Research on college teaching and learning suggests that students learn and retain more knowledge when actively engaged in applying and testing ideas and concepts (Bonwell and Eison, 1991; Johnson, Johnson, and Smith, 1991; Davis, 1993; Meyers and Jones, 1993; Bean, 1996; Sutherland and Bonwell, 1996).

Some simple strategies can help expand the lecture tradition (where students tend to be more passive learners—at least while in the classroom) into a more active learning environment. In the book *Engaging Ideas: The Professor’s Guide to Integrating Writing, Critical Thinking, and Active Learning in the Classroom*, author John Bean explains that a standard 50-minute lecture class period might, for instance, be broken into a couple 10-15 minute lecture segments that synthesize or explain, alternating with a couple 10-15 minute interactive segments (pp. 170-71).

One simple way to integrate critical thinking and active learning is through writing.

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<th>Teachers often hesitate to assign writing because they think that all writing has to be evaluated.</th>
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However, the very act of writing can foster student learning by allowing them to focus their attention at the beginning of class or to discover what they may not understand. In addition, a quick reading of this informal writing can help a teacher see how well students are understanding course material and/or what concepts are giving them trouble.

**The writing does not need to be graded unless it is an integral part of the goals for the class** (Thaiss and Zawacki, 2006).

Consider the following pacing for an interactive class. This model draws on John Bean’s *Engaging Ideas*:

| 3 minute advance organizer | 10-12 minute instructor lecture | 10 minutes with groups or partners to address a question or solve a problem | 5-10 minute reports from groups | 3 minute instructor synthesis or transition | 10-12 minute instructor lecture | 3 minute student summary |
The segments can vary in sequence, activity, and length based on course goals and daily goals, but this model has the instructor speaking for about half of a 50 minute class while shifting some of the responsibility to students for the other half of the class by asking them to address a question, solve a problem, report, or write.

*An Advance Organizer* is a way for the instructor to set the goals for the class period within the first few minutes of class. Some options might include:

- A quick activity based on the class reading to gauge understanding (e.g., consider providing a prompt at the beginning of class to focus students' attention on the day's work. This might take the form of a key question, an interesting problem, a passage from their reading that invites discussion. *Students take a couple minutes to jot a response.*)
- Or a quick review (e.g., where did class leave off last time? How does today’s discussion relate to course goals or unit goals?)
- Or a few minutes to answer questions from the previous class period as a segue into new material (e.g., if you ended the last class period by inviting students to summarize key ideas and pose a remaining question in a short written response, this could be a segment that responds to the class as a whole).

*10-15 Minute Instructor Lecture* based on what students need to know based on your course goals. This might take the form of:

- Key concepts or principles
- History or background
- Summary of current scholarship or controversies
- Examples, etc.

*10-12 Minute Collaborative Student Activities* work like this:

- Assign an action or pose a question
- Ask students to take 1-2 minutes individually to think about a question and *jot down ideas*
- Allow about 5-7 minutes for students to work in groups to reach a consensus answer
- Ask each group to *record the responses* so that you have the option of collecting those notes if you run short of time or if you sense the need for accountability. (Even if you have a class of 200 divided into groups of four, it does not take long to glance through 50 summaries if you are not grading but, instead, are using the writing to gauge student understanding and engagement.)

*10-12 Minute Summary Segments by the Instructor* based on what students need to know. This might take the form of:

- Gathering reports from each group
- Providing a synthesis or summary explanation
- Making connections to other ideas or activities before proceeding with the next segment
- Explaining an assignment
3-Minute Summaries or “Checking-in”
Checking-in activities often take the form of a brief writing that permit teachers and students to communicate quickly and informally with one another about class concepts and/or class business. This form of writing may take place in the middle or at the end of class as a way for teachers to see if students understand the course material under discussion, but it may also happen electronically before or after class through email, a listserv, or a bulletin board.

One form of “checking in” is a minute paper—an invitation to students to take a minute or two at the end of a class period to write two sentences:

- Explain the most significant thing learned from the day’s class
- Ask any remaining question related to the day’s class.

The instructor can then address questions at the start of the next class or make adjustments to the pace of the next class based on whether students understand the course material well—or not.

If students put their names on these cards, these “Minute papers” can also be used to track attendance and engagement.