Making Connections to Teach Reflection

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Approaching reflection from the perspective of a teachable skill set implies that research may inform how to help students reflect. Employing a framework of making connections often used in reading comprehension, this study aimed to characterize how making connections between the service-learning experience (SLE) and prior experiences in similar settings, personal life experiences, and knowledge gained in the world, helped students make better sense of their SLE. We also discovered that particular words and phrases—reflection markers—are useful in teaching students how to write reflections. The study concludes with practical suggestions for service-learning instructors to facilitate quality student reflections.

There is general consensus within the service-learning community that reflection is necessary to maximize the learning experience for students (Eyler & Giles, 1999; Hatcher, Bringle, & Muthiah, 2004). Reflection helps students make stronger connections between theoretical perspectives and practice. We view reflection as a skill that can assist students in making sense of their service-learning experience (SLE). We share the views of a growing cadre of service-learning educators for the need to nurture students' ability to make reflections that are meaningful and educative (Ash & Clayton, 2004; Eyler, 2000; Felten, Gilchrist & Darby, 2006). This study is a response to Eyler's specific call for more research that provides empirical evidence on how we can increase students' engagement in reflection and self-monitoring of their learning.

Currently, researchers study reflection in service-learning settings by looking for new ways to analyze reflection journals and alternate ways to teach students to reflect (Chin, 2004; Eyler, Giles, & Schmiede, 1996; Hatcher et al., 2004). In our research, we noticed parallels between how our students were making sense of their SLE and how readers understand text. Research on reading comprehension indicates that a powerful strategy for readers to understand text is to make connections (Fountas & Pinnell, 2001; Keene & Zimmermann, 1997). This study aims to apply the reading comprehension framework to analyze reflection journals in service-learning settings. Our study is grounded in the literature on reading comprehension and reflection.

Theoretical Framework
Reading Comprehension: Making Connections

Bransford, Brown, and Cocking (2002) discuss the role and importance of prior knowledge for learning. They assert that humans come to formal education settings

> with a range of prior knowledge, skills, beliefs, and concepts that significantly influence what they notice about the environment and how they organize and interpret it. This in turn affects their abilities to remember, reason, solve problems, and acquire new knowledge. (p. 10)

In helping students to activate the prior knowledge they bring to the learning environment, teachers build on students' strengths and experiences to create new learning. Similarly, research on reading comprehension suggests that prior knowledge is a strong predictor of how well the reader will understand the text and make meaning, or generate new knowledge and understanding (Fountas & Pinnell, 2001; Keene & Zimmermann, 1997).

When readers engage with an unfamiliar text, they rely on their prior knowledge (e.g., personal experiences, conceptual understanding, other texts) to make sense or meaning of the text. According to Keene and Zimmermann (1997), readers make three types of connections before, during, or after reading: (a) text-to-self connections; (b) text-to-text connections; and (c) text-to-world connections. For example, if a student is reading about sedimentary rocks in a science textbook, she is more likely to understand what she is reading if she is a rock collector (text-to-self connection). If she relates what she is reading in the textbook to other books she has read about rocks, her understanding and comprehension will also improve (text-to-text connection). Furthermore, her understanding can be deepened by connecting what she reads in the textbook to world events or other phenomena she may not have been personally involved in, but has knowledge of, such as the Mount St. Helen's erup-

tion (text-to-world connection).

The importance of making connections to increase reading comprehension has become ubiquitous in literacy classrooms. In our research, we have taken this notion to frame our analysis of reflection journals written by undergraduate students involved in our service-learning course. We view student reflection journals as one avenue through which students can begin to make sense of their SLE. Making connections is an important step along the trajectory of attaining service-learning course learning objectives. The making connections framework for reading comprehension can be used on a commonplace SLE data source, reflection journals, to help us evaluate how well our students make reflections as well as provide evidence of how well students are accomplishing SLE course learning objectives (Ash, Clayton, & Atkinson, 2005).

In the context of service-learning courses, Eyler and Giles (1999) conceived reflection as being the hyphen in service-learning. Reflection links community experience and academic learning. In similar fashion, we can take real world experiences in the SLE and use them as a point of departure for reflection. We want students to use their inner world of ideas, prior experiences, and beliefs to make sense of their SLE. This type of human activity is often referred to as reflection and has been the subject of decades of research.

Reflection

Reflection connects the world of experience and the world of ideas (Dewey, 1933). In the early 20th century, John Dewey defined reflective thought as "active, persistent, and careful consideration of any belief or supposed form of knowledge in the light of the grounds that support it and the further conclusions to which it tends" (p. 118). Social psychologists conceptualize the reflective process as an orientation toward learning and often refer to it as an "internal orientation" (Korthagen & Vasalos, 2005; Richardson, 1996). Another powerful outcome of teaching reflection is helping students understand social interaction processes underlying observable activities in the SLE (Chin, 2004). In agreement with Dewey (1938) and Eyler (2000), we see that there is a need to guide students in learning from powerful real world experiences, particularly integrating it with information from other sources.

Reflective practice has been prevalent in the teacher education literature for several decades (Schmuck, 2006; Schön, 1983; 1991). Learning to reflect on one's own practice has become the focus of many teacher preparation programs (Valli,

1992). As preservice teachers learn to reflect, they begin to see connections between the theoretical content of university courses and their understanding of teaching in the classroom (Putnam & Grant, 1992). Based on a recent review of studies on teacher reflection, Yost, Sentner, and Forlenza-Bailey (2000) conclude that reflective practice can and should be taught to preservice teachers. Higher levels of reflective practice are difficult to attain unless preservice teachers are provided with opportunities to practice those skills (e.g., keeping a reflection journal). Reflective practice allows for continual development in all areas, including growth in content knowledge and habits of mind. As these areas mature, teaching confidence increases.

According to Felten et al. (2006), the role of emotion in reflection has received little attention in the research on reflection and service-learning. These researchers propose integrating emotion into how we define effective reflection in service-learning. They describe "effective reflection in service-learning as a process involving the interplay of emotion and cognition in which people (students, teachers, and community partners) intentionally connect service experiences with academic learning objectives" (p. 42). We agree with Felten et al. that it makes sense to scaffold students' awareness of their emotions so as to direct them toward reflection so they can make sense of their SLE. This parallels the idea of using scaffolding (Brown, Collins, & Duguid, 1989; Lave & Wenger, 1991; Tharp & Gallimore, 1988; Vygotsky, 1978) to take a learner from a rudimentary to advanced state of knowing. However, in using emotions in a pedagogy of reflection, caution is necessary to ensure that student reflections focus on both emotion and thinking, and the emotion-based reflections are leveraged on behalf of thinking reflections. This creates what Dewey (1933) conceptualizes as a reflective state of mind that leads to learning. In agreement with Bringle and Hatcher (1999), we consider an SLE to become educative when reflective thought allows the student to develop a new understanding of the situation that leads to a change in state of mind and a more informed or improved action. Following this logic, it is necessary to take into account students' feelings and emotions about the SLE and use them as catalysts for reflection that leads to learning.

Hatcher et al. (2004) report data from questionnaires of students enrolled in service-learning courses at nine different universities. They found that the highest-quality courses provided reflection activities on a regular basis. Reflections that were structured and had clear guidelines and directions

resulted in reflections that were more meaningful. The structure of the reflections varied, but reflection activities that tapped into the multiple learning modalities were preferred (e.g., written products, class discussions, electronic discussions). Specifically, Hatcher et al. discuss how simply asking students to keep an open-ended journal may not provide the scaffold necessary for learning. Rather, they recommend three-part journals, which ask students to describe their service experience, provide an analysis connecting the SLE to course content, and apply connections to values and attitudes.

We, too, do not consider all reflection journal entries to be reflective. Some are merely descriptions of student experiences. In this study we define reflection as going beyond description and instead, sharing a reaction or explanation of what students learned. A reflection demonstrates the student's attempt to make sense of the SLE. Approaching reflection as a teachable skill set warrants the need for research that explores ways for teachers to guide students in developing skills that move them forward in writing reflections. This is akin to Chin's (2004) research which developed a pedagogical tool to promote reflection and learning through storytelling.

Several studies support the conclusion that reflection is a teachable skill, and with guidance and scaffolding (e.g., writing prompts), students can learn to write quality reflections (Ash & Clayton, 2004; Felten et al., 2006; Hatcher et al., 2004). The findings from this study add to this literature that aims to develop a comprehensive pedagogy of reflection, moving students from novice to deeper, more insightful reflection (Eyler et al., 1996; Felten et al.). Parallel to how our students learn over time, reflection prompts must be flexible and modified over the course of the SLE to accommodate students' new learning and reflection stages of growth. We see this study as ultimately developing a pedagogy of reflection applicable to a variety of learning contexts, particularly service-learning courses. While this study was largely exploratory, it is particularly valuable for service-learning projects that lack the resources or time to implement more complex models for reflection. It also has immediate implications for how university professors teaching service-learning courses can nurture students' ability to engage in reflection.

Purpose of the Study

This study employed an exploratory interpretive research design (Erickson, 1998). In this design, researchers enter the study with a broad research question and narrow it as they collect and analyze data. Our initial research question was broadly posed as how students make sense of their SLE through their reflection journals. We read their journals with this in mind. From our initial grounded analysis we found that how students made sense of their SLE was analogous to how people understand a text they are reading. We then refined our research question to examine the types of connections students made to self, similar settings, and the world.

Context of the Study

This study is part of ongoing research spanning the past six years. It is set in a service-learning course proven to meet the expectations of both the university and community partners. The course is offered in a local elementary school district in close proximity to the University and part of a larger school-university partnership project. The details of this partnership are described in Bleicher and Correia (2006).

Our service-learning course involves an intertextual integration (Varlotta, 2000). In this type of course, the service and academic components inform each other, with neither occupying a superior position. In Varlotta's scheme, the setting for this study is full and narrow in which, for the better part of the semester, all students in the class serve at the same agency. The service-learning activities are examined through the theoretical lens of the course, in this case, educational theories about teaching and learning in elementary school settings. According to Varlotta, the advantages of this type of SLE are that students share a common ongoing experience that lends itself to class discussion. The extended time they serve allows students to develop and maintain relationships with each other and the communities they serve.

Similar to Mills (2001), we found that written journals in notebooks were unsatisfactory and not practical due to transporting heavy journals and time required for instructors to respond. In previous semesters in which the course was offered, students kept a written journal using an ethnographic field note procedure in which anecdotal (descriptive) notes were kept on the right-hand page of the notebook, and reflections, methodological issues, questions, or theoretical notes were made on the left-hand side. A lecture on reflection was given to the students, discussing Dewey and Schön's foundational work. Students were instructed to write about emotional reactions, theoretical connections, and beliefs or feelings that had developed toward the service-learning events they were chronicling in their journals. We maintained this method for three years, but abandoned it because students were not collecting their journals after the final class,

thus precluding having a written record of their experiences for future reference when teaching.

In this current study, students used electronic journals on Blackboard, a Web-based classroom management system. They wrote entries in response to four writing prompts. The prompts included (a) today I observed …, (b) today I participated …, (c) today I learned …, and (d) when I have my own classroom I will …. We maintained this journal method for five sections of this course over two semesters. We had online access to students' writing and, unlike the paper journal, we required students to make their entry within 24 hours of their SLE. Blackboard eliminated the need for a physical exchange of journals, allowed prompt teacher feedback to students, and facilitated record keeping. Moreover, students reported they found the feedback helpful in guiding them in their next round of reflection writing.

Methods

Participants

The study took place at two elementary schools where 87 undergraduate university students worked in classrooms (in pairs) three hours a week over a 13-week period. Students received three units in this service-learning course. This convenience sample was composed of students who volunteered to participate in the study. Students were informed that participation was voluntary and did not affect their course grade in any way. Institutional Review Board procedures were followed including signed consent forms.

Data sources

The primary data source was the reflection journals students kept throughout the semester-long course. Following the weekly SLE, students logged onto Blackboard and responded to the four writing prompts in their electronic journals. Course instructors read and posted comments for students. Journals and comments were accessible only to the individual student.

Analysis

Grounded theory (Strauss & Corbin, 1990) techniques were used to negotiate meaning and develop explanatory models. Journal entries were analyzed for emergent themes about what students were learning and their reactions. The two authors constantly discussed themes by reading the entries together. The reading comprehension theoretical framework was employed to evaluate the fit or non-fit of these themes with the three connection domains (SLE-to-self, SLE-to-similar setting, SLE-

to-world). The authors jointly read approximately 30% of the journal entries in this manner. Once agreement was reached each author read new entries independently. Authors exchanged their independently read entries and coded them to obtain a measure of inter-rater reliability. This was reiterated until we obtained a 90% inter-rater reliability.

While connections are a useful framework for teaching reflection, they are not necessarily easily detected in the written reflections for analysis by instructors or researchers. To facilitate identifying connections, we noticed particular words or short phrases in student writing that mark or point to one of the three connections. We refer to these as reflection markers. We found that different types of reflection markers can point to any of the three connections. Thus, a marker usually helped us identify that a student was making a connection, but we had to read further to determine the specific connection domain.

We addressed the issues of authenticity and trustworthiness in this qualitative study (Guba & Lincoln, 1989) in several ways. Our account is authentic in that we were participant observers in the study and provided first-hand descriptions and subsequent interpretations of the study setting upon which the reflection journals were based. Trustworthiness of our documentation was strengthened by engaging in ongoing critical discussions during the study and cross-checking data across sources to support emerging patterns in interpreting the data by both researchers.

Findings

In this section, we present reflections that exemplify the three types of connections. Students made connections to their personal ideas, beliefs, and attitudes about schools and elementary school children (SLE-to-self connections). They made connections to classroom experiences at a similar grade level either when they were in elementary school or in more recent classroom experiences (SLE-to-similar setting connections). And, they made connections to outside sources such as previous courses, news reports, and books (SLE-to-world connections). While we have found students make all three connections, we do not see them as sequential or discrete; we do not intend to imply that the three types of connections take place sequentially or in the order presented here.

Students used several different reflection markers to indicate they were making connections. These markers were golden opportunities to teach reflection. They were useful because we could easily point them out and discuss the connections with students. The examples presented below were cho-

sen as representative of the corpus of journal entries rich in such markers.

SLE-To-Self Connections

Students wrote reflections in which they connected personal life experiences to the SLE. We were interested in understanding how these experiences demonstrated reflection. Students made connections that challenged their assumptions, expectations, or attitudes about the SLE. One common connection they made was to focus on the materials and equipment used to engage children in learning activities. In the following example, Steve, a hands-on learner, reflects on an 'ah-ha' experience.

> I never thought that a counting toy could be useful, so I always used my fingers and number tricks to do equations. Working with the students today, I saw how quickly they were able to understand the concept when they had a visual and something that they could actually use and work with to figure things out.

Steve was viewing learning from a personal perspective. Participating in this SLE allowed him to step out of his theory of learning and see the benefit of students using a variety of hands-on tools when learning new math concepts.

Steve's journal entry has two reflection markers. One marker is "I never thought." When a student indicates that an event was unexpected, it draws our attention as instructors of reflection to the comparative nature of the reflection. This is because such markers are often followed by a story to be told from the SLE that is opposite to or different from this. Comparative reflection markers set up a visible language construction that can bridge two differing situations—one an expected situation, the other the actual one experienced in the SLE. By pursuing this comparison, the student is naturally led along the path of reflection. "How quickly" is another reflection marker worth noting. This is another example of a comparative marker that indicates the student is comparing some event in the SLE that is unexpected once again. In this case, the children are learning faster that expected.

SLE-To-Similar Setting Connections

Students wrote reflections in which they connected classroom experiences at a similar grade level when they were elementary school children to the SLE (SLE-to-similar setting connections). We were interested in looking at the various elements (e.g., curriculum, classroom environment, classroom management) that students connected between the two settings to make sense of the SLE and how these connections demonstrated reflec-

tion. One common connection they made was to focus on what children were learning. In the following example, Celeste realizes that things are not the way they used to be when she was in the second grade.

> The assignment they [second graders] were engaged in was expository writing. I was shocked to see that they were learning this since I remember learning it in 5th grade. They would all eagerly raise their hands to tell us what expository writing was.

Celeste was surprised at the level of writing children were learning. University students were surprised sometimes at the differences they observed between the SLE and previous classrooms they had been in either as students or observers.

Celeste's journal entry has three reflection markers. One marker is "shocked." When a student writes markers that indicate emotion or feelings, it draws our attention. This is because emotions focus thinking that explains the connections between the present and past settings, and so fosters reflections. "I remember" is another reflection marker. This type of marker indicates an act of thinking that explicitly links the two settings.

"Eagerly" (and other such qualitative examples such as timidly, quickly, etc.) is another reflection marker that draws our attention. It indicates that the student is evaluating an event in the SLE. This reflection marker is different from the first two because it does not necessarily lead to a direct stream of reflection. It requires further prompting from the instructor to elicit more reflection. As teachers of reflection, when we read words such as "eagerly" in our students' journals, one of the first things we ask is "How do you know they were eager?" or "What indicators led you to conclude that they were eager?" This is good fodder for teaching reflection. It leads directly to promoting our goal of further thinking and reflection.

SLE-To-World Connections

Students made connections between the SLE and ideas, attitudes, and beliefs they attributed to non-classroom, non-personal sources such as college courses, newspapers, and conversations with others (SLE-to-world connections). We were interested in seeing how these world connections helped them write reflections. Many of the instances in this type of connection were related to developmental issues (e.g., physical, social, and cognitive abilities) that may differ from students' perceptions regarding development. Veronica's reflection about giggling and gossiping challenged her assumption of social behavior.

> I had assumed that since it would be a room full of five- to six-year-olds, that we would just hear giggling and gossip, yet much to my surprise they had a system and most of the children knew where to be and how to act quietly.

In this case Veronica expressed surprise that children behaved quietly. When she makes the comparison of what she saw and what she had expected in the children's behavior, it makes a clearer pathway for understanding the current situation.

"Assumed" is a reflection marker that, in this case, is based on world views. Such views often lead to characterizations that guide our interpretations of life experiences. For Veronica, it was characterizing how five- and six-year-olds should behave. However, in this instance, children's behavior in the classroom was not as expected. Whether the SLE experience validates the characterization or not, reflection markers of this type are equally useful to teach reflection. Furthermore, Veronica adds a second marker of "much to my surprise" to counterbalance her initial characterization. Although an emotive reflection marker, it performs a different function than Celeste's "shocked." This counterbalancing function is another useful aspect of markers that can be leveraged to teach reflection. The final reflection marker, "quietly" is similar to the "eagerly" from Celeste in that it is based on an evaluation of behavior.

Discussion

Our discussion is aimed at fellow service-learning instructors who recognize the critical role of reflection in an SLE. As McDermott and Roth (1978) assert, the most difficult situations to make sense of and understand are often ones that are most familiar. We can help our students understand an SLE by teaching them to recall familiar situations as an embarkation point for reflection. In trying to make sense of the SLE, students make connections to their life experiences. As service-learning instructors, we can teach students to be consciously aware of the three types of connections (SLE-to-self, SLE-to-similar context, SLE-to-word) to move them from description to reflection. To facilitate these connections, students may use a variety of reflection markers, as illustrated in the preceding examples.

Steve's ah-ha experience gives us insight into teaching reflection. As Steve's example illustrates, it is important for students to be taught to be aware of their own learning styles and theories. Bringing such theories to top-of-mind awareness creates yet another opportunity for reflection. When students write a reflection that connects two different viewpoints, we conceptualize it as a comparative reflection marker. Making connections using comparative markers is an excellent opportunity for teaching reflection. Noting the reflection markers allows us to help students spring forward in their path to reflection and communicate their reflections to us in writing. This exemplifies Dewey's (1933) conceptualization of reflection as bridging two different worlds of experience.

When we encourage students to compare, it helps them better understand the SLE. Furthermore, by comparing, students draw upon a set of observational skills gained in previous settings (Bransford et al., 2002). Reusing such skills results in a deeper level of involvement and can increase confidence (Bleicher, 2007). In general, when a student feels they have the skills from prior experience to carry out actions in the SLE, they express confidence to do so (Ash et al., 2005).

When Celeste used "shocked" and other students used words such as "I was surprised" they introduced emotive markers in their reflection. Cognitive science suggests that emotion can create a situation in which attention is focused (Bransford et al., 2002). This provides a favorable environment for further reflection (Dewey, 1933).

As instructors, with the goal of teaching reflection to our students, we see these emotive reflections as teachable moments. The focusing potential of emotive energy provides favorable circumstances for further instruction on reflection. Dewey (1934) referred to emotions as catalysts for thinking and reflection. More recently Felten et al. (2006) depicted emotion as a trigger for the mental activity of reflection. Emotion is necessary throughout the reflective learning process. However, we are in agreement with many of our colleagues that teaching students to reflect should go well beyond simply asking students to express their feelings about the SLE.

Celeste's "I remember" is a linking reflection marker. These occurred often in journals to make connections to typified ideas of what school children should be like. This allows for the possibility of confirming or negating the mental picture. Comparing a typified mental image to a real image is an opportunity for a change in perception and further reflection. Students want to make sense of situations in which they find themselves, especially when they are in a strange or novel situation (McDermott & Roth, 1978). When students think about their SLE experience and make connections to similar experiences, they are looking for ways to understand the SLE. Making connections with what one already knows puts one in a better position to understand the new context (Donovan, Bransford, & Pellegrino, 1999).

When Veronica challenges her assumptions of social behavior, she establishes a characterization of the children's behavior in the current setting that is guided by her previous experiences. This provides her with a known standard to measure and interpret the unknown. As instructors, these characterizations give us a strategy for teaching reflection. We can explicitly guide our students, who may be struggling at times to make reflections, to consider formulating characterizations as a mode for understanding the SLE.

Another aspect of this type of connection involves students' realizations that the social interactions in the SLE are tempered by outside influences. This helps students learn to reflect by increasing their awareness of issues that are not necessarily exhibited in an SLE. Full understanding of the social interactions of people in the SLE requires more generalized knowledge. In other words, the SLE does not take place in a vacuum. Rather, it is informed by the full range of students' experiences and knowledge.

In sum, all three types of connections provide rich opportunities for service-learning instructors to teach students the importance of reflection in leading to new learning (Dewey, 1933; Eyler & Giles, 1999). An important element in teaching reflection is to provide a space for students to think about and describe their learning (Chin, 2004). When teaching reflection, it is important to ask students what they think they have learned, as we have done for this study (Ash et al., 2005; Hatcher et al., 2004). We provide one framework for teaching reflection through encouraging students to use three types of connections. In our research, we found two tools for guiding students to write reflections. Prompts are tools that start their writing and markers are tools that make visible or indicate reflection that goes beyond mere description. In other words, we get students started with a prompt and then use reflection markers to point out connections students make. Reflection markers allow us to teach reflection without getting tangled up in the content of the SLE. We suggest that using these markers for instructional purposes could be a leveraging point in a pedagogy of reflection. One way to do this is to change the daily reflection prompts to include reflection markers (e.g., "I was surprised that …" or "Compared to when I was in school …", etc.) in combination with the description that is necessary to provide a context for reflection.

Implications

Service-learning educators come from a variety of disciplines. The notion of making connections and reflecting are natural human activities with broad applications across disciplines. Our research assumes that the more connections students make in understanding their SLE, the more it deepens their learning. This is akin to theories on reading comprehension, which suggest that if readers incorporate connections to self, similar settings, and the world, they will gain a broader and deeper understanding of the text. The SLE is analogous to understanding a text in that when students have a new experience, they can reflect to make sense of it.

While a pedagogy of reflection has made its way into the service-learning community, there is still much to be learned about how we teach reflection, regardless of discipline. Students in service-learning courses need guidance when writing reflections if instructors want students to move beyond description and analyze their SLE. Given time constraints of instructors in the field, attention should be given to activities of immediate value and strategic importance. When we encourage our students to make connections, we increase their opportunities to notice more about the current SLE and its subtleties.

Based on our findings, we suggest the following four steps to guide the teaching of reflection:

1. Discuss the making connections model with students.

2. Develop a set of writing prompts that address the service-learning course objectives and include reflection markers.

3. Use reflection markers from students' reflection writing to help them understand the three types of connections.

4. Discuss exemplary reflections written by students in the course.

Making sense of an SLE is similar to what we do in normal life experiences. We often reflect to make sense of new situations. However, we do not normally write down our reflections and make them public. As service-learning course instructors, we ask students to engage in this natural activity in an unfamiliar way. Doing so, we enable students to become more aware of and improve their ability to engage in reflection.

There are some practical implications about making reflection an explicit part of the service-learning course. Writing prompts do not always elicit the level of reflection expected. Teaching students to write reflections is not just a matter of asking them to respond to a prompt. Instructor responses and feedback over time nurture students' ability to write reflections. This requires a time investment which must be part of the course design. Ideally, instructors incorporate teaching reflection as part of the course objectives.

Analysis of journals provides a window into the students' abilities and learning during the SLE. When teaching reflection, we can assist our students in assessing their skills and confidence and how it may apply to a particular SLE. One technique for doing this is to ask students to make connections, or think about similar actions they may have performed in other settings and how they may apply them in the SLE. By thinking about similar situations, students will feel better prepared and more confident when confronting challenges presented in the SLE.

Similarly, instructors may look deeper into how their written exchanges with students affect their own skill set and knowledge about the SLE, given that they are often distant from the community experiences. Instructors might want to examine the effects of the reflection journal feedback loop between student and instructor to see how it may affect both the instructor's professional development and student learning.

Another implication emerging from our study is the concept of reflection markers. Future research may focus on fine-tuning reflection markers to develop a typology. This research effort would benefit from being multidisciplinary to ensure that the typology is inclusive and representative of all disciplines engaged in service-learning.

We have found that there is a wealth of insight about our students that can be mined from reflection journals when reading them for more than just content. Perhaps the most important insight is that writing reflections is a teachable skill set. Learning to reflect in writing so instructors may respond is an important and practical method in the process of achieving learning objectives in service-learning courses.

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