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A Perfect Match: Partnering with Education Faculty for Pedagogical Professional Development

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Revolutionizing the Development of Library and Information Professionals:

Planning for the Future

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Chapter 12
A Perfect Match:
Partnering with Education Faculty for Pedagogical Professional Development

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ABSTRACT

A persistent challenge for many librarians is a lack of formal training in pedagogical techniques. In addition to lacking academic coursework in this area, librarians seldom look beyond their professional community for opportunities to develop these vital skills. Given the obvious parallels in mission and responsibilities, the field of education seems a natural fit. This chapter explores the benefits of cross-disciplinary professional development in the context of a collaboration between a librarian and an educational studies professor. Through alternating points of view, it presents the motivation for the partnership, the challenges it presented, and the positive outcomes for each participant. It also offers an in-depth look at the instructional development itself.

INTRODUCTION

Librarianship can often be an insular profession. We network extensively—with other librarians. We attend conferences—with other librarians. We read professional literature—written by other librarians. We therefore miss valuable opportunities to seek perspectives beyond these confines. This leads to "reinventing the wheel": struggling to create new solutions to the many challenges we face without considering the strategies already developed in other disciplines.

Teaching library research skills to students has long been an important part of librarians' activities. Whether we call it bibliographic instruction, library education, or information literacy instruction, the overall purpose remains the same. We aim to prepare students to comprehend, navigate, and

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evaluate the vast quantities and infinite varieties of resources available to them through the library and beyond.

A persistent challenge for many librarians is a lack of formal training in pedagogical techniques. Various organizations within the profession offer conferences, such as LOEX (Library Orientation Exchange), or extended workshops, such as the ACRL (Association of College and Research Libraries) Information Literacy Immersion Program, designed to prepare librarians for instructional experiences, but seldom do we look outside our own community for such learning opportunities.

Given the obvious parallels in mission and responsibilities, the field of education seems a natural fit. Education faculty prepare new teachers for precisely the same circumstances we face as librarians. This chapter will explore the benefits of cross-disciplinary professional development through the context of a collaboration between a librarian and an educational studies professor.

Some of this chapter will focus on the actual content of our collaboration, such as writing objectives, pedagogical techniques, reflecting on teaching, and assessment. Mirroring our own process, it will include alternating viewpoints. Through this method, we hope to demonstrate the strategies that contributed to the effectiveness of our work. We will also emphasize the components of what makes such partnerships successful, and describe the benefits each of the participants may derive from the experience.

Full disclosure: we are, in fact, married. But for a successful *professional* partnership, what mattered most was not sharing a home or cooking meals together. It required mutual respect, a commitment to meeting regularly and setting achievable benchmarks, and a willingness to learn the language of our two very different disciplines. Our proximity and professionalism, more than our personal relationship, had a substantial positive impact on our success.

BACKGROUND

Librarians spend a significant portion of their time teaching. Statistics vary, but one study's results indicated that they may spend as much as "50% of their time on library instruction and/or information literacy functions" (Albrecht & Baron, 2002, p. 85); another reports that the "hours per week spent preparing and delivering IL teaching (formally or informally) … range from 0 to 25 hours for full-time [staff]" (Bewick & Corrall, 2010, p. 101).

The teaching described above might include course-related instruction in research techniques, workshops for faculty, one-on-one consultations with students, and teaching skills to patrons at the reference desk. In spite of these significant instruction responsibilities, "in many instances, librarians find themselves adopting a teaching role with little formal training and without ample opportunity for teacher development" (Sinkinson, 2011, p. 10). In Albrecht and Baron's 2002 study, for example, the authors surveyed practicing librarians, who stated that they "first learned to teach library instruction on the job" (p. 90); the authors also analyzed course offerings for students pursuing degrees in librarianship and noted that "SLIS programs are reluctant to embrace the pedagogy as a core requirement of librarians" (p. 89). Despite study results produced by Sproles, Johnson, and Fairson (2008) emphasizing that coursework in instruction has increased, Westbrock and Fabian's 2010 article on their survey of practicing librarians showed that of the 41 competencies listed in *Standards for Proficiencies for Instruction Librarians and Coordinators: A Practical Guide* (Association of College and Research Libraries, 2008), not a single one was learned primarily in school (p. 585). Concerns about inadequate preparation for instruction remain very much in the forefront of librarians' minds.

The *Standards for Proficiencies for Instruction Librarians and Coordinators: A Practical Guide* lay out a wide range of skills necessary for instruction librarians to be effective teachers. These range from "instructional design skills" (lesson planning, developing activities, achieving learning outcomes), to "teaching skills" (adapting to different learning styles, creating a learner-centered environment), to "assessment and evaluation skills" (designing assessments, using data to improve teaching) (Association of College and Research Libraries, 2008). In Bewick and Corrall's 2010 survey, librarians identified several vital areas of pedagogical knowledge, such as "delivering teaching sessions," "writing support materials," and "designing learning activities" (p. 104). Yet the question remains: how are librarians to learn these skills, if they are not included in their academic plan of study?

According to Walter, librarians undergo a lot of "on-the-job teacher training," as well as pursuing instructional improvement through workshops and independent study (2006, p. 215). However, he also points out that campus teaching centers generally have neglected to reach out to librarians to help them improve their skills (p. 214). Essentially this leaves librarians to help other librarians--a worthwhile, and often effective, strategy. At the same time, this perpetuates the cycle of seeking development only internally, rather than reaching out to fields with complementary expertise. The library literature contains many examples of librarian-faculty collaboration, but these partnerships typically focus on improving student learning or providing development for faculty by making them aware of, or assisting them with, library resources and services. Examples of such collaborative projects appear in the supplementary spreadsheet for Kim Leeder's blog series on faculty collaboration. The cited sources are tagged with "collaboration area" designations such as "Information Literacy Instruction," "Collection Development," and "Faculty Instruction" (2011c). Again, there are many collaborations listed, but no indication that any looked at improving librarians' capabilities as teachers.

In contrast to the widely varying teaching demands made on librarians, the average middle or high school teacher is typically responsible for teaching five hour-long classes a day, for a total of 25 hours of instruction a week. To prepare for this amount of instruction, education majors are usually required to complete lengthy programs of study, pass a certification test, and participate in ongoing professional development to maintain their credentials.

While state requirements vary, teacher education often consists of a double major (content area plus theory and practice of education), or a four year undergraduate degree followed by a one-year Master of Arts in Teaching. At Rhode Island College, for example, students take a required 35 hours of education classes over five semesters, and an additional 12 hours for those students who wish to be certified at two different levels, such as middle and high school. It is common to have course work in the history of education; one or more general classes in teaching methods; plus classes in advanced content-specific methods, assessment and evaluation, and working with diverse populations. In Rhode Island, prospective teachers must also meet the professional competencies of the Rhode Island Professional Teaching Standards (Department of Education, 2007). These requirements are in addition to meeting content standards and earning the relevant degree.

Even with all of the above, a prospective teacher needs one more thing to become certified in our state: 60 hours of field experience, followed by 12 weeks of student teaching. In short, this means that a student's last year begins with five hours a week of field experience (observations having been done earlier), followed by an entire semester working with both a highly effective classroom teacher and an education faculty member. This is a labor-intensive process, but previous attempts

to reduce the time spent on student teaching have generally led to poor results (Heilig & Jez, 2010). Standards for teacher education are based on the common understanding that teachers who have the time to reflect on their own practice, and who benefit from the mentoring and expertise of others, are the most effective (Office of Educator Quality and Certification, 2012).

PROPOSING AND APPROACHING COLLABORATION

Hilary

In 2011, I approached my husband with an uncomfortable issue. As supervisor of a large team of reference desk student employees, I was trying to develop effective independent learning activities and workshops to enhance their job performance. I knew what they needed to know to improve their research abilities, but I was struggling. How could I organize my goals into manageable and logical groupings? How much could I ask them to learn at one time? How could I design something challenging but not overwhelming? And how could I tell if it was working? Asking Rudolf for advice was something I'd done before, but I'd never pursued such a formal, structured partnership before.

In one of Kim Leeder's blog posts on collaboration, she notes that many librarians have an "insecurity complex" (2011a, para. 7) in their relationship with faculty members. While I wouldn't define my feelings in quite that way, I definitely found it intimidating to admit that after so many years of teaching the library research process to students, I still struggled with things that Rudolf thought of as core skills. When I raised my training issues to him, he immediately began talking about objectives, direct and indirect instruction, and assessment. Although I'd heard him describing teaching these concepts to his pre-service teachers, the terminology and especially the execution of these ideas was still foreign to me. When I began describing what skills I wanted to instill in my students, such as searching for articles, it became clear to me that, while he knew what I meant and had done it many times himself, the components of that process were something he'd never considered.

Leeder's work is particularly relevant in this chapter's case study, as she, too, is part of a librarian-faculty marriage. She points out that, as a result, she can "see things from the faculty side as well as from [her] own perspective" (2011a, para. 2). Rudolf and I are in much the same situation: our collaboration was very much informed and enhanced by the insight we already had into each other's professional lives and experiences. Even as spouses, we found the process had quite a learning curve. We had to build a true collaboration--what Leeder describes as "the critical, learnable skill of connecting with others on both a personal and professional level (2011a, para. 1)."

Rudolf

When Hilary approached me with this idea, I was happy to help. My first impression was that we would be revising library research lessons and that this would be a fairly straightforward process. I was very confident as we began, but as we moved along, it became clear that Hilary was interested in creating a curriculum, and it was a more ambitious project than I originally realized. In order to be a useful partner, there were things I needed to know, but didn't.

In order to collaborate at all, I had to learn what the student workers already knew, and what a fully trained student employee was expected to know. This included some of the finer points of Hilary's library and database systems, which I had not needed to understand in the past. While I usually can find what I'm looking for in a library, my personal approach is probably best described as "determined wandering." The student assistants

at the library needed to be quicker and more efficient. Helping design curriculum meant that I had to transition from using the library to understanding the library.

Our usual collaboration process was an iterative, back and forth conversation. Hilary explained how the library actually worked, and what skills she felt were important for her students, and I proposed learning activities and structures. While the topics changed, there were a few questions that recurred every time:

- Which ideas are most important for this lesson, and which are secondary?
- How do we move the learner from simple tasks to complex ones?
- How much can we get done in the time allotted?
- How do we know if it worked?

The result of these recurring questions was a number of discussions about the fundamentals of student employee training. What outcomes did we really want? How skilled did students need to be? What were we willing to let go? This was a time-consuming process, and required trade-offs between the skill set of the students and the time and effort needed to educate them. Hilary had to prioritize the desired skills and make tough choices about what to omit; I had to help her develop the instructional framework to sequence the selected content.

DEFINING OBJECTIVES

Hilary

Collaborating formally with Rudolf about my teaching process (rather than picking his brain over dinner for a few suggestions) radically transformed the way I thought about teaching. It became clear to me that I was destined for disappointment when pursuing a big, amorphous goal--students will learn to search a database, for example.

It was while describing what I really wanted them to know--the nitty-gritty of what it means to effectively search a database--that I realized two important things:

1. I knew, even if he didn't, that a wide array of skills were required.
2. He knew, even if I didn't, that there was no way to teach all those skills at the same time.

In order to teach database searching, or anything else, effectively, we had to break down the big idea into discrete parts, and then put them in a reasonable order. To use an analogy, when I bought my first bicycle, I thought of it as a big hunk of metal. I didn't know how to adjust the brakes, or tilt the handlebars, or change a flat tire, because it just looked like a single object to me. I took a class in bike repair, and even though I never transitioned to servicing my bike myself, I learned that it was actually a collection of dozens of moving parts, all of which could be dealt with separately, taken apart, and put back together.

Database searching turns out to be quite similar. To many, including my students, it's perceived as just one big skill; in reality, it has as many moving parts as a bicycle does, and becoming adept at it requires you to see that all of these parts move independently of one another.

This is where objectives came in. What did I want my students to know? "How to search a database" was just a big hunk of metal. I needed to make lists of what individual parts of the process, specifically, I thought they should know. I also needed to prioritize the most important concepts, figure out how to group them logically, and determine how much information students could realistically absorb in the time and circumstances available to me.

Rudolf

I normally work with education majors who want to teach in a middle school or high school. While they generally have a good grasp of their content,

they need to learn to apply this knowledge, a process which takes place in their methods classes.

One of the most important (and difficult) lessons is to look at teaching in terms of objectives: a series of visible, measurable outcomes than can be completed in a single lesson. Turning broad, long-term goals into a series of discrete learning targets allows us to sequence instruction, plan lessons, and develop assessments.

Strong objectives make every other part of teaching easier, and while it might seem more efficient to immediately start planning your lessons, the time spent strengthening objectives is an investment that will repay you many times over. While everyone has an idea of what they want to teach, it's helpful to make sure you have thought through all four parts, the ABCD's of objectives in Table 1 (Carjuzaa & Kellough, 2013).

Audience is the target of your instruction: in this case, the student. Remember that objectives need to focus on what you want someone to learn, not on what you want to teach. You'll want to align your objectives with what you already know about your intended audience and their experience.

Behavior is the verb. It's what you want students to know or be able to do. This has to be something you can see or hear, because we're interested in determining what was learned by the students. This means that understand, know, comprehend, and believe are not kosher for objectives. If you find that one of them has slipped in, ask yourself, "How would a student demonstrate this?" Make that the objective instead.

Condition is important, because it often sets the difficulty of the task. Typical conditions involve materials, time, or collaboration. Examples might include: using a calculator, in ten minutes, in pairs.

Degree is the component most often skipped, and always helps answer the questions "how much, how well, to what extent?" There's a difference between writing a sentence and writing an essay. Degree often impacts the time needed for a particular objective.

Table 1. Parts of objectives

A =	Audience
B =	Behavior
C =	Condition
D =	Degree

When it came to improving the program at Hilary's library, one of the things we needed from the students was the ability to assist patrons with databases. So we started with Objective A below:

- A) Students will know about the library's databases

At first glance, this looks reasonable. But when we try to use it to plan a lesson, problems arise. What, exactly, would you teach? How much time would this take? How would you identify which students had mastered this, and which students still needed help?

If we think about this from your students' point of view, there are additional difficulties. They undoubtedly will know something about databases, but is it enough? How much do they need to know, and how would they gauge their own understanding?

As a comparison, look at Objectives B1-B3, which ultimately formed the basis for the training session described in the rest of this chapter.

- B1) Students will find the names of 3 databases searched by the EBSCO federated search box.
- B2) Students will perform a basic keyword search and apply full-text and peer reviewed limits to their results.
- B3) Students will save results to folders, email results, and share a link to their search via email.

The greater precision of objectives B1-B3 makes them far more useful as a guide to plan our

instruction, and also makes assessment simpler. We can simply ask students to demonstrate the objective, and it will be clear to them and to us whether or not they can do it.

DIRECT INSTRUCTION

Rudolf

Many of the skills that Hilary identified were concrete and straightforward. For example, as stated in Objective B1, student workers needed to know which databases were accessible through the library. Because she was focused on information, and not critical thinking skills, I felt that direct instruction was the best teaching method.

The four steps of direct instruction:

- Main idea
- Example
- Group Practice
- Individual Practice

We've all experienced direct instruction at one time or another, often in the form of a lecture. It's important to realize that poor lectures only include the first two steps: moving from a main idea to an example, and possibly to a new main idea, while omitting practice entirely. This method can cover a great deal of content, but remember that our focus is on student learning, and practice is a critical component of learning something new.

Direct instruction is a good match whenever your objective is on the bottom half of Bloom's taxonomy: when we focus on students' knowledge, comprehension, and application (Bloom, 1956).

Hilary

Direct instruction, as it turns out, is basically what I do all the time as a librarian: explain a skill, demonstrate it, and then give students a chance to practice. As a result, I felt pretty comfortable with this part. But even though I'd used direct instruction techniques before, I hadn't used them to their full advantage. There was way too much lecturing, pointing, and clicking, and not nearly enough encouraging the students to try things on their own and to talk about their experience afterward.

One reason for that was the sheer amount of information I often felt I had to include in a training session. It required a big shift in perspective to see that, given the time constraints (and the attention spans of my student employees), I had to my limit my expectations. By the time I began planning the first of my new training sessions, on finding articles, I had a lot of practice in writing objectives. I brainstormed all the skills I could think of that belonged within the scope of article searching, then drafted objectives for each of them. After that, I had to figure out which ones were at the top of the priority list, sequence them, and ruthlessly cut the rest. The ones I selected are B1-B3, mentioned earlier in this chapter.

Once I had my detailed objectives, I could plan my session with those goals in mind. Anything that didn't serve the objectives--other useful search skills, tips and tricks for using the database, thinking about which keywords we used--needed to be stripped from the session. I even wrote a bare-bones "script" as I planned my instruction, to be sure I wouldn't wander off into supplementary territory. The script helped me stay on task, stick to the time constraints, and avoid bombarding my students with conflicting signals about what I really expected them to learn.

INDIRECT INSTRUCTION

Rudolf

Some of Hilary's objectives were not particularly suited to direct instruction. Managing search results was an important skill with which Hilary wanted student workers to be very comfortable.

Because a thorough understanding of how the system operated was required, we chose to use indirect instruction in this case.

Indirect instruction is less common than direct instruction, and some people may have never experienced it in an academic setting. However, it is a well-established teaching method that also consists of four parts.

The four steps of indirect instruction

- Question
- Explore
- Discussion
- Main Idea

Indirect instruction starts with a question, usually provided by the instructor. It is the process of investigating that teaches the student, so it is important not to immediately give away the answer. Learning what doesn't work is as useful as learning what does work.

Explore is the step which takes the longest, and may require the instructor to prepare materials in advance. Students are generally capable of exploring without help from the instructor, but their previous experience will always affect the difficulty of the task. The goal is to challenge students, but not to immobilize them; provide enough help to keep groups moving forward, but no more.

Discussion is where students share their experiences with each other and with you. This is where you begin moving students from where they are to where you want them. Ask questions about the most important aspects of your topic, so that you can assess what the students have and have not learned.

Main idea is the conclusion of your lesson, and should be treated as such. Summarize what the students did, what was learned, and how it connects to the topic. If students missed anything, this is where you can fill it in before you conclude.

Hilary

Indirect instruction wasn't a technique I was accustomed to using. This was my first experience with giving students a basic direction and then letting them explore how to get there on their own. It was difficult not to want to demonstrate everything first, but here again planning ahead, including scripting my intentions, helped me stick to the indirect method.

I told students that there were a number of things they could do to manage search results in the database, such as emailing articles to themselves. How could they accomplish these tasks? I urged them to work together in their groups to figure this out.

Results management isn't necessarily difficult, but it can take a while for novices to learn the technical aspects, so I had to allow plenty of time for this part. I had created a worksheet that listed the skills they needed to master, but without any advice on how to do it. The most challenging part for me was to provide guidance if they got stuck without just giving them the answers. Between the worksheet and my simply encouraging them to keep poking around the results pages and individual article records, all the groups were able to succeed.

A surprising side effect of the indirect instruction method was that students discovered some skills I hadn't planned to include. For example, one of my upperclassmen asked about the My EBSCOhost account, and what it did, which led to a discussion of keeping folders beyond a single search session, and an opportunity to show them my own account (which includes about a decade of saved search content). I hadn't expected the enthusiasm with which this feature was greeted, but it was gratifying to see the students taking ownership of their skills, and considering how they could apply them to their own benefit.

ASSESSMENT

Rudolf

This entire set of lessons required considerable effort to build and teach. Naturally, Hilary and I were both interested to see if it worked. And that's the main idea behind assessment: determining whether or not your students meet the objectives.

Weak objectives make assessment harder, while a well-written objective almost assesses itself. Let's take a look at Objectives A and B3 from above.

- A) Students will know about the library's databases.
- B3) Students will save results to folders, email results, and share a link to their search via email.

There's no way to directly see what students know about databases, so that's a problem. And if we ask students a question, like "What database platform does our library use?", and they answer "EBSCO," it's still not entirely clear if they know enough about databases to satisfy us. Presumably, we want them to know more than just this, but the student's response technically does answer the question.

Objective B3 is far clearer, and this makes assessment simple. We ask the students to save results to a folder, email results, and share a search permalink by email. It will be clear to us which students can do this, and it will also be clear to them. That's not true of Objective A, where a student might leave thinking that they had an adequate understanding of databases, while still falling well short of what Hilary considered sufficient.

For Objective B2 (students will perform a basic keyword search and apply full-text and peer reviewed limits to their results), Hilary assessed the student workers' progress with a worksheet. There were a few example phrases to search for within the article search box, and students were asked how many results they found initially, after limiting to full-text, and after further limiting to scholarly journals. Finally, students had to explain how to remove those limits.

This allowed her to see which students were ready to move on, and which needed more practice. Students were able to get detailed feedback on their own strengths and weaknesses as employees. This showed them where to focus their own efforts for self-improvement.

Strong and ongoing assessment also created an opportunity to evaluate the training sessions themselves. If there had been a session where the majority of students failed to meet the objectives, it would be clear that the instruction needed revision. Likewise, any session with outstanding student scores could either be made more challenging or allocated less time.

There is one more advantage to strong objectives and strong assessments, but it only occurs when you look at the training program as a whole. By listing all of the objectives, it becomes possible to see where objectives are taught and where they get assessed. This allows us to double-check that our program does what we intended, by creating something called a table of specifications.

A table of specifications is a simple idea: a chart that lists objectives on the rows and assessments on the columns. Ideally, every objective gets assessed at least once, and every assessment is aligned to an objective. Table 2 represents a hypothetical training session with Objectives C1-C4.

As you can see here, we don't know if our sample program actually meets Objective C4. We

Table 2. Sample table of specifications

	Assessment 1	**Assessment 2**	**Assessment 3**
Objective C1	x		x
Objective C2		x	
Objective C3			x
Objective C4			

clearly intended to teach it, but since we never checked, we have no evidence that students met objective C4. It's common for lessons to drift away from the original intent, and a table of specifications is a simple yet effective way to prevent that drift from getting out of hand.

A table of specifications can help you determine the overall scope of a particular training session, or even an entire program of instruction. In addition, it can easily be shared, so anyone can gain a clear understanding of what is and is not part of student employee training.

Hilary

Rudolf told me that a strong objective assesses itself, and I was pleasantly surprised to find that he was right. I used a combination of a worksheet and group discussion to assess how well students were grasping the material. The worksheet was ideal, because I could see, when walking around and talking with my students, how much they understood. The general discussion after each group activity gave me an opportunity to emphasize anything I thought was important that might have been missed or glossed over in some of the groups.

I also learned a lot about what did and did not work through those two assessment methods. For example, it was immediately clear that the students who were most confident tended to self-select--or be selected by their peers--as the person who performed the actual searches on the computer. As a result, I had a hard time determining whether the other students in the group had as great an understanding of what was happening. Even while watching another student in the group fill out the worksheet, I wondered whether they were just writing down what they were told, rather than thinking it through independently. In general, I needed to spend more time talking the concepts through and asking questions at the group level, especially with the quieter or less self-assured students. In future, assigning students to roles within their groups, and swapping those roles between activities, may help mitigate this problem.

Discussions at the class level, with everyone participating, were more successful, because I could call on individuals as needed to assess their understanding. The less confident students seemed more engaged when they were talking as part of the larger group, rather than focused on filling out the worksheet. Clearly some forms of assessment don't work in every circumstance or for every student.

While assessing the students' understanding, I also noticed that the order of activities, which had worked very well the first time I ran the training session, was much less successful the second time. I could see the students struggle with portions of the worksheet, not because the activity was too difficult, but because the shifts between systems were too jarring. I suspect that the first group's greater experience with library tools made a big difference here. Next time I plan to revise the lesson order to group activities by database system, rather than by type of research task.

Now that I have a large bank of objectives from the various training sessions and independent learning activities Rudolf and I have developed over the last couple of years, incorporating those into a table of specifications seems like a worthwhile and achievable goal. This will enable me to see the full scope of the training program, and help me create new activities or improve existing ones.

BENEFITS, CHALLENGES, AND RECOMMENDATIONS

Hilary

This collaboration has been one of the most productive professional development opportunities in my career as a librarian. It took courage to admit my shortcomings (even to my own spouse!), but the impact on my performance as a teacher was well

worth it. The time and effort this collaboration demanded was also a challenge, but again had a worthwhile return on investment.

The benefits for me have been numerous. My student employees are definitely grasping important concepts more easily, and my confidence in them has grown proportionately. In addition, I'm more confident in my own abilities, which makes teaching--whether in a training session or in any ordinary library instruction session--a less stressful and more successful exercise.

Another positive outcome for me is that I can more easily identify areas in which I can improve further. To return to the bicycle metaphor, teaching is no longer just a hunk of metal. It's objectives, and types of instruction, and assessment; but now it's also wait time and stretch goals. Our collaboration is transforming naturally from a professional development model, where we both had specific things to teach each other, to a more collegial model, where progress is made through coaching.

Rudolf

One rewarding outcome for me was the opportunity to build a new curriculum, in partnership with a content expert, that will benefit Hilary's library for some time to come. It is always satisfying to see a program move from initial concept to successful implementation.

This collaboration was a challenge for me as well. While I have a strong background in education, Hilary knew the library and the student employees far better than I did, and would ultimately be responsible for the program. I did have to become more familiar with the way the library worked, but the more difficult part was the change in my role.

As a college professor, I often work with students who are new to the teaching profession. Working with Hilary meant giving up the instructor role and acting as a coach. As the one teaching the lessons, Hilary was able to report back on what worked well and what still needed improvement. Our conversations about successfully implementing lessons were always productive. She also was a strong self-advocate, sometimes turning away ideas because they didn't match her personal teaching style. As a coach, I needed to improve my listening skills and focus my energies on a collaborative, rather than instructive, relationship. I work most often with pre-service teachers, so exercising skills that are more commonly used with in-service teachers is always refreshing.

Coaching is now a prominent method of professional development for teachers. Some school districts have begun to use instructional coaches to help teachers to implement new teaching strategies, and make more appropriate use of new teaching models over time (Annenberg Institute for School Reform, 2004; Joyce & Showers, 1980). Showers and Joyce (1996) also advocate peer coaching, in which groups of teachers are taught to coach each other, an approach with demonstrated positive effects (Forbes, 2004).

While we obviously advocate for working with faculty beyond the library's doors, peer coaching is a valuable source of professional development. Successful peer coaching programs are found in many libraries. Levene and Frank's 1993 article presents a model for such programs, with an emphasis on building trust, learning from one's partner, and reflecting upon teaching practices in a collaborative way. Sinkinson offers a case study of a peer coaching program focusing on professional development for instruction librarians. In assessing the program, she notes that "peer coaching has proven to enliven teaching librarians individually and to nurture a community of teachers" (2011, p. 18).

FUTURE RESEARCH DIRECTIONS

Despite the length of our collaboration, time and logistical constraints prevented us from pursing some avenues. Below are some of the areas in which we see potential for further professional

growth and research for librarians seeking to improve their instructional effectiveness.

Classroom Observation

Direct observation of teaching methods is a common practice. Any classroom is a dynamic place, and it is difficult to see everything that occurs under the best conditions. For the instructor, this is made more difficult, as he or she is also thinking about the content, watching the time, and monitoring student progress. An impartial observer is always in a stronger position, whether observing with a wide lens or focused on an area of particular concern to the instructor.

Inviting an experienced teacher into the classroom provides an opportunity for expert critique and recommendations for improvement. Provided with a lesson plan, that observer can objectively compare the planned lesson and the enacted lesson. He or she can also comment on any number of other factors, from student behavior to instructional technique to effectiveness of informal assessments.

Conversely, a librarian observing an experienced teacher using direct and indirect instruction would gain additional insight into how an experienced teacher can implement these methods. Post-observation discussions, as well as independent reflection, would help the observing librarian better understand the process and how to apply it to his or her own practice. Beyond the faculty collaboration described in this chapter, libraries would benefit from a greater use of non-judgmental peer observations. Although few librarians are formally trained in pedagogy, a peer observer can still provide the impartial attention to detail and post-session feedback that may improve skills over time.

Programmatic Assessment

Formal or informal assessment at a training session is helpful, but does not address the larger question of the overall effectiveness of the training program. Recognizing the strengths and determining the weaknesses of a program, and planning changes and improvements, requires programmatic assessment.

Libraries often do this kind of global assessment, from examining course-related instruction programs to reference or circulation desk service. Applying the same effort to training programs would be an excellent way to improve them.

Requirements will include data collected either through existing assessments or through new tools. As shown in Table 2 above, there must be an assessment for each objective in the program, or it will be impossible to determine if all objectives are being met. Programmatic assessment has other benefits: it necessitates a detailed examination of the objectives currently targeted by the training program, which may lead to elimination, improvement, or addition of objectives as appropriate.

Next Steps

As noted in the literature, librarians tend to look for teaching advice within their own profession, and are seldom included in campus teaching and learning improvement initiatives. Action at a library's administrative level to stress the importance of librarian participation, both by contacting these centers of faculty development and by encouraging library staff to get involved, is vital. Such campus initiatives typically offer programs for teaching improvement, which would clearly benefit librarians, but involvement may also create more opportunities for librarians to find and collaborate with faculty partners.

The benefits of this kind of direct collaboration with faculty are manifold, but in reality it would not be practical for every librarian to be a part of such an endeavor. However, librarians who do so can certainly bring their new knowledge and skills back to their colleagues. They can serve as observers during training sessions, providing feedback based on what they've learned. They can

also offer workshops internally or even at local library conferences.

In fact, this is the direction we have taken, presenting workshops based on this collaboration in 2013 at both the Association of College and Research Libraries National Conference and the Rhode Island Library Association Conference. At each of these events, we presented as a team, and found this to be the best possible scenario; as in our private collaboration, Hilary was the library content expert, and Rudolf contributed his educational expertise. However, as we mentioned above when identifying benefits of our work together, our new in-depth knowledge of each other's discipline allowed us, in most instances, to coach our workshop attendees regarding content or pedagogy without having to consult one another. This indicates that future workshops or other professional development opportunities could consist of only the librarian half of such a collaboration.

CONCLUSION

Effective teaching is challenging. Even seemingly simple tasks, such as planning a 45 minute class, are easy to imagine but far harder to accomplish. The basic skills of teaching need to be so automatic that the person in the front of the room can monitor student engagement, assess learning, and adjust lesson timing while they teach. This automation allows them to shift focus from "What am I teaching?" to "What are my students learning?"

Above and beyond their coursework, preservice teachers' classroom observation, field experience, and student teaching play an important role in preparing them to perform well in the classroom. Librarians are typically not exposed to coursework in pedagogy, nor are they required to participate in field experiences that include teaching.

Walter notes that, "even after thirty years of discussion and debate, teacher training is still a relatively minor part of the professional education for librarians even as it becomes an increasingly important part of their daily work" (2006, p. 216). An extensive review of the library literature demonstrates that while librarians value and frequently seek development in this area, they seldom look to outside experts, such as education faculty, to improve their instructional performance.

Partnerships with education faculty not only have the potential to improve librarians' teaching techniques, but also can deepen interdepartmental relationships and increase faculty members' understanding of what librarians do and how their work benefits students. Local collaboration has added benefits, such as the opportunity to apply new skills immediately; to communicate easily and frequently, including in person; and the chance to observe one another in teaching environments. Although these are distinct advantages, in cases where partners can connect in person less often, or don't work in such close proximity, online communication through Google Drive documents, email, or instant messages make it relatively easy to get help at the point of need.

Finding a faculty member with whom to pursue this kind of collaboration can be a challenge. If you aren't lucky enough to have married into the opportunity, as we did, suggestions abound in the library literature for how to connect with and build relationships with faculty. Leeder's blog posts describe excellent strategies (2011a), provide models for collaboration (2011b), and offer examples of successful partnerships (2011b, 2011c).

As budgets for travel and conference attendance shrink, and emphasis on faculty relationships grows, librarians must look beyond our traditional borders for affordable, effective, and mutually beneficial professional development. We must overcome any shyness or sense of inferiority and embrace the opportunity for outreach that can truly improve our students' learning outcomes.

REFERENCES

Albrecht, R., & Baron, S. (2002). The politics of pedagogy: Expectations and reality for information literacy in librarianship. *Journal of Library Administration*, *36*(1-2), 71–96. doi:10.1300/J111v36n01_06.

Annenberg Institute for School Reform. (2004). Instructional coaching: Professional development strategies that improve instruction. Retrieved from http://annenberginstitute.org/pdf/Instructional-Coaching.pdf

Association of College and Research Libraries. (2008). *Standards for proficiencies for instruction librarians and coordinators: A practical guide.* Chicago: American Library Association. Retrieved from http://www.ala.org/acrl/sites/ala.org.acrl/files/content/standards/profstandards.pdf

Bewick, L., & Corrall, S. (2010). Developing librarians as teachers: A study of their pedagogical knowledge. *Journal of Librarianship and Information Science*, *42*(2), 97–110. doi:10.1177/0961000610361419.

Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. New York: Longmans, Green.

Carjuzaa, J., & Kellough, R. D. (2013). *Teaching in the middle and secondary schools*. Boston: Pearson.

Department of Education. (2007). *The Rhode Island professional teaching standards*. Providence, RI: State of Rhode Island and Providence Plantations. Retrieved from http://www.ride.ri.gov/EducatorQuality/DOCS/General_Documents/PDF/RIPTS_with_preamble.pdf

Forbes, C. (2004). Peer mentoring in the development of beginning secondary science teachers: Three case studies. *Mentoring & Tutoring*, *12*(2), 219–239. doi:10.1080/1361126042000239956.

Heilig, J. V., & Jez, S. J. (2010). *Teach for America: A review of the evidence*. Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved from http://epicpolicy.org/publication/teach-for-america

Joyce, B., & Showers, B. (1980). Improving inservice training: The messages of research. *Educational Leadership*, *37*(5), 379–386.

Leeder, K. (2011a). Collaborating with faculty part 1: A five-step program [Web log post]. Retrieved from http://www.inthelibrarywiththeleadpipe.org/2011/collaborating-with-faculty-part-i-a-five-step-program/

Leeder, K. (2011b). Collaborating with faculty part 2: What our partnerships look like [Web log post]. Retrieved from http://www.inthelibrary-withtheleadpipe.org/2011/collaborating-with-faculty-part-2-what-our-partnerships-look-like/

Leeder, K. (2011c, July 13). Collaborating with faculty part 2: Selected models [Google Spreadsheet]. Retrieved from http://www.inthelibrary-withtheleadpipe.org/2011/collaborating-with-faculty-part-2-what-our-partnerships-look-like/

Levene, L., & Frank, P. (1993). Peer coaching: Professional growth and development for instruction librarians. *RSR. Reference Services Review*, *21*(3), 35–42. doi:10.1108/eb049192.

Office of Educator Quality and Certification. (2012). *Educator certification*. Providence, RI: Rhode Island Department of Elementary and Secondary Education. Retrieved from http://www.ride.ri.gov/EducatorQuality/Certification/

Showers, B., & Joyce, B. (1996). The evolution of peer coaching. *Educational Leadership*, *53*(6), 12–16.

Sinkinson, C. (2011). An assessment of peer coaching to drive professional development and reflective teaching. *Communications in Information Literacy*, *5*(1), 9–20.

Sproles, C., Johnson, A. M., & Farison, L. (2008). What the teachers are teaching: How MLIS programs are preparing academic librarians for instructional roles. *Journal of Education for Library and Information Science*, *49*(3), 195–209.

Walter, S. (2006). Instructional improvement: Building capacity for the professional development of librarians as teachers. *Reference and User Services Quarterly*, *45*(3), 213–218.

Westbrock, T., & Fabian, S. (2010). Proficiencies for instruction librarians: Is there still a disconnect between professional education and professional responsibilities? *College & Research Libraries*, *71*(6), 569–590.

ADDITIONAL READING

Acheson, K. A., Gall, M. D., & Acheson, K. A. (2003). *Clinical supervision and teacher development: Preservice and inservice applications*. New York: Wiley.

Bell, S. J., & Shank, J. (2004). The blended librarian. *College & Research Libraries News*, *65*(7), 372–375.

Bloom, B. S. (1956). *Taxonomy of educational objectives: The classification of educational goals*. New York: Longmans, Green.

Davis, B. G. (2009). *Tools for teaching*. San Francisco: Jossey-Bass.

Finley, P., Skarl, S., Cox, J., & Van Derpol, D. (2005). Enhancing library instruction with peer planning. *RSR. Reference Services Review*, *33*(1), 112–122. doi:10.1108/00907320510581423.

In the Library with the Lead Pipe [Web log]. (n.d.). Retrieved from http://www.inthelibrarywiththeleadpipe.org/

Kilcullen, M. (1998). Teaching librarians to teach: Recommendations on what we need to know. *RSR. Reference Services Review*, *26*(2), 7–18. doi:10.1108/00907329810307623.

Knight, J. (2007). *Instructional coaching: A partnership approach to improving instruction*. Thousand Oaks, CA: NSDC.

Middleton, C. (2002). Evolution of peer evaluation of library instruction at Oregon State University Libraries. *Portal: Libraries and the Academy*, *2*(1), 69–78. doi:10.1353/pla.2002.0019.

Popham, W. J. (2002). *Classroom assessment: What teachers need to know*. Boston: Allyn and Bacon.

Rowe, M. (1986). Wait time: Slowing down may be a way of speeding up! *Journal of Teacher Education*, *37*(1), 43–50. doi:10.1177/002248718603700110.

Tyler, R. W. (1949). *Basic principles of curriculum and instruction*. Chicago: University of Chicago Press.

Walter, S., & Hinchliffe, L. (2005). *Instructional improvement programs*. Washington, D.C: Association of Research Libraries, Office of Leadership and Management Services.

Wiggins, G. P., & McTighe, J. (2011). *The understanding by design guide to creating high-quality units*. Alexandria, VA: ASCD.

KEY TERMS AND DEFINITIONS

Assessment: Not to be confused with grading, assessment allows an instructor to determine which students have met the objective. This may be done informally by asking questions, or formally with an exam.

Coaching: Working with another as a critical friend to improve their teaching effectiveness through reflection and practice.

Direct Instruction: A method of teaching that involves stating the main idea, providing an example, asking students to practice in groups, and finally asking students to perform independently.

Indirect Instruction: A method of teaching that involves asking the student a question, providing an opportunity to explore, discussing outcomes, and then concluding with the main idea of the lesson.

Instructional Improvement: Professional development intended to improve the performance of practicing teachers.

Objective: The intended target of instruction, this specifies what students know, believe, or can do. Objectives must be visible and measurable, and should avoid vague terms like "understand."

Sequence: The framework that outlines the order in which lessons will be taught, including the time allocated for each. Distinguished from scope, the totality of what is to be learned.