



## Retrospective Reflection: Insight into Pre-Service School Librarians' Competencies and Skill Development as Revealed through Field Notes

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*Note: In a slightly different format, this paper was presented at the AASL Educators of School Librarians Research Forum in Minneapolis, MN, October 2011.*

### Abstract

*This paper seeks to expand our understanding of how educators, and in particular school librarians, acquire and use professional-practice knowledge. This exploratory study, grounded in “lived practice” (Spillane, Hunt, and Healey, 2009) uses reflective analysis to amplify competencies and skill development in pre-service school library education. The project positions graduate students and fifth-grade students as teachers and learners, and challenges pre-service school librarians to learn to teach by reflecting upon professional practice during their field experience. In this case study pre-service school librarians reflect-in-action, reflect-on-action (D. Schön, 1987), and reflect-after-action (retrospective reflection) via the use of field notes, student work, interviews with Pre-K–12 students, and the development and implementation of formative and summative assessments as the pre-service school librarians worked together with fifth-graders on the design, development, and implementation of a technology-enhanced curriculum project. This study addresses the need, identified by scholars in this and related fields (Melser, 2004; Ravid and Handler, 2001), “to provide more information about the dynamics of collaboration” between university and school partnerships (Ravid and Handler, 2001, xi).*

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## Introduction

This study draws on the voices and reflective accounts of two pre-service school librarians written prior to, during, and following their field experience with a class of fifth-graders; these graduate students' written assignments over the course of the semester and the semester following their field experience; their experiences as pre-service school library educators; and on the first author's and others' research on teacher education, learning, and reflective practice. Findings from this study provide an opportunity to further our understanding of pre-service professional practice. Such revelations shed light on the issues and challenges graduate students face in pre-service practice and help to "make [their] learning visible" (Fiore and Rosenquest, 2010). Results from this study may also help university faculty identify possible gaps in pre-service educators' academic preparation, and modify course and program structure to remedy such gaps.

## Theoretical Framework

This paper relies upon John Dewey's criteria for defining reflection as outlined in his book *How We Think*. Dewey explains:

- "Reflection thus implies that something is believed in (or disbelieved in), not on its own direct account, but through something else which stands as witness, evidence, proof, voucher, warrant; that is, as *ground of belief*" (1933, 8).
- Elements in reflective thinking include "(a) a state of perplexity, hesitation, doubt; and (b) an act of search or investigation directed toward bringing to light further facts which serve to corroborate or to nullify the suggested belief" (1933, 9).
- "*Demand for the solution of a perplexity is the steadying and guiding factor in the entire process of reflection*" (1933, 11).

### Reflective Teaching Practice—Thinking Beyond Doing

The phrase *reflective teaching practice* was first coined by philosopher Donald Schön in his books *The Reflective Practitioner* (1983) and *Educating the Reflective Practitioner* (1987), and

for the past twenty-five years it has been one of the most dominant theories of professional knowledge (Kinsella, 2010; Loughran, 2002; Newman, 1999; Raines and Shadiow, 1995; Rømer, 2003; Rose, 1992; Zimmerman, 2009). Although reflective practice has achieved widespread acceptance in the field of education and a wide range of health and social care professions, conceptual confusion amongst researchers, educators, and practitioners abounds and is frequently commented upon in the literature (Erlandson, 2005; Kinsella, 2010; Newman, 1999; Rodgers, 2002; Rømer, 2003). “Indeed, so broad and idiosyncratic is its application that some have suggested that ‘reflective practice’ is in danger of becoming an empty, meaningless phrase, that at once means everything and nothing” (Kinsella, 2010, 5). Schön’s work, influenced by the philosopher John Dewey, is a reworking of Dewey’s theory of inquiry (D. Schön, 1992). Kinsella (2006, 2010) adds to the discussion of the philosophical underpinnings and epistemological assumptions of the theory and provides a deeper interpretation of Schön’s work, underscoring the importance of reflective practice as a theory to advance the understanding of professions and practitioners. Kinsella’s key points are summarized and presented below.

### **Reflective Practice, Reflection-in-Action, and Reflection-on-Action**

Two major themes from Dewey shape Schön’s epistemology of practice: (1) the relationship between intentional reflection and action, and (2) the concept of an artistry and aesthetics of practice (Kinsella, 2010, 7). Schön combines reflection with action in three of his pivotal constructs: *reflective practice*, *reflection-in-action*, and *reflection-on-action*. In each construct reflection transpires in and on actions that occur in practice in a dialectic fashion (Kinsella, 2010). Schön (1983) describes reflective practice as a critical assessment of one’s behavior as a means toward developing one’s abilities in the workplace, and as a dialectical process whereby thought and action are linked. This involves a “dialogue of thinking and doing through which I become more skillful” (D. Schön, 1987, 31). As Kinsella explains, Schön uses reflective practice as an “umbrella term” while reflection-in-action and reflection-on-action can be distinguished by the time in which the reflection takes place (2010, 7). Reflection-in-action occurs in the midst of practice, and reflection-on-action occurs retrospectively.

Professional practice also involves professional artistry or “the kinds of competence practitioners sometimes display in unique, uncertain, and conflicted situations of practice” (Kinsella, 2010, 8). Schön declares that reflection in action is the best way for any students, but especially students in professions (education, nursing, health), to connect their theoretical knowledge with practical knowledge (Zimmerman, 2009). Although many benefits are attributed to reflective practice, and educators of teachers incorporate reflection into class assignments and student fieldwork, reflection is not a common professional behavior amongst practicing teachers (Shoffner, 2008). One of the goals of this study was to demonstrate the value of active reflection not only for the professional development of pre-service educators, but for university faculty as well. Active reflection helps pre-service teachers and university faculty think about their experiences, formulate and analyze problems, consider alternative solutions, and then implement and assess selected solutions (Janssen, de Hullu, and Tigelaar, 2008). *Retrospective reflection* (Dewey, 1933), which has the potential to influence future action, is synonymous with reflection-on-action.

## **Field Experiences as Learning Partnerships**

In the mid-1980s higher-education professionals in the United States insisted on reform in teacher education programs (Kirkpatrick, Lincoln, and Morrow, 2006). Researchers

recommended that professional education programs be immersed in extensive field-based experiences through the establishment of university/public school partnerships in which goals would be interconnected (Metcalf-Turner, 1999) and all stakeholders would have a voice in the decision making process (Catelli, Padovano, and Costello, 2000). University faculty, it was said, would benefit from such partnerships by working more intensely and in context with pre-service and in-service educators. Such partnerships would provide faculty the opportunity to integrate their teaching and research (Melser, 2004), and give faculty the chance to modify course and program structure based on “lived experiences” (Connelly and Clandinin, 1988). School-university collaborations are now an important part of the educational scene throughout the United States (Ravid and Handler, 2001). Such partnerships have become a cornerstone of educational restructuring (Lefever-Davis, Johnson, and Pearman, 2007), and national accreditation agencies have called for the establishment of systematic assessment “to document the capacity of the university/public school partnerships” (Kirkpatrick, Lincoln, and Morrow, 2006, 37). For university faculty, the opportunities to work more intensely and in context with pre-service and in-service teachers can provide substantial professional development, along with the chance to integrate their teaching and research (Teitel, 2001). As Matthew B. Miles and A. Michael Huberman have argued: “Field research is far *better* than solely quantified approaches at developing explanations of what we call local causality—the actual events and processes that led to specific outcomes” (1984, 132). This study explores the use of reflective practice field notes as a way to assess the legitimacy of a university/public school partnership, evaluate the effectiveness of the pre-service graduate program to prepare practitioners, and make visible the teaching and learning activities of pre-service educators as they work in the field.

## Context for the Study

This study was situated in a midsized urban northeastern city as part of a university-based 42-credit library and information science graduate program. School library media majors, as with education majors in most states, are required to complete one hundred hours of field experiences prior to their two internships (student teaching). The final twenty-five hours of field experience are integrated within a 3-credit problem-based (PBL) capstone course, the evolution and the development of which the first author has described in other publications (Stefl-Mabry and Doane 2011 and 2008; Stefl-Mabry, Doane, and Radlick 2010; Stefl-Mabry and Powers 2004; Stefl-Mabry, Powers, and Doll 2006; Stefl-Mabry and Powers-Goodall 2005; Stefl-Mabry, Radlick, Doane, and Theroux 2007).

This study extends the development of this pedagogical model by using retrospective reflection to “bring us back to the lived realities of daily classroom life” (Fielding, 2007, 334) focusing on the pre-service graduate students’ perspectives. The course is designed to extend and enhance pre-service students’ understanding of teaching, learning, and assessment through active engagement in a collaborative real-world learning experience. Each student is a part of a team consisting of two graduate pre-service students, a Pre-K–12 in-service teacher, and an in-service school librarian. Together the team is tasked to design, develop, implement, and assess a small curriculum unit designed to enhance the existing curriculum of a Pre-K–12 class. The units typically include in-class activities, formative and summative assessments, and an integrated website with intentionally selected technologies and information resources to provide instructional support. Pre-service school librarians review literature related to their investigation, design in-class activities to get to know their students, develop data-collection strategies to inform the inquiry, analyze the data to determine their instruction's effectiveness on student

learning outcomes, and share the results in a professional setting through publications such as this and community-based sharing events. This paper will highlight the lessons learned from the experiences and reflective activity of a team who created a nutrition project for fifth-graders using Glogster during the fall 2010 semester.

## Participants

The participants of this study were two prospective school librarians completing the final course of a two-year school librarian program. One of the pair had a Bachelor's degree in communications with a minor in history, and the other's undergraduate degree was in international relations-strategic intelligence.

A small number of participants was selected in an effort to preserve the individuality of participants in the analyses so that we could better understand how events, actions, and meanings are shaped by the unique circumstances in which these occur (Maxwell, 1996). Because a small number of individuals who are keen observers and knowledgeable is "more valuable many times over than any representative sample" (see also Andrade and Du, 2007; Blumer, 1969, cited in Fontana and Fey, 1994, 365; Rubin and Rubin, 1995), the participation of students who had been particularly reflective and forthcoming with their opinions in class was solicited by the professor. The sample was a purposeful one, chosen for its potential to illuminate areas in need of further study, not to represent a larger population.

## Research Questions

*Research Question #1:* What information is revealed concerning competencies, skill development, and dispositions in pre-service school librarians' reflective practice field notes?

*Research Question #2:* What challenges and concerns do pre-service school librarians encounter as they conduct their inquiry-based technology-enhanced fieldwork?

*Research Question #3:* What information can be learned from students' reflective field notes that does not appear in students' practicum papers?

## Methodology

Pre-service school librarians' written field notes and practicum papers were analyzed using qualitative analytic procedures (Strauss and Corbin, 1998). A process of data analysis similar to the analysis of other qualitative self-report data was followed. An adapted version of the consensual qualitative research methodology (CQR) (Hill et al., 2005) was used. CQR involves coming to a consensus during five analytic steps: (1) developing domains or topic areas, (2) coding the data, (3) constructing core ideas across cases while examining the data for confirmatory and disconfirmatory evidence, (4) charting the results, and (5) writing a narrative summary.

Traditional weekly field notes (describing one or more weekly onsite visits) and a practicum paper summarizing the field experience project (jointly written by the graduate students) were analyzed. Data were first organized by field notes in chronological order and then read in their entirety two times to establish familiarity (Dawson, 2006). The practicum paper was also read

twice. The field notes and practicum paper were then read a third time with a focus on identifying themes and/or patterns as they emerged from the data. During the third reading fourteen categories were used to code the data using TAMS Analyzer (Text Analysis Markup System)<sup>1</sup>. A first-pass summary of the coded data in the files revealed redundancies in several of the original fourteen categories. After a careful review several categories were modified either due to redundancies and/or failure to capture the essence of the data. Seven categories remained (see **Table 1**). Codes were defined in terms of the content of participants' comments, rather than by length of utterance.

**Table 1. Final Codes with Frequencies**

Code	Practicum Paper	S-Field Notes	D-Field Notes	Total
Assessment	44	42	29	115
Group Work	34	61	53	148
Information Literacy	14	13	7	34
Issues	7	61	41	109
Planning	18	42	38	98
Student Engagement	36	47	38	121
Technology	26	33	23	82

## Results

Before proceeding with a discussion of the results, it is critical to remember that, as Hilary Putnam argues, our image of knowledge and objectivity wears a human face (1990, xvii). “Any view is a view from *some perspective*, and therefore incorporates the stance of the observer” (Maxwell, 1996, 29); in this case the observer’s stance is ours as authors. That being said, our analyses revealed six main findings. Each finding will be grouped as it relates to the first two research questions that framed this study. The third research question will be addressed separately.

**Research Question #1:** What information is revealed about pre-service school librarians’ competencies, skill development, and dispositions in their reflective practice field notes?

**Finding #1: Planning and time-management activities were critical factors for pre-service educators.**

As the graduate students worked on their project they acknowledged the importance of planning and time management:

*“We found it incredibly helpful to map out a schedule for the project completion with our classroom teacher. Mapping out a schedule gave us an approximate end date and allowed us to begin scheduling a parent night for the students to showcase their hard work. While the schedule did offer us stability we also allowed it some flexibility. That flexibility in the schedule ended up being very useful since some days with the students were more productive than others.”*

<sup>1</sup> TAMS is a convention for identifying themes in texts (webpages, interviews, field notes) and is a software application that was designed for use in ethnographic and discourse research, see <<http://tamsys.sourceforge.net>>).

The pressure of *time* proved to be a critical factor as the graduate students continued to work on the Glogster project:

*“Again, the time factor is something which needs to be kept in check in regards to the students finishing their Glogs for the presentation day.”*

*“Another issue is still the time factor—there is still a lot to do and the number of days left to do all of it is getting less and less.”*

This finding is supported by researchers who have suggested that time is one of the most significant inhibiting factors for teachers’ use of information communication technology (ICT), whether it is time to learn new skills, time to find out about technologies, time to find out about resources, time to plan and try out new approaches, time to reflect upon experiences and consolidate learning, and/or time to share those experiences with others (Condie, Munro, Seagraves, and Kenesson, 2007; Karasavvidis, 2009). In this project time was also a major obstacle for instructional support (see Finding #6).

### **Finding #2: Pre-service school librarians voiced concern and frustration when working with groups.**

One of the most frustrating and challenging experiences for pre-service school librarians was facilitating group work. Evidence of their struggle can be heard in the following comments:

*“Three of the four group members do not want to work together. E. tried to work with them for a time, and I checked on them also.”*

*“Sadly, there were a couple of groups where the members just don’t seem to be getting along and the writing was going very slowly.”*

*“There have been some personality conflicts which have started to emerge in some of the groups.”*

*“I was being pulled by each group for help.”*

The graduate students were unsure whether it was proper to ask their in-service teacher to step in and help manage the groups. The following comments reveal that the graduate students were waiting for the teacher to step in and assist with classroom management:

*“I am concerned about the one group which is not working well together. The students are getting frustrated with one another, and I do not know where S. and I take a step back and let M. [teacher] take control of the group or are we supposed to do that?”*

*“Both of us were hoping M. [teacher] would step in for discipline issues but we are not sure that will happen.”*

*“[We] are frustrated that she [teacher] has not stepped in to help with the group that does not get along.”*

By the end of the project, as the groups gained more confidence and skills working together the graduate students noted a change in the behavior of the groups:

*“Some of the group members that were not too happy to be working in a group last time seemed to be happier this time around. Attitudes do make a difference in the group dynamics as the groups did work better together this time. The students seemed to be more confident this time working on their Glogs as they have had more and more experience every time we come in.”*

Although as faculty we teach about the importance of collaboration and the ability of groups to achieve far more than individuals working alone, more hands-on opportunities may need to be integrated into the graduate program to provide pre-service educators more opportunities to learn about group dynamics and how to facilitate groups. Graduate students need to feel comfortable staying in the *mess* and learning how to tolerate and even embrace the idea that things will go wrong in groups sometimes (Salmon, 2007, 80).

### **Finding #3: Highly structured assessment instruments facilitate the teaching and learning experience for fifth-grade students and pre-service school librarians.**

As the graduate students worked on their project, they found that incorporating a variety of formative and summative assessment tools helped them and their learning partners throughout the learning process:

*“We continuously had assessment in mind during the course of the Glogster project. Very early in our field experience we drafted a project rubric to be used as summative assessment for Mrs. Nelson to approve.”*

One of the most useful assessment tools created by the graduate students proved to be the development of a checklist:

*“Toward the end of the project, we developed a checklist in which the group members could check off each requirement that had been completed, letting both them and us know what was left to be completed and what needed to be focused on each time we had the opportunity to work on their Glogs. Once we provided this checklist to the students, they were able to chart their progress, allowing for the project to be completed in a quicker manner compared to the pace it was going without the checklist. This was very helpful as one of our major concerns throughout the project and especially toward the end was having enough time to finish, and the checklist was a positive tool to stay within our scheduled timeframe.”*

Although the graduate students had initially developed a rubric for the Glogster project, they, as well as the fifth-graders, found the checklist to be more useful:

*“From our experience with the rubric we learned that when developing a rubric, it is important to provide specifics which can be defined. After the success of using a checklist with the students, we would implement the use of the checklist much sooner if we had to do it over.”*

*“The checklist offered a quick and easy way for the groups to see exactly what they had accomplished and what needed to be completed before they could tell us they were done. The checklist was a big success; the students enjoyed going through the list and checking elements off. It offered us a tool to use when going over their Glogs with them and assessing how far they had come (or how far they had to go). This was a tool we wished we had put in place even sooner.”*

**Research Question #2:** What challenges and concerns do pre-service school librarians encounter as they conduct their inquiry-based technology-enhanced fieldwork?

**Finding #4: Fifth-graders were enthusiastic consumers of technology.**

Pre-service school librarians found that fifth-graders were eager to jump right in and begin exploring how to use Glogster, even though they were new to the software. Several students shared, without being prompted, that they wanted to create their own Glogs when they went home later in the day.

*“When we started to present Glogster to the students, none of them had ever heard of the program, but when we started to talk to them and show them what it was, they grew more and more excited. After we started to show them all the things they could change and customize on their Glogs, many wanted to start right then; some of them were talking about making their own Glogs when they went home that day.”*

Many of fifth-grade students did start their own Glogs at home:

*“When we came back to the class the next time after introducing the project, numerous students were proud to tell us that they had gone home and started to make their own Glogs and that they could not wait to start the project in class.”*

Students voluntarily extended educational activities beyond school day, and they especially liked the idea of linking their Glogs to another site:

*“Being able to view their Glogs online or link them to another page (a couple yelled “Facebook!”) was appealing to them.”*

For some students another motivating feature was the fact that Glogster was web-based and they could share their Glogs with family and friends:

*“Some of the students were also excited that they were going to be able to show their family and friends the Glogs when they were done as they were going to be web-based.”*

Pre-service school librarians also realized that their initial concerns about fifth-graders having difficulty learning to use a new software application were unfounded:

*“From the students we learned much, especially not to underestimate their understanding of new technology. This project was the first time all of them used Glogster and by the*

*end they had all mastered it. Many even created accounts at home and created multiple Glogs, which they were eager to tell us about.”*

### **Finding #5: Sharing computer resources was a frustrating experience for fifth-graders.**

Unlike other programs, such as Google Docs, that allow multiple users to access and make changes to a project at the same time, only one student at a time could work on each Glogster project:

*“This meant that everyone in the group would have to work on one computer and take turns. While some groups adapted to this, others did not, and it halted their progress, making us wonder at times if they were even going to finish.”*

Sharing a computer was not only frustrating for the fifth-graders; it also proved to be frustrating for the graduate students:

*“It was difficult to get some group members to share computer time with their other group members, which is frustrating for both the other group members and us as teacher-librarians.”*

### **Finding #6: Fifth-grade students lacked information literacy skills.**

Since the pre-service school librarians incorporated formative assessment strategies into their instructional activities, they were able to identify student weaknesses in the “lived practice” (Spillane, Hunt, and Healy, 2009) and then modify their instruction *just in time* to accommodate the students’ learning needs. Graduate students acknowledged that fifth-grade students were struggling with online research and that the students did not have much experience searching for or citing online resources:

*“The reality was that many of the students had not done much research before this project, especially research in different formats such as print and online.”*

To assist fifth-graders with their information literacy skills, the pre-service school librarians prepared extra activities, but admitted that they didn’t have as much time as they would have liked for more *extensive* instruction, citing time, once again, as a barrier to instruction:

*“During the whole project process, we took the opportunity to teach many mini-lessons with the class. One of the more important lessons was about citing materials they used for their research and why.”*

*“Unfortunately, we did not have the opportunity to work extensively with the students as they were completing their online research due to timing issues. For many students, this aspect was probably the hardest to comprehend since they had never really completed any forms of online research.”*

The graduate students also acknowledged that the most difficult concept for the fifth-graders to grasp was the difference between search engines and online sources:

*“The students also do not understand that websites like Glogster, Searchasaurus, and Google cannot be their sources.”*

*“Their thinking is that, well, if it is online, then it must be a resource. It is important to try and explain to them that this is not the case and what an online resource actually is.”*

In an effort to help fifth-graders develop this competency, the graduate students devoted more time to help them:

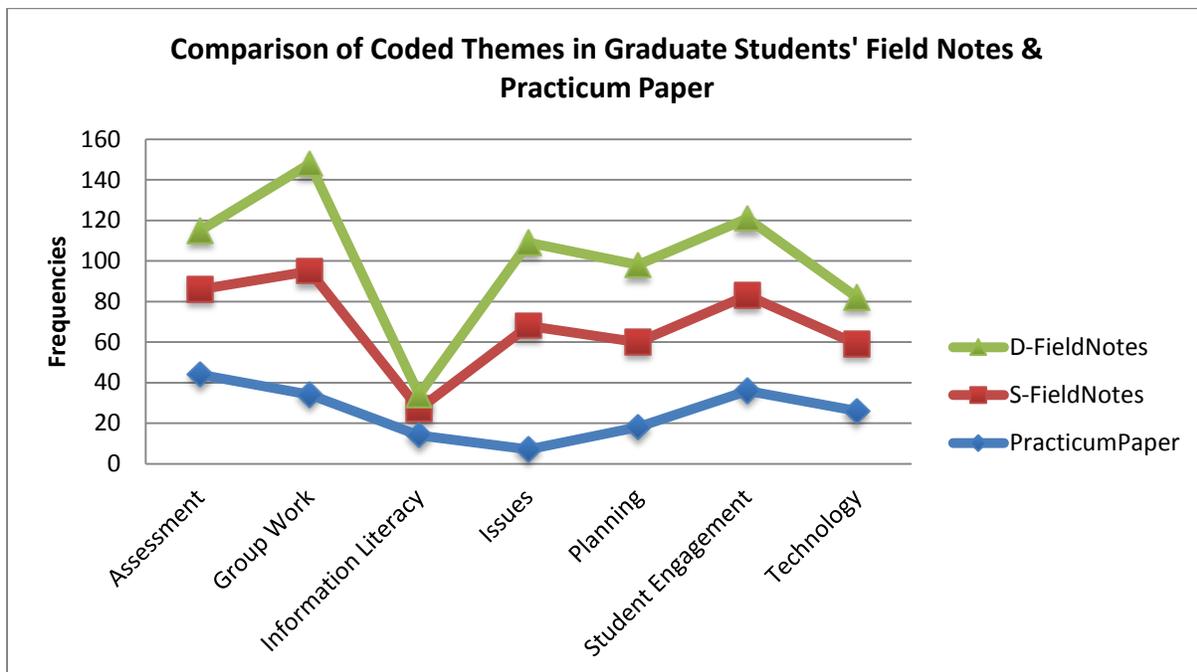
*“We wanted the students to use multiple resources in order to find their information, providing them with an opportunity to learn and strengthen their research skills in both the print and online mediums.”*

*“...we took the time to work with the students to explain what an online resource was as many groups were citing the Glogster site or EBSCO’s Searchasaurus as their online resources. We worked with the each group one on one if they were still struggling; this was very helpful as the students were able to ask specific questions and gain hands-on experience searching for appropriate online sources.”*

**Research Question #3:** What information can be learned from students’ reflective field notes that do not appear in students’ practicum papers?

Graduate students’ reflective field notes provided a much richer and deeper insight into what was happening over the course of the semester in the fifth-grade classroom than did their practicum paper. As **Figure 1** illustrates, graduate students’ field notes provided more detail into what was happening in the fifth-grade classroom than did the practicum paper. In fact, many of the themes that are discussed in this study received very little mention in the practicum paper.

**Figure 1. Coded Themes in Graduate Students’ Field Notes and Practicum Paper**



## Conclusion

Results from this exploratory study seem to suggest that curriculum changes may need to be made at the university level to ensure that pre-service graduate students receive more support and guidance in project planning and time management (DiGiano, Goldman, and Chorost, 2009), how to facilitate and support collaborative group work, and how to encourage more active reflection in field experiences and school library preparatory courses. As a result of this retrospective study the first author (university faculty), has re-examined her attitudes, beliefs, assumptions, and teaching practices as well. Admittedly this faculty member had *preached* about the importance of reflective practice but had not yet fully engaged in critical inquiry on her own professional practice. This critical analysis has led her to consider bringing about changes in her pedagogy and curriculum based upon the interpretations from this study to help her become “more skillful” (D. Schön, 1987, 31) and more mindful. The results from this study demonstrate how valuable a careful analysis—albeit even of a small sample—of students’ reflective practice field notes can be.

This study reveals that pre-service educators’ field notes are a rich source of data that can provide insight not only into the teaching and learning experiences occurring in the Pre-K–12 classroom, but may be useful in identifying gaps in educator preparation at the higher education level as well. As a result of this exploratory study, field notes from past semesters, as well as future semesters, will be examined to determine if the themes and patterns revealed here are consistent from semester to semester, and whether curriculum changes impact pre-service educators’ teaching and learning. “We need urgently to review the goodness of fit between schools and young people—and their commentaries on what helps them to learn in school and what gets in the way of their learning will help” (Rudduck, 2007, 588). The same, of course, can be said for our graduate students. The best way to master the art of teaching, as Alison Cook-Sather (2006) advised, is to listen to student feedback and make changes based upon what students say.

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## Cite This Article

Dequoy, Elyse and Stefl-Mabry, Joette. 2012. "Retrospective Reflection: Insight into Pre-Service School Librarians' Competencies and Skill Development as Revealed through Field Notes", *School Library Research*. American Library Association.  
<[www.ala.org/aasl/slr/volume15/dequoy-stefl-mabry](http://www.ala.org/aasl/slr/volume15/dequoy-stefl-mabry)>



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