

Lessons in Higher Education: Five Pedagogical Practices that Promote Active Learning for Faculty and Students

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Active learning by faculty members complements and promotes active learning for students. Through The Andrew W. Mellon Teaching and Learning Institute at Bryn Mawr College, faculty members actively engage with one another and with undergraduate students positioned as pedagogical consultants to explore and to practice a wide range of pedagogies. In this discussion, I draw on research literature and faculty reflections to describe five practices that, taken together, hold particular promise for involving both faculty and students more actively in their learning.

Arguments for active learning in higher education generally focus on the importance of students taking an active role in the learning process (Wolf-Wendel et al., 2009) and becoming co-creators of their learning (McCulloch, 2009). I suggest that active learning by faculty members complements and promotes active learning for students and that it is therefore important to extend to faculty members opportunities to engage in active learning.

In the following discussion, I describe a professional development program for faculty members that offers such an opportunity. I then share five pedagogical practices that participants have repeatedly explored and that constitute and promote active learning not only for faculty members but also for the students who enroll in their courses. I conclude with recommendations for how faculty members in other contexts might integrate these practices into their teaching.

The Andrew W. Mellon Teaching and Learning Institute at Bryn Mawr College

As adult learners, faculty members need well-supported forums within which to access and revise their assumptions, engage in reflective discourse, and take action in their pedagogical practice (Lawler, 2003; Merriam, Caffarella, & Baumgartner, 2006; Mezirow, 1991). The Andrew W. Mellon Teaching and Learning Institute (TLI) at Bryn Mawr College (www.brynmawr.edu/tli) invites faculty members from both Bryn Mawr and Haverford Colleges to participate in two interrelated forums: (a) semi-structured, semester-long seminars and summer workshops and (b)

partnerships with one or more undergraduate students who assume the role of pedagogical consultant.

The seminars and workshops in which faculty participate are open to all full-time faculty members at Bryn Mawr and Haverford Colleges. One of the seminars is devoted to supporting incoming tenure-track faculty members, who are given a course release by Bryn Mawr and Haverford College provosts for their participation. Three other seminars are open to all full-time, continuing faculty members, who earn stipends for their participation through a grant from The Andrew W. Mellon Foundation. Summer workshops are open to all faculty. Participation is entirely voluntary, and faculty members choose to participate for a wide variety of reasons (e.g., they are basically satisfied and successful but want to engage in dialogue with other faculty about expanding their pedagogical approaches; they have been teaching for many years and want to try something new; they are frustrated with certain aspects of their teaching; they want to develop a new course or revise an existing one, etc.). Faculty participants span ranks and divisions and range from new to the colleges to those with 45 years of teaching experience. Any faculty member who participates in a seminar or workshop is also partnered with one or more student consultants.

The position of student consultant is open to all sophomores through seniors enrolled as undergraduates at Bryn Mawr or Haverford College. Those who apply major in different fields, claim different identities, and bring varying degrees of formal preparation in educational studies (from those with no coursework in education to those pursuing state certification to teach at the secondary

level). The application process includes writing a statement regarding their qualifications and securing two letters of recommendation, one from a faculty or staff member, and one from a student. These students are not enrolled in the courses for which they serve as consultants; some have experience in the discipline of the course for which they consult, others do not. Each student consultant has the following responsibilities: meet with his or her faculty partner to establish why each is involved and what hopes both have for the collaboration, and to plan the semester's focus and meetings; visit one class session each week; take detailed observation notes on the pedagogical challenge(s) the faculty member has identified; survey or interview students in the class (if the faculty member wishes), either for mid-course feedback or at another point in the semester; meet weekly with the faculty member to discuss observation notes and other feedback and implications; participate in weekly meetings with one another and with me in my role as the coordinator of the program; and visit one or more faculty seminars five times over the course of the semester. On average, student consultants spend seven hours per week and earn \$900 per partnership through the grant from The Andrew W. Mellon Foundation.

Partnerships are formed largely according to participants' schedules and, where possible, taking into consideration style, personality, and disciplinary experience. Student consultants participate in an orientation and all participants are given detailed guidelines for participating in the program, but each partnership evolves in a different way depending on faculty need and interest and on consultant input. Between 2007 and 2011, 140 faculty members and 68 student consultants have participated in a total of 153 partnerships. This and other discussions of these partnerships draw on data from an ongoing study approved by Bryn Mawr's Institutional Review Board. Data include audiofiles of selected meetings of faculty pedagogy seminars and of student consultants; mid-semester and end-of-semester feedback from both faculty members and student consultants; and follow-up interviews with faculty members and student consultants. (See Cook-Sather, 2008, 2009a, 2010a, 2010b, and 2011, as well as Bovill, Cook-Sather, & Felten, 2011, for other discussions of this program.)

Five Pedagogical Practices that Promote Active Learning for Faculty and Students

In the seminars and workshops in which faculty members participate and in the dialogues in which participating faculty and student consultants engage, five pedagogical practices that promote active learning have repeatedly emerged. These include faculty members:

(1) reflecting on their practice;

- (2) developing a meta-cognitive awareness and a language to name that awareness;
- (3) modeling what they hope and expect students to do in terms of disciplinary practice, and explaining those hopes and expectations to students;
- (4) practicing pedagogical transparency – sharing their pedagogical goals and rationales with their students; and
- (5) inviting students to engage in reflection on and dialogue about their learning experiences, needs, and goals.

Each of these practices has been explored separately by various scholars, to whose work I refer below, but I have not seen a discussion of all five together. I draw on both research literature and the perspectives of faculty members to discuss how these five pedagogical practices hold particular promise for involving both faculty and students more actively in their learning.

(1) Reflecting on Practice

Variouly conceptualized in terms of altering perspectives and frames of analysis (Imel, 1992), as a cycle of interpretation and action (Rodgers, 2002), and as a mirror in motion (Lesnick, 2005), reflection refers both to the outward returning of a self-presentation to its possessor – a bouncing back to the self of both the intended and the unintentional image projected – and to an inward re-turning – the formulation of an understanding after careful contemplation, a thoughtful conceptualization or reconceptualization (Cook-Sather, 2008). Advocates of reflective practice argue that, in the absence of opportunities to reflect on one's "knowledge in action" (Schön, 1987: 12), one runs the risk of "relying on routinized teaching" and "not developing as a teacher or as a person" (Reiman & Thies-Sprinthall, 1998: 262; see also Colton & Sparks-Langer, 1990; Klenowski, Askew, & Carnell, 2006).

Because reflection is not structured into teaching, faculty members need spaces that offer such structure. Participants in TLI forums suggest that, "Having to express myself in writing each week has given me the opportunity to reflect on my teaching in a structured way." Reflection is deepened, faculty members suggest, through dialogue with student consultants, which helps faculty members "achieve [their] own 3rd person perspective."

When faculty members have the opportunity not only to be reflective themselves but also to develop or deepen their understanding of the role of reflection in learning, they are more inclined to offer such opportunities to students in their classes. One faculty member explained how the concept of self-reflection by faculty can and should be applied to students as they work towards the goals of a class:

This semester, I introduced consciously reflective practice into my assignments – a mid-term paper, and in follow-up to students’ presentations. In addition to provoking the sort of self-engagement and assessment that should be central to any learning process, it has also (I think) helped students to understand why they are being asked to do certain assignments, such as the journal and presentations.

As these comments suggest, reflection fosters deeper understanding and the development of a more informed perspective. These capacities are further enriched by the development of meta-cognitive awareness.

(2) Developing Meta-cognitive Awareness and Finding a Language for It

Meta-cognitive awareness – “thinking about one’s own thinking” or “cognitions about cognitions” (Flavell, 1971, 1979; Underwood, 1997) – takes awareness to a higher analytical level; it is awareness of one’s awareness such that one can make informed and intentional decisions about practice.

In a discussion of why meta-cognitive awareness and a language to name it are important to learning, one faculty member in a TLI forum said: “If I can’t articulate to myself what I want to accomplish, how could I possibly be clear about it with my students?” Through TLI forums, faculty develop a greater awareness of their pedagogical goals, a stronger ability to analyze those goals, and an increased capacity to name what they intend and how they strive to achieve it. One faculty member explained: “I am much more aware of the atmosphere in my classroom and better able to point out and articulate (to myself or others) what is and is not working the way I want – in particular because I’m more aware of my goals in the first place.”

Dialogue with students positioned as pedagogical consultants is particularly helpful in developing meta-cognitive awareness because students offer a different angle of vision on the classroom and prompt greater self-awareness among faculty members. In the words of one faculty member:

The new perspective I have gained from working with a student consultant has given me a more articulated view of what I’m doing and who I am in the classroom and also a clearer sense of why these are the activities and this is the style that is (or isn’t) suited to accomplishing my teaching goals.

When college faculty members develop meta-cognitive awareness, they can better foster that same capacity in their students, thus positioning them to make more informed decisions about and be more active participants in their learning. One faculty member explained how a meta-cognitive exercise a colleague shared in the peda-

gogy seminar inspired him to offer a similar opportunity to students in one of his classes:

In introducing this in-class writing/discussion to my students, I explained that...if the students think about **how they learned what they learned** and **what impeded their learning**, they probably would deepen their understanding of the material itself...The specific question I asked my students was: “*What might have helped you get more out of the last week’s stratigraphic facies mapping and interpretation exercise:*

- a) before beginning...
- b) during or in the middle...
- c) at the end (synthesis stage)... of the exercise?” [emphasis in original]

The capacity to analyze and articulate one’s learning process and to make active and informed decisions based on such analysis positions both faculty and students to be more active learners and effective practitioners.

(3) Modeling and Explaining

The third pedagogical approach explored repeatedly in TLI forums is modeling the thinking and behavior we want students to develop – what Loughran and Berry (2003) describe as “explicit modeling of practice” – and learning to explain how such thinking and behavior work. Such modeling and explaining are possible only if one has made one’s self consciously aware of and able to articulate what is required to participate in a field of study – what Nelson (2010) argues for as being explicit about the expectations of a discipline.

One faculty member explained how she models the thought processes she wants her students to learn: “I often think out loud and bring up some common misconception to discuss, hoping that by raising questions, I’ll encourage students to ask about what’s confusing them.” Another faculty member explicitly uses the language of the discipline so that students hear, recognize, and learn it: “In my upper-level classes, modeling is a strong component of my practice. I relentlessly use the full language of my discipline (and guide my students toward joining me), try to reveal how mathematical theory is constructed by example, and emphasize the values (aesthetic, rigorous, etc.) of a mathematician.”

In a discussion among colleagues in a TLI forum, one faculty member realized that, rather than “assume that students should know how to do things, and to then be unfairly disappointed in them” or “tell them how to do things,” “the best scenario is to do together in the classroom what I want them to be doing on their own, and to make it explicit that what we are now doing together is what they should be doing.” Dialogue with his student consultant reinforced for this faculty member the importance of modeling: “Thinking about what my conversa-

tions with my consultant are like, the take away message I keep finding in them is: model, model, model what I want the students to be doing in the class and what I sometimes falsely assume they must already know.”

As with reflecting on practice and developing meta-cognitive awareness, when faculty members realize the power of modeling, they can become more deliberate, intentional, and explicit in their classroom practices, and they develop the capacity to explain or narrate the process in which they are engaged and in which they want students to engage. One faculty member explained:

I have realized that I need to be more transparent about modeling the skills I want [the students] to acquire, and I felt like our [most recent in-class] exercise did a good job of that. We tackled it together, and by making it clear how I approach reading (asking questions, taking the time to concentrate on one sentence or word, looking at context, etc.), I think they got a better idea of how they can read a text, too.

To model and explain effectively, one has to unearth one’s assumptions about students and about disciplinary practices and identify those aspects of the latter that warrant explicit demonstration, explanation, or questioning. This kind of transparency regarding disciplinary practice has a complement in transparency regarding teaching and learning processes – pedagogical transparency.

(4) Engaging in Pedagogical Transparency

Reflecting on practice and developing meta-cognitive awareness are both prerequisites for engaging in pedagogical transparency – sharing our pedagogical goals and rationales with our students. To act on our own meta-cognitive awareness and to promote students’, “we should talk to our students about our own practices and ask them to understand how our pedagogy is designed to contribute to their learning” (Kulesz, n.d.). Sometimes called transparent teaching (Hunkins, 1987; Kulesz, n.d.; Saroyan & Amundsen, 2004), “the idea here is that professors share their decision-making processes with students, explaining the learning rationale behind various teaching and learning approaches” (Saroyan & Amundsen, 2004: 81; see also Hughes, 2007).

Kulesz (n.d.) suggests that “basic learning theory in meta-cognition supports the notion of transparent teaching as important in student learning.” If we as faculty members do not engage in pedagogical transparency, students may not understand why we are asking them to do what we are asking them to do and they are more likely to be confused and to waste their energy trying to figure out what we want and less likely to be engaged, develop their own meta-cognitive awareness, and take an active role in their learning.

Worrying about taking the time away from prepara-

tion to teach and from covering content during class time can be a barrier, but despite the logistical challenge, faculty members recognize the benefit of pedagogical transparency: “I now see that MAKING the extra time/space to be much more deliberate and explicit in conveying my pedagogical goals, and doing so more often, will pay off in ways that are otherwise difficult to achieve.” One way in which pedagogical transparency pays off is in its capacity to increase student active involvement in and prompt greater student responsibility for their learning:

If done properly, pedagogical transparency can lead to greater student responsibility, as my expectations for what they do to learn are made more clear (both directly and via indirect modeling of what I construe true understanding to be). A lesson to draw from this reasoning is that I have to be more clear early on, and not be afraid to sacrifice some content time at the beginning so as to improve learning throughout.

Because students are engaged in the challenging process of learning something new, they need more repetitions of pedagogical goals and rationales than someone in an expert or experienced position might be inclined to give. However, one has to think carefully about when and to what extent hearing about pedagogical rationales will enhance student learning. An ongoing meta-narrative about one’s behind-the-scenes planning, for instance, will likely only distract and confuse students, whereas clear explanations at moments of framing or transition can help students gain perspective on what they are doing – take them, for just a moment, out of the experiential mode and into a more reflective, analytical one that promotes deeper understanding. Likewise, pedagogical transparency is not prescription; it is providing enough structure and direction for students to be creatively engaged in their learning or making explicit an invitation to co-construct rationales or purposes.

(5) Inviting Students to Engage in Reflection and Dialogue

Faculty members reflecting on, modeling, and explaining both their disciplinary and their pedagogical commitments has a complement in students’ reflecting on and articulating their own educational values and experiences. Scholars in the field of student voice (Fielding, 2006; Rudduck, 2007; Thiessen & Cook-Sather, 2007) and the Scholarship of Teaching and Learning (Werder & Otis, 2010) argue for the usefulness of inviting students to reflect on teaching and learning and discuss their insights with educators. Making spaces for student voices can improve the educational process through building relationships that promote engagement and learning; accessing students’ experience of their education and

making educational opportunities more accessible; and addressing social inequities (Cook-Sather, 2009b). It not only makes students more active participants in their own educational process, it also positions teachers as active learners from students.

Faculty members need practice engaging in such dialogue, which they suggest that they gain through their “training” with their student consultants. One faculty member described a conversation with his T.A.: “I was able to solicit her opinion and respond non-defensively to her suggestions in ways that I wouldn’t have been able to do had I not already had these sorts of discussions with my student consultant.” Faculty members point to the ways that learning to participate in such dialogue with student consultants informs and improves their classroom teaching: “I work with students in a more productive way, with a two-way dialogue which helps us explore different avenues in a train of thought.” This faculty member contrasts this approach with a prior focus on “just getting the students to know particular things.” Another explained: “I work with students more as colleagues, more as people engaged in similar struggles to learn and grow.” Faculty members sustain this collaborative approach beyond the semester or summer in which they participate in a TLI forum: “Extending this collaboration, I invite students from previous years to suggest refinements and changes to newer versions of the courses I teach.”

Of course, there are challenges to inviting students to engage in reflection and dialogue. Inviting student voice means that one’s own is no longer the sole authority, and inviting student input but then ignoring it can do greater damage than not asking at all. But when carefully and clearly structured, collaborating with students to create their educational experiences ensures that students are not only more active in but also more responsible for their education.

Integrating the Five Pedagogical Practices

In order to realize the potential of the pedagogical practices discussed here, one has to think carefully about when and to what extent to engage in them, depending, among other things, on the nature of the class, the time of the semester, and, most importantly, the learning goals one has for students — and, ideally, that they have for themselves. Sustained and semi-structured dialogue with colleagues and with students — both students positioned as consultants and, in a different way, students enrolled in courses — facilitates the thoughtful development and implementation of these pedagogical practices. The following is an effort to draw on the examples provided to illustrate how these five practices can work together.

Faculty members can **reflect on practice** at the begin-

ning of and throughout a unit or course as well as at the end. They can consider what has worked and what has not worked in previous courses, and then throughout the semester, take five minutes after a class to note on their teaching plan what worked, what didn’t, why, and what to revise for next time. In addition, faculty members might consider keeping a teaching journal in which they analyze for individual classes as well as over the course of the semester how they are pursuing student learning goals. Finally, they might consider inviting students to keep learning journals or write short reflections on what they learn from each assignment, which can then inform faculty members’ own reflections.

Faculty members can **develop meta-cognitive awareness and find a language for it** through a combination of reflection and sharing with colleagues what they want to accomplish through a course and what helps them improve as practitioners. Faculty members might also consider inviting students to think about how they learn and what impedes their learning, and have those reflections inform faculty members’ ongoing analysis of their own learning about their practice.

It is particularly important for faculty members to **model and explain** when introducing a new topic or method. Faculty members can be explicit about sharing and inviting students to share their perceptions that both hinder and further learning. When asking students to engage in a new practice, faculty members can go through the necessary steps themselves, narrating as they go what kind of thought processes and decisions informed each step. Faculty can also consider inviting students to narrate their own processes of problem-solving or moving through an assignment or activity.

One **engages in pedagogical transparency** when one makes explicit the reasoning behind one’s approaches. Faculty can be explicit about how their pedagogy is designed to contribute to student learning; particularly when they move to a new topic or activity, they can explain why it is a logical step from where the class has been. Faculty can also consider inviting students to reflect on their understanding of the logic of the movement of the course or class session.

Finally, faculty members can **invite students to engage in reflection and dialogue** throughout the semester. Faculty can invite students to reflect on, analyze, and talk about their learning experiences in any given course. Such formative assessment can take the form of a quick question at the end of class regarding what students understand better and what questions remain or have arisen for them, or it can be a more formal mid-semester assessment. Likewise, at the end of a unit or course, faculty can ask students for their advice and input regarding future iterations of the unit or course.

Taken together, these five pedagogical practices help

both faculty members and students raise their awareness regarding processes of teaching and learning, foster the development of a meta-awareness and a language to name it that make successful teaching and learning more likely, make explicit disciplinary frames and methods that might otherwise remain opaque or assumed, and facilitate clearer communication between faculty and students about the processes of teaching and learning that unfold in college classrooms.

Conclusion

The collaborative work in which faculty members and students engage through the TLI throws into relief the potential of these particular pedagogical approaches and yields, as one faculty member put it, “a deepening sense of our shared enterprise and...greater learning.” I have outlined the lessons in higher education this exploration has to offer, but it is essential that all faculty members and students enact them in their own ways — engaging in their own forms of active learning.

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