

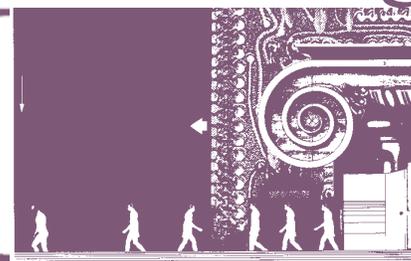
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SoTL as Humble Inquiry

Nancy Chick
Rollins College

Up until now, our look at the Scholarship of Teaching and Learning (SoTL) has been largely academic: Before jumping into SoTL in action, it's helpful to know something about the origins of SoTL (*NTLFV27N6*) and to reflect on our individual research framework (*NTLFV28N2*). Let's get specific now and consider the origins of individual SoTL projects, including yours.

SoTL is typically grounded in practice, which means that projects most often emerge from our own experiences in teaching and the students in front of us. Our projects may end with implications for a more general notion of "students" or with a broader theory about learning and teaching, but they're usually inspired by something in our lived experiences.

Problematizing Teaching

One of the most common starting points in developing a SoTL project comes from Randy Bass. In "The Scholarship of Teaching: What's the Problem?" (1999), he looks to the notion of a research "problem" to invoke the productive challenge "at the heart of the investigative process." Our research problems have a "generative" effect on us, both emotionally and professionally. They inspire us. We know we're setting out on a journey that will be valued by our colleagues and institutions. The same is not

true, Bass observes, when our students' papers confound us, or when our teaching plans go sideways. These problems often inspire little more than shame. SoTL invites us to shift our orientation in these moments to "think of teaching practice, and the evidence of student learning, as problems to be investigated, analyzed, represented, and debated."

Think, for instance, of where your students struggle, whether with key concepts, skills, or texts. What's going on there? What do students say is going on? How do they describe their struggle, and what does it look like? What do you think is the specific difficulty for students? What is it that they misunderstand? What do they understand, and where does that understanding get off track? What does that moment of getting off track look like in their work? What are the consequences for students in subsequent activities, in your entire course, in their potential within your discipline, and perhaps even as our fellow human beings and citizens?

Perhaps most important, what do you know about their struggle, what do you *think* you know, and

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what do you not know? A meaningful SoTL project starts there.

Problematizing the Problem

This language of “problem” may give the impression that SoTL projects need to produce solutions. Some projects are indeed designed to fix something, and, of course, we all ultimately want to improve teaching and learning. However, like the broader notion of research, SoTL is as diverse as the people who practice it. A biologist or a psychologist may develop projects that resemble experiments, implementing some activity or intervention in one class and comparing it with another to measure its effects. Yet a literary scholar or historian may be drawn to unpack and understand something puzzling in students’ papers or discussions, and an artist may be curious about how students express or perform their thinking.

SoTL projects may measure, identify, compare, and document effective practices, or even ineffective ones. They may also explore, reveal, narrate, question, and express learning. All of these approaches contribute something to how we understand teaching and learning—our students, their learning experiences, our teaching practices, the relationship between what we do and what students understand, the relationship between what students do and what we understand, and so on.

Even so, not everyone is comfortable with the idea of starting with a problem. For some, whatever the intention, this beginning suggests a deficit approach to teaching and learning, invoking our negativity bias that focuses our attention on ... well ... problems, complaints, and the sense that *something* is always *wrong*. Most often, this wrongness is with the students, invoking the “students these days” student-bashing. Starting with a problem may also drive us toward solving problems we don’t yet fully understand, or we actively misunderstand. And it may set up unrealistic expectations of what can or should actually happen in one semester.

Starting With Self-Reflection

In Chapter 1 of *SoTL in Action: Illuminating Critical Moments of Practice* (Chick, 2018), Gary Poole looks to other “Rich Sources for SoTL Projects.” In this entry point, we start with self-reflective inquiry as we become curious about our beliefs:

- What do we believe about what’s going on in our classes?
- What do we believe about what students think?
- What do we believe about how learning happens?
- What do we believe about what effective teaching looks like?

What do you think is the specific difficulty for students? What is it that they misunderstand?

These aren’t simple questions, so I would do some reflective writing here. Thinking about those moments of students struggling with a concept, skill, or text, I could write several paragraphs about each of these questions. This step will give us more to work with moving forward and may result in some useful material for when we share our projects later.

Continuing down this path, our curiosity leads us to ask why we believe this. Poole focuses on three flawed but common sources of beliefs: intuition, anecdote, and observation. The idea here is not to produce shame but instead humble inquiry, meaningful SoTL, and greater understanding.

Some of our beliefs about teaching and learning begin with our intuition. We have a hunch we know what’s going on when students struggle with a concept, skill, or text—maybe even a strong hunch. As an entry point into a SoTL project, Poole suggests, we should reflect on these hunches, question the assumptions beneath

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Editor's Note:

It would be hard to find faculty today who have not heard of SoTL, the unfortunate acronym that stumbled into the discourse on teaching and learning in college following the publication of Ernest Boyer's *Scholarship Reconsidered: Priorities of the Professoriate* in 1990. Some faculty "got it" right away, not only embracing the strength of Boyer's arguments, but understanding the multiple, useful ways to begin standing back and looking at their own teaching practice from something like the same scholarly posture they assumed in other research they did in their professional lives. I was delighted when **Nancy Chick** (one of those who "got it") agreed to begin writing a column on SoTL for *NTLF*. I've put her column in this issue on the front page because it seems to me one of the clearest short descriptions of SoTL, its usefulness and how to begin to do it that I've read anywhere. Thanks, Nancy!

(Full disclosure: The title of Nancy's ongoing column derives from her edited volume of the same name, *SoTL in Action: Illuminating Critical Moments of Practice* [Stylus, 2018], for which I was acquiring editor and for which I wrote a foreword.)

In a way, all the pieces in this issue of *NTLF* are about standing back and looking at our teaching. When we do, we see that the moral ethos has changed. Competition and job-seeking pressures have altered the concept of what a college degree means. One result is that cheating has kept up with the times. **Melinda Verdone's** article "High Tech Cheating: What's the Solution?" takes a thoughtful look at the methods and motives and offers sensible advice on dealing with cheating among today's ambitious students.

My report on **Spelman College's** investigation of how to assess efforts to instill metacognitive and critical thinking skills describes a systematic approach that often escapes objective description and thus some possibilities of emulation and transfer. Here, too, what Spelman is doing offers an example of practical SoTL in action. Practical SoTL does start with fresh observations and fresh thinking, but it looks back and learns from what others have done and seen. For this research, for example, Spelman researchers have adapted understandings developed in the early 1980s about "reciprocal teaching" as part of their College Classroom Observation Scale.

Ed Nuhfer's DEVELOPER'S DIARY, "Understanding the Impacts of Privilege on Metacognitive Development — Part 1," looks at metacognition from a somewhat different perspective. As Ed says right off the bat: "Metacognition constitutes more than just 'thinking about thinking.' It is the locus where affect, self-assessment, self-confidence, self-esteem, self-efficacy, self-regulation, intellectual development, transformative learning, and the effects of socioeconomic privilege all connect." Anyone weary of "metacognition" as a buzzword will welcome Ed's exploration of this complexity. As he points out, "privilege" influences affect, and the affective posture students come to learning challenges with influences their learning in multiple ways. Quoting Ed again: "Some students, because of their backgrounds, cannot yet differentiate self-esteem from self-assessment and self-efficacy." Sorting out these complexities becomes part of the unique shape metacognition must take in many, if not most, students.

Finally, **Marilla Svinicki's AD REM** ... column in this issue: "The Hidden Curriculum: Interacting Roles of Teachers and Students That Contribute to Learning." What is the hidden curriculum and how does it work? Marilla explains in a useful chart how the hidden curriculum is a kind of dance, an exchange and interaction of roles faculty and students must play in their work together. One side leads at times and the other follows. The weight of some responsibilities moves from one to the other in time with the underlying music of learning. In all of it, we try not to step on one another's toes.

—James Rhem

them, and collect information to examine their veracity.

Some of our beliefs are connected to the anecdotes that bubble up during conversations about teaching. We may hear different colleagues talking about their experiences with a challenge similar to the one we're pondering, leading us to some conclusion. But even if these colleagues are in very different disciplines or institutional contexts, there's a good chance that there's a kind of echo chamber at play here. Poole encourages us to "hear the conversational contributions of colleagues not as statements of truths but as hypotheses" to be tested (p. 10).

How are these moments of honest self-reflection starting points for SoTL projects?

Finally, some of our beliefs are grounded in what we see with our own two eyes. However, many of our observations aren't systematic, so Poole points us to question ourselves with a healthy dose of skepticism: Is what I've seen actually a frequent occurrence, and what about my thinking makes me see what I see and in this way?

What then? How are these moments of honest self-reflection starting points for SoTL projects?

Let's say one of my beliefs is that the readings I assign are essential to students developing understanding. Let's say my intuition tells me that some students do the reading and others don't. I frequently hear colleagues talking about their students not reading, so it seems to be fairly widespread. In class, I've seen students with blank reading quizzes, minimal class participation, and even books that clearly haven't been opened yet. I believe that the students struggle with this concept, skill, or text because they haven't done the readings. An assumption beneath this hunch is

that if they'd read the background material, they would understand. Thinking about my colleagues who say their students aren't reading, how much reading are these colleagues assigning? How do they know their students aren't doing the readings? In fact, now that I think about it, I tend to construct my syllabi with near obsession, poring over all the possible texts my students could read, so when I list them on the syllabus, it's like each day is an exercise in picking my favorite child. I'm invested in the readings I assign, and I sense when students aren't as interested as I am. Ultimately, then, what is it that's bothering me about these moments of struggle in class? Are students, in fact, trying? What does it mean to "not do the readings"?

I could do a literature review to see what others have said about student reading practices. I should probably also look at the broader research on motivation in learning. These searches will probably result in something different from what I've been intuiting. I should also collect some information from students—in this situation, artifacts of their reading, such as their annotations in the text or more open-ended reading quizzes. Even something as simple as a muddiest point—short, written responses to "What's 'muddy' about this reading? What's least clear to you?" (Angelo & Cross, 1993)—will shed light on what's going on. These efforts will confirm, contradict, or complicate the sources of my belief that the readings I assign are essential to students developing understanding. What I'm finding is that it's not that students aren't doing the readings. Instead, I need to better understand what's going on when students are, in fact, doing the readings. How are they reading, and how are they processing what they read?

As Peter Felten's first "Principle of Good Practice" states, SoTL is "inquiry focused on student learning" (2013, p. 122); however, as he clarifies, it's not an either/or choice between teaching and learning, with SoTL's focus *solely* on

student learning. It's the scholarship of teaching and learning, and part of the learning is our own. ❖

References

- Angelo, T. A., and K. P. Cross. 1993. *Classroom Assessment Techniques*. San Francisco: Jossey-Bass; pp. 154–158.
- Bass, R. 1999. "The scholarship of teaching: What's the problem?" *Inventio*, 1(1).
- Felten, P. 2013. "Principles of good practice in SoTL." *Teaching & Learning Inquiry*, 1(1), 121–125.
- Poole, G. 2018. "Intuition, Anecdote, and Observation: Rich Sources for SoTL Projects" in N. L. Chick (Ed.). *SoTL in Action: Illuminating Critical Moments of Practice*. Sterling, VA: Stylus, pp. 7–14.

Contact:

Nancy Chick: nchick@rollins.edu

RESEARCH WATCH

Assessing Classroom Quality

James Rhem
Executive Editor

Assessing what goes on in classrooms has always been challenging. So many variables enter into what goes on—different teachers, different subjects, different students, and different overall approaches. What goes on is always complex, and yet we know some classrooms effect high-quality educational experiences and some fail to. Developing means that aren't entirely subjective to grapple with this assessment challenge has been a long-standing struggle. Early in this decade, the US Department of Education began awarding "First in the World" grants to 18 colleges and universities aimed at addressing this challenge, especially as it connects with student success. At this year's Association of American Colleges and Universities annual meeting in Atlanta, A. Nayena Blankson, Francesina Jackson, and Jimmeka Guillory Wright gave an engaging presentation on how Spelman College shaped and applied the grant it received.

Spelman decided to focus on the development of metacognitive skills among first-year students. Metacognition has become almost a buzzword in discussions of improving college teaching in the last several years, and for good reason. Metacognition, or, as it's often referred to, "thinking about thinking," turns out to be key to learning in a wide range of disciplinary areas. Acquiring an enhanced level of awareness of how we learn generally and an individual sense of oneself as a learner has been shown to help students achieve and persist in their academic careers. Ironically, metacognitive skills and abilities seem to have been taken for granted for a very long time. Teachers generally haven't embraced the notion that these needed to be awakened in students or that it might be their responsibility to awaken them. That's changed.

Defining the Problem

Finding Assessment Tools

In taking up the College Classroom Observation Scale, Spelman decided to emphasize the development of metacognition and critical thinking in students. Instructor behaviors aimed at developing these capacities would be the focus of their research. More traditional dimensions of positive classroom environments, such as evidence of "instructor charisma," "student interest," and "classroom/lesson organization," would also be observed and scored in their research, but the differentiated teacher efforts to awaken metacognitive and critical thinking skills in students would be the main focus.

What were the characteristics of metacognitive behavior? What instructor behaviors encouraged those characteristics? Those were the first questions to confront in undertaking their research. For some useful answers, Spelman turned to the literature on "reciprocal teaching." This dialogic approach to teaching developed in the early 1980s as a means of increasing reading comprehension offered a breakdown of charac-

teristics broadly applicable to all learning. Since reading and critically comprehending and interacting with texts remains central to a college education, the “reciprocal teaching” lens seemed ideal for observing and assessing the development of metacognition and critical thinking skills.

The ‘Fab Four’

Historically, four components (known as the “fab four”) have defined reciprocal teaching:

- Predicting
- Clarifying
- Questioning
- Comprehension

Spelman characterized the last of these four more clearly as “summarizing,” especially as seen when students reclaim material “in their own words.”

This breakdown of observable behaviors on both the part of instructors’ practice and students’ response gave the Spelman researchers a valuable tool to begin with, a tool that worked usefully with the complexities of metacognition.

The range of processes involved in metacognition sounds very similar to the components of reciprocal teaching:

- Monitoring
- Detecting incongruities/anomalies
- Self-correcting
- Planning
- Goal setting
- Reflection

The obvious overlaps between “detecting incongruities/anomalies” and “self-correcting” in this schema with “clarifying” in the reciprocal teaching breakdown offer significant semantic depth to the researchers.

Nuts and Bolts

Traditional Elements

Spelman’s research design involved dividing 500 first-year African-American women students into a control group where the teaching would be, as they put it, “business as usual,” and a test group focused on teaching metacognitive skills through reciprocal teaching. Trained observers would score the

classroom activity on a seven-point scale in three 15-minute cycles, later averaging the three scores.

Scoring the traditional non-metacognitive aspects was perhaps the easiest part of the observations. For example, at the high end of the assessment scale with regard to “instructor charisma,” the instructor got points if he or she showed enthusiasm through varied tones and inflections of voice or animation through gestures and positive facial expressions. High scores for “student interest” came from students volunteering to speak and paying attention to other students when they spoke.

“Predicting” speaks to an aspect of learning too often ignored.

Metacognitive Skills

Observing and assessing the development of metacognitive skills was perhaps more interesting and more complex. Faculty behavior played a key role, primarily in modeling the skills for students and in consciously calling attention to the presence of the metacognitive components, both in what they were doing and in students’ responses.

Predicting

Predicting is an interesting aspect of reading skills and metacognitive skills. In a way, it’s a version of “student interest” in general, but more specifically it points toward student engagement with whatever learning challenge they’re facing. Moreover, it speaks to an aspect of learning too often ignored. If cognition is logic and affect is emotion, where does imagination fit in? Prediction draws from the breadth of mental involvement and suggests creative capacity as well as critical capacity. At the high end of the scale in scoring evidence of predictive ability, students offer their own suggestions about what will happen next or what to predict in a posited situation. They are engaged.

Clarifying

When it comes to clarifying, both instructor and student play vital roles in making the development of this skill part of the classroom learning. The strongest evidence of this skill having become a valued part of the learning environment comes in efforts on the part of both to explain things in a variety of different ways. In the best environments, the value of the skill has become so embedded that students themselves offer more clarification in class discussions than instructors.

Generating questions

Perhaps the strongest evidence of engagement in learning comes through the generation of questions, especially students’ questions. When students ask questions, especially when their questions have been prompted by the statements or questions other students in the class have offered, it’s clear the metacognitive value of questions and the skill of asking them has become a primary mode of instruction.

Summarizing

In a sense, questioning opens the door that leads directly toward summarizing. When students become engaged in questioning the material at hand, exploring it in a variety of ways, especially within the thinking of their peers, the move toward understanding expressed in summarizing is at hand. In classrooms that have been successful in awakening metacognitive skills, there will be more student talk in the hour than instructor talk.

Faculty Roles

While modeling and talking aloud about their own patterns of thinking in learning is a vital role in teaching metacognitive and critical thinking skills, this mode of teaching is dialogic and interactive. So, faculty must coach as well as model. Faculty good at this kind of teaching will comment on students’ responses and comments, asking them to elaborate, give examples, and so on. They won’t simply say

things like “Good question” or “Excellent.” They’ll affirm, but push for more.

Results

In all the observed behaviors, Spelman found significant improvement between the “teaching as usual” classes and those in which faculty had been trained to utilize differentiated behaviors aimed at encouraging metacognitive awareness and critical thinking. Clearly, students can learn to learn more effectively at the same time they are learning new material.

Contact:

A. Nayena Blankson: ablankso@spelman.edu
Francesina Jackson: fjacks08@spelman.edu

GRADES

High-Tech Cheating: What’s the Solution?

*Melinda Verdone, M.S., M.A.Ed.
University of Wisconsin Extended
Campus*

Academic dishonesty is not a new phenomenon—the first recorded examples of plagiarism and cheating on exams date back to seventh-century China (Lang, 2013a). However, with the use of modern technologies, opportunities to cheat on assignments and exams have multiplied. In a recent study conducted from 2002 to 2010 that surveyed 150,000 college students, 60 to 70% of participants reported engaging in cheating behaviors. While these numbers may seem alarming, they are no higher than those reported 50 years prior (Lang, 2013b). The real difference is the methods students use to engage in academically dishonest behaviors.

Cheating does not require the use of sophisticated technology.

Some examples of low-tech cheating include cheat sheets, passed information, and plagiarism. Many high-tech forms of cheating simply mirror these same approaches. For example, cheat sheets once took the form of a hidden piece of paper or writing on a desk, but students today are able to store information in a cell-phone, graphing calculator, or smartwatch that can be accessed during an exam (Morin, 2018). In online courses, it is even more challenging to ensure that students are not accessing outside information when using their own computer to take exams (London, 2017; Morgan, 2018).



In the past, information could be disseminated from one student to the next by sneaking a glance at someone’s paper or a student in a previous session revealing what questions are on the exam. Today, students use technology to relay information to one another. Text messaging each other during the exam or surreptitiously taking a picture of the exam and sharing it on social media are two ways to share exam questions and answers (Morin, 2018). In addition, spy tech gear is now being used to pass information during exams. One company sells an imperceptibly small earpiece that is unabashedly advertised for “cheat[ing] on tests with absolute discretion!” (Forbes, 2017). Information sharing becomes much faster and easier with the use of technology.

Plagiarism once meant the failure to properly cite a quote from a book or article or “borrowing” a friend’s essay. These forms of plagiarism still occur today, but they are much easier to execute. Copying and pasting information from a website can happen in only two clicks of a mouse. Moreover, completed assignments and essays are available in online clearinghouses for free or for purchase from internet-based essay-writing

services. Websites for essay-writing services have proliferated in recent years (Newton, 2018).

One professional-looking website claims to have over 100,000 customers and guarantees that all their essay writers have an M.A. or Ph.D. degree (Best-essays.com, 2018). If true, both of these statistics are incredibly disturbing—this would indicate a vast

number of students are purchasing written assignments, and individuals with advanced college degrees are willing to participate in such an endeavor. Today, it is all too easy to offload the task of writing an essay or research paper to a third party.

It is easy to assume that cheating would stem from low academic achievement, but, in fact, high-achieving students cheat more often than lower-performing students.

Why They Do It

Mastery Versus Performance

The proliferation of technologies to enable cheating indicates the desire to engage in these academically dishonest behaviors, but why do students feel the need to cheat in the first place? It is easy to assume that cheating would stem from low academic achievement, but, in fact, high-achieving students cheat more often than lower-performing students (Ottaway, Murrant, and Ritchie, 2017). One of the biggest motivators to cheat is the pressure to succeed academically. With all that is on the

line—getting into a good college, getting into graduate school, and landing a good job—it’s easy to see where this pressure originates (Novotney, 2011). When faced with academic pressure, students’ achievement orientation is shifted from a focus on mastery to one concerned only with performance (i.e., good grades). Students who demonstrate a mastery orientation use better learning strategies, seek out challenges, and have more positive attitudes about learning, while those with performance orientations equate failure to lack of intelligence or ability (Ames and Archer, 1988). When students fall behind in classes, compete with other students, or don’t see the connection between learning and grades, cheating results (Carnegie Mellon University, 2016).

Although most students feel that cheating is wrong, many still do it because they see others cheating. Students look to their peers for cues as to what is acceptable behavior, and cheating can be contagious when it is seen as the norm (Novotney, 2011). In some instances, students may feel an obligation to cheat in order to help a friend, fraternity brother/sorority sister, or, in some cultures, a more senior student. Students may no longer view cheating as immoral in these circumstances. Furthermore, students may consider cheating to be a low-risk endeavor. They feel the likelihood of getting caught is sufficiently low or the consequences of cheating are minimal to nonexistent (Carnegie Mellon University, 2016). Clearly, for some students, the rewards of achieving higher grades are worth the gamble, especially when a culture of cheating is pervasive.

Stopping It

Prevention of cheating behaviors, including those that utilize technology, can be accomplished through multiple approaches. The first approach is militant in nature—fight technology with technology. In the past decade, technology designed to prevent

cheating has blossomed. Testing centers with cameras that record students’ every move have become the norm. Wi-Fi jammers are installed to prevent students from communicating with one another via smart devices during exams. For online students, the Respondus LockDown Browser prevents students from opening another browser and searching for answers while taking an exam (Fang, 2012). To address plagiarism, educators can check for originality by comparing students’ papers to other sources in a database maintained by the software company Turnitin (2018). Ultimately, the approach of fighting cheating technologies with preventative technologies will only encourage cheaters to conjure up more inventive ways to get around the system. Moreover, by taking this approach, faculty and administrators imply a deep mistrust in students’ ability to act in an honest manner.

Ultimately, the approach of fighting cheating technologies with preventative technologies will only encourage cheaters to conjure up more inventive ways to get around the system.

A second approach to cheating prevention involves modifications to assessments. Making assessments more authentic and requiring more critical thinking to complete them will prevent students from being able to look up answers online. These assessments tend to be original and not available in an online test bank or a teacher’s edition of a textbook. Showing students



how the subject matter is relevant to their lives will also promote engagement. Additionally, more frequent low-stakes assessments take the pressure off students to perform and instead allow for deeper learning of the material (Lang, 2013b). This approach encourages a mastery orientation toward learning. No longer are students trapped in a performance mindset and tempted to attain good grades at any cost, which includes cheating to get them.

A third approach involves promoting a culture of academic integrity. The entire educational community needs to come together to acknowledge that cheating is unethical, and the behavior will not be tolerated. Two ways to promote academic integrity are: (1) educating about what is considered plagiarism and cheating and how to avoid engaging in these behaviors and (2) enacting honor codes and enforcing them as a community. Some students accused of plagiarism or cheating are simply unaware that what they were caught doing is wrong. Therefore, providing education on what is allowed and what isn’t is imperative. At the University of California, San Diego, all first-year students are required to complete an online course on academic integrity, and faculty are encouraged to speak in their courses about what is considered cheating and the consequences for engaging in such behaviors (Novotney, 2011).

Honor codes are another way to remind students that cheating will not be tolerated. However, merely having an honor code isn’t enough; students should be reminded of their acceptance of

these policies regularly, and they must be consistently enforced. In a study by the Center for Academic Integrity, it was found that students who were required to read an honor code and agreed to the terms of the code before taking

an exam were less likely to cheat on the exam (Novotney, 2011). Enforcement of the honor code must not fall only to faculty and administration—students should be involved as well. An academic integrity task force, composed of both students and faculty, is charged with educating students as to how cheating hurts both them and their community. When a student is caught cheating, restorative justice needs to take place. For example, a student who plagiarizes may be required to write an essay on proper citation or risk failing the assignment. These judgments should then be shared with the rest of the school, with proper anonymity, to promote academic integrity (Flanagan, 2016).

A happy medium exists between assuming all students are criminals and ignoring the fact that cheating occurs with some regularity. Therefore, the best solution to student cheating would include a balance of preventative and punitive measures. A combination of these three approaches—using preventative technologies, modifying assessments, and promoting a culture of academic integrity—would be most effective in discouraging cheating behaviors, with the ultimate goal of promoting mastery orientation to learning where cheating becomes unwarranted.

References

- Ames, C., and J. Archer. 1988. "Achievement goals in the classroom: Students' learning strategies and motivation processes." *Journal of Educational Psychology*, 80(3), 260–267.
- Bestessays.com. 2018. "About us." Retrieved from <https://www.bestessays.com/aboutus.php>.
- Carnegie Mellon University. 2016. "Students cheat on assignments and exams." Retrieved from <https://www.cmu.edu/teaching/solveproblem/strat-cheating/index.html>.
- Fang, B. 2012. "Addressing academic dishonesty in the age of ubiquitous technology." *Educause*. Retrieved from <https://er.educause.edu/articles/2012/9/addressing-academic-dishonesty-in-the-age-of-ubiquitous-technology>.
- Flanagan, L. 2016. "How educating students about dishonesty can curb cheating." *MindShift*. Retrieved from <https://www.kqed.org/mindshift/45085/how-educating-students-about-dishonesty-can-help-curb-cheating>.
- Forbes. 2017. "Back to school: Uncovering tech-savvy classroom cheating." Retrieved from <https://www.forbes.com/sites/capitalone/2017/08/17/back-to-school-uncovering-tech-savvy-classroom-cheating/#14d7800120a0>.

Lang, J. M. 2013a. *Cheating Lessons: Learning From Academic Dishonesty*. Cambridge, MA: Harvard University Press.

Lang, J. M. 2013b. "Cheating lessons, part 3." *The Chronicle of Higher Education*. Retrieved from <https://www.chronicle.com/article/Cheating-Lessons-Part-3/141141>.

London, M. 2017. "5 ways to cheat on online exams." *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/digital-learning/views/2017/09/20/creative-ways-students-try-cheat-online-exams>.

Morgan, J. 2018. "How students cheat online and why stopping them matters." *Inside Higher Ed*. Retrieved from <https://www.insidehighered.com/digital-learning/views/2018/02/14/creative-cheating-online-learning-and-importance-academic>.

Morin, A. 2018. "How teens use technology to cheat in school." Retrieved from <https://www.verywellfamily.com/how-teens-use-technology-to-cheat-at-school-4065364>.

Newton, P. M. 2018. "How common is commercial contract cheating in higher education and is it increasing? A systematic review." *Frontiers in Education*, 3, Article 67, 1–18.

Novotney, A. 2011. "Beat the cheat." *Monitor on Psychology*, 42(6), 54. Retrieved from <https://www.apa.org/monitor/2011/06/cheat.aspx>.

Ottaway, K., C. Murrant, and K. Ritchie. 2017. "Cheating after the test: Who does it and how often?" *Advances in Physiology Education*, 41, 368–374. doi: 10.1152/advan.00103.2016.

Turnitin. 2018. "Education with integrity." Retrieved from <https://www.turnitin.com/>.

Contact:

Melinda Verdone: melinda.verdone@uwex.edu

DEVELOPER'S DIARY

Understanding the Impacts of Privilege on Metacognitive Development—Part 1

Educating in Fractal Patterns LIII

Ed Nuhfer

Professor of Geology, Director of Faculty Development, and Director of Educational Assessment, California State Universities (Retired)

Metacognition constitutes more than just "thinking about thinking." It is the locus where

affect, self-assessment, self-confidence, self-esteem, self-efficacy, self-regulation, intellectual development, transformative learning, and the effects of socioeconomic privilege all connect. Without considering these components together, it is difficult to discern either the importance of metacognition or the kinds of "thinking about thinking" that are functional assets to becoming educated. Suffice to say that the more one understands metacognition, the better one understands key aspects of faculty development. In this Diary, we examine academic metacognition through some of the components listed above, and we will continue this discussion in the next Diary.

Metacognition is a capacity for learning and understanding that arises through a growing awareness of self. Because few instructors teach metacognitive skills directly, most of the variances in metacognitive skills that we see in college students seem to have developed spontaneously over several years as habits of mind. We cannot develop students' metacognitive capacities as quickly as we can impart factual content, but we might accelerate that development if we employ a curriculum designed to develop that capacity together with content knowledge. The students that should benefit most from such a curriculum would likely be the students in their first year of college in less selective schools.

The Role of Privilege in Affect and Desire to Learn

"Privilege" is a societal condition that imparts significant advantages to some groups of people but not others. Receiving the kinds of education that increase the capacity to think is certainly a significant advantage, and the term "selective" employed throughout higher education pertains primarily to institutions that deliver that kind of learning.

From our earliest Diaries (see *NRLFV17N3* 9–11 and *V18N2* 8–11), we presented affect as the

initiator for college students' path to learning and their eventual intellectual development in attaining higher-order thinking. A desire to learn is an affective quality that precedes conscious decisions to act to learn. We have tracked how the quality of affect, as described in the Bloom team's taxonomy of the Affective domain, changes as one advances upward through the stages of adult intellectual development (*NTLFV18N1* 7–11). Reaching the highest Perry Stages takes years, and these stages have a pronounced character of deepening awareness of self and others.

Constructivist learning theory emphasizes that students learn by building on prior knowledge and experiences. Privilege is a condition through which some students have obtained richer experiences and greater access to knowledge than most. Privilege confers more awareness of possibilities and the greater likelihood that one of these will be exciting and initiate a desire to learn. Early experiences that trigger the desire to learn also trigger the employment of ways of learning that become habits of mind. When a person first becomes conscious about a habit's usefulness in aiding her or his learning, metacognition has begun. Varied experiences in precollege years produce the different metacognitive capacities of the students who enter college. Through privilege that included knowledgeable support in homes and schools, some entering freshmen have rich prior experiences and well-developed metacognitive capacities that many more students do not have.

Hattie (2009) noted that the socioeconomic status of the homes that students grow up in and the schools they attend strongly influence the future success of students in college. The research in which I participate confirms that the status of: (1) being a first-generation student, (2) being a non-native English speaker, and (3) having no major interest in a subject, *on average*, all are significantly associated with reduced success. The

three are socioeconomic *symptoms* of lesser privilege, not *causes*.

The causes within communities of lesser privilege include lower concentrations of wealth with associated decreased access to essential resources, lower percentages of role models with higher-level education, more students who struggle to learn in a language that is not their native language, neighborhood schools with fewer resources, and fewer opportunities to gain awareness of choices that inspire learning. The concentrating of these causes in some communities and not others is a condition of social injustice that varies in degrees across cultures and nations.

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because of their
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Privilege, Self-Esteem, and Self-Confidence

In *self-esteem*, a person rightfully assumes innate worth and value as a being, without the need for doing or achieving. In a healthy society, self-esteem is a given. In contrast, achieving self-assessment proficiency and self-efficacy are the products of guided effort and experiences with failure and correction. Some students, because of their backgrounds, cannot yet differentiate self-esteem from self-assessment and self-efficacy. Until they can differentiate experiencing failure and correction from assaults on self-esteem, the discomfort they feel may produce awkward reactions with inappropriate responses. While some

instructors may judge such students as “entitled,” these students are likely engaged in a struggle they do not understand—a struggle brought on by insufficient metacognitive development, which is a condition that is the polar opposite of privileged.

In a few cases, students have had precollege experiences as genuine victims of abuse, marginalization, and bullying. While the effects manifest in ways that appear very unlike the responses of “the entitled,” both can be symptomatic of curtailed metacognitive development. Instructors should be alert to this possibility, realize that such students may require the additional support of a qualified counselor, and be willing to help such students access any counseling resources that the campus provides.

Self-confidence refers to the strength of certainty with which one holds on to beliefs about self. Self-confidence has a Goldilocks quality in which too much or too little brings difficulty. Too dearly held convictions of certainty can produce rigidity that limits learning. In contrast, distrust of one's competence also inhibits learning. Between these extremes, allowing that one can improve the capacity for understanding—even of dearly held ideas and beliefs—permits the flexibility that opens possibilities for discovery and creativity. The highest Perry Stages of thinking have the qualities of introspection, and they display an awareness of how being ourselves influences our thinking and reasoning.

Self-Efficacy and Self-Assessment

Faculty development literature often conflates self-assessment with self-efficacy. Ross (2006) not only provides the distinction but also shows that the practice of self-assessment is necessary for the development of self-efficacy (Figure 1). Self-efficacy is essential to the development of



the metacognitive capacity that enables the persistence needed to achieve higher-order thinking.

I modified Ross’s original figure in Figure 1 by replacing “goals” with “choices” because lesser privilege limits choices by limiting awareness that certain choices exist. I also replaced “self-assessment” in Ross’s figure with “self-assessed competence” to emphasize our focus here on the kinds of self-assessment that are relevant to becoming educated.

Self-assessed competence is an immediate estimate based on what we believe we can do with present knowledge and skill. Students with developed self-assessment skill can judge correctly when their preparation is adequate to respond well to an immediate challenge. When the feeling reveals that one’s preparation is insufficient, students with developed metacognition then react by employing effective learning strategies. Effective reactions include structuring study time with friends, obtaining tutoring, making use of professors’ office hours for help, developing understanding through writing and revising, employing visualization, or perhaps pursuing close reading by constructing one “test question” on each paragraph of an assigned reading and reflecting on one’s felt confidence to answer each of the self-generated questions.

Successes experienced in solving challenges through taking mindful actions develop *self-efficacy* (Figure 1). Academic self-efficacy is a belief in one’s ability to *eventually* acquire the necessary knowledge and skill through study, practice, and enlisting the needed expertise and help from others to successfully engage with difficult challenges. For a more extended discussion of self-efficacy, visit <https://positivepsychologyprogram.com/self-efficacy/>.

What gives precollege students an advantage in starting to develop self-efficacy? In one word, the answer is “support.” Having one or both parents with a college education equips those parents to offer guidance of their children’s academic learning. A child with a college-educated parent likely is friends with children of other college-educated parents. The cumulative coaching and support of the resulting has significant impact. By the time these children enter college, they will have 12 years of support in guided thinking and reflecting that other students have never had. That is *privilege*.

Students without backgrounds of privilege will have fewer experiences that develop self-efficacy. They may have so little experience with support that even the idea of seeking out expertise or help from others as a way to learn and to solve academic challenges just doesn’t occur to them. Telling these students to “study harder” conveys no benefit because they honestly do not know what that means. When such students attempt a substantial challenge without the needed skills, their defeat will lead to a further loss of belief in themselves and their capacity to learn. These students

need direct instruction to acquire the metacognitive skill of accurate self-assessment they lack. After that, they need some coping skills through which to build competency.

Students are not at risk in college simply because they “don’t know stuff.” They are at risk because they have never had the privilege of developing well-honed self-assessment skill, and this derails their final opportunity in college to build the needed self-efficacy.

Evidence From Data

My colleagues and I accumulated data from thousands of students, and that data allowed discoveries relevant to understanding metacognition and privilege. We will share two of these now, and others as we extend this discussion in the next Diary.

1. Sufficient paired measures of a group’s *demonstrated competence* on a test and their *self-assessed competence* (confidence) on their achieved scores reveal that nearly every group has an accurate self-assessment of their predicament of unequal privilege. Different groups exhibit different scores and ratings, but their mean self-assessed competence ratings are usually within three percentage points of the group’s actual mean test scores (see Nuhfer, 2019, Table 1; Watson et al., in press). Although self-assessed competence is an estimate that stems from affective feelings, the mean self-assessed competence rating of a group or the group’s mean actual competence test score offer good proxy measures of one another. Together, these appear to serve as indicators of a group’s (institutional student body, class rank, gender group, ethnic group, large class) overall intellectual development.
2. The use of the same instrument employed to measure competency in (1) above reveals that many seniors near graduation in average public universities reach only the developmental levels

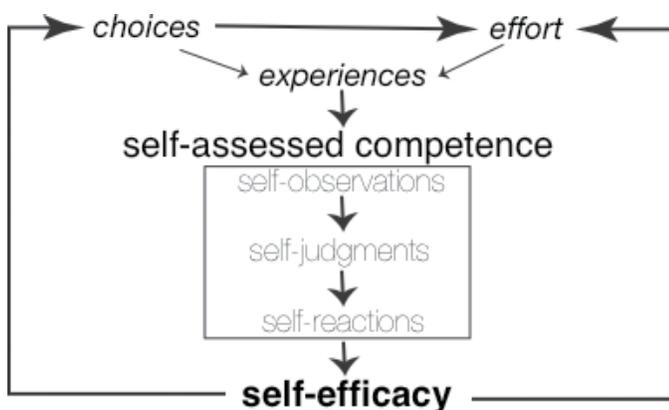


Figure 1. Development of self-efficacy through self-assessed competence. Modified from Ross (2006, p. 6). Both self-assessed competence and self-efficacy develop through deliberate actions.

These students

that many freshmen exhibit in highly selective institutions (Nuhfer et al., 2016, Figure 4). We believe that lower metacognitive capacity produced by the inequitable privilege experienced before college could account for most of this disturbing gap. We might be able to remedy at least some of the disadvantage during college by employing curricula that focus on developing the metacognitive skills of new freshmen that enter less selective institutions.

To overcome some disadvantages imparted by differential privilege, less selective institutions should consider reducing content coverage in introductory general education courses and replacing that content with instruction to build metacognitive skills and awareness. Increased learned content may spell success in one course, but increased metacognitive capacity increases success in many courses. ❖

References

- Hattie, J. A. C. 2009. *Visible Learning: A Synthesis of Over 800 Meta-analyses Relating to Achievement*. New York: Routledge.
- Nuhfer, E. (2019, March 6). "Paired self-assessment—Competence measures of academic ranks offer a unique assessment of education." Retrieved from <https://www.improvewithmetacognition.com/paired-self-assessment-competence/>.
- Nuhfer, E. B., C. B. Cogan, C. Kloock, G. G. Wood, A. Goodman, N. Z. Delgado, and C. W. Wheeler. 2016, March. "Using a concept inventory to assess the reasoning component of citizen-level science literacy: Results from a 17,000-student study." *Journal of Microbiology & Biology Education*, 17(1), 143–155.
- Ross, J. A. 2006. "The reliability, validity, and utility of self-assessment." *Practical Assessment, Research, and Evaluation*, 11(10), 1–13.
- Watson, R. M., E. Nuhfer, K. Nicholas-Moon, S. Fleisher, P. Walter, K. Wirth, C. Cogan, A. Wangeline, and E. Gaze. In press. "Paired measures of competence and confidence illuminate impacts of privilege on college students." *Numeracy*, 12(2).

Contact:

Ed Nuhfer: enuhfer@earthlink.net

AD REM...

The Hidden Curriculum:

Interacting Roles of Teachers and Students That Contribute to Learning

Marilla Svinicki
University of Texas at Austin

Sometimes I think teachers and students forget that both of them have to contribute to the learning process for it to be maximally efficient and effective. These lapses of memory result in misunderstanding of who is doing what. Or maybe they don't make it clear to each participant in the communication what the expectations might be. Another source of difficulty in this communication gap is that each makes assumptions about what the other half is doing, and is subsequently disappointed or worse when those assumptions prove to be unfounded.

In pondering the situation, I decided that a lot of what is contained in those assumptions is the "hidden curriculum" of a course. The concept of a hidden curriculum is not new. In fact, it was proposed by John Dewey in 1938. Stephen Thornton (2014) described Dewey's concept as follows: "John Dewey wrote about one meaning of hidden curriculum in *Experience and Education* (1938). He drew attention to how 'collateral learning' (e.g., of habits and attitudes) affects what students take away from their encounters with subject matter. This collateral learning, he argued, holds equal or greater educational significance than the explicit curriculum because the

habits and attitudes instilled have more lasting effects on students than the subject matter itself." The idea has received a lot of attention over the years.

So I ask you, dear reader, should we try to uncover this hidden curriculum as it is manifested in each of our courses? The chart that is included with this column is my attempt to illustrate how the hidden curriculum or, perhaps more appropriate, the unstated norms of academia dictate the roles of the teacher and the students. I know that I often just assume the students know their place in the scheme. Reflecting on what we expect from ourselves and our students can be shared with them and referenced when creating a culture for the class. Rather than be disappointed with their performance, both the students and I now have guidelines about how the academy



works, at least in terms of my classroom activities. I fulfill my role depending on the type of learning I'm seeking (teacher-driven vs. jointly driven). And here is how I expect the students to fulfill their role.

It's not an overly technical description of learning under various instructional strategies, but I think it might help deflect student confusion that we hear from them when we try something new that requires them to learn a new role.

Reference:

- Dewey, J. 1938. *Experience and Education*. New York, NY: Macmillan.
- Thornton, S. J. 2014. "Hidden Curriculum," in Phillips, D. C. (Ed.), *Encyclopedia of Educational Theory and Philosophy* (Vol. 1, pp. 383–384). Thousand Oaks, CA: SAGE. Retrieved from <http://link.galegroup.com/apps/doc/CX6500400146/GVRL?u=txshracd2598&id=GVRL&xid=6b0ceb0>.

Contact:

Marilla D. Svinicki, Ph.D.
Professor Emeritus
Educational Psychology
The University of Texas at Austin
One University Station D5800
Austin, TX 78712
Email: msvinicki@utexas.edu

	More teacher-driven	More student-driven	Jointly driven
The Teacher's Role	The Content Expert	The Facilitator of Learning	A Co-learner
What are the teacher's actions when serving as:	<p>Select key content.</p> <p>Present content in ways to emphasize its structure and connections with student experiences.</p> <p>Use visual structure to organize content.</p> <p>Engage students in filling in their own examples.</p> <p>Provide keyword list with definitions.</p> <p>Insert pauses to allow for student thinking and consolidating what they've heard.</p> <p>Answer questions carefully but do not repeat verbatim if they didn't get them the first time.</p>	<p>Provide clear objectives to convey what is being learned and why.</p> <p>Tie the assessments to the objectives.</p> <p>Have students engage in activities that have them go deeper into the structure (e.g., concept mapping).</p> <p>Coach students as they construct an answer by asking a further question (e.g., Socratic dialogue)</p> <p>Provide feedback on the answer and ask how the students arrived at it.</p> <p>Have students tie new content to that already learned.</p>	<p>Choose up-to-date topics that students can relate to and that you don't know the answer to yet.</p> <p>Prepare for class by anticipating questions that might be asked by students—and that you are interested in.</p> <p>Talk less; act like a participant by listening to and building on student comments and questions.</p> <p>Ask students questions that would suggest alternatives to expand their thinking.</p>
The Student's Role	The Content Receiver	The Constructor of Their Own Understanding	A Co-learner
What are the student's actions when serving as:	<p>Watch for cues used by expert to signal key content.</p> <p>Ask for examples of key concepts.</p> <p>Think of own examples.</p> <p>Check examples with expert or text.</p> <p>Take outline notes with examples, not verbatim notes.</p> <p>Put things in their own words.</p>	<p>Prepare to be active in class by reading assignments and note questions they want to raise in class.</p> <p>Participate by both responding to the instructor and listening to other students' answers and feedback during activities.</p> <p>Take notes on your own ideas, interpretations and examples.</p> <p>When the instructor offers feedback, watch for where you were off-track and correct your notes.</p> <p>Write a summary of the things learned during the activities as soon after class as you can.</p>	<p>Prepare for class by reading suggested material and asking yourself questions you want to raise in class.</p> <p>Take note of times during the discussion when the group agrees on an important idea for further investigation.</p> <p>Offer to take and share notes about the ideas raised.</p> <p>Challenge the other participants, including the instructor, to explain their ideas.</p> <p>Give feedback to others when you can.</p> <p>Keep the discussion on the ideas, not the people who have them. Be civil.</p> <p>Help the group come to consensus.</p>

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