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Collaboration at the Center

Librarian, Faculty, and Students Partner to Revive Their Curriculum Lab

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This article describes the ongoing impact of a class project on the library's work to improve its curriculum materials center (CMC) and the students' reflection on the impact of project-based learning (PBL) on their work as preservice teachers. Arcadia University's Landman Library houses a Curriculum Lab, which provides materials and space to support the School of Education. Use of the space and collection was low, and many materials were outdated. An education professor and the liaison librarian partnered with students enrolled in the Designing Learning Environments course (ED411) to develop a plan to improve the Curriculum Lab. This real-world redesign project created an opportunity for students to apply and transfer theories they were learning about in their readings to an actual educational project. The students wrote a mission statement, drew up a blueprint, and gathered ideas for their vision of the Curriculum Lab. Students then presented their work to university administrators. Though the class has since ended, students still contribute to the project through a volunteer advisory group.

Introduction

Arcadia University houses a curriculum materials center (CMC) to support students, faculty, and staff in the School of Education. Referred to as the Curriculum Lab, this one-room space houses a collection of fiction and nonfiction literature for children in pre-kindergarten (preK) through high school as well as teachers' materials for lesson and curriculum planning, including a small number of textbooks. These materials supplement the larger circulating collection of books on education. However, students in the School of Education seemed largely unaware of the space, and students from other disciplines used the Curriculum Lab as just another study room. Old, faded posters clung to the windows and walls, and the space itself projected a general air of neglect. Clearly, something needed to be done to improve the situation.

Looking into the history of the space offered a way to begin to think about its future. Unfortunately, the provenance of the space and collection was unclear and the context had shifted so much that what little

documentation existed was largely irrelevant. The library director revealed that the previous education librarian and an education professor had worked together to revitalize the space. While the initial project yielded some useful observations and ideas, any real change was thwarted by staffing changes, life events, and the passage of time. A librarian, Melissa Correll, reached out to that education professor, Jodi Bornstein, about the possibilities of collaboration, and together we reignited the project as a collaboration to meet shared goals.

Literature Review

Best Practices for Curriculum Materials Centers

Some common themes in literature on CMCs is that the literature is sparse (Locke, 2007) and can be difficult to find due to the variety of terms used to refer to these collections (Gelber & Uhl, 2013; Kohrman, 2015). Gelber & Uhl (2013) lamented "...a lack of recent comprehensive case studies that address the practical aspects of curriculum materials collections access and maintenance" (p. 52). Their article described practical aspects of managing a CMC collection as well as redesigning the center's space to make it more inviting and useful. In the current article, we detail a collaborative process in which education students used a project-based learning (PBL) approach to envision and implement improvements.

The Curriculum Materials Committee, part of the Education and Behavioral Sciences Section of the Association of College & Research Libraries (ACRL), produced two guiding documents that informed our approach to the Curriculum Lab, the *Guidelines for Curriculum Materials Centers* and *A Guide to Writing CMC Collection Development Policies*. Both documents emphasized collaboration between librarians and education faculty, especially in developing policies for a CMC, and recommended developing a mission statement early in the process to focus its purpose and goals and to use as a foundation for making decisions (Association of College & Research Libraries [ACRL], 2017; Fabbri, Bressler, & Earp, 2007). When librarians consult with education faculty and students while writing the mission statement, that statement will reflect their values and can become a powerful tool to promote the CMC and rally stakeholders (Miller & Meyer, 2008). In her 2007 article, O'Neill Uhl wrote that student needs are the "essential question [that] determines the core collection and mission of a CMC" (p. 44). The mission statement can be crafted to invite preservice teachers to take ownership of the space and collection and help them understand the role that the CMC, and the library as a whole, plays in their professional development (Miller & Meyer, 2012).

A strong mission statement can also guide policies and decisions about both collections and space. As Gelber and Uhl (2013) pointed out, these collections differ from general circulating collections due to their focus on current materials, which would likely be used in schools. Locke (2007) reported that librarians found faculty input in collection development vital to keeping materials current and that space is a priority, particularly redesigning the CMC to accommodate group work and facilitate engagement with technology. In her case study of a redesign project, Teel (2013) echoed the need for more group work areas and enhanced technology and explained that CMC stakeholders should make design choices with the purposes of that space in mind (Teel, 2013). ACRL (2017) recommended that the space be able to accommodate both individual and group work and have the capacity to serve as a classroom. In this project, the Curriculum Lab served as a classroom for a particular class in the School of Education in the sense of being both a meeting space and learning experience.

Project-Based Learning & the Curriculum Lab

PBL is "a teaching method in which students gain knowledge and skills by working for an extended period of time to investigate and respond to an authentic, engaging and complex question, problem, or challenge" (Full Circle Nature School, n.d.). This approach to teaching and learning is rooted in constructivist theories where "a core

assumption of constructivist theory is that learners actively construct knowledge through activity, and the goal of the learning experiences designed by teachers is to promote a deep understanding rather than superficial (and short-lived) memorization” (Hernández-Ramos & De La Paz, 2009, p. 152). PBL challenges the traditional lecture or “banking” model of education, in which students are passive receivers, rather than meaning-makers, of information (Freire, 2000). PBL has a long history as an innovative approach to teaching and learning and is currently regarded as an innovation in K-12 schooling contexts. Importantly, less research is available on how PBL is integrated into college and university teaching. Yet, PBL is an important contribution to the “pedagogies of engagement” in college teaching: “the real challenge in college teaching is not covering the material for the students; it’s uncovering the material with the students.” (Smith, Sheppard, Johnson, & Johnson, 2005, p. 88). Buck Institute for Education (2015), a leader in PBL, identified seven essential project design elements: “challenging problem or question, sustained inquiry, authenticity, student voice and choice, reflection, critique and revision, and a public product.” The Curriculum Lab project worked to include all of these design elements.

Setting the Stage for the “Problem:” Collaboratively Planning to Redesign the Curriculum Lab

Designing Learning Environments (ED411) is an undergraduate course with a primary focus for middle and high school teacher education students to learn about the ways that space, in addition to teachers and other students, is a “third teacher” in the classroom (Cannon Design, VS Furniture, & Bruce Mau Design, 2010). This third teacher creates the possibilities and/or limitations for learning and teaching. Importantly, space as a third teacher pushes teachers to think about design as more than simply decorating the classroom. As Carter (2007) stated, “We must ask ourselves what values we want to communicate through our environments... What does this environment ‘teach’ those who are in it? How is it shaping the identity of those who spend long days there?” (p. 22).

Students in ED411 imagined ideal learning environments for their classrooms, investigated school structures, and considered how they as teachers can limit or enact those visions. The class focused on principles of design for collaboration and inquiry at the heart of instructional practices. Redesigning the Curriculum Lab became the primary, authentic, and challenging project-based question for the class, since it is a real space of practical importance on campus for the teacher candidates, and it created a perfect way to support meaningful transfer and application of ideas. Before proposing changes to the lab, students read various texts, watched videos of classroom and school design, and began to envision the kinds of spaces they wanted to create in their own classrooms. The students were excited for this opportunity, and the underused Curriculum Lab became their home twice a week for class sessions.

During the students’ first visit to the Curriculum Lab, they used a See/Think/Wonder activity (Visible Thinking, n.d.) to ignite their thinking about the space. They made observations about the space, recorded their thoughts about what they saw, and then posed questions that their observations inspired. This exercise provided valuable insight into students’ perceptions and revealed that they thought the space felt claustrophobic, appeared cluttered with unused furniture and outdated material, and seemed oriented toward elementary educators, excluding middle and high school teachers. These observations and questions became the basis for the next weeks of work, in which students posed possibilities for transformation, guided by the academic content of the class. The class realized that before any changes could be implemented, one overarching question had to be addressed: What is the purpose of the Curriculum Lab?

Informed by the literature on best practices for CMCs, we tasked the ED411 students with articulating the mission statement in order to build intentionality into the design process and encourage student ownership of the space. First, they examined a few example mission statements to get an idea of what a mission statement generally

does. Then, they individually drafted their vision for the Curriculum Lab, sharing their work in a subsequent class meeting. The librarian collected the individual students' work and used it to create a word cloud, revealing commonalities that could serve as a springboard for a collaborative draft. The final version reflected ideas that reverberated throughout the time that we had been working on the project – a flexible space that provides relevant print materials and technologies and accommodates both individual and collaborative study as well as teaching practices – and reads:

Our mission for the Arcadia University Curriculum Lab is to provide an intentional, functional, and inclusive space for the community of preservice and current educators to explore print and technological pedagogical resources for curriculum development. By purposefully designing both individual and collaborative work areas, we hope to cultivate an active and diverse atmosphere to enhance teaching preparation, practice, and instruction.

With their mission in mind, the students were ready to make design choices. The librarian supported the students' work in several ways. She reviewed the literature to identify best practices and shared her findings with the class. She visited nearby university libraries to talk with librarians responsible for their CMCs. She also met with campus Academic Technology Services to discuss potentially adding tech capabilities to the Curriculum Lab and met with the county intermediate unit to learn about tech trends in local school districts.

The class formed working groups based on their interests within the space, and, equipped with tape measures and oversized paper, began to draft a blueprint of their visions of the future Curriculum Lab. In order to allow for more flexibility of use, students proposed creating more open space, which required removing furniture, including empty filing cabinets, a large and immovable table in the center of the room, a built-in counter along one wall, and an entire range of shelving. The students also wanted to install technology in the room. Adding computers would facilitate access to electronic resources such as teaching certification practice exams in a dedicated space, away from the busy main computer area. A SMART Board would allow students to practice designing and delivering lessons with technology tools they could use for instruction in preK-12 classrooms. Technology would be expensive, so we decided to pitch the students' plans to the Dean of the Library and the Dean of the School of Education in an effort to secure support and finances for the project.

Presenting the Class's Work to University Administrators

At the end of the semester, the students summarized their vision with a blueprint and a narrative, which they used to collaboratively present their work and hopes for the future of the Curriculum Lab to the deans. Gaining real-world experience in imagining, articulating, and presenting a vision for change to stakeholders in an attempt to secure funding for a project will serve the students well in future professional settings. Their experience made the coursework meaningful and relevant and also aligned with PBL best practices that calls for students to create a public project to share with stakeholders. The deans met the presentation with enthusiasm and pledged \$1,500 in total to be applied to making the students' vision a reality. The deans had one condition: Students had to demonstrate momentum and not let work on the project fall to the wayside.

Continuing the Work after ED411: The Curriculum Lab Advisory Group

When the course ended, there was a danger that students would move on to other courses and projects, leaving the Curriculum Lab to languish. The course was not offered in the following academic year, so it was not possible to pass the project to the next cohort of students. The project needed to carry on even in the absence of the class, so we invited students and faculty from the School of Education to volunteer to join the Curriculum Lab

Advisory Group (CLAG). Some ED411 students joined CLAG and shared their experience with new members. The group created a Google group to facilitate communication and met in the Curriculum Lab to keep in touch about the space and imagine ways to improve it while building on ED411's previous work.

The class had expressed concern about the number of outdated materials in the collection, so CLAG thought about which books should be removed. This task prompted the librarian to draft a collection development policy specifically for the Curriculum Lab, which would serve as a guide for both adding and removing titles. Using this policy, the librarian created a handout for CLAG members explaining why weeding is an important aspect of collection maintenance and including a short list of weeding criteria, as recommended by Fabbi, Bressler, and Earp (2007). Using these bullet points, CLAG had a weeding party, during which members used brightly colored stickers to flag items for the librarian to consider removing from the collection. This party was an excellent way for CLAG to take ownership of the collection, see what was on the shelves, and identify areas that needed further development, while allowing the librarian to make the final decision about individual items. After flagging books for removal, CLAG started a collaborative spreadsheet to collect titles to recommend for acquisition.

Implementing Changes



Figure 1

Before the ED411 students' project, the Curriculum Lab looked cluttered and neglected.

Removing Unused Furniture and Outdated Items

We deferred the process of removing books until the summer, when there would be fewer students on campus. Although we wanted to demonstrate visible progress, some changes that ED411 and CLAG requested would cause noise, mess, and disruption, so it made sense to complete these tasks when traffic on campus would be low. Over the summer, the librarian evaluated the items CLAG had marked for review, checking circulation statistics

and weighing the value of each title. Outdated items were discarded, and damaged items that had value for the collection were replaced. After weeding, the librarian shifted the books, and campus facilities staff removed the shelving range nearest the door. Following the ED411 students' recommendation, the empty filing cabinets and bookshelves, the built-in counter, and the large, immovable table were also removed. We brought wheeled, adjustable tables and chairs into the newly created space.

Installing a SMART Board

After the summer projects of weeding and removing furniture were complete, it was time to use the funds pledged by the deans to add technology to the Curriculum Lab. While there was not enough funding from the Information Technology department to add new computers to the lab, we were able to arrange for the installation of one computer and a SMART Board.

With a small budget of \$1,500, these additions were possible only because Academic Technology Services had an extra SMART Board in storage, which had been delivered with minor cosmetic damage. The board has a small dent at the top left corner but is otherwise fully functional. Academic Technology Services provided the board to the library free of charge. After securing the SMART Board itself, we still needed a projector and installation service.

In the small Curriculum Lab, there is a little over 30 feet between the front wall where the SMART Board would hang and the first range of shelving; therefore, Academic Technology Services recommended using a short-throw projector. Luckily, one of these was also in storage on campus and made available to the library at no cost. Only the installation fee for the SMART Board and projector remained, which amounted to \$1,905. The library's general budget was able to cover the portion of the cost exceeding the Curriculum Lab's pledged funds.



Figure 2

After implementing ED411 students' and CLAG's suggestions, the Curriculum Lab appears more useful and inviting.

Developing and Implementing a New Organization System for Children's Literature

Students in both ED411 and CLAG indicated that they discovered items in the Curriculum Lab collection by browsing more often than by using the catalog and that they wished the children's books were separated into age categories or reading levels to make it easier to find books for a particular grade level. There are a number of systems for leveling books, including Lexile, Accelerated Reader, Scholastic's Reading Counts, and Fountas and Pinnell's Text Level Gradient and A to Z systems. A cursory investigation revealed that there could be inconsistencies in how these systems level the same title. Pennsylvania has adopted the Common Core State Standards (CCSS), which caution that quantitative measures such as reading levels "...cannot (at least at present) capture all of the elements that make a text easy or challenging to read..." (Common Core, n.d., p. 5). Fountas and Pinnell, creators of two leveling schemes, told *School Library Journal* that their systems were meant as a book selection tool for teachers, and "...have no place in classroom libraries, in school libraries, in public libraries, or on report cards" (Parrott, 2017, p. 15). In light of this, it seemed prudent to come up with another system that would facilitate browsing.

Using broader strokes to organize children's books could help avoid the controversial granularity of reading levels while still creating sections of relevant resources for our student teachers to browse. The librarian worked with the cataloger to develop a plan to separate the children's fiction collection into two sections: picture books for younger children, and books designed for children and adolescents to read independently. These sections would be easier to browse for early childhood, elementary, middle school, and high school preservice teachers.

First, we identified picture books aimed at young children, which we distinguished by adding a PIC indicator to the call number. This addition required changes in the catalog, a new spine label, and a physical relocation of the entire collection of picture books. Though this collection is relatively small, this multi-step task required many hours of work. For the sake of efficiency, we decided to limit the cataloging and spine label changes to picture books, and simply relocated the fiction books catering to upper elementary, middle, and high school readers. This choice allowed us to complete the entire reorganization project over the summer. New books added to the collection follow the new scheme. As of the time of writing, all of the nonfiction children's literature is shelved together according to Library of Congress classification. Deciding which, if any, changes will be made to this classification scheme is a potential future project for CLAG.

Discussion and Future of the Project

The physical transformation of the Curriculum Lab is remarkable. The room looks much more inviting, useful, and relevant to our education students. After the collection was updated, children's fiction and nonfiction circulation rates for both the fall 2017 and spring 2018 semesters were higher than the previous fall and spring. Observations of the space indicate that the education students use the room more often now.

The project also had a dramatic impact on the ED411 students. Not only did they get a chance to apply the theories and principles they learned in class to an active PBL experience, but they also understood the effectiveness of such a pedagogical technique. One student reflected:

I learned the impact the design of a space really has on how you learn. The curriculum lab before the redesign was clunky, crowded, dated, and overall uninviting. No one wanted to be in the lab, if they even knew about it, before the redesign. I also learned the importance, and sometimes-difficult side of collaboration on a project. We had to work together to make real decisions with an impact. ... The work with the Curriculum Lab will guide me in my teaching to ensure that my

students' learning feels important and relevant to their lives. I want my students to feel like their work and learning is relevant and meaningful too. I want them to experience the pride in their own work, as I did with the Curriculum Lab.

Another student was struck by how important student voice was to this project: "I'd love to bring student voice input on how my classroom should be designed. It's their space to learn, and they should have a voice, as well as the opportunity, to be heard." Considering the application of pedagogical theory in the project provided the students with an opportunity to see how they might use project-based learning in their own classrooms.

This project confirmed the literature that asserts faculty/librarian collaboration is essential to the success of a CMC (ACRL, 2017; Fabbi, Bressler, & Earp, 2007; Locke, 2007; Miller & Meyer, 2012). ED411 served as a catalyst for an ongoing partnership that has yielded tangible improvements to collections and space. Furthermore, the class provided an opportunity to collaborate with students on a project designed to improve a resource that serves them. One student described the impact of the project: "You could have told me that the design of a space is important to learning a million times, but to experience it first-hand was true learning. I was able to self-reflect on my own feelings and excitement about doing something that was actually making a difference. The feeling of knowing you are relevant in a project, represented within a space is beyond words."

Although much progress has been made, the project is not complete. The Curriculum Lab requires more work to satisfy its mission to "...cultivate an active and diverse atmosphere to enhance teaching preparation, practice, and instruction." One of the most important tasks is publicizing the transformation of the Curriculum Lab's space, collection, and technology to all of the stakeholders in the School of Education. Some students and faculty are still unaware of how they can use the Curriculum Lab; reaching them is a perennial goal. One strategy we plan to use is hosting events in the Curriculum Lab such as a movie series, make and take events, read-aloud nights, and education-related presentations or discussions.

An imminent challenge is that many of the student members of CLAG are seniors who will be graduating at the end of this semester, so we must recruit students to step into their roles as project participants and advisors. Because the Curriculum Lab exists primarily to support the education students, it is vital that they have a role in decisions about it. Their voices shaped the mission of the space, and their voices will determine our goals for the future of this project. This student-centered approach will be a primary focus of CLAG as the work continues.

Five Quick Takeaways

1. Create opportunities for students to demonstrate leadership in real world situations, and they will rise to the challenge.
2. Look for shared goals. Interdepartmental collaboration can lead to useful discoveries, fruitful partnerships, mutually beneficial projects - and sometimes free equipment.
3. Documentation comes in handy in unforeseen future circumstances.
4. Learn from those who have been there before, both through the literature and in person.
5. Planning for the future is vital, and meeting regularly in person can give a project momentum.

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