

Pennsylvania Libraries: Research & Practice

Practice

Beyond Citations

Successes and Challenges in Using Zotero for International Student Collaboration

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This article shares how a team of a librarian and two professors worked together to develop, implement, and support students through a collaborative project for two Communication courses, one in the United States and one in the Czech Republic. In this project, students learned to use Zotero Groups for resource sharing, and sharpened their skills to discover, assess, and contextualize a broad spectrum of media sources. The class was experimental, and the use of Zotero did not go as smoothly as planned. This provided us with additional insights into how use of the tool might work better in the future. We share the success and challenges of that process with recommendations for future projects.

Introduction

In the weeks before the start of the Fall 2022 semester, a pair of communication professors—one in the United States and one in the Czech Republic—were excited to develop a project to bring their students together. Their students would work collaboratively on a semester-long, cross-cultural project in which they explored and compared the media treatment of women, birth control, and abortion in rural and urban settings, especially comparing European attitudes with U.S. attitudes about abortion. But how to empower students to assess and select scholarly and popular resources for research, and to create a structure for the students to share their research and notes in the least frustrating way? To the library!

Context

Collaborative Online International Learning classes are a high-impact practice that promote intercultural awareness among students and support their personal and professional growth (Vahed and Rodriguez, 2021). Finding ways to effectively facilitate this collaboration, however, can be challenging. When the two professors began designing their COIL class, both instructors chose a course they were already assigned to teach and worked to find overlapping content areas around which to design a collaborative online project. The U.S. course centered on qualitative research methods in health inequities for undergraduate students, while the Czech course was for graduate students, examining the journalism covering the international consequences of *Roe v. Wade*. An overarching learning outcome was for the

students to practice research collaboration, gain intercultural communication skills, and to make international connections.

Through discussion of the content of each course, the instructors decided that the shared activities would come in two forms. First, the students from both courses gathered in Zoom for real-time lectures, presented by the instructors and guests. Lectures covered topics like the history of *Roe v. Wade* in the United States, issues of gender representation in media, and frame analysis. The classes also met independently to work on individual learning goals. The second form of collaboration involved students working in small groups that the instructors intentionally created to include individuals from each continent. Students used the space to brainstorm together, choose topics in which they had common interests, and share resources that would be helpful to all. During this planning process, the U.S. professor reached out to her librarian, asking for suggestions to streamline collaboration. The librarian used Zotero for similar, smaller scale collaboration in the past and recommended it for this class..

Zotero is a free citation management tool that helps users organize and cite research. While users can opt for a paid version that provides more storage, for most people this is not necessary. Zotero stands out among citation management tools in part because it allows users with free accounts to create groups of any size to collaborate on research and note taking. It also has the benefit of long being used as a teaching tool. Bonanni and Sullivan (2022) used Zotero both to support group collaboration and to share those group bibliographies with a broader audience through social media. Kuglitsch (2015) incorporated groups in a practice of embedded librarianship to allow the librarian greater insight into student research by creating a group for the class and using the group to comment on or suggest new resources. Kilker (2023) used the groups to model exploratory and collaborative research behavior by requiring students to create a library on a topic they are interested in, and then require other students to contribute resources for their fellow students. Our project intended to use Zotero similarly by requiring students to share their resources to enable them to discuss approaches to the project from EU and U.S. perspectives.

We initially considered using it because both the librarian and the student teaching assistant for the course were Zotero users; the familiarity would allow us to better troubleshoot and support enrolled students. However, a significant part of the final decision for use in this class was the chance to introduce a tool with no financial barriers that students could continue to use through their academic career and beyond. At that point, neither instructor had used Zotero, so they learned alongside the students. Zotero was intended to facilitate research collaboration and lessen some of logistics that could hinder the students' learning progress. This article shares the success and challenges of that process, with specific insights and reflections on the process of introducing a new tool in an experimental class.

Course Planning

The librarian participated in the course design process to include Zotero in the scaffolded research project. She scheduled time for direct instruction sessions both for general library research and to teach students to use Zotero. She also updated the Zotero LibGuide, as it would serve as a landing page for downloading the citation manager. Both classes were relatively small, with 28 U.S. students and 13 Czech students. This allowed us to plan for individual or small group meetings to explain Zotero features or troubleshoot.

The librarian developed additional structure by creating a shared group library for both classes with folders for each student group prior to the start of class. Because each group was working on a topic of their choosing, most groups were working with different sources. We initially considered allowing each group to create their own shared library. Ultimately, we instead used one group for the whole class which allowed us to have a space to share titles of important resources for all groups. Each group had their own folder, but they were able to explore the findings of other groups. This also allowed the instructors, the teaching assistant, and the librarian to check on student research progress and tailor suggestions and support based on what work students had already completed. By sharing the folders this

way, it also allowed instructors to model aspects of the collaborative research process while facilitating real-time checks on group progress.

Course Experience

As is the case with most plans, things changed as soon as the semester began. During the first joint class, the instructors, teaching assistant, and librarian were introduced to the students and the students were introduced to their final assignment. While not planned, this session ended up also including a brief introduction to Zotero. Very few had used the tool before, although many expressed interest and excitement after seeing the ease with which they could generate citations.

Later in the semester, after student groups were assigned, the librarian joined a virtual class to help set up Zotero accounts. The intention of this class was that students would brainstorm topics and begin to populate their Zotero folders. Unfortunately, the day we had scheduled the Zotero account creation workshop was American daylight savings time. As no one accounted for daylight savings time happening on different dates in different countries, this greatly disrupted that class. When the Czech students arrived, the librarian repeated the Zotero introduction, which limited troubleshooting and research time. This also hindered the librarian's ability to connect with the Czech students individually. She recommended reaching out to her or their campus librarian for additional support. None of those students contacted the U.S. Librarian.

Additionally, some students had trouble creating Zotero accounts and nearly all of the Czech students were initially unable to join the Zotero group. The group access issue was quickly resolved—while the Czech students could not be invited via their student email addresses, they were able to be added by their username once they created accounts. The Czech professor was able to successfully navigate this troubleshooting after class, but it meant that the students were unable to add materials during the scheduled class time. A more challenging issue occurred with the several U.S. students who were unable to create accounts. The librarian visited their next, separate class in person to help troubleshoot account creation, which helped most of those students. The librarian then took part in additional classes as needed, to provide tailored support for research for the students, including the use of Zotero.

Expecting to be embedded in class and holding time to be able to drop in as needed was essential to making this library collaboration work. As you will read under student experiences, this was highlighted by the fact that the U.S. students mentioned Zotero far more often in their feedback, especially to highlight their plans to use it in the future. The Czech students did not offer constructive feedback on their Zotero experience, a fact that may have been influenced by the lack of direct instruction.

Student Experience

Students had mixed experiences using Zotero. For their projects, students were instructed to collaborate on approach and bibliography, but to do the analytical part of the assignment alone. They were asked to use Zotero for the creation of their bibliographies. A major challenge stemmed from the different expectations for collaboration in two different cultures—Czech students don't have the same homework expectations as U.S. students. This meant that the Czech students were not contributing to their Zotero groups as regularly as the U.S. students. The unequal use of the tool sometimes led to friction in groups, as the courses had different requirements and individual learning goals, leading to different degrees of participation.

Despite that problem, those groups who successfully used Zotero tended to share that it was a positive experience. Those who got it really got it and loved it. Those groups tended to have a student who had used it prior to the class and they were able to advocate for the tool to the rest of their group. This facilitated another level of

communication and collaboration, as these students were able to teach and support their groups. The U.S. students who collaborated using Zotero shared positive feedback, praising the ability to organize research papers and news articles and the ease and stress reduction it provides in creating bibliographies. They also appreciated the ease in sharing of resources through links, as the final project required students to analyze news media. Many students also informally shared that they were eager to continue using Zotero independently in other courses.

The groups that did not use Zotero shared that it was primarily because they found it frustrating. While no students said it specifically, we hypothesize that this was because they were learning a new tool as they were expected to use it, and they prioritized completing the assignment over learning the tool. Only one Czech student mentioned Zotero in their group feedback and only to say they did not use it. The lack of constructive feedback from the Czech students may have been because of this, and perhaps because they did not have the direct support from their campus librarian.

Lack of time—specifically, time to meet as a full group—meant that we were unable to make use of all the tools available through Zotero. In future iterations of similar projects, we would use class time to specifically teach students how to use features such as notes and tags. This better scaffolding and support for full student participation would, we hope, help increase the visibility of each student’s contribution to the project and allow for easier collaboration. It would also allow the instructor to do intervention before unequal group work gets out of hand.

However, we believe the use of Zotero did not directly hinder progress towards the learning goal of collaborative research. Rather, it made existing issues more visible and provided opportunities to monitor and address them in real time. All groups completed their collaborative bibliographies, but some found that work easier because they used Zotero.

Challenges

The first iteration of a class is a learning experience, and we identified several challenge areas and included suggestions for improvement:

- *Involve relevant individuals:* While we had a librarian from the U.S. teaching the joint classes and supporting the U.S. students, she was not as familiar with the Czech university’s databases or access requirements. We should have also invited a librarian from the Czech university.
- *Zotero account issues required perseverance from students:* We encountered several different types of access issues. It would have also helped to require students to set up accounts ahead of time and then share their usernames to be added to the group. This would have allowed both group creation and troubleshooting to take place outside of class time and would have let us use in-class time to focus on using Zotero’s features.
- *International scheduling and expectations:* Any international collaboration needs to consider differences in university calendars, time zones, and even each country’s participation in Daylight Savings prior to the beginning of a collaboration. Additionally, European universities often have very different expectations from American ones for their students’ participation. In future courses, we would align these expectations more completely.
- *Copyright compliance:* While this project may have been covered by educational fair use, we chose to err on the side of caution and instruct students to share only citations through Zotero.

Conclusions and Suggestions

This was an experimental first run of a class; we learned a lot about collaboration between different colleges in different countries and about how to introduce and use Zotero in this context. If you are considering a project like this, we have also compiled some general suggestions to help guide you as you organize your course and get the most out of using Zotero:

- Make specific learning goals or pedagogical goals for the use of Zotero
- Create small assignments that will scaffold the learning for this tool
- Check group folders frequently to see what students are uploading and how they are using the tool.
- Do 10 minute “check ins” at the beginning of class once a week to talk about process rather than just outcomes

This can work well and provide instructors with timely insights into student research, passively model the research process for students, and showcase individual work within a group project. Removing the need for detailed lessons on citations provides space for broader conversations about the value of information. Group projects like this also allow students to develop a voice and practice collaborative research sharing in a constructed scholarly community. While we had some challenges, this was a great exploration of possibilities - collaborations such as these contribute to student success and help librarians and faculty share collegial experiences that can break down academic siloes.

The COIL class highlighted the possibilities and pitfalls of using a citation manager for collaboration on a large scale. While the librarian and US instructor are no longer working at the same institution, they have both continued to use Zotero in their teaching practice. In particular, the instructor has used it to monitor research progress and introduce scholarly communication to students, while the librarian uses it for citation management and groups on a smaller scale. Learning from this experience, they ensure students download the app and create accounts ahead of class, and they emphasize practice to become comfortable with the tool early in the semester, before students need to use it for a project. Citation managers can support and streamline students’ development of research skills, especially in collaborative settings. But instructors need to approach their use with both planning and flexibility to effectively integrate the tool

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