Ithaka Faculty Research Project – ProQuest Report

Teaching Undergraduate Students Using Primary Sources

About this Project

ProQuest was honored to have the opportunity to sponsor this Ithaka S+R study that explores the needs of instructors teaching with primary sources at the undergraduate level. As the leading provider of digitized primary source materials – spanning more than six centuries and 350 million pages – we have a deep understanding how our collections are used by advanced researchers and scholars to further discovery across myriad topics, including the Black freedom movement, women's history, LGBTQ studies and much more. But this project struck us as a particularly valuable opportunity to learn more about how undergraduate students and beginning researchers can benefit from access to materials like historical books, government documents, organizational records, diaries, correspondence, periodicals and newspapers – and how we can better support educators using these materials in classroom.

In addition to sponsoring the study, ProQuest also participated in the research. Ithaka S+R put together a cohort of 26 research teams, each from a select academic institution. These teams conducted interviews with faculty at their institution about using primary source materials in teaching at the undergraduate level. Each of these research teams be will be publishing their own local reports.

But ProQuest’s participation was a little different. Our designated research team was able to interview faculty from 15 institutions across the U.K. and the U.S., gathering a broader scope of insights and information on emerging needs and trends across the market. As the result of these efforts, this report focuses exclusively on the data collected and analyzed by ProQuest.

Gathering and analyzing the information in this report has been profoundly insightful for us at ProQuest. We also believe it will be interesting and informative for faculty and librarians who work with primary sources from ProQuest and other providers. Our findings contribute a unique perspective within the context of this project overall. Ithaka S+R will be conducting an aggregate analysis of the data collected from all research teams to be published in a forthcoming public capstone report.
Project scope and research methods

Research teams were formed at 26 higher education institutions in the US and the UK, with an additional team from ProQuest. Each team was thoroughly trained by Ithaka S+R on methodology, including interview techniques and how to record responses, and were provided with a standard set of questions to maximize opportunities for comparison across institutions. With the exception of ProQuest, who interviewed instructors at 15 different institutions, each research team interviewed 15 faculty and instructor colleagues who taught undergraduate level humanities and social science courses at their college or university. When possible, interviews were conducted in person or via video chat.

ProQuest’s research team recruited faculty into the project via a faculty newsletter and from attendance at faculty conferences. Faculty and instructors qualified for the project if they were paid by an academic department to teach undergraduates as the instructor of record. Our intention was to obtain a variety of departmental affiliations within the pool of interviewees, and specifics were provided for faculty that did not qualify.

This report reflects on the interviews ProQuest conducted in accordance with the techniques provided by Ithaka S+R. Specific questions centered around training and sharing materials, course design, finding primary sources, and working with primary sources, with a final open-ended discussion around looking toward the future and probing on challenges and opportunities instructors may encounter in teaching undergraduates using Primary Sources.

Key Findings

ProQuest’s participation in this project gave us a unique opportunity to gain a deeper understanding of how faculty use primary sources in the classrooms, the myriad ways students benefit from this exposure, and how, as a vendor, we can better partner with institutions to solve many of the challenges in teaching with primary source materials.

As a vendor, we were able to bring a perspective and speak with a breadth of faculty from a variety of institutions about their observations, experiences and concerns, rather than focus exclusively as a single institution. This allowed us to gain deeper awareness of broader trends and challenges in higher education and consider our role in helping faculty better support student success at the undergraduate level.

While there is no standard for how vendor databases are built, structured and organized, we are constantly evaluating improvements to simplify usability for novice researchers. And while, as a vendor, we can’t ensure students’ willingness to put time into coursework, as a partner, we can continue gleaning insights from our users to make learning with primary sources more engaging and fruitful to inspire them to want to make the effort.

Our awareness of the challenges faced by students and faculty around primary source literacy inspires us to seek partnerships with faculty and librarians who specialize in this area. This not only informs our efforts to make improvements on our platform but gives us an opportunity to share what we learn from our partners via blog posts, case studies, webinars and other content meant to help faculty and librarians learn from each other.

Most, if not all, of the faculty we spoke with have been teaching for 10 or more years and they were inspired, engaged and passionate about their work. They also made it clear they are always seeking new and different resources to use in their classroom to keep teaching and learning exciting for themselves as well as their students.

At the conclusion of this project, 3 central topics related to teaching with primary sources emerged in our interviews with faculty. This report is organized in sections according to these themes: 1) Course Design; 2) Learning Outcomes & Benefits; 3) Challenges and Opportunities.

Additionally, within each of these areas, we found these common themes:

The value of building relationships and partnerships with colleagues and experts

Partnering with others is an important element in how faculty design and organize their courses. Some examples of this collaboration include inviting librarians into class sessions or leading tours of the campus library to show students databases pertinent for the class, to help undergraduates improve their information literacy and research skills. Faculty also partner with archivists on campus, local museum directors, non-librarian technology experts and guest speakers. Many of the interviews stressed the importance and value of working closely with their librarians to design courses and to support students in their use of primary source materials.

Several faculty expressed the need for more workshops or professional development opportunities to learn from each other for more effective and inspired teaching with primary sources. Some also mentioned conducting focus groups with students for input on more user-friendly database design.
It’s challenging to teach students how to use primary sources – but worth the effort

According to faculty and instructors, many students don’t enter courses with an understanding of what primary sources are or why they matter. They lack information literacy training and are accustomed to using Wikipedia or clicking on the first Google result as their information source.

Primary sources can be challenging for students. Language can be a barrier when the native language of a source is not English, is an ‘old-world’ language such as Latin, or is an older version of English, which might need some translation to modern day English. It can also be difficult for students to read hand-written materials, especially if they are in cursive, which is no longer typically taught in school. Students are inclined to seek out the easiest way to complete assignments, which is an impediment, as working with primary sources takes time and effort to find, analyze and understand.

However, interviewees also noted when students put in the effort to work with primary source materials, the benefits far exceed these obstacles. Teaching with primary sources inspires students to be more engaged in class discussions, fosters undergraduate critical thinking skills, challenges novice researchers’ biases or preconceived notions, encourages their ability to focus, sparks passions and encourages student confidence to participate with the inherently “messy” process of research.

The amount of resources available can be overwhelming and not always useful

As more digital primary sources become available, faculty find it increasingly difficult to stay current with all the materials offered by vendors and via open access and free resources. Likewise, the multiplicity of applications for primary source materials in teaching and learning can be overwhelming for faculty and students. Some interviewees mentioned the lack of available resources in non-English languages may promote a bias towards US or English-speaking perspectives.

Faculty frequently mentioned the abundance of quality open access resources that are available from the likes of Hathi Trust, the Internet Archive and other open access project sites. More special collections are being digitized, either by vendors or collection holders. As more institutions prioritize efforts to diversify the curriculum, previously marginalized perspectives are increasingly sought by students and faculty, though these can be more difficult to locate.

1. Course Design

Among participants in this project, 80% of faculty came from history departments while the other 20% came from the social sciences. The courses they taught include an overview of American history, specialized areas of American history (such as women’s suffrage, the Civil War, African American history); specialized areas of British history; areas of international history (such as the Cold War, the Korean War, African Diaspora); regional histories (Latin America, South Asia); historical research techniques; criminology; religion and philosophy.

Most courses discussed in this report include lecture components and discussion sections and nearly all of them were taught solely by the interviewee. Many faculty and instructors mentioned using research-based teaching as a central organizing principle for their classes, frequently incorporating primary source materials from their own research for class discussion and to demonstrate research methods for students.

Due to variations in geography, student academic levels and category of academic institution, interviewees described major differences pertaining to student acumen, experience and instructional needs. These differences are reflected in how their respective courses are designed and run.

Developing syllabi and course guides

In support of their syllabi, many faculty said they develop course guides that include lists of primary sources required for their classes, as well as the definition of what a primary source is and, in some cases, guidelines for citing sources. Usually, primary source lists are organized in relation to each week’s lecture. In the UK, because of the unique exam structure, these course guides are also designed to assist students in exam preparation. Course guides may also be referred to as course module handbooks, student handbooks or reading guides, but all generally serve the same purpose: to provide a concrete list of pre-selected primary sources for the students.

Collaboration among colleagues is a critical part of developing a syllabus. Half of the faculty interviewed said they take guidance or seek advice from colleagues when designing their syllabi, and roughly the same number make their syllabi available for use by others. Syllabi are shared in locations such as university syllabus repositories, Hnet and Academia.edu.
Other examples of collaboration between instructors, colleagues and subject experts include:

- Librarians are scheduled to come to class and show students the various research databases and discuss the differences between primary and secondary sources.
- Campus librarians, archivists, or local museum directors bring primary sources to class for review and discussion. This could range from handwritten documents to tangible items like clothing.
- One instructor scheduled a non-librarian technology expert on campus to help instruct the students on technology and to inform them about library tech resources.
- Special guest speakers: The press secretary for a past Speaker of the House discussed the inner workings of the Nixon impeachment and brought in a TV camera chart to class to show how TV locations were negotiated with the networks.
- Class fieldtrips to local archives or museums.

Assignments using primary sources
Faculty and instructors feature primary sources in both in-seminar and outside-of-class assignments. Sometimes primary sources are assigned for reading prior to a class meeting, then are discussed in class; other times all work with primary sources is done in class.

Examples of in-class assignments include:

- Lecture on a topic, then for the next class, the instructor introduces 3 primary sources that support the lecture. During that class, the students read the sources and write an essay.
- Comparison of minutes from UK Cabinet discussion on US military segregation in the UK during World War II with the personal diary of a participant from the meeting (goal was to give students practice reading sources critically).
- Assigning small bits of text written in an ancient language to translate with the help of a reading guide.
- In-class reading of the UK Poor Law and extracts from philanthropists to reveal the motives of those giving contributions.
- Image interpretation of political cartoons.
- Review of newspaper articles from a single day after Gettysburg to show "how much misinformation was circulating."

Examples of out-of-class or independent research assignments include:

- Track the family history of a Black Congressman from North Carolina during Reconstruction using ancestry.com with secondary sources for context.
- Creation of a podcast or website using primary sources on a certain topic.
- Review of Mexican diplomatic dispatches during the American Civil war.
- Traditional paper: Often not required for lower level courses, but if they are, students might be called to use 1 of 3 preselected primary sources or at the highest undergraduate level, produce a 7000-word research essay.
- Geotagging and mapping of the origins of constituent letters to a congressman.

2. Learning Outcomes and Benefits
Faculty who incorporate primary source materials in their teaching provided abundant examples of how doing so helps students develop skills and gain experience that not only support learning success in class but also beyond. Practice with primary sources early in a student’s academic career prepares them to meet expectations as they advance to upper level studies, as well as prepares them for life after graduation, both personally and professionally.

Critical thinking
One of the most common and essential reasons cited for the inclusion of primary sources in assignments was to nurture students’ critical thinking skills, which among interviewees included advances in information literacy, understanding context around a topic and the ability to incorporate these insights into action.

Information literacy
According to faculty, practice using primary source artifacts teaches students how to analyze resources to discern reliable, authoritative fact from manipulated or misleading information. Students learn to evaluate sources of information and question authorship and author intentions. This strengthens their ability to sort through an overwhelming abundance of materials and carefully select resources based on accuracy and integrity.
Understanding context
Primary sources also help students put issues and events in a larger context to better understand the interconnection of the past, present and future; as well as how simultaneous issues and events shape one another. Developing a sense of the larger picture encourages students to examine current events through a historical lens and consider their consequential impact.

In this process, students discover the complex multiplicity of viewpoints through which an issue or event can be perceived. Interrogation of primary sources reveals the ways dominant systems based on race, sex, gender, caste, etc. have influenced various perceptions and how people often arrive at their conclusions.

Examining context through primary sources can also reveal gaps that might exist in available resources or in “the narratives taught in primary and secondary education” as one instructor of women’s history noted. These gaps underscore the value of access to voices that weren’t always part of the historical record, but which might be discovered (and therefore considered) through primary source artifacts.

Such awareness encourages students to consider preconceived notions and biases (including their own) about historical and contemporary issues and events. It can also help them understand the strong feelings attached to on-going debate or view current events through the lens of those who have been historically marginalized.

Taking action
Faculty who teach with primary sources see the benefits for students extend beyond the classroom. The goal of cultivating critical thinking skills, as interviewees note, includes helping students to think “more proactively about change and creating the world they want to live in”; “to leave biases at the door”; “develop skills [applicable] to all areas of life”, “be more engaged, informed citizens”, and “explore with a wider/more open mind.”

Research process and student acumen
While faculty’s objective in using primary source materials in teaching extends beyond the classroom into students’ longer-term goals, they are also concerned with how experience with primary sources can support their academic success, particularly in terms of the research process.

As one interviewee put it, “faculty don’t want students to just look at a couple of resources and slap a paper together.” The further students advance in their academic careers, the higher the expectations are for their research output. Introducing students to primary sources early on better prepares them to meet these expectations. According to an instructor of world religions, teaching “students to slow down and concentrate, and pay attention to something for an extended period of time” helps them develop the discipline necessary for successful research in advanced courses.

Faculty also noted how the critical thinking skills examined above give students practice in “thinking like a historian” and understanding topics in "new ways." Primary sources provide a more comprehensive understanding of an issue or event, empowering students to make original observations and draw conclusions for themselves rather than simply rely upon (and potentially plagiarize) ideas and analysis offered in secondary sources.

Exposing students to primary sources in their first or second year also helps students become comfortable using the library and gives them experience navigating archives (digital or physical special collections) so can they can do so successfully when required in more advanced courses. They also learn proper citation methods and understand why "sources must have an author (with last name) and an affiliation with an institution or publication.” Additionally, students develop a critical view of how the material came to be included and organized in these archives. They can choose to incorporate those practices – or challenge them – in their own research.

Student engagement
Assignments that involve primary source materials “help spark students’ passion” and “help make history interesting,” according to interviewees. Faculty acknowledge that research is a “messy process” that can be complicated and confusing for first year students, but primary sources provide a “hands-on” experience which encourages more personal interaction and identification with a topic.

Primary source materials “change the learning experience for students,” especially when they can see actual documents, photographs and other artifacts. Photographs especially help students “see the lives of people and to help imagine their existence” in the context of historical issues and events. One faculty observed that when "students are challenged to think about things in interesting and analytical ways, the light bulb goes on" for them and another said learning to find resources gives students “confidence that they can do research.”

Students become particularly interested in the content when they bring their own experience and viewpoints into their analysis. This is because primary sources are “not sacred pieces of paper, they are recorded by human beings for particular purposes. You can ask about them, you can see, sometimes that their purposes are not unrecognizable to you.”
3. Challenges and Opportunities

Faculty members also discussed obstacles to effective use of primary sources in undergraduate teaching and learning. Obstacles shared by participants in this report fell under five key themes related to faculty training, student acumen, library databases, budgetary concerns and flipped/hybrid classrooms, as described below.

Lack of formal training
Faculty expressed concern over a lack of formal training available for teaching with primary sources. Incorporation of primary source materials into the syllabi often depends on trial and error—a frustrating and time-consuming process that is not always immediately successful.

For some, the abundance of primary source materials that are available make it difficult to stay current on all the content offered from vendor databases, published compilations and newly digitized archives. Likewise, the number of possible ways to use primary sources in the classroom can be overwhelming and therefore difficult to efficiently incorporate into coursework. Interviewees expressed frustration about limited opportunities to learn from the successes of their colleagues via a designated virtual “communal space” where faculty can collaborate on projects, share tips or offer advice that might encourage and promote the effective use of primary sources in teaching.

As a result of these deficiencies, faculty and instructors are left on their own to figure out ways to incorporate lesson plans around primary sources, and those who succeed tend to be exceptionally passionate about or experienced with using them in the classroom. Meanwhile, faculty who struggle are left without resources that could help them improve.

Faculty are looking for more ways to collaborate with each other, library staff and vendors to help navigate the abundance of primary source materials (especially new collections as they become available) and how to use them. Working together to design training sessions, as well as offering joint webinars, sharing blog posts and participating in discussion forums can provide valuable updates, tips and advice to inform innovative usage of primary source content in the classroom.

Student acumen
Faculty also highlighted a range of obstacles confronted by students that may inhibit them from successfully using primary sources in their assignments. Most of these challenges led to students feeling a sense of intimidation about accessing, citing or understanding primary source content. Often undergraduate students don’t have a firm grasp of what a primary source is, so faculty must commit class time to explaining the definition of primary source materials and how to use them.

Even when students receive such instruction, they can be resistant to the value of primary source content. Undergraduates who are accustomed to using Google or Wikipedia to quickly discover the information they seek can be overwhelmed or put off by the time and effort required to search and understand primary source materials. From this perspective, primary sources may seem unnecessarily complex when students have less complicated options to access information—even though the information they source from Google or Wikipedia may be inaccurate or oversimplified.

Faculty indicated that students sometimes struggle with the language of primary source content. For English-speaking undergraduates, materials written in other languages without translations available are difficult to use. However, faculty also expressed concern that teaching with materials that are available exclusively in the English-language potentially bias a course or put too much emphasis on US or UK perspectives.

Content presented in historical forms of English may also be challenging. For example, faculty acknowledged that items written in colonial English are often difficult to understand. Additionally, many of these historical documents are handwritten in longhand which may be difficult to read. Further, it was noted that text-based primary sources may be unappealing to students who tend to prefer audio-visual or mixed format resources.

Faculty additionally observed that undergraduate students are primarily motivated by grades and tend to focus on coursework directly related to their degree programs. This means that they are likely to prioritize results over process and disengage from learning activities they don’t perceive as having a direct impact on their longer-term goals. Students enroll in classes that tend to incorporate primary source materials, such as history courses, as part of their general education requirements. For those students who are not majoring in history, they may not see the value of learning how to use primary source materials and resist putting in the effort.

There are opportunities to promote student engagement and spark excitement in the research process when vendor databases function more like the open websites students are accustomed to using. When students can use a tool like Google to more easily discover the kinds of authoritative content that is curated on library databases, the effort can be more intuitive and user-friendly for novice researchers. Additionally, supplementing primary source materials with the content types students prefer, such as video and other audio-visual resources, can generate better engagement and understanding of how various formats work together, underscoring the unique value of primary sources.
Library databases

At most universities, primary sources are made available digitally through library databases. Interviewees often described the user experience of these databases as a factor that may be intimidating to students – especially from a technological perspective. Many faculty and instructors noted students’ discomfort searching primary source databases because they function quite differently from the apps and websites most often consulted via mobile devices such as smartphones and tablets.

Some faculty noted that primary source databases are not user-friendly for undergraduates or other novice researchers. Students who don’t have experience navigating primary source databases often don’t know how to construct effective search queries or know to vary search terms to get more relevant results. Inexperienced students used to searching the internet also tend to accept the initial results of searches on library databases. This is because they may not know how – or why it may be necessary – to refine their search results for improved insights and information.

Students who struggle with these databases are also likely to be discouraged by functionalities that vary from vendor to vendor. Faculty pointed out that these frustrations are further compounded as most databases don’t include tips or a live chat option to support students in real time. This means students often depend on librarians for assistance or instruction in navigating databases – which can be an added strain on library staff.

Cost

Faculty interviewed for this report said cost is an especially consequential issue, both when considering direct costs to students and the costs libraries incur to subscribe or purchase vendor databases. Most institutions are prioritizing cost reductions for students, and most libraries have strained budgets, and cannot afford every database that may be beneficial to faculty and students.

Pressure to reduce student expenses is reflected in efforts to minimize the cost of textbooks and other class materials. Many institutions are leaning toward zero-cost options such as OER or OA content. Interviewees noted an abundance of freely available, high-quality resources from places like Hathi Trust, Internet Archive and other open access project sites, but when libraries are unable to afford databases for use in the classroom, faculty and instructors have the cumbersome task of sourcing, curating and compiling this content for their use. And once these materials have been gathered, there is the challenge of providing them in the form of a paperback or course reader which students are required to purchase, which one interviewee acknowledged is “problematic.”

Online learning and flipped classrooms

In the cases of remote teaching and learning (which has become an urgent concern in the face of the global pandemic) all primary source materials must be available digitally. Some faculty find this makes it more difficult to engage students the way they might when faculty present physical primary source artifacts in an in-person class setting, or on a field trip to a museum, archive or library special collection.

With online-only courses, providing adequate context to explain or promote understanding of primary sources is often inhibited. Interviews with faculty surfaced concerns that students working remotely are often inclined to “just dive into” an assignment. When these students don’t receive the necessary background or framework that instructors would offer in an in-person class session, “they can’t possibly understand the primary sources they’ve been assigned to read,” one faculty member cautioned.

On this note, interviewees also found it difficult to monitor the progress of remote students with primary source content. If a student is struggling to use or understand these materials, they don’t have the same ability in an online learning environment to interact with faculty (or other students) to ask for help.

For many faculty, digital applications like Blackboard and Zoom work to encourage communication and collaboration between faculty and students, as well as student-to-student. A program like Zoom gives faculty the opportunity to provide context around primary source materials in real time in front of the class. For students who are uncomfortable speaking up in such a setting, discussion boards can be a more comfortable place to ask questions or seek information, especially among their peers.

Conclusion

Faculty emphasized the importance of having primary source materials available in digital form; as well as the challenges of teaching with primary sources in remote environments. This is especially true in these unprecedented times. Although the global coronavirus outbreak and subsequent shift to online-only teaching and learning unfolded after our faculty interviews concluded, the on-going challenges of adapting to the digital classroom weighted these issues with a deeper urgency during our analysis.

ProQuest has a significant role in providing content and support in alignment with these issues and concerns. In recent months, we have shifted gears to focus on ways to help our customers and users with new programs designed to simplify access to digital versions of resources physically held in campus libraries which need to close their doors. With E Now, ProQuest brings unique capabilities in data and reporting together with industry relationships to create a comprehensive set of programs that help institutions quickly transition to online-only environments.

We were uniquely positioned to help libraries and their institutions make this dramatic shift. The company’s capabilities include a propriety process that maps a library’s physical items to e-versions contained in our digital archive. Our experts help libraries prioritize the conversion of digital content, including books, periodicals, government documents, newspapers, and even music scores and videos – based on their institution’s curriculum and research activity.

In addition to providing expanded access to digital content during this time of crisis, we are also committed to helping faculty incorporate these materials into their course work to support better teaching and learning outcomes, whether classes are online or on campus. ProQuest recognizes the value of our platform to bring together faculty, librarians and subject experts to support and learn from each other in these unusual and
uncertain times. From webinars to case studies and blog posts, ProQuest has made a conscious and concerted effort to help faculty and librarians discover ideas and examples to inspire student engagement using primary source materials in the digital classroom, regardless of where those primary sources come from – a vendor, free collections or the open web.

It must also be noted that when Black Lives Matter protests erupted around the world, we had already wrapped up the interview portion of this project, but the events underscored the need for diversity in primary sources as indicated by our faculty interviewees. We recognize that now more than ever, students need access to insights and information from a wide variety of perspectives, including those of people who have been historically marginalized, in order to understand the role of the past in this present moment, and to help students prepare for challenges of tomorrow.

Curricula is evolving to incorporate more diversity, social justice and human rights studies — with courses in these topics increasingly being required at many colleges and universities. As we heard in several of our faculty interviews, finding resources to support studies in these areas is critical, and often difficult. Our goal has long been to make silent voices heard and we are dedicated to developing expertly curated collections that are diverse and inclusive in alignment with emerging trends in research and learning, particularly in women's history, LGBTQ/gender studies and the Black freedom movement.

Again, ProQuest’s commitment to these issues extends beyond the content we provide. We are continuously challenging ourselves and deepening our own understanding of what diversity and inclusion mean in research and learning via internal guest speaker presentations, discussions with members of our advisory boards and on-going conversations with faculty, librarians, students and researchers. We then share what we learn with our customers and users to support and inspire more effective, comprehensive and engaging teaching and learning with primary sources. Supplementary materials like video, resource guides and slide decks are freely available to anyone who is interested, no matter where you access primary source materials.

Of course, this report is only the beginning. Our findings are just a starting point for faculty, librarians and vendors to form stronger partnerships resulting in innovative ideas, solutions and advancements for teaching and learning with primary sources. We are overwhelmingly impressed and inspired by the creativity and enthusiasm in the faculty we interviewed. They are dedicated to ensuring their students benefit from their coursework, and they put time, effort, thought and creativity into their teaching methods. We are honored to be a part of this incredible community of educators, and we are grateful for the opportunity to contribute to this important work, today and into the future.

**Notes:**

1. For this project, primary sources were defined as historical or contemporary artifacts which are direct witnesses to a period, event, person/group, or phenomenon, and which are typically used as evidence in humanities and some social science research. Sources were analyzed as artifacts or as inspiration for literary or artistic composition rather than data.


3. The phrase ‘critical thinking skills’ is occasionally denounced as too vague or overused to be helpful or meaningful. In the context of this project, we found this definition aligns with the responses of faculty who we interviewed: “that mode of thinking — about any subject, content, or problem — in which the thinker improves the quality of his or her thinking by skillfully analyzing, assessing, and reconstructing it. Critical thinking is self-directed, self-disciplined, self-monitored, and self-corrective thinking. It presupposes assent to rigorous standards of excellence and mindful command of their use. It entails effective communication and problem-solving abilities, as well as a commitment to overcome our native egocentrism and sociocentrism.”


To talk to the sales department, contact us at 1-800-779-0137 or sales@proquest.com.