REFLECTIONS ON HELPING STUDENTS LEARN

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Thriving in Academe

Creating Significant Learning

Designing the Learning We Want into the Student Experience

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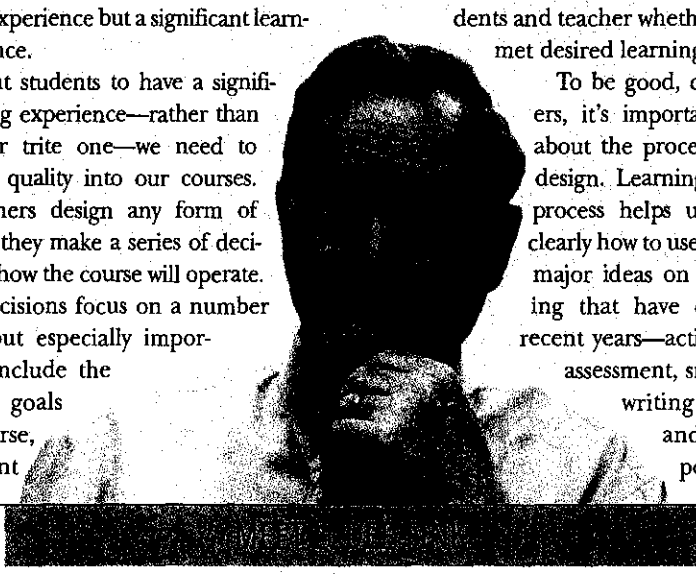
How can we create learning experiences that are more significant for more students, more of the time?

Whenever we teach, our students have an experience. But caring teachers want their students to have not just an experience but a significant learning experience.

If we want students to have a significant learning experience—rather than a boring or trite one—we need to design that quality into our courses. When teachers design any form of instruction, they make a series of decisions about how the course will operate.

These decisions focus on a number of issues, but especially important ones include the learning goals for the course, the different kinds of teaching and learning activities needed to reach those goals, and feedback and assessment procedures that tell both students and teacher whether they have met desired learning targets.

To be good, caring teachers, it's important to learn about the process of course design. Learning about this process helps us see more clearly how to use many of the major ideas on good teaching that have emerged in recent years—active learning, assessment, small groups, writing to learn, and learning portfolios.



L. Dee Fink is director of the Instructional Development Program at the University of Oklahoma and currently president-elect of the Professional and Organizational Development (POD) Network in Higher Education. He has worked in faculty development for over 25 years to "improve teaching to improve learning." As part of the program at Oklahoma, he runs a semester-long seminar for new faculty, organizes orientation programs for new teaching assistants, leads bi-weekly discussion groups open to all faculty, and engages in individual consultations and classroom observations with individual professors. Dee has just published a book, *Creating Significant Learning Experiences: An Integrated Approach to Designing College Courses* (Jossey-Bass, 2003). He can be reached at dfink@ou.edu.

PHOTO: JIM BUTLER

Tales from Real Life

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For the past 25 years, I have worked with college teachers individually and collectively to improve the ways they teach. In the beginning, each instructor and his or her students and classroom seemed unique. But after several years, I realized that, as in Bill's case, most of the issues I encountered fell into two general categories: course design and teacher-student interaction.

Good teaching demands skills in both areas as well as an understanding of the relationship between them. I learned over the years that the majority of problems teachers face call for a change in the design of their courses.

When I introduced Bill to these ideas, it was as if a cloud lifted and he could see a way forward to dealing with his problems. He sighed with relief and said, "I wish someone had explained teaching to me this way when I first began teaching. It would have been so helpful!"

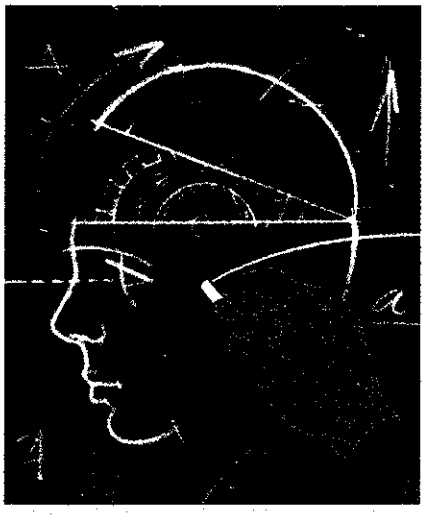
—*L. Dee Fink*
University of Oklahoma

Designing Instruction for Significant Learning

A systematic, learning-centered approach to course design offers the only chance we have to ensure that the majority of students have a significant learning experience.

Teaching is a complex human activity. But we can think of the many tasks involved as comprising four general components of teaching:

- our knowledge of the subject matter we teach
- the decisions we make about the purpose and nature of the learning experience
- our interactions with students—presenting lectures, leading discussions, holding office hours
- our management of the whole instructional event, be it a course, seminar, or whatever.



How well we carry out these tasks directly affects the quality of our students' learning experience. However, my 25 years of working with professors suggests that the ability to make good decisions about instruction is the area in which college teachers are least prepared and also the area that is perhaps most critical in determining whether students have a significant learning experience. So what should teachers learn about designing more effective instruction?

Two ways of creating a course

Teachers should learn to change the way they design courses. The most common way of creating a course—or any form of instruction—is the content-centered approach, sometimes called the "List of Topics" approach. The teacher works up a list of important topics, often using the table of contents from one or more textbooks, decides how much time to allot each topic and how many tests to give—and the "design" is done.

The advantage of this approach is that it is relatively simple. The disadvantage: it pays virtually no attention to what students learn beyond content knowledge, which—if that is all there is—is easily forgotten.

The alternative is to take a systematic, learning-centered approach to designing our courses. The heart of this approach is to first decide what students can and should learn in relation to this subject, and then figure how they can learn it. This approach requires more time but offers our only chance of ensuring that the majority of our students have a significant learning experience.

A model of integrated course design

The diagram in Figure 1 illustrates the basic components of the integrated course design model. In essence, to design any form of instruction, the instructor needs to:

1. Identify important situational factors and then use this information to make three sets of decisions;
   a. What do I want students to learn? (Learning Goals)
   b. How will students and the teacher know if we are accomplishing these goals? (Feedback and Assessment)
   c. What will the teacher and students do to achieve the learning goals? (Teaching/Learning Activities)
2. Make sure that the key components are integrated.

Learning goals: Significant learning

For half a century, teachers at all levels of instruction have used Bloom's taxonomy to generate learning goals beyond "understand and remember" kinds of learning.

This taxonomy has been extremely helpful, but it does not encompass all the kinds of learning that society and educators today believe is important. So I propose a new taxonomy, one that identifies six different ways in which learning can be significant for students:

1. **Foundational Knowledge**: students should understand and remember the basic content of the course (e.g., terms, concepts, principles).
2. **Application**: students should use the content and engage in effective and appropriate kinds of thinking.
3. **Integration**: students

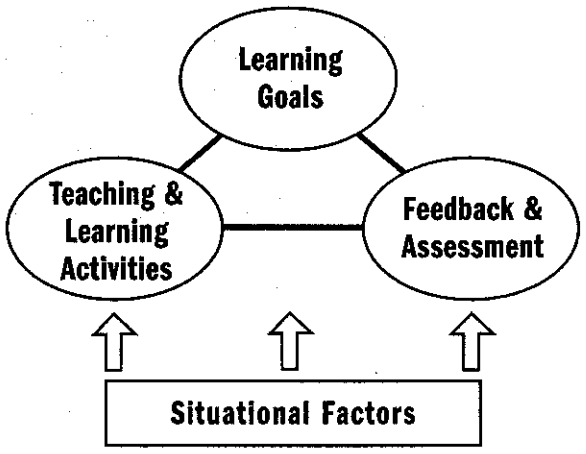


Fig. 1 – A Model of Integrated Course Design
Instructors need to do each of these components well for students to have a significant learning experience. What are some ideas that can help teachers do this properly?

ILLUSTRATION: STEVE McCRACKEN

should integrate different disciplines, major ideas, and realms of life.

4. **Human Dimension**: students should identify the personal and social implications of this knowledge.
5. **Caring**: students should develop new feelings, interests, and values in relation to the subject.
6. **Learning How to Learn**: students should keep on learning about the subject after the course is over.

As instructors consider what they want students to learn, they need a framework to help formulate learning goals beyond simply "knowing" a body of content knowledge. The more of these six goals we include the better: Each type of learning reinforces and supports the other kinds of learning.

Feedback and assessment: Educative assessment

Once we decide what students will learn, we must figure out how we will know they are learning it. For each kind of intended learning, we must search for appropriate assessment procedures. For some kinds of learning, the usual multiple-choice or essay question will suffice. Other kinds of learning will require different assessment procedures—papers, group projects, journals, performances.

As we undertake this part of instructional design, the concept of educative assessment is extremely valuable. Wiggins (1998) argues that we should assess in a way that goes beyond "auditing" student learning to actually enhancing that learning as well.

To do this, our assessment procedures must involve authentic problems, have clear criteria and standards, and include opportunities for students to engage in self-assessment.

We should assess in a way that goes beyond 'auditing' student learning to actually enhancing learning.

Teaching and learning activities: Active learning

Once we have identified the learning goals and the feedback and assessment procedures, we must decide how students will achieve that kind of learning. The classic definition of active learning (Bonwell and Eison, 1991) refers to learning in which students "do something and then reflect on the meaning of what they do."

Instructors need to identify a set of learning activities that together include opportunities for students to acquire information and ideas, engage in a doing or observing experience, and reflect on the learning process as well as the subject matter. These activities include group work, discussions, simulations, problem-based learning, case studies, service learning, and many more.

Ultimate goal

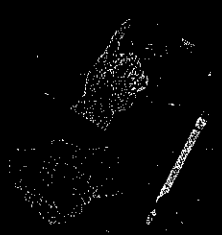
The ultimate goal of all teaching is for students to finish the course of learning having had a significant learning experience. Significant learning experiences won't happen unless teachers learn how to design significance into the learning experience itself. When instructors develop the ability to do this, students will learn things that will have a positive, substantial, and lasting influence on their personal and work lives and their ability to contribute to the multiple communities of which they are a part.

What an exciting prospect that is!

Strategies for Improved Student Learning

Teachers who are successful in creating significant learning experiences succeed in part because they creatively used one or more of the following three realms of good practice.

- **Powerful Teaching Strategies.** Teachers need to find or create a teaching strategy that incorporates several specific learning activities, arranged so that they build on each other and result in significant learning. Two teaching strategies that are well described in the literature on college teaching are problem-based learning and team-based learning. Both strategies use small groups, although in different ways, and have the groups work on major, realistic, complex problems.
- **Reflective Writing.** To transform the information and ideas they encounter into meaningful learning, students need to engage in recurring and extensive reflection. Reflection can focus on the subject and on the learning process itself. Reflection on one's own learning adds a new and powerful dimension to the learning process. To accomplish this, teachers can use one-minute papers, weekly journaling, learning portfolios, and many other methods (Zubizarreta, 2003).
- **Teaching for Engagement.** Implicit in the concept of "significant learning" is the belief that we need to connect learning to students' personal lives, their work lives, and/or some of the many communities of which they are a part: their family, local community, nation-state, religious group, social action group, etc. Involving students in service learning or having them participate in a social action task can do this in powerful ways (Loeb, 1999).



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References & Resources

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Zubizarreta, J. [Expected: Summer 2003]. *The Learning Portfolio: Reflective Practice for Improving Student Learning.* Boston, MA: Anker.

Additional Resources:

Team-Based Learning Web site: www.teambasedlearning.org

Harper-Marinick, M. & Levine, A. (December 2002). "Problem-based Learning." *NEA Higher Education Advocate*, 20 (2), pp. 5-8.

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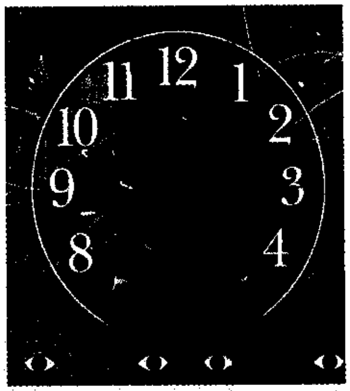
ISSUES TO CONSIDER

Significant Learning Assessment

If teachers try to design their courses in ways that lead to more significant learning, many important issues are likely to emerge. Here are two key issues and some preliminary responses.

How can I get students to learn more in the same amount of time?



Teachers may argue: "I need all the time I have now just to cover the content; how do you expect me to do that and take on other learning goals as well?" A valid question, with two parts to a preliminary answer.

First, take advantage of the interactive nature of significant learning. For example, if students learn how to use the content, how to integrate it with other material, and to see the personal and social implications of the material, they will be more motivated to learn the basic content, in and out of class.

Second, use "rich learning experiences" where students achieve multiple kinds of learning—all in one activity. In simulation exercises, role-playing, case studies, and real-life projects, for example, students can learn the content, how to use that content, and understand themselves and others better—all simultaneously.

How can I assess these new kinds of learning?

Assessing the full range of significant learning will require us to go well beyond the familiar methods of multiple-choice and essay exams. Faculty groups have brainstormed responses to this question and suggested the following possibilities.

Types of Significant Learning & Possible Assessment Procedures:

1. **Foundational Knowledge**
   - Usual paper/pencil tests (multiple-choice, essay, etc.)
   - Some classroom assessment techniques
2. **Application**
   - Have students use the knowledge in an application exercise; assess with clear criteria and standards
3. **Integration**
   - Have students identify the connections, interactions, and/or similarities among multiple ideas
   - Concept maps
   - Interdisciplinary case problems
4. **Human Dimension**
   - Write a self-reflective essay
   - Feedback from peers
   - Write a credible statement of an opposing view
   - Write a before/after view of self
5. **Caring**
   - Observe their behavior
   - Pre/post course attitude survey
   - Have students write about themselves and their values in a course journal
6. **Learning How to Learn**
   - Ask students to learn something new and keep a journal of how they undertake this task.
   - At the end, have them self-assess their own ability to learn something new

Thriving in Academe is a joint project of the National Education Association and the Professional and Organizational Development (POD) Network in Higher Education. This section is intended to promote ever more effective teaching and learning in higher education through dialogue among colleagues. The opinions of this feature are solely the authors' and do not reflect the views of either organization. For more information contact **podnet@nova.edu** or **clehane@nea.org**.

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