**Teaching First-Year Students**

 **Principles and Strategies**

* **Provide Feedback, Early & Often** – First-year students making the transition from excelling in high school to meeting expectations in a college class can benefit from feedback, early and often in the semester. A student who must wait several weeks for the first test to get a sense of how she’s doing in the course might have trouble catching up to her peers.
* **Pose Complex, Real-Life Problems** – One strategy to help students move out of the dualism and multiplicity phases of Perry’s scheme of intellectual development is to help students encounter complex, real-life problems where right-or-wrong and “it’s all just opinion” thinking does not suffice. Helping students progress past these phases is challenging, but they won’t progress if they’re not given the opportunity to do so.
* **Minimize Memorization** – Setting instructional goals that can be met by memorization reinforces students’ naïve beliefs about learning. While some memorization is necessary in many courses, success in a course shouldn’t be possible solely through memory work.
* **Teach Critical Thinking** – Most students can’t “pick up” critical thinking skills along the way in a course that focuses on content. They need explicit instruction in thinking critically. Model this process for your students, make clear the “rules” for critical thinking in your discipline, give them many opportunities to practice critical thinking and receive feedback on their efforts, move from simple, well-structured problems to complex, ill-structured ones, and do all this in class where you can help students sort it all out.
* **Clarify Expectations for Learning** – Since students have naïve ideas about knowledge and learning, instructors should clarify their expectations for student learning and performance. Help students understand what is expected of them via description, examples, and feedback on student work.
* **Clarify Strategies for Learning** – Not only do first-year students not understand what is expected of them, even when they are clear on those expectations, they don’t know how to go about meeting those expectations. Help students understand and practice approaches to learning in and out of the classroom—listening for key ideas in a lecture, learning from a discussion, reading for comprehension, preparing for exams—that will help them make the transition to the kinds of thinking expected of them as college students.
* **Prepare for Emotional Reactions** – Some topics will elicit intense emotional reactions from students, particularly those students who haven’t learned to analyze complex situations in objective ways. Provide opportunities, structure, and guidance for discussing these reactions, explain why you ask students to do what you ask of them, and offer feedback that is not only critical, but also supportive and encouraging.
* **Teach to a Variety of Learning Styles** – We often teach as we were taught, but we were rather exceptional compared to our student peers—we went on to graduate school in our chosen disciplines. Be sensitive to the variety of ways that students excel at learning and include a variety of types of learning experiences in your courses to reach the broadest group of students as you can.
* **Have Students Write Letters to Their Successors** – Ask students to write a letter to next year’s students focusing on advice for succeeding in your course. These letters help your current students reflect on and cement what they’ve learned, they help you learn about your students’ experiences in your course, and they help next year’s students adapt more quickly to the rigors of college studies.

**The Myth of First-Year Enlightenment?**

On January 26, 2010, the CFT held a conversation on teaching titled "Teaching First-Year Students: The Myth of First-Year Enlightenment." About twenty faculty, staff, and students participated in the discussion. This was the description of the workshop:

The popular vision of the first year experience is one of personal, ethical, and intellectual awakening. However, in his book, [*The First Year Out: Understanding American Teens After High School*](http://wp0.vanderbilt.edu/cft/2010/01/book-review-the-first-year-out-by-tim-clydesdale/), Tim Clydesdale writes, “Most of the mainstream American teens I spoke with neither liberated themselves intellectually nor broadened themselves socially during their first year out. What teens actually focus on during the first year out is this: daily life management.” Should Vanderbilt faculty and staff try to engage first-year students in critical thinking about their own ethics, values, and culture?  Or should we give that up as a lost cause and focus on more practical matters?  These and other, related questions will be discussed in panelist remarks and roundtable discussion.

Panelists at the session were Mark Dalhouse, Director of the Office of Active Citizenship & Service, Faculty Head of East House, and Lecturer in History; [Joseph Wehby](http://peabody.vanderbilt.edu/bio/joseph-wehby), Associate Professor of Special Education; and Roark Luskin, VUcept Board Special Events Chair and Class of 2012.

The general consensus during the discussion was that Vanderbilt first-years do focus their attention on daily life management--at first. Several participants indicated that they felt that Vanderbilt first-years move past this, however, and engage in the kind of self-questioning that Clydesdale describes as rare among first-year college students. Here are a few of CFT Assistant Director Derek Bruff's takeaways from the conversation:

1. **Students begin to question aspects of their identities as a result of a variety of university experiences other than classroom learning experiences.** Several participants described experiences students have had in the Commons, Vanderbilt’s living-learning community for first-years, that have led them to examine their personal beliefs.  Others pointed to the importance of first-year students seeing personally relevant engagement modeled by older students in the Commons and elsewhere.
2. **There is a difference between first-semester freshmen and second-semester freshmen relevant to this discussion.** First-semester freshmen do tend to focus on daily life management out of necessity as they adapt to a new environment.  Second-semester freshmen, having largely adapted, are more able to focus their attention on self-questioning.  It is possible that Visions, Vanderbilt’s extended orientation for first-years facilitated by older students and faculty members, helps students more quickly adapt to this new environment.
3. **More generally, different students become “ready” for more personally transformative experiences at different points in their college careers.** Several participants pointed to this as a reason to provide students with opportunities for such experiences frequently through their first years, even as early as their second week on campus.  Some students arrive on campus ready for these experiences.
4. **Encouraging first-years to engage in personally relevant ways with their education can be difficult in the classroom.** Some students are hesitant to express their personal interest in course discussions in front of their peers; others are too focused on grades and other external rewards to engage in personally meaningful ways.  These issues are exacerbated by large first-year classes.  Unfortunately, few ideas were suggested for classroom instructors interested in overcoming these roadblocks to engagement.

 **Cognitive Challenges of the First Year**

On April 1, 2010, the CFT held a conversation on teaching titled "Teaching First-Year Students: Cognitive Challenges of the First Year." About twenty-five faculty, staff, and graduate students participated in the discussion. This was the description of the workshop:

“Will this be on the test?” is, perhaps, a common question from first-year students, but why is it so common?  Students who assume their job is to memorize course material and regurgitate it on exams are going to want to know what to memorize, of course.  What leads students to have this belief about learning?  And what do we do to contribute to this belief?  If we want to help our first-year students move beyond memorization to deeper learning, how should we approach teaching them?  What kind of “deep learning” are first-year students capable of achieving?  And how does Vanderbilt Admissions identify prospective students who possess the kind of intellectual curiosity faculty appreciate?  These and other, related questions will be discussed in panelist remarks and roundtable discussion.

Panelists at the session were Doug Christiansen, Vice Provost for Enrollment, Dean of Admissions, and Assistant Professor of Public Policy and Higher Education; [Susan Kevra](https://as.vanderbilt.edu/french-italian/faculty/susan-kevra-2/), Senior Lecturer in French and American Studies; and Adam List, Senior Lecturer and Director of Undergraduate Studies in Chemistry.

Below are answers suggested by workshop panelists and participants in response to the questions used to frame the discussion, as summarized by CFT assistant director Derek Bruff.

**If memorization is shallow learning, then what does deep learning look like in various teaching contexts?**

Panelist Adam List pointed to the difference between *algorithmic* problem solving **and*applied* problem solving**.  Algorithmic problem solving involves accurately following known procedures to solve problems of certain types.  Students can often succeed at this kind of problem solving by following “recipes” they have memorized.  Applied problem solving is that which requires more than just following procedures.  It involves selecting appropriate procedures and adapting those procedures to work in the context of particular problems.  We might call this *creative* or *adaptive* problem solving.

One participant claimed that high schools focus too much on teaching algorithmic problem solving and not applied problem solving.  This poses a challenge for first-year students making the transition from high school to college.  Some will say things like **“That test question wasn’t on the homework!”** as a complaint because they don’t see the difference between these two types of problem solving.

Panelist Doug Christiansen noted that some students approach their admissions essays algorithmically, trying to follow some kind of a pattern likely to get them into Vanderbilt.  Doug noted that **the admissions team looks to “triangulate” evidence of a student’s potential**, comparing admissions essays with letters of recommendation and the roles the student played in high school organizations.

Other phrases used in reference to deep learning included conceptual learning, writing skills, intellectual curiosity, and critical thinking.  In the sciences, critical thinking sometimes means being able to ask and answer the question “Does this answer make sense?” at the end of a problem.  In other disciplines, critical thinking implies the ability to construct an argument for a position.

**What are some ways to better communicate our expectations for learning to our students?**

* More than one participant highlighted the need to **address the issue of expectations head-on with students**.  Be very clear what your expectations are for their learning, acknowledge that the students’ expectations might be different from your own, and describe the ways your expectations might differ from expectations for learning in other courses taken by the students.  This is an appropriate conversation for the first day of class, but it’s one that might need to be repeated throughout the semester.
* During your class sessions, **model for your students the kinds of thinking you expect them to demonstrate** on exams and other assignments.  Make visible (or audible, at least) to the students your thought processes as you tackle problems of the kind they’ll see on their exams.  This can be challenging for experts in a discipline, since some problem-solving steps become intuitive as one’s expertise increases.  However, students need to “see” the kinds of thinking you expect of them if they are to know what your goals are for their learning.
* *From panelist Adam List:* If your exams involve challenging multiple-choice questions, then **ask students similar questions during class using a classroom response system (“clickers”)**.  Have the students respond to the clicker questions first on their own, then have them discuss the questions in pairs or small groups, then have them “vote” again.  Students will get a better idea of the kinds of exam questions you’ll be asking them, while also learning course material and providing you with feedback on their level of understanding.  They receive feedback on their own learning, too, and are in a better position to answer the question “How do I know what I don’t know?”
* *From panelist Adam List:* **Give students a quiz during the first week of classes titled “Things You Should Know from High School.”** Students sometimes over-compartmentalize their learning, and this kind of quiz serves as a pointed reminder that they are expected to retain and use knowledge gained in past courses.  Also, students doing very poorly on this quiz are given an early warning that they will likely encounter further difficulties in the course without some kind of remediation.
* *From panelist Susan Kevra:* **Have students submit the notes they take during a class session once**, perhaps soon after the first exam.  Evaluate the student notes and return them to the students in the next class session.  Have a conversation about good note-taking featuring an example or two of good note-taking.  This provides you an opportunity to make more explicit what kinds of things students should be taking away from your lectures, gives students models for note-taking processes that will help them, and provides you with some feedback on the clarity of your lectures.

 **What role does student motivation play in encouraging deep learning?**

A theme in responses to this question was the complicated subject of student motivation.  Connecting students’ personal interests to course material was one way mentioned to help motivate students to engage in deep learning.  Panelist Susan Kevra described an assignment in which students were asked to design a fund-raising campaign for a good cause of their choice.  The assignment was connected to the study of a French writer who conducted similar campaigns.  **By surfacing student interests through this assignment before studying the writer, she helped motivate her students to see more value in studying the writer.** She noted that this strategy worked particularly well for some students who took her course because they “had to” not because they wanted to.

Other aspects of student motivation raised during the discussion included the role of challenge (assignments that are not too hard nor too easy are often more motivating), choice (giving students some level of choice in topics, assignment types, grading schemes, and so on, is often more motivating), and, of course, the role of grades.

 **Unanswered Questions**

The following questions were raised in various ways during the discussion.  They highlight what appear to be key challenges in helping students make the cognitive adjustment from learning in high school to learning in college.

* **Coping with That First C:** First-year students often have trouble coping with their first lower-than-expected test or paper grade.  Whether it’s their first C or their first A-, this experience can be a shocking one for students used to being big fish in small ponds, as they say.  What kinds of coping skills do students need for these experiences?  And how can instructors help students develop those coping skills?  What role does student-teacher rapport play in these kinds of interactions?
* **Grades and Motivation:** More than one Faculty Head of House in the session praised first-year students in their houses for engaging meaningfully in difficult discussions in book groups and other informal learning settings.  However, participants noted that when grades are on the line in more formal course settings, student motivation and engagement often changes in unproductive ways.  What roles do grades play in motivating students to engage in deep learning?  How can instructors mitigate some of the negative motivational effects grades have on students?
* **Teaching Diverse Students:** First-year students are diverse in a number of ways.  Their academic backgrounds vary, their academic and vocational interest vary, they come from different regions of the United States as well as many other countries, and they come from a variety of racial and socioeconomic backgrounds.  Admissions works to achieve a diverse student body, but leveraging that diversity in the classroom can be a challenge, particularly in large classes.  How can instructors teach diverse groups of students?  How can they leverage various forms of diversity as advantages in the classroom?
* **Large Classes:** An overarching challenge here is the impact of class size on how instructors interact with their students.  Helping students cope with difficulties, motivating students to engage meaningfully in learning, and instructing diverse groups of students—all of these are more challenging in large classes.  What strategies can instructors teaching large classes employ to deal with these challenges?  And what implications does the large-class challenge have for the kinds of courses we offer first-year students?

 **Other Resources**

**Podcasts**

* Listen to [CFT podcasts on teaching first-year students](http://wp0.vanderbilt.edu/cft/2010/05/episode-22-teaching-first-year-students-part-2/), including episodes exploring "the myth of first-year enlightenment" featuring an interview with Assumption College English professor James Lang and teaching first-year seminars in a digital age.

**Books**

* Tim Clydesdale, *The First-Year Out: Understanding American Teens after High School*, University of Chicago, 2007. [[Book Review by CFT Assistant Director Derek Bruff](http://wp0.vanderbilt.edu/cft/2010/01/book-review-the-first-year-out-by-tim-clydesdale/)]
* Rebekah Nathan, *My Freshman Year: What a Professor Learned by Becoming a Student*, Penguin, 2005.
* M. Lee Upcraft, John Gardner, & Betsy Barefoot, editors, *Challenging and Supporting the First-Year Student: A Handbook for Improving the First Year of College*, Jossey-Bass, 2005.
* Bette LaSere Erickson, Calvin Peters, & Diane Weltner Strommer, *Teaching First-Year College Students: Revised and Expanded Edition*, Jossey-Bass, 2006.


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