the course each year, it has now coalesced around a core of basic skills and resources, with some flexibility according to the interests and needs of each year’s class. This article will provide an overview of the information literacy skills we believe that undergraduate philosophy majors need in order to successfully conduct research. It will also describe the techniques and concepts we utilize in the course, including in-class work, peer-to-peer instruction and our use of concept maps to assess learning.

**Literature Review**

A number of book-length guides aimed at students writing philosophy papers have appeared in recent years. Most walk students through the reading and understanding of philosophical texts, the construction of arguments, and the mechanics of writing an essay; few devote much attention to finding and evaluating information resources. Stramel (1995) briefly addresses developing a research question and citation of sources, but ignores what transpires in between. Seech (1999) offers a chapter on “Library and Internet Research,” which provides an introduction to library catalogs, general periodical indexes, reference works in philosophy, Internet searching, and rudimentary evaluation of sources. While it is the most comprehensive treatment of research resources and skills among works of this type, it is relatively unsophisticated and badly dated. Vaughn (2006) offers a short chapter entitled “Using, Quoting, and Citing Sources,” that focuses on when and how to quote secondary sources and lists the standard citation styles, but offers no guidance in finding or evaluating books and articles. Feinberg (2008) actively discourages library research in his introduction and does not address the topic further. Mogck (2008) offers a totally different approach to research, heading one section “Use the Library, Not the Web.” He provides a general overview of Web resources, reference sources, and key journal indexes, along with a useful discussion of primary
and secondary sources and the value of each. He also discusses proper citation practices and how to avoid the perils of plagiarism. Mogck is currently the best of this genre, but still offers insufficient practical help for the beginning researcher, especially in terms of effectively locating and evaluating sources. A persistent theme throughout these guides is the importance of wrestling with the primary texts. While it is right to give them primacy, many of the guide writers fail to give adequate weight to secondary literature in setting the context for primary works or finding other interpretations. Texts should not be read in a vacuum.

Aside from these book-length guides, few have given attention to what research skills philosophy students need or how they might acquire them. Bivens-Tatum (2013) notes that philosophy students tend to do library research on their own and rarely seek assistance; this is based largely on personal observation. Okrent (2001) performed a citation analysis of undergraduate honors and masters theses that suggested philosophy students made little use of full-text electronic resources at that time. A handful of articles give attention to one or another aspect of teaching the research process. Bivens-Tatum (2011) provides a compact overview of research tools and reference sources in philosophy. Several works address assessment. Wright and Lauer (2012) focus on assessing deeper philosophical learning and not on research skills, but also offer an excellent discussion of the discipline’s take on assessment and the APA Statements on Outcomes Assessment (APA 1995, 2009).

Course Goals

The original learning outcomes for PHL 240 were created by the Philosophy Department and focused on research skills that they determined upper-level philosophy students should master, in accordance with the University’s graduation-level information literacy competency requirement. The “philosophical research” outcome of the Philosophy Department’s assessment plan has remained consistent since the course creation:

Graduating Philosophy majors will be able to use various print and electronic sources of information effectively when doing philosophical research. (Such sources may include catalogues, books, periodicals, databases, indexes, encyclopedias, and bibliographies.) Graduating majors will also be able to evaluate and analyze information from a variety of sources in the course of their philosophical research. (University of Dayton, Department of Philosophy, 2009)

These outcomes map fairly neatly to several competencies put forward by ACRL. The Information Literacy Competency Standards for Higher Education, which were approved in 2000, contain five competencies and twenty-two performance indicators. These competencies outline the basic abilities individuals need in today’s complex,
information-rich technological environment. Part of the Philosophy Department’s philosophical research outcome closely mirrors ACRL’s Information Literacy Competency Standard Three, “The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.” ACRL Information Literacy Standard One, “The information literate student determines the nature and extent of the information needed,” is implicit in the first sentence of the philosophical research outcome. The performance indicators associated with this standard, however, connect this standard with the Philosophy Department’s outcome. In particular, these indicators state that information literate students know how information is produced, organized, and disseminated; and identifies the value and differences of potential resources in different formats (ACRL 2000).

The American Philosophical Association has included examples of information literacy outcomes within its 2009 “Statement on Outcomes Assessment,” but these are only examples. The APA has not published any specific standards or outcomes relating to information literacy for philosophy students.

The Philosophy Department’s philosophical research outcome forms the general basis for the course. The ACRL Information Literacy Competency Standards for Higher Education likewise play a role in shaping the delivery of the course and in assessing student learning.

**Course Content**

The nine-week course is organized primarily by discipline-specific sources, in accordance with the department’s philosophical research outcome. Within the context of sources, students are taught research skills and practice the discipline’s citation methods as well. Students learn how to locate and evaluate secondary source materials within discipline-specific encyclopedias, online catalogs, and disciplinary databases. And finally, the course addresses search strategies for locating primary source materials. See Appendix 1 for a sample syllabus.

This approach builds upon the research skills instruction most students receive in their English composition classes. In these entry-level courses, librarians teach students how to navigate the library website, the basics of searching the online catalog and a general-topic database, evaluating results, along with discussions about conducting academic research involving scholarly sources. Students enrolled in PHL 240 are presumed to have basic research skills based on the content covered in English composition. The PHL 240 content is differentiated by the focus on discipline-specific research needs and advanced searching techniques.
Our approach to teaching this course has evolved as we continue to teach it. The course originally consisted of lecture and assigned written work, to be completed before the next lecture. We now place more responsibility for learning on the students and have created active learning opportunities in place of traditional lectures. As we move to a new, flexible learning environment/classroom, we continue to explore more hands-on learning opportunities during our class sessions.

Written Assignments

The one-credit course is writing-intensive. Students must complete five written assignments and prepare a cumulative annotated bibliography. The total written work amounts to approximately 12–15 pages. Four of the assignments require students to locate and evaluate sources on a given topic using a relevant library resource (online catalog, library database, online encyclopedia, Google Scholar). The assignments are designed not only so that students can master the mechanics of various online resources, but also so that they can understand how information is organized and stored. In several instances they must compare and contrast resources according to selected criteria; successful assignment responses demonstrate an understanding of how databases are constructed and organized. These assignments help students achieve mastery of the Philosophy Department’s outcome, which notes that “Graduating Philosophy majors will be able to use various print and electronic sources of information effectively when doing philosophical research.” (University of Dayton, Department of Philosophy, 2009)

In addition to providing a more thorough understanding of the structure and function of databases, we teach students more sophisticated search techniques and focus on discipline-specific research tools. We review Boolean operators and incorporate search design into one of the assignments; students must create three different search statements for their research topic. As part of another assignment, students construct and justify alternate subject headings for books. Successful completion of this assignment requires students to understand the use and value of subject headings and to reflect upon the ways knowledge has been organized. In terms of discipline-specific tools, we introduce students to companion works, survey titles that are well suited to their second- and third-year coursework, and we also teach students how to use uniform titles and selected works search strategies in the online catalog to more effectively locate primary sources.

Several assignments require students to reflect on how these new resources or knowledge fit into their existing practices. A combination of factors—the course is only offered in the Fall semester, students often declare a philosophy major in their sophomore year, and an 8 a.m. class time slot—means that students take this course in their junior or
senior year, by which time they have developed research skills that have served them reasonably well. We know that they will continue to use existing practices for daily life, but we also want them to understand and conduct research as philosophy scholars. By asking them to articulate how their new information literacy skills fit in with their current research practices framework, we hope that they will expand their existing repertoire of information literacy skills.

Active Learning Approaches

The course includes a mix of lecture and active learning work. The first activity covers citation skills, where students must create accurate Chicago-style citations for pre-selected titles, relying on Turabian (2013) for guidance. Initially the course used MLA style, but students asked for Chicago since it is used in more courses. Even though these students have at least sophomore level standing and have completed at least one course in English composition, they still have difficulty constructing a proper citation. Like many other students, they are overly reliant on citation generators and have little understanding about the actual citation formats. The goal of this exercise is not to turn them into citation experts, but rather, to reduce their dependence on citation generators and facilitate a deeper knowledge about how citations are constructed in keeping with Chicago guidelines.

A second in-class activity tests student knowledge at the end of the course. Working in pairs, students must determine how to best answer philosophy research questions on a given topic. These questions—reference questions, essentially—are created by the instructors and demand the mastery of multiple skills. Students must be able to identify and locate relevant databases, they must be able to create effective search statements to retrieve appropriate results, and they must be able to evaluate the results to answer the questions correctly. They are also tested on their ability to export citations to an existing RefWorks account. No preparation is provided for this session, and the questions cover the entire semester’s course content. See Appendix 2 for sample questions.

A third activity asks the students to create a handout on an assigned database and develop a 10-minute presentation about that database for their peers. This assignment not only requires understanding of database structures and functions, but it also demands that students assess the databases for usefulness in relation to their studies. Students may organize the presentation as they wish but they may not use Powerpoint as a teaching aid. We have found that this static presentation aid does not work well in teaching users about database dynamics. Although many of the students lecture and provide hands-on demonstrations, some have used alternate technologies, including Prezi, YouTube and Poll Everywhere, while others have asked their peers to complete worksheets.
Assessment

Assessment of student learning is conducted primarily through the written work assigned during the course. However, we have also evaluated student learning via a more holistic approach using concept maps, and we also work with other constituencies, namely the Philosophy Department faculty and students, to evaluate the course learning goals and the effectiveness in meeting them.

Concept Maps

In addition to evaluating students via course assignments, we spent several years assessing student learning through concept maps. Academic research, when performed carefully, is a sophisticated and iterative process. Asking students to draw representations of this process can show us at a glance how their research skills have developed. Although time-consuming to analyze, we found concept mapping to be worthwhile, as it helped us understand what students readily recalled in terms of content and also offered a measure of progress from the beginning of the semester. The results, along with student feedback, also helped us shape course content. Because the analysis did take so much time, we have employed this technique on a selective rather than annual basis.

We ask students to draw a map of the research process, a task that takes about ten minutes, and we ask them to do it twice: once at the start of the semester and again during the last class. This way we had benchmarks as well as a fairly easy means of seeing what new aspects they had incorporated into their existing framework for conducting research. We transcribed both sets of concept map texts into an Excel spreadsheet and then assigned standardized tags to the words and phrases. We also categorized the terms according to the ACRL Information Literacy Competency Standards for Higher Education. We chose to use this set of standards as it offered a fairly robust framework for our analysis and included very specific behaviors that aligned well to the map texts and drawings. See Appendix 3 for a concept map example.

We analyzed twelve end-of-semester maps, using the method described above. Students were very successful in naming relevant research sources for philosophy, which was one of the core outcomes for the course. The most readily identified sources included Philosopher’s Index, Google Scholar, JSTOR, the Stanford Encyclopedia of Philosophy, the University of Dayton online catalog, plus the WorldCat catalog. It is interesting to note that ten of the twelve students identified Philosopher’s Index at least once on their concept maps. As a group, they also recalled Stanford Encyclopedia of Philosophy more readily than the Routledge Encyclopedia of Philosophy, which corresponds to their evaluations of the resources, as they showed a clear preference for the Stanford work.
Department Faculty Assessment

The University of Dayton’s Philosophy Department has developed its own assessment plan, which includes a statement of goals and measures. Within the broad goal of scholarship, the Philosophy Department has specified that its students will be able to conduct philosophical research, namely that graduating majors will be able to use the information sources of the discipline and that graduating majors will be able to evaluate and analyze the information gathered. The Philosophy Department has also articulated measures for this outcome, and there are two measures that relate directly to the PHL 240 course. First, students will complete the course and produce a satisfactory annotated bibliography on a specific topic, and second, student course evaluations will show at least 80 percent agreement to the statement that they have acquired substantial, discipline-related research skills. The first measure is easily evaluated, as students must complete the annotated bibliography in order to successfully pass the course.

Members of the Philosophy Assessment Committee have also conducted class observations as part of the department’s assessment efforts. Faculty have been pleased with the course results and have generally seen skills transfer to philosophy courses that require secondary research. One faculty member noted that the course “provides Philosophy majors with strong research skills in their upper-division courses, and also prepares them for the research activities they will be required to conduct in their graduate studies and professional careers” (former chair). The department chair observed, “The course is an important addition to the PHL major in part because it is the only course that delivers basic SLOs [student learning outcomes] regarding Scholarship needed for research. Because we do not have a set capstone that includes set bibliographical and scholarship SLOs, we can count on PHL 240 for introducing PHL majors to this side of research. We can count on students obtaining these goals to a sufficient degree for the major and beyond. Students have reported knowing how to do bibliographical research from these courses, and this can only help them as they transition to Law School or graduate work in different fields including Philosophy after graduation” (current chair).

Student Feedback

Students complete a course evaluation that, among other things, asks them to identify the most and least helpful information sources covered during the course. The evaluation also asks them to name the most useful course components. Their preferred research sources mirror the items that they listed in their concept maps. These preferences include Philosopher’s Index, Stanford Encyclopedia of Philosophy,
and JSTOR. One student noted, “The most helpful/useful database for my purposes is the Philosopher’s Index. I didn’t previously know about this database so it was helpful to learn about it.” When asked to identify the most useful course components, one student wrote that the “hands on demos for searching databases was very helpful because I sometimes struggle to work with the different interfaces,” and another student listed the following: “1. Effective use of Google Scholar; 2. Advanced search refining parameters; 3. Designing highly effective multidatabase search methods.” For some, citation practice was useful, even though most of the students are upper-division by the time they enroll in the course; one observed, “I never carefully studied Chicago style citation before, and because I needed to do so at one point. So it was actually great that I could take time and focus on how to correctly cite in this course. Thank you.” When asked to name the least helpful aspect of the class, students identified WorldCat (in particular, the lack of full-text access to manuscript archives), philosophy companions, and efforts to improve citation skills, which is seen as a repeat from other courses. These criticisms are likely based on individual preferences, as students included the same aspects in both the concept maps and the most useful research sources query.

Conclusion

In this case study, librarians take an active role in helping philosophy majors acquire necessary research skills. At this university, librarians with subject and teaching expertise help the Philosophy Department meet their departmental learning outcomes via a one-credit course. We believe students still need to develop information literacy skills in order to successfully locate primary texts and the secondary literature associated with the discipline. We not only support the Philosophy Department’s learning outcomes, but we also have built the course around the ACRL standards and guided by examples from the APA “Statement on Outcomes Assessment” (APA 2009).

We have been using the ACRL Information Literacy Competency Standards for Higher Education (2000) to expand upon the Philosophy Department’s learning outcomes associated with this course. More recently, a new framework for information literacy was approved by ACRL, which took a more conceptual approach and contained fewer prescribed behaviors (for example, the framework includes concepts such as “Authority is constructed and contextual” and “Scholarship as a conversation”). Given that the Philosophy Department’s philosophical research outcome is oriented towards skill acquisition, we will need to review this new framework to determine if a realignment of learning goals is needed. The current course structure is organized by infor-
mation source types, so it is likely that a substantial overhaul of the course curriculum would be needed, in addition to conversations with the department, if we were to incorporate the new framework.

On a more practical note, we have allowed students to determine the topics that they would use for research throughout the course. Although we hoped that students would align their topics to research needs in other courses, the topics they selected did not always fit neatly with the scope of this course. One change under consideration is a more limited scope of student topics, like focusing on a philosopher or school of thought, so that it is easier for them to address the requirements of the final project.

Although a research skills course may be unusual for a philosophy department, we argue that undergraduate philosophy majors still need information literacy skills and that librarians can lend key support to the curriculum, whether by teaching a research skills course, by guest lecturing on course-appropriate research skills, by collaborating with teaching faculty about library resources and services, and more. The pedagogical approaches and course content described here should be of interest to departments who want to ensure their students are acquiring relevant research skills.

Philosophy departments interested in developing their own research courses may want to examine their existing curriculum in order to identify courses where secondary and primary research is required. If the departments are primarily interested in making sure students in the major acquire these skills, then a required 200- or 300-level course would be a likely option, as students should have already acquired such skills in preparation for 400-level courses. These courses may be able to accommodate some of the research pedagogies, techniques and outcomes described in this article. Departments would also do well to consult with their subject librarians, who would be able to advise or teach such research components. If philosophy departments want to develop a separate research skills course, they would do well to consult both the APA “Statement on Outcomes Assessment” and the ACRL Framework for Information Literacy in Higher Education as well as the ACRL Information Literacy Competency Standards for Higher Education. Again, subject librarians could help interpret the ACRL documents and assist in developing meaningful content for such a course.

In addition to traditional grading methods, we have also employed concept mapping to understand in a more holistic way how students are integrating new research tools and strategies into their worldview. Our collaboration with the department to ensure that their learning goals are being met, together with a curriculum guided by APA “Statement on Outcomes Assessment” and ACRL standards, plus a mix of lecture and active learning approaches all work together to ensure that these philosophy students are learning the necessary research skills to succeed in their studies.
Appendix 1: Sample Syllabus

PHL 240: Research Methodologies and Technologies
Fall Term 2015
Tuesdays 8:00—8:50 a.m. / Collab (Library 106)

Course Description:
Students in this course will learn appropriate research sources and
techniques for philosophy.
   Learning objectives include:
   1. Familiarity with a broad range of general and specialized
      resources for philosophical study and research.
   2. Ability to search databases and other resources effectively
      and efficiently.
   3. Ability to differentiate different types of sources (primary,
      secondary, tertiary) and use them appropriately.
   4. Ability to evaluate information resources in philosophy.
   5. Ability to cite works accurately using Chicago citation
      style.

Required Text:
Turabian, Kate L. A Manual for Writers of Research Papers, Theses,

Grading:
The final grade will be based on attendance and participation, six brief
papers, and a final project (annotated bibliography). The class is pass/
fail; a passing grade requires a minimum of 70% (140 points). Grade
breakdown:
   Discussion/participation & attendance:  30% [60 points total]
   5 assignments:  50% [100 points total]
   Final paper:  20% [40 points total]
   NOTE: There will be a 10% penalty for late assignments.

Class Attendance
Due to the nature and length of this course, students are expected
to attend all classes. Medical illness or family emergencies must be
documented.
Course Outline

NOTE: The session topics and assignments may vary from the original descriptions. Due dates, however, are not subject to change.

Session 1: Introduction to Research Strategies and Reference Sources
Tuesday, September 1. 8–8:50 a.m.

1. Research strategies
2. Overview of philosophy reference resources

Assignment 1: 2-page analysis and comparison of Encyclopedia of Philosophy or Routledge or Stanford AND Wikipedia articles on a specific topic.
Due Date: Assignment 1 must be posted by 3 p.m., Friday, September 4, 2015.

Session 2: Workshop: Chicago Citation Style
Tuesday, September 8, 8–8:50 a.m.

1. Chicago citation style (Turabian)
2. RefWorks and other citation managers

NOTE: Bring Turabian, 8th edition, to class.
Assignments 4 & 5 will be distributed at this time.
Due Date: Assignment 4 due by 3 p.m., Monday, September 28, 2015

Session 3: Monographic Sources
Tuesday, September 15. 8–8:50 a.m.

1. Assignment discussion
2. Online catalogs
3. Constructing effective search statements

Due Date: Assignment 2 must be posted by 3 p.m., Friday, September 18, 2015.

Session 4: Philosopher’s Index, the EBSCO interface and Google Scholar
Tuesday, September 22. 8–8:50 a.m.

1. Assignment discussion
2. Philosopher’s Index
3. Other EBSCO databases
4. Google Scholar
Assignment 3: 1-page bibliography of article, book, and book review found in Philosopher’s Index on a specific topic. 1-page comparison between Philosophers’s Index and another EBSCO database.

Assignment 4: 1-page handout to accompany your class presentation on a database.

Due Date: Assignment 3 must be posted by 3 p.m., Friday, September 25, 2015.

Due Date: Assignment 4 due by 3 p.m., Monday, September 28, 2015.

Session 5: Other Periodical Indexes
Tuesday, September 29. 8–8:50 a.m.
   1. Assignment discussion
   2. Other periodical indexes-Student presentations

Assignment 5: 2–3-page comparison of Google Scholar and your assigned database.

Due Date: Assignment 5 due by 3 p.m., Wednesday, October 7, 2015.

Session 6: Workshop: Evaluating Web Resources
Tuesday, October 6. 8–8:50 a.m.
Bring laptops to class.

Session 7: Putting it all together
Tuesday, October 13. 8–8:50 a.m.
Research skills demonstration
Discussion of final assignment—due October 29.
Bring laptops to class.

Final Assignment: 4-page annotated bibliography with at least ten sources describing relevant books, articles, and primary sources on a specific topic.

Due Date: Final Assignment must be posted by noon, Thursday, October 29, 2015.

Session 8: Summary of Research methodologies and technologies
Tuesday, November 3. 8–8:50 a.m.
Appendix 2: Sample Questions

1. Using the *Stanford Encyclopedia of Philosophy*, search for an entry on Richard Rorty. Identify within the secondary literature bibliography a book and a relevant article. Does this library own the book? How will you get the article?

2. Has anyone developed a philosophy of neuroscience? Identify a relevant book title in the online catalog on this topic. What are the subject headings for this book? Evaluate the results for this topic in *MIT Cognet* and *Philosopher’s Index*. Be prepared to explain to your peers which resource is the most useful and why.

3. You want to research Ibn Tufayl’s works. You already have primary source materials by him, but you are curious to see what others have written about him. Look for books about Ibn Tufayl.

   Note one useful title: ____________________________

   List one useful Library of Congress subject heading: _______

   Run a subject search with the subject heading listed above. How many results? ______

4. Does the library own any letters or correspondence written by Mary Wollstonecraft? Demonstrate how you would find this answer and show how you would export any relevant results to RefWorks.

5. Is the journal *Philosophy and Rhetoric* online? Demonstrate how you would make the determination. If it is online, show how you would search for article topics just within this journal title.
Appendix 3 Sample Concept Map

Bibliography


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