

# Teachers' Reflection on Reflection Practice

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One of the fundamental components of the Scholarship of Teaching and Learning (SoTL) is reflection. Reflection is a tool for both teachers and learners to address problems and learning challenges, deepen their understanding, and generate new insights. In addition to their reflection about their own practice, teachers may provide reflection exercises or assignments, examples, and challenges to enhance student learning. Although scholars have proposed definitions of reflective practice and guides for implementation (Hatton & Smith, 1995; Loughran, 2002; Grunert, 1997), it is appropriate to examine ways in which reflection is enacted in the classroom. This study collected teachers' accounts of how they enact, teach, and support reflection in their classes. Themes from responses by 56 college teachers in a variety of disciplines and institutions to an online survey were analyzed using a constant comparative method, as were teachers' assessments of the outcomes of these approaches and the actions they plan to or wish they could implement to enhance use of reflection to support teaching and learning. Implications for practice are suggested.

Several popular images of reflection portray it as a solitary, perhaps even melancholy process. For Rodin's *The Thinker* and the 18<sup>th</sup> and 19<sup>th</sup> century parson's daughter, reflection was solitary and not focused toward action. In contrast, scholars who frame their work around the Scholarship of Teaching and Learning (SoTL) see reflection as a key to action. They argue that this fundamental component of SoTL underpins the other cornerstones of SoTL. Reflection supports a clear focus on student learning, a strong disciplinary foundation, use of multiple methods to answer questions about teaching and learning, peer review, and sharing of work across disciplines.

From reflection come questions about student learning. From reflection come connections to teachers' own disciplines and disciplinary frames for investigation and expectation. Reflection supports articulation of questions about teaching and learning and presentation of answers. However, whereas problem-oriented, retrospective, and prospective reflection connects all the fundamental concepts

of SoTL, how reflection is enacted by teachers in day-to-day work has not been examined from the teacher's perspective.

The purpose of this study was to examine teachers' personal enactment of reflection practices in their classrooms, as well as their enactment of professional reflection practices outside their classrooms. It is clear that for this group of teachers reflection is an ongoing and very personal process in which their identities as teachers are formed and re-formed from day to day and semester to semester. It is a process in which teachers strive to facilitate "aha" moments for their students, as well as for themselves.

We first illustrate how the scholarly literature has established a clear philosophical and categorical approach to understanding reflection. However, there is little work that asks teachers to self-report their own experiences of reflection-in-action in the classroom and reflection-on-action outside the classroom (Schön, 1983). In this study teachers described their own experiences through a survey. The results were analyzed using the constant comparative method and are reported. Discussion and implications for further research follow.

## Defining Reflection

The term *reflection* originated in ancient Latin and French terms connoting "bending back" on oneself. In a more contemporary definition, reflection refers to the mental activity individuals engage in to try to make sense of experience (Seibert & Daudelin, 1999). Atkins and Murphy (1995) describe reflection as a complex and deliberate process of thinking about and interpreting experience in order to learn from it. It also is conceptualized as self-study, an intentional and systematic inquiry into one's own practice (Dinkelman, 2003).

There is a considerable literature from scholars in education, law, nursing, and medicine focusing on professional practice. From these perspectives, reflection is

seen as an ongoing process of critically examining current and past professional practices against standards or objectives with the goal of improving future practices and increasing knowledge (Han, 1995; Hatton & Smith, 1995; LaBoskey, 1994). For example, in professional education, argue Atkins and Murphy (1995), the process of reflection refers to a complex and deliberate process of thinking about and interpreting experience in order to learn from it. Reflective practice links thought and action, because its objective is to improve one's professional practice (Imel, 1992).

Table I

*Definitions of Reflection*

Activity individuals engage in to try to make sense of experience	Seibert & Daudelin, 1999
A complex and deliberate process of thinking about and interpreting experience in order to learn from it	Atkins & Murphy, 1995
Self-study, an intentional and systematic inquiry into one's own practice	Dinkelman, 2003
A link between thought and action, with the objective to improve one's professional practice	Imel, 1992

Reflection is central to the educational philosophy of constructivism, in its argument that by reflecting on our experiences, we construct our own understanding of the material we are studying and the world in which we live (Larochelle, Bednarz, & Garrison, 1998). As Naylor and Keogh (1999) argue, constructivism is founded in the idea that learners can make sense of new information or situations only in terms of what they already know or understand. They write, "Learning involves an active process in which learners construct meaning by linking new ideas with their existing knowledge" (p. 93). In other words, we learn by reflecting on what we already know and integrating the new concepts and material.

Reflective practice may occur at two points in time: in the classroom, in real time, and outside the classroom, retrospectively. According to Schön (1983), reflection can occur when the "knowing-in-action," that is, the knowledge professionals draw on in extemporaneous classroom work, produces an unexpected response. Teachers can engage in reflection about these responses either following the activity, in *reflection-on-action*, or during the activity, reshaping the activity while it is going on, in *reflection-in-action*. Kottkamp (1990) calls these offline and online reflection, respectively.

Eriksen (2004) labels these two types of reflective processing as proactive and active reflection. Active reflection is of the moment, referring to thinking about what one is experiencing as it occurs. Proactive reflection, in contrast, is, as Eriksen (2004) puts it, "an intentional contemplation of a past experience that is deliberate and temporally and spatially removed from the experience to create knowledge for future action" (p. 62). Erickson further

draws a connection between this type of reflection and Argyris's (1982, 1991) double-loop learning. In double-loop learning, fundamental assumptions, premises, and beliefs are articulated and then challenged to see if they are valid in this context. In order to understand the relationship(s) among these frames of reflection, theorists then moved to more detailed categorizing of reflection activities.

A variety of taxonomies or types of reflection have been proposed for teachers. Hatton and Smith (1995) present four forms: (a) technical examination of one's immediate skills and competencies in specific settings, (b) descriptive analysis of one's performance in a professional role, (c) dialogic exploration of alternative ways to solve problems in a professional situation, and (d) critical thinking about the effects of others on one's actions, considering social, political, and cultural forces. Ward (n.d.) proposes a four-part reflection rubric: (a) routine reflection, describing practice and thought without change; (b) technical reflection, describing responses to specific situations without changing perspective; (c) dialogic reflection, describing a cycle of situated questions and actions, considering others' perspectives and new insights; and (d) critical reflection, describing critical and fundamental questions and change.

Finally, Jay (1999) argues for a different typology of reflection. She proposes four uses for reflection. First is a problem-solving technique to work out the problems of teaching. Second is frame analysis, which can help teachers uncover tacit assumptions and become aware of alternative ways to frame their practice. Third is to serve as a bridge between theory and practice, using judgment and experience to render abstract ideas more practical, personal, and meaningful. Finally, reflection may be enacted through a Zen-like mindfulness, an overall way of being.

Common to many typologies of reflection is the notion of a problem (i.e., a puzzling, curious, or perplexing situation) (Loughran, 2002). This can serve as the entry point for scholarship in teaching and learning. Wulff and Wulff (2004) describe such a process of deliberate contemplation, in which practice is compared to objectives and practice is then refined to align the content, students, and instructor throughout the course. However, few reflection theorists claim that the processes of reflection are clear-cut or easily enacted.

*Barriers to Reflection*

Reflection can be a painful process because it disrupts our taken-for-granted ways of thinking and acting. Although reflection is not the same as retrospection or rationalization (Loughran, 2002, or for that matter as fretting, it may trigger all of these. As Argyris (1991) argued, double-loop learning, a process similar to reflection, can be impeded by defensive reasoning, which we experience when we try to avoid feeling embarrassed, incompetent, vulnerable, or when our egos are threatened. Importantly, teaching is often viewed as a

personal attribute, rather than a public practice that can be changed and developed (Dinkelmann, 2003). Therefore, reflection may involve personal risk because questioning practice may also question sensitive beliefs, values, and feelings (Imel, 1992). In sum, reflection may be a threat to our carefully constructed identities as teachers and to the patterns of our teaching practice.

Several barriers other than ego threats also challenge reflection. First, it takes time. Many academics are challenged to keep up with existing teaching loads, paper grading, research, and service. Proposing that they take more time away from these demands to reflect on change, which implies additional time commitment, can be daunting. Beyond this is the implicit threat that the new approach will be less effective than the existing one, with associated costs in terms of student evaluations, time requirements, and response from colleagues. It is easy to prefer the devil one knows to the devil one does not know. As Wildman, Niles, Magliaro and McLaughlin (1990) put it, reflecting on teaching is not easy, for it involves a degree of personal risk, it can produce a great deal of doubt, and it requires that teachers seriously question what they are doing. In sum, the processes of reflection may cost teachers time and effort and potentially threaten our teaching identities. However, reconsidering the concept of reflection as a key component to SoTL allows us to foreground the benefits of reflection in our teaching practice.

Table II

*Barriers to Teacher Reflection*

Disruption of taken-for-granted approaches
Defensive reasoning
Belief that teaching is a personal attribute, not something to be developed
Threats to sensitive beliefs, values and feelings
Time commitment
Fear that the new approach may be less effective than the existing one
Potential threat to our teaching identities

*Reflection as a Cornerstone of SoTL*

Randy Bass (1999) notes that although having a “problem” is central to the investigative process in scholarship and research, having a “problem” in one’s teaching often is framed as negative, requiring repair. Compounding this problem is the idea that teaching is private and that it is up to individual teachers to manage as best they may, also in private. In other words, teachers may have come to see their own work as a topic not to discuss with others, in contrast to issues like student behaviors or faculty politics. Many teachers deny the presence of problems, attempt to patch them, or attribute them to the students or to external forces outside their control. The problem here, of course, is the cost of these responses to students, to teachers, and to the practice of teaching. At the same time, a great many teachers do want to improve their

practice and the outcomes of their efforts. Reflection is a beginning point for this process of improvement over time.

Experience and anecdotal evidence suggests that most teachers do identify problems – wondering, for example, “Why didn’t that exercise work?,” “Why was the mean on the exam so low?,” “How can I help students be more successful at application of key ideas?” Solutions or repairs come out of these questions. These informal questioning processes differ from scholarship. As Shulman (1998) has argued, scholarship involves being public, being susceptible to critical review and evaluation, and being accessible for use and exchange by other members of one’s academic community. Problems, in this perspective, can be investigated as scholarship and not just “fixed.”

That same progression, from seeing problems as necessarily negative to opportunities for scholarship, is reflected in the progression from identifying a problem to reflecting on it. Reflection is a more deliberate process that allows—indeed asks—teachers to question their understandings, rethink their assumptions, and consider their options (Grimmett, MacKinnon, Earickson, & Riecken, 1990). Reflection, for professional teachers, is an opportunity to critically evaluate practice against objectives, to see problems in the classroom as both opportunity and provocation to examine and assess the learning that is occurring.

This process is akin to action research, or systematic inquiry by practitioners into their own practice (Kemmis & McTaggart, 1988). Kemmis and McTaggart propose a spiraling, recursive series of steps – plan, act, observe, and reflect – through which teachers can assess the process and the product of learning.

Reflection is a component of all these steps. Reflection underpins identifying questions/problems about teaching and learning and is the initiating step in scholarship in teaching and learning. Reflection supports planning and executing research into these questions and analysis of the results. It also is a component of the peer review and “going public” that is at the heart of SoTL, because that perspective honors authors’ assessments of the process of investigation and the findings on themselves and their students.

Clearly, reflection as a process that features teachers carefully examining both successful and unsuccessful teaching practices over time is a much more positive and, holistic, and one might say a healthier, approach to improving our teaching than reflection that features a process of repair for past failures in the classroom. The need for such proactive processes of reflection is well established, and typologies of these practices have been developed. What is less well established is how teachers currently enact reflection-in-action and reflection-on-action in their day-to-day teaching practices.

In this descriptive study we asked teachers to self-report how they currently enact reflection-in-action and reflection-

on-action in their day-to-day teaching practices. Through these self-reports we sought to answer four research questions:

RQ1: How do college teachers describe how they enact, teach, and support reflection in their classes?

RQ2: How do teachers describe using self-reflection in their professional lives?

RQ3: What outcomes do teachers report result from these reflection approaches?

RQ4: What do teachers report they plan or wish they could implement to enhance reflection in their classes?

## Method

To address these questions, a survey was created using the SurveyMonkey management platform and sent via email to 96 college teachers in a variety of disciplines and at a variety of institutions. The recipients of the request to participate represent a convenience sample; at least one of the authors knew each person. The survey asked for demographics, including gender, discipline, years as a teacher and type of institution (PhD granting, MA granting, Bachelor's granting, community college). The participants were asked to answer seven open-ended questions about their reflection practice. (See Appendix A).

## Participants

Fifty-six teachers responded to the survey, a 58% return rate. Of these, 34 (61% percent) were female, 22 (39 %) were male. Fifty-nine percent teach at PhD granting institutions, 27% at MA granting institutions, 12.5% at bachelor degree granting schools, and 2% (1 individual) at an institution granting associates degrees. Participants have been teaching an average of 13 years (range 1-42 years, median 9 years). Sixteen disciplines were represented. Of the respondents nearly 52% teach in communication studies, the authors' discipline; others included business, sciences, nursing, education, professional schools, humanities, and social sciences. See Appendix B for a table of disciplines.

## Data Analysis

Participants' responses to the open-ended survey questions were analyzed using constant comparative analysis, or the grounded theory approach (Glaser & Strauss, 1967; Strauss & Corbin, 1990). The grounded theory approach posits that analytic categories for theorizing the data should emerge from the participants' answers, rather than being imposed by the researcher upon the data. This privileges the voices of those who answered the questions. Both researchers carefully reviewed all of the participants' answers and generated categories by constantly comparing new statements with previously reviewed statements. Through this process of categorical coding as it emerged, the researchers worked to establish credibility of the findings

through investigator triangulation. Investigator triangulation is a method to increase the confidence in the findings so that no result is dependent on any one participant's observations (Keyton, 2005). As the data was coded into emergent categories, these categories, together with their properties, became the basis for theorizing the findings. As Glaser and Strauss (1967) note, the emphasis in this method is on identification of meaningful or compelling themes, rather than on counting their incidences or proportion.

## Results

The survey platform used for this study presented a text box in which to respond to each open-ended question. In most cases, participants wrote fairly short entries. Although it is likely that this physical frame guided the way respondents perceived the questions and presented their answers, the responses still provide a starting place for future studies that may examine teacher reflection processes. Results are organized by research question.

### Research Question 1: Strategies for Student Reflection

The first research question sought to document the way college teachers describe how they enact, teach, and support student reflection in their classes. To that end, two questions were asked. The first question was, "What practices or strategies, if any, do you use in the classroom to promote or foster student reflection about course materials or ideas?" Respondents noted a variety of techniques. Writing tasks dominated this list: teachers included writing exercises (reflection papers, one-minute papers, summary paragraphs, journaling, blogging, online threaded discussions, application papers, and synthesis papers), whole class discussion and small group work, role-playing, and student critiques of their own work, the work of others, and of the course. Respondents focused on these assignments as ways to engage student thinking, to go beneath the surface of the material and tie ideas to students' own lives, and to provoke students to articulate ideas and understanding.

In response to the first question, for example, a communication studies teacher with five years of experience wrote, "I assign written case study responses that tie real-life situations into the course material. Also, I put students in small groups to collectively reflect on the material and discuss it. Usually, they have to answer questions designed for reflection." A 20-year veteran in English said, "In class writing activities; small group discussions; having them write down questions about the material." A communication studies teacher with six years of experience noted, "I often have students do in-class writing and readings and engage in critical thinking during group discussions." Overall, responses to this question reflect a focus on student outputs

or tasks. This is not surprising, given the framing of the question on strategies or practices.

The second question also was concerned with student reflection, but in this case with student *self*-reflection. The question asked, "What practices or strategies, if any, do you use to promote or foster student reflection about themselves as learners or members of a classroom community?" Responses to this question were largely consistent with responses to the first question, and featured an emphasis on writing and group work. In this case, however, proposed writing assignments focused specifically on reflection, connection to the "real world," or what a student had learned. For example, one instructor wrote, "Some paper assignments involve this in that students are asked to use examples, incidents, decisions, etc., from their own lives to illustrate theories and their applications" (Communication Studies, 8 years); "In a continuation of the reflection process, students talk about what they have learned about themselves and others in their group" (Communication Studies, 15 years).

Several themes emerged from this set of responses. First, respondents mentioned a variety of practices that support establishing a positive learning environment: (a) setting expectations, especially about civility; (b) establishing and then reviewing learning goals; and (c) building community. A communication studies teacher with three years of experience wrote, "I try to create a safe environment where multiple opinions can be explored." A humanities teacher with eight years of experience noted, "On the first day, I discuss my policy of participation - that I expect everyone to participate and thus to contribute to the learning of the whole group." "I state on the syllabus and at the beginning of the semester that they should be respectful to one another and engage in civil discussion on a range of ideas," said a 5-year veteran in Communication Studies.

A second theme featured asking for direct introspection about experience of the class. For example, "In the small group class, part of their final paper is a reflection of what they have learned about themselves as a leader, group member, etc." (Communication Studies, 5 years). "Midterm evaluations ask students to evaluate their efforts in the class and what they might do to improve" (Social Science, 20 years). "In several classes, I require students to write a three-page reflection on their experiences in the class, such as "What did you learn about yourself? What were your strengths and weaknesses? What did you wish you knew more about?" (Mass Media, 7 years).

Although most respondents identified practices or strategies they used to promote student reflection, and many referred specifically to "reflection paper" or have students reflect about themselves, there were very few specific connections with formal reflection practice or the literature of reflection. The clearest exception was a business teacher with 26 years of experience who described teaching Schön's

reflective process and experimenting with it in class. Of the 56 respondents, six indicated they have no practice to foster student reflection about themselves as learners.

### ***Research Question 2: Teacher Strategies for Self-reflection***

The second research question asked how teachers described using self-reflection in their professional lives. To answer this question, a survey question asked, "What practices or strategies of reflection about your teaching, yourself as a teacher, or yourself as a learner do you use, if any?" Because of the nature of the survey and the question, responses to this question almost uniformly reflected Schön's (1983) reflection-on-action, a retrospective examination. However, one respondent (Business, 26 years) did note, "First, personally, I try to reflect-in-action well when surprises happen."

Responses ranged from no formal practice or strategy to regular written self-evaluation. A nursing teacher with 30 years of experience wrote, "Journal periodically on practices that seem to be effective in the classroom. Journal to reflect interactions with students, especially those in academic difficulty. Careful analysis of student evaluations, both numerical and anecdotal comments." A communication studies teacher with 28 years of experience responded, "1. Self-evaluation (but not written). I often reflect on how each class session went immediately after. I make notes about what went well, what didn't go so well, so the next time I teach the course, I can improve." "Constant second guessing!" a mass media teacher with 8 years of experience wrote. "Did I do that well? What should I have done? Did the students really learn anything? I always do qualitative evaluations and try to use the information in subsequent classes."

This question evoked a different style of answer and a different voice. Responses were longer and presented more often as complete sentences, with more use of first-person pronouns. In contrast to the responses about student reflection, which focused on products through which instructors could see evidence of reflection, these responses were predominantly process-focused.

Respondents reported relying on both intrinsic and extrinsic cues in reflecting on their professional practice. Student evaluations, both at midterm and at the end of the course, were mentioned frequently as sources of information through which to focus reflection on their practice. Other frequently mentioned strategies were journaling, reading, examination of other teachers' syllabi and materials, and discussion with other teachers.

### ***Research Question 3: Outcomes Associated with Reflection***

The third research question asked what outcomes teachers reported result from these reflection approaches.

To answer this question, the survey included one item each about outcomes for students and teachers. The item about student outcomes was the question, "What process or learning outcomes in your classes do you associate with student reflection?"

Responses to the question about student outcomes clustered around two primary themes, one of performance and one of agency. Respondents associated student reflection with improved application, synthesis, and interaction skills. They described them as essentially performing at a higher level on Bloom's taxonomy of educational objectives. "We think reflection enhances conceptual understanding of the material" (Mathematics, 27 years). Articulation, or the ability to express their understandings and ideas, also was mentioned. Examples of these include, "Increased ability to articulate personal and group concerns" (Nursing, 14 years), "Ability to articulate the benefits of studying whatever it is they've been taking" (Humanities, 8 years), and "The ability to synthesize material, to see alternative views, perspectives, and to extend to other applications" (Social Sciences, 25 years). "Improved communication skills to prepare students to provide better pharmacy care. I don't think you can teach empathy but you can uncover it and reflection is one way to do this" (Pharmacy, 7 years).

The second dominant theme was of agency, of students taking increased responsibility or ownership for their learning and enacting critical thinking and self-awareness. These comments illustrate this finding: "Analysis and critical thinking skills. I also use the written reflections as two-fold exercises to increase their ability to express themselves clearly and succinctly. Greater self-awareness can be an outcome in itself" (Communication Studies, 14 years). "A learning outcome of self-awareness about what they know about the course content and how that affects their lives" (Communication Studies, 15 years). "I expect that students will have deeper insights into the course material by taking the time to process what they are learning and why in a journal entry. I also think students enhance their self-confidence as a learner by recognizing their strengths and weaknesses and strategizing how to deal with them" (Communication Studies, 21 years). "Taking ownership" (Business, 9 years).

The item exploring teacher outcomes from reflective practice was, "What difference has self-reflection made to you as a teacher or in your teaching?" Responses predominantly fell into two themes, one of outcomes, particularly improved teaching and improved student response, and another of enhanced personal characteristics. These comments characterize the outcome theme: "To the extent that I've improved as a teacher, it's come from self-reflective activities. My student evaluations have gotten better as a result" (English, 20 years). "My courses steadily improve; student outcomes improve" (Journalism, 15 years).

"I hope it has made me better, but not easier" (Pharmacy, 7 years). "It helps me improve, stay current, and ultimately enjoy teaching more" (Communication Studies, 21 years). "It's made me better. It's not always pleasant to reflect on something that's not working, but it is important. And it's also beneficial to reflect on what does work" (Communication Studies, 8 years).

Enhanced personal characteristics of teachers were reflected in many other responses to this item. For example: "Without it one runs the risk of rigidity, self-satisfaction, complacency, etc." (Communication Studies, 31 years). "It makes me more vulnerable" (Communication Studies, 25 years). "A large difference. It has opened me up to greater risk taking and experimentation in the classroom" (Business, 26 years). "I am more other-centered than when I didn't self-reflect. I am more understanding of students' place along their personal path of learning and life. I am more aware of how what and how I teach affects students and other teachers within the curriculum" (Communication Studies, 15 years). "I am mindful of my students' learning in a way I was not before" (Nursing, 21 years).

Responses to this question also included some negative outcomes. "Well, it hasn't done much for my teacher ratings. The more I seek that greater reflection from students, I seem to lose many (not all) who want to know "what's on the test" and not all this other stuff" (Business, 25 years). "I'm not sure. It may have had a negative effect in that my thinking about myself as teacher is tortuous, to put it mildly" (Communication Studies, 8 years). "Sometimes I beat myself up for not being perfect" (Mass Communication, 7 years).

#### *Research Question 4: Change Goals and Barriers*

The final research question focused on what actions teachers report they plan or wish they could implement to enhance reflection, both in the classroom and in their own practice, and what barriers they perceive to these changes. Two survey items addressed these areas. The first focused on classroom practice: "How would you change reflection practice in your classroom if you could? What might prevent this?"

Consistent with respondents' focus on writing in their description of current classroom reflection practice, many proposed changes involved increased writing. In almost every case, however, respondents noted the barrier of time. "I would have students do more written critiques of their work and the work of their peers. Time is the enemy" (Journalism, 15 years). "More reflective or free-writing activities...prevention comes in the form of time and motivation. There isn't much incentive to innovate in the classroom - it ends up being extra work you do on top of an already exhausting schedule" (Communication Studies, 6 years). "More would be good - both for the individual students and the course; time and staffing are the issue"

(Communication Studies, 9 years). "I would require more written products from students. My efficiency in evaluating those products discourages me from doing so. This type of product would be better for the student but the personal cost to the instructor would be too high!" (Business 5 years).

Responses to this question were dominated by the theme of barriers. In addition to time, respondents also identified issues of how to evaluate reflection and the trade-off between reflection practice and coverage of material. "This is difficult because reflection requires open ended responses that then must be read. In addition, I'm not sure how to evaluate reflection. Will I know 'good' reflection when I see it?" (Speech/language, 5 years). "I would systematize it even further, but am worried about losing time to cover the academic content of the course" (Humanities, 8 years).

Another particularly interesting component of responses to this question was structural, the only instance where issues of organizational practice were mentioned. "I would change the semester or quarter system to the year-long system, with many breaks during the year. What I mean is that our courses are 'over' at the end of a semester or quarter. This promotes a harmful perception of 'doneness' with study and reflection and growth" (Humanities, 12 years). "Building in more time for this to make it almost a habit for students would be good. Students' expectation that all of class time will be (should be) dedicated to 'content' might interfere with reflection practices" (Nursing, 30 years). "I'd stop giving grades, so students could just focus on learning and making connections. Unfortunately, most students would love motivation to actually read the material and write the essays that promote reflection" (Communication Studies, 12 years).

The final question in the survey asked, "How would you change your own reflection practice if you could? What barriers are there to that change?" Of the majority who responded with ideas about how they would change their own practice of reflection, three large themes emerged: refining current practice to make it more regular and deeper, gaining more knowledge of how to accomplish reflection, and dealing with the pragmatics of accomplishing reflection as they would like to. The pragmatics included identifying colleagues, collaborators or peers with whom to work and making reflection a higher priority. Time was identified as the single largest barrier to reflection practice.

Respondents described a desire to deepen their own reflective practice. "Increasing the frequency would be good, and the only true barrier is that it's not programmed into my schedule and easily gets neglected because of the press of other activities" (Nursing, 30 years). "Perhaps more formal process of reflection" (Communication Studies, 5 years). "I would do it more often throughout the semester. Time is the major barrier" (Communication Studies, 7 years). Several responses touched on a felt need to learn

more about reflection and how they might use it. "I would love to be involved in a faculty development course that focused on teaching reflections" (Communication studies, 6 years).

A consistent theme in responses to this question focused on finding other teachers from whom to get feedback and with whom to share ideas. "I believe one barrier is finding others to practice with. It takes a conscious decision to engage in reflection and it often is best to do this with another person over an extended period of time," responded a statistics teacher with 27 years of experience. "I would spend more time having other respected colleagues observe, and comment on, my teaching" (Communication Studies, 7 years). "Barriers are finding the right peers to use as judges" (Nursing, 14 years).

Respondents raised availability problems in finding others as well. "Mutual reflection with other faculty; time spent on more collaborative teaching experiences would need reflection as well as additional planning; few team teaching opportunities exist so little chance for this type of critical reflection" (Communication Studies, 9 years). "I suppose I could have someone come and watch me, but that is hard to do" (Communication Studies, 3 years). "I'm not doing this because of time, and because people won't really be honest (in order not to offend, or when you sit in on their class, often they don't teach the same way)" (Communication Studies, 7 years).

Making reflection a higher priority was frequently noted as well. "My time is limited given the extensive research and advising load. This is not to say that I view teaching and research as completely separate activities, but you still need time to be reflective about them" (Communication Studies, 6 years). "Unfortunately, we're all extremely busy, not to mention the fact that opening oneself to others' comments and critiques can be a vulnerable process. However, it is primarily the time involved and the desire not to be an imposition that prevents me from seeking out more comments from valued colleagues" (Communication Studies, 7 years). "I don't want to bother other busy friends and faculty" (Communication Studies, 12 years). "Teaching is important to me, but right now I am more focused on research due to tenure pressures" (Communication Studies, 3 years). "I think I've got it just right, but the time I use for reflection does pay the bills as well as it might if I were to be more palpably productive during those periods" (Communication studies, 30 years).

The dominant theme in this question was time. Respondents consistently noted the challenge of adding another component to their demanding jobs. A communication studies teacher with seven years of experience wrote, "I would do it more often throughout the semester. Time is the major barrier." A 15-year veteran in nursing noted, "Try journaling myself, about how teaching is going. Time." "The rapid pace of life makes the seeking of

silence and solitude difficult. Nevertheless, I believe that only in such circumstances/settings is prolonged reflection possible" (Business, 5 years). "I would love to have some time to simply think and reflect about my classes! With increased responsibilities, I find it difficult to follow through with my own intentions to write about my performance" (Business, 9 years).

Interestingly, eight of the respondents indicated they would make no changes. "I don't think I want to change any of it right now" (Communication Studies, 25 years). "Nope – I like how I currently reflect" (Higher education, 10 years). "Can't think of any" (Humanities, 8 years). In contrast to the apparent satisfaction of these respondents with their reflection practice, a communication studies teacher with eight years of experience provided a reminder that not all teachers practice reflection in responding, "I don't have a practice."

## Discussion

In their responses to this online survey, 56 teachers from a variety of disciplines and institutions demonstrated consistent concern for the process and product of reflection in teaching and learning. They expressed enthusiasm for it, belief in its possibilities, and concern about the practicalities of it. Several key characteristics stand out in their answers to questions about the reflection practices or strategies they use in the classroom and in their own practice. These include differences in conceptions of student reflection and teacher reflection, the importance of agency, and identifying activities they do as reflection.

The survey did not include a definition of reflection. This was a deliberate choice; framing the concept would have primed respondents and limited the scope of responses. This choice clearly influenced responses, especially to questions asking for strategies and practices. It may also have limited a felt need to define the term. Only a few respondents provided a definition or wondered what definition the researchers had in mind. "To me, reflection is about connecting students thoughts and lived experiences with what they're learning in the class and what service to the community, if any, they are engaged in as part of the class" (Communication Studies, 15 years). "Now the term, student reflection, is becoming difficult. Does it mean thinking? Self examination? Questioning? I'm not sure. The learning outcomes I love to see are changes in students brought about because they have questioned something they previously took for granted" (Communication studies, 8 years). "I am not sure what you mean by this. I want to develop a 'habit of mindfulness' in my students regarding their response to ethical issues in clinical practice" (Nursing, 21 years).

The various strategies respondents reported for student reflection have commonalities, particularly in how they ask students to stretch their understanding, to articulate ideas,

and to apply knowledge through assignments and exercises, particularly though writing and group discussion. A dominant focus in the survey responses is on student products, end states through which teachers can see evidence of reflection and evaluate it. Teachers' descriptions of their own reflection practice, in contrast, demonstrate a focus on process. "Just try to think about what worked and what didn't work in a semester and constantly try to adapt the course based on this" (Communication Studies, 5 years). "Journal periodically on practices that seem to be effective in the classroom" (Nursing, 30 years). "I'm always processing my teaching during down times (i.e., running, exercise)" (Communication Studies, 9 years). Although the way in which the question was framed certainly guided responses, it is noteworthy that respondents did not describe an end states, but rather self-identified and self-described ongoing processes.

These differences in what should result from reflection are provocative. The responses to this survey suggest that for these teachers, reflection involves students engaging the material and demonstrating the result in a product, but for the teachers themselves reflection involves enacting a continuing process that does not require a specific, tangible product. In addition, responses suggest a different sense of time for reflection. Many survey responses involve application, particularly student application of course materials to "real world" life. This requires students to reflect prospectively, to imagine what might happen. In contrast, teacher reflection is described as both retrospective and introspective. It is implicitly prospective as well, in that it often focuses on planning for the next class or next semester.

What is particularly intriguing is a pattern of change in voice between responses focusing on student reflection and those on teacher self-reflection. Many respondents adopted a professional or "clinical" voice when talking about student reflection but used a personal, rather wistful voice when talking about their own practice. For example, in describing practices or strategies to promote student reflection, an engineering teacher with 20 years of experience noted, "At the end of each class, the student is to summarize what they learned in a brief paragraph. They are also to submit one question that they would like to have answered during the next lecture." In describing how he would change his own reflection practice, this teacher wrote, "I would like to see what other instructors would do with my syllabus, text, and materials. I think this would be valuable. The barriers are time, money, and logistics." A new teacher of psychology (one year of experience) said of student reflection strategies, "I assign written case study responses that tie real-life situations into the course material. Also, I put students in small groups to collectively reflect on the material and discuss it." Of changes she would make to her own reflection practice, she wrote, "I would love to talk more



with experienced instructors to make sure I am on the right path with my reflection. There is not a lot of contact with other instructors except between classes.” Finally, a communication studies teacher with 12 years of experience described her classroom strategies as “oral questions/discussion; essay exams; and small discussion groups.” But of what she would change about her own professional practice, she wrote, “After a frustrating class, I sometimes reflect too much on what I did and what I might do differently. It would be more productive to be able to talk to others who teach the course who are great teachers, rather than just being frustrated with myself or my students. I don’t want to bother other busy friends and faculty.”

The wistfulness is related to teachers’ comments of desire for more time and capacity for reflection, and for more knowledge to support their own reflection practice. It is often most clear in their comments of desire for support from other professionals in their work and a frustration in enacting this. “I believe one barrier is finding others to practice with” (Statistics, 27 years). “Barriers are finding the right peers to use as judges” (Nursing, 14 years). It is this wistfulness that moves us to consider reflection as a key gateway to teachers’ professional identity. It is a reminder that for many instructors, teaching is not just a role but a social and personal identity. In addition to its value in identifying and enacting changes to teaching practice itself, reflection may highlight for some teachers the need to be less solitary in their professional life and to include and incorporate others as colleagues and collaborators.

In contrast to the distinctions many respondents made in conceptualizing student reflection and teacher reflection, comments about agency showed striking similarities. In both cases, they set as an objective that individuals take responsibility for their progress. For example, in identifying outcomes associated with student reflection a six-year veteran in communication studies wrote, “Seeing application to personal experiences past and future and taking personal responsibility for learning.” In identifying outcomes associated with his self-reflection, a 26-year business teacher noted, “I strive more to continually improve what I do in the classroom. I’ve moved my teaching to another level that I feel results in long-term benefits for the student in terms of relevance to the world of work and relevance to life in general.”

Analysis of the responses to this study suggests that many respondents had not thought about their practice as being one of reflection. They were able to associate activities, processes, and outcomes with the term, but with some exceptions had not made a point of reflection as central either in their classrooms or in their professional practice. Responses by a few teachers did focus on reflection in a more formal framing. “I teach students the process of reflection, grounded in the service-oriented mission of our university. I model reflection behavior” (Communication

Studies, 7 years). “Students read about Schön’s process of reflective practice, we discuss it and I encourage them to experiment with it in class” (Business, 26 years). However, the variety of responses and the lack of fluency in the ways teachers described their use of it suggest that they have not focused particularly on reflection as a tactic or practice.

When several of these themes are viewed in combination, a more nuanced understanding of Schön’s (1983) concepts of reflection is gained. As Schön indicated, there is a practice component associated with reflection processes, one that might be called “technique.” That technique is illustrated in the “clinical,” professional-sounding voice that many respondents used in describing the activities they plan for and enact with their students. In other words, it is possible to break reflection processes down for students into activities, and assess the products of those activities in relation to specific course content and objectives. However, when it comes to reflection-on-action outside of the classroom, as teachers thoughtfully examine their own performance and process, their personal identification with the teaching process, the tone many used changed. There is more wistfulness, more hopeful and less detailed responses, more of a sense of wanting to create of-the-moment moments in their daily teaching. This is tempered, however, with a sense of time and energy limitations. These concepts lead us to consider further exploration of teacher identification with the learning process, rather than teacher identification with the profession, as a future direction for research.

### *Implications for SoTL*

Based on the results of this study showing a variety of conceptualizations of reflection, it might be argued that SoTL should incorporate a consistent definition. This would be useful insofar as it helped teachers new to reflective practice to identify applicable practices. On the other hand, strategic ambiguity, which allows multiple definitions of a concept, may allow more inclusive practice and would acknowledge the wide range of contexts in which teachers act. A single definition might be unnecessarily limiting, given the situated nature of the teaching process. Clearly, most respondents to this study were able to answer the majority of questions about reflection without additional cues, suggesting a fundamental understanding of what reflection is.

This study also reinforces the efforts by the SoTL community to help teachers devise ways to promote, enhance, or incorporate reflection in the classroom, sharing practices and strategies as well as ways to evaluate student performance on these. It further suggests a need to reinforce SoTL efforts to help teachers balance the investment of time and energy with the outcomes, avoiding both under- and over-teaching (Bernstein, 2005).

### Strengths and Weaknesses

Drawing on the voices of teachers from a variety of disciplines and institutions represents a strength of this study. Their strategies and practices, their successes and frustrations, portray vividly the challenges of “teacherly” reflection. The consistencies and inconsistencies in their responses to the survey provide grounding for further investigation into reflection.

This survey was sent via email to individuals known by one or both of the researchers, as a convenience sample, rather than individuals selected on the basis of their familiarity (known or imagined) with SoTL. As with any optional survey, respondents chose whether to participate or pass. It is certainly possible that those who completed the survey are more engaged in thinking about their teaching and more likely to have done reflection than those who did not complete it. Therefore, there may be components of the reflection process that have been left out or over- or under-emphasized. Further, the presentation of text boxes in which to write responses to the questions may have limited length and scope of responses. Framing of questions, particularly those prompting for strategies and practices, inevitably guided responses. Interviews or focus groups are likely to evoke richer explanation of these ideas and might result in significantly different framing of the practice and possibility of reflection.

### Directions for Future Research

Several directions for future research are suggested by this study. Repeating the study with a broader sample, randomly selected, across multiple disciplines, would provide additional perspective on the questions raised and would enhance understanding of teacher use of reflection. As noted, information gathered through individual interviews or in focus groups may reveal additional conceptualizations of reflection, different practices, and different concerns. In the same way, student voices are essential. Surveys, interviews, and focus groups with students will identify what they perceive as reflective work and their responses to its usefulness. Finally, additional information about what constitutes reflection, how teachers use it, and what outcomes may result from examination of artifacts, such as assignments, student work, and teacher work.

Participants in this study provided rich responses to queries about their personal and classroom reflective practice, demonstrating both the barriers and benefits of reflection to teachers and their students. The results of this study vividly demonstrate how engaging reflection is to teachers, both in their work with students and in their individual development as teachers, and how both the actions and the aspirations of reflection are central to their efforts. ♦

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## Appendix A

*Survey Questions*

1. What practices or strategies, if any, do you use in the classroom to promote or foster student reflection about course materials or ideas?
2. What practices or strategies, if any, do you use to promote or foster student reflection about themselves as learners or members of a classroom community?
3. What practices or strategies of reflection about your teaching, yourself as a teacher or yourself as a learner do you use, if any?
4. What process or learning outcomes in your classes do you associate with student reflection?
5. What difference has self-reflection made to you as a teacher or in your teaching?
6. How would you change reflection practice in your classroom if you could? What might prevent this?
7. How would you change your own reflection practice if you could? What barriers are there to this change?
8. Are you male or female?
9. What is your academic discipline?
10. At what type of institution do you teach, i.e., PhD granting, masters granting, bachelor's granting or associate degree granting?
11. How long have you been a college teacher?

## Appendix B

*Distribution of Disciplines and Institutional Type*

	PhD Granting	Masters granting	Bachelors granting	Associates granting
Communication Studies	15	9	5	
Nursing	3	1	1	
Business	4		1	
Engineering		1		
Journalism/media	1	2		
Education	2			
Humanities	3			
Social sciences	2			1
Sciences	2			
Computer science	1			
Speech/language/hearing	1			
Pharmacy	1			