



Blackboard believes that instructional design plays an important part in developing online education. Not surprisingly, a critical element contributing to the success of an online learning experience is the role of the instructor and the instructional design of the course. "Materials themselves do not teach but provide a medium that with appropriate use can support learning," (Oliver, Herrington, and Omari, 1996). Accordingly, the instructor must incorporate the organization, presentation, and integration of materials into the online environment.

Blackboard offers the following instructional design tips to help you develop an engaging and instructionally sound Blackboard CourseSite:

- Focus on organization of online materials.
- Provide transition between learning components.
- Encourage opportunities for knowledge acquisition.
- Encourage student participation.
- Provide ample opportunities for feedback.
- Provide methods for assessment.
- Follow proven instructional design techniques.

Focus on Organization of Online Materials

In traditional classroom-based education, students are presented with assignments coordinated to lecture materials. The instructor distributes required activities as appropriate and can answer student concerns/questions in the classroom environment.

When distributed online, students may be exposed to an entire semester's worth of materials all at once. As such, they must be provided with clear, concise instructions regarding navigation within a CourseSite and organization of the materials.

When developing online components, be sure to provide students with:

- An overview and/or an orientation of the entire Course site.
- A clear explanation about how the course materials are organized.
- A list of priorities, deadlines, and responsibilities.

This is, most often, the same type of information included in a syllabus. Providing this extra organizational information can prevent students from feeling "lost" or "overwhelmed" by the materials, as disorientation can significantly limit instructional outcomes. (Oliver, Herrington, Omari, 1996)

Try to create Courses sites with explanations, descriptions, and cues about goals and accomplishments, as students "prefer clearly defined learning outcomes, or tasks, and recommended sequencing, from which they can orient themselves at any time," (Campbell, 1997). Guide students through the CourseSite by including elements such as:

- Weekly announcements listing priorities and deadlines.
- Reminder e-mails (to both individuals and the entire class).

- Downloadable syllabi, checklists, or task-lists students can use to monitor progress through course materials.

Provide Transition Between Learning Components.

Since the instructor is not physically present during the online learning process, it is important to explain exactly WHAT materials are provided and WHY they are important in the scheme of the course. Indicating relationships between materials helps students develop bridges, see associations, and recognize the relevance of content elements. Without this, instructors run the risk of presenting fragmented information "that appears to the user as a series of discrete rather than coherent information elements," (Oliver, Herrington, Omari, 1996).

You can easily add transitions into your Blackboard course sites by providing:

- Clear explanations describing what each file is, what programs are necessary to access it, and how the file fits in with the overall goals of the lesson.
- Comprehensive descriptions with each online assignment indicating the relevance to the classroom-based course component and corresponding materials.
- Placement cues directing students to the "next" related assignment, reading, or course document.

This does not mean that each step and learning activity needs to be spelled out for the student. While this may be appropriate for some content-based exercises, advanced concept integration is better served when students are gently directed to a goal. In such cases, "it is more appropriate to guide the students towards expected end-results and let them organize their learning on their own," (Duchastel, 1997).

Encourage Opportunities for Knowledge Acquisition

While the instructor should determine the basic structure of the online learning experience, ample opportunities for active learning and cognitive assimilation must be provided. This is important because students presented with an engaging, quality learning experience make their own bridges between concepts and obtain higher learning. Utilizing Blackboard's framework, you can plan and encourage activities that:

- Provide representations of materials that support all types of learners, such as text, video, audio, or multimedia activities.
- Present real-world and case-based scenarios that require students to visit external links and perform web research.
- Encourage practice and application of concepts by having students take online tests and quizzes.
- Foster knowledge acquisition through collaboration, discussion and negotiation by assigning group projects where students "meet" online.

Encourage Student Participation

Equally important to the role of the instructor in online education is the role of student communication. If students share information by performing group activities and posting assignments, learning is facilitated in a two-fold method. First, the student is independently rehearsing and restructuring the knowledge while they develop opinions and create their post. Second, the student is gaining exposure to other students' evaluations of the materials when participating.

To insure that your CourseSite provides ample opportunities for student participation, collaboration, and reflection consider incorporating the following:

- **Weekly Discussion Questions or Problem Sets.** Require each student to post one answer to the assignment and also to reply/comment on at least one other student's answer.
- **Group Assignments.** Divide students into small groups and assign a collaborative project, paper, or presentation.
- **Online Journals.** Require students to keep an online journal of their learning experiences and reflect on both the content and online experience. Make this available for all students to view.
- **Online Fieldtrips.** Provide the opportunities/assignments for students to perform research online, visit related sites, and report experiences to the rest of the class.
- **Online Guest Speakers.** Arrange for a subject matter expert to answer student questions in a chat or discussion board.
- **Open Forum.** Provide a chat or open discussion area for students to communicate without the constraints of an assignment. This will promote friendly relationships.

Provide Ample Opportunities for Feedback

Communication and feedback provided throughout an online learning experience facilitate social interchange, build relationships, and increase student motivation. Your feedback is important to insure students feel their contributions are an important priority and contribute to the overall educational experience of the class.

Consider checking class discussion lists and responding to student e-mail on a daily schedule to provide your students with ample feedback. This helps build positive interpersonal relationships with your students and increases instructor credibility.

Instructor feedback in discussion forums is also critical to maintain the focus of the activity. Monitor student discussions to insure students remain "on track" with the assignment. If necessary, provide guidance and suggestions to the group or to individual students. "The teacher's role in coaching, observing students, offering hints and reminders, providing feedback, scaffolding and fading, modeling, and so on, are powerful enhancements to any learning situation," (Oliver, Herrington, and Omari, 1996).

Provide Methods for Assessment

You can help students check conceptual understanding and evaluate progress through materials by providing assessment opportunities. In addition to assessing student progress, assessments:

- Confirm student understanding and recall of information.
- Serve as advanced organizers to the student, indicating what core content is important and suggest ways it may be applicable in the workplace or "real world."
- Increase student motivation and interest in the course when proof of achievement and performance are reflected.
- Provide quantification/proof that the student took the course and can gain credit.
- Report to the instructor if the pace and material developed is satisfactory or indicate areas where course content needs revision or further explanation.

You can add assessment activities to a CourseSite by incorporating review questions, tests, and essays. You can also perform assessments by monitoring student participation in discussions and group projects.

When developing assessment tools for online delivery it is necessary to:

- Provide clear directions on how to complete the assessment and (if necessary) how to submit the assessment for grading.
- Provide students with access/help information if they need to consult with the instructor or technical support staff during or after the assessment.
- Make sure activities are structured appropriately to prove student understanding of the concept being evaluated.
- Provide students with a timeframe and access information about receiving feedback and grades.
- Provide detailed explanations and responses to the student when the assessment is evaluated.
- Allot ample time for students to complete the assessment.

Follow Proven Instructional Design Techniques

Although the instructional medium can change from paper based to classroom-based, to online delivery, all effective course materials need to maintain basic elements that support solid instructional design. Keep in mind that all course content should contain:

1. Preinstructional Activities (prerequisites & objectives),
2. Information Presentation (content),
3. Learner Participation (practice),
4. Testing (based on objectives),
5. Follow-Through (summary, review).

Final Considerations

After all your CourseSite content is developed, review the materials before permitting student access. Evaluate both the online and classroom-based material to insure the content, opportunity for participation and feedback, and appropriate guidance is included. These guidelines, based on Dick and Carey's Instructional Systems Design, can be used.

1. Is there appropriate motivation established to insure student attention to the material and assignments?
2. Is the necessary content provided for all course components?
3. Is the presentation sequence of the content accurate and clearly indicated to guide students through the material?
4. Is all the required information available to the student in some format?
5. Do ample practice exercises exist for students to achieve appropriate rehearsal, processing, and knowledge acquisition of the content?
6. Are there adequate opportunities for instructor and classmate feedback included in the materials?
7. Are appropriate tests, activities, and evaluation tools provided to assess student progress?
8. Are sufficient follow-through activities provided to maintain learning and motivation over time?
9. Is the student presented with clear paths, navigational guidance, and transition information to direct them through the course material and components?
10. Are supplemental handouts, such as outlines or checklists available to the student to facilitate transfer of learning provided?

Answering "YES" to all these questions insures that students are presented with well-organized, instructionally sound, and engaging course material. However, since "courseware alone rarely constitutes the full learning environment," (Schneider, 1994), it is imperative to support students by

creating a positive online educational experience. Utilizing the instructional design tips discussed in this paper will insure that your CourseSite provides students with an online environment rich in feedback, full of guidance, and ample opportunities for knowledge acquisition.

Bibliography

Campbell, Katy. *The Web: Design for Active Learning*. Academic Technologies for Learning. Alberta, Canada 1997. <http://www.atl.ualberta.ca/presentations/>

Duchastel, Philip. *A Web-Based Model for University Instruction*. Journal of Educational Technology Systems, 1997. Vol 25, No. 3. Pp 221-228.

Oliver, Ron, Herrington, Jan, Omari, Arshad. *Creating Effective Instructional Materials for the World Wide Web*. AusWeb 97 Conference. 1997. <http://ausweb.scu.edu.au/>.

For more information about Blackboard, please contact:

Blackboard Inc.
1111 19th Street, NW
Suite 608
Washington, DC 20036
(202) 463-4860

www.blackboard.com



© 1998 Blackboard Inc.