Unit 3: Collaborative Learning Spaces

Space is of importance to all learning activities, but it is perhaps especially important for collaborative learning activities. A space, with its configuration, outfitting, and accessibility, can promote or hinder successful collaborative activities. It is important to know what kinds of activities are appropriate to different kinds of spaces. Prof. Scott Pobiner, one of the presenters at the ELI focus session on collaborative learning, stated that while technology mediates or influences the kinds of interactions that occur in a space, it doesn’t strictly determine it. Similarly, the design of space, such as a classroom, mediates activities and interactions but doesn’t determine them.

It is important to be proactive when you are looking for spaces conducive to collaborative learning. This is because (1) the space and facilities requirements for collaborative work are more specialized, and (2) many spaces, especially classrooms, were not designed with collaborative activities in mind. Prof. Scott Pobiner, one of the presenters at the ELI focus session on collaborative learning, stated that while technology mediates or influences the kinds of interactions that occur in a space, it doesn’t strictly determine it. Similarly, the design of space, such as a classroom, mediates activities and interactions but doesn’t determine them.

The learning objectives for this unit include:

1. To understand the various types of learning spaces.
2. To appreciate the appropriateness of a type of space to a collaborative activity.
3. To understand how to identify appropriate space using a method called interaction design.

Context

Most learning spaces can be classified under one of three categories: formal, informal, and virtual. Formal learning spaces are classrooms, spaces designed to support face-to-face sessions of all members of a course. Typically assigned by the campus registrar, classrooms encompass a variety of formal learning spaces. They include auditoriums for large enrollment classes; lecture halls and large seminar rooms for courses with midsized enrollments; and seminar rooms for discussion-based courses with relatively small enrollments. In addition to these traditional classroom designs, new designs are emerging. One is the team-based classroom, one designed to have students sit and work in teams rather than listen to presentations. Some classrooms have the flexibility to be configured in different ways and so can support a variety of learning functions, such as presentation, discussion, and team-based learning.

Informal learning spaces are all the locations on campus where students and faculty members gather to do learning outside scheduled class meetings. Given the presence of a wireless campus network and mobile devices such as laptops, netbooks, and smartphones, any campus space has the potential to serve as an informal learning space. Many institutions have outfitted
rooms to encourage learning outside class time. The library is the typical location for these planned informal spaces, which are often referred to as the information or learning commons.

Virtual learning spaces are online “nonphysical” spaces that can support learning activities. Examples of these include:

- Virtual worlds such as Second Life
- An online course discussion forum
- Social networking applications such as Facebook or Ning
- Applications such as VoiceThread

This unit focuses on the first two categories—all physical spaces. Unit 2, “Collaboration Technologies,” covers many of the software applications that create virtual spaces common to collaborative student work.

**Interaction Design**

Space considerations for collaborative work are both challenging and inventive. They can be challenging because physical learning spaces, such as classrooms, are generally designed to support a single kind of interaction. Indeed, most of our older, traditional classrooms are designed to permit presentations, not collaborations. Yet in every challenge is an opportunity to invent and innovate. To enable collaborative work, it is possible to use existing space in different ways, to modify spaces to support new kinds of use, and to find alternative space.

For face-to-face meetings of all or a portion of the members of a course, a classroom generally supports one of six types of interaction:

- **Presentation/lecture**: serial presentations by a single or small number of presenters before a large audience
- **Seminar**: presentation and discussion by a small number of participants
- **Workshop/studio**: space where participants build and construct artifacts
- **Lab**: space where participants conduct and analyze scientific experiments
- **Critique**: space for the display and critical discussion of artifacts made by course participants

Although most classrooms were designed to primarily support one of these kinds of interactions, it is sometimes possible to introduce additional kinds of interactions, ones specific to collaborative work. But it is clear from the list above that not all classrooms are by design conducive to collaborative work. To introduce collaborative opportunities in existing classroom space, it may be necessary to think of ways to:

- Introduce alternative types of interactions without modifications to the room;
- Modify an existing space to enable richer collaborative interactions;
- Discover spaces other than classrooms that support collaborative work; or
- Extensively renovate existing spaces or build new spaces to enable collaborative affordances.

In his presentation, Pobiner suggested that in order to match collaborative work with supportive space we must do “interaction design.” This means that, prior to attempting collaborative coursework, we must:
• Identify what we want to do;
• Identify how we can best do it;
• Identify campus space options; and
• Match space to the collaborative work.

We suggest that you lead the workshop participants through a set of interaction design exercises, based on the list above.

**Step 1: Identify What to Do**

In this exercise, participants will review their course designs and identify what aspects of the course could be done collaboratively. The simplest approach might be to have participants review the activities in Unit 5 (Collaborative Teaching and Learning Strategies). Otherwise have the participants do the following for this exercise:

• Identify a segment or set of learning objectives and outcomes in their course that would be well-suited for collaborative learning.
• Write a brief description of the collaborative activity or task that will be assigned to the students.
• Write a short list of learning objectives for this collaborative activity or task.

**Step 2: Identify How to Do It**

As a next step, participants should determine how best to conduct the collaborative work identified in the first exercise. Again, work done with your participants in Unit 5 may address this.

Each participant should select one or two examples from the list generated in Step 1 and write down:

• What the students and the instructors will need to do;
• What equipment they will need to accomplish it; and
• What kinds of room and room layouts are needed to support and enable the work.

Obviously some of the collaborative projects will take place in the classroom, during face-to-face meetings of all course participants, whereas others will take place outside class time. Irrespective of these differences, every task will require answers to the points in the above list.

**Step 3: Identify Campus Space Options**

To conduct this exercise, all participants will need to be familiar with the kinds of formal and informal spaces that are available. As a preliminary step, ask the workshop participants to draw up a list of the various kinds of learning spaces. This should not be an exhaustive list (a large campus will have dozens, if not hundreds, of classrooms); rather it should be a representative list of the kinds of learning spaces available. This could be in the form of a grid or matrix such as this:
For example, on many campuses, some lecture halls have traditional designs with standard technology outfitting, whereas other lecture halls have more advanced and diversified technology outfitting and experimental designs. If this is the case on your campus, you could name a lecture hall of the first type in the “Example #1” column, and a lecture hall of the second type in the “Example #2” column. In the “pros and cons” column, you would list the ways each room supports or does not support collaborative student work.

How you populate the first column of room types depends on your campus and the kinds of classrooms you have. Obviously, the above matrix is only a suggestion, and you should adapt it to match the circumstances at your institution.

**Step 4: Match Space to the Collaborative Work**

As a final step, participants should map their collaborative projects to the spaces identified in the grid. This step will most likely require some conversation, as in most cases the best space(s) for the task will require some analysis. In some cases, the best space for the activity won’t be immediately apparent and so requires brainstorming. In other cases, several spaces might be required to support the collaborative work, especially if the assignment spans course meetings. Different equipment or furniture might be needed to enable the activity to go forward, and so discussion will be important. Finally, finding a suitable space may require revising the activities identified under Step 2; when making such choices, discussion is always helpful.
Additional Considerations

Having completed this exercise, we suggest that the workshop convener lead the participants in a short discussion of their impressions. The idea is to have the participants identify what they learned in the course of the exercise and what next steps they might want to take. Hence this concluding discussion could be framed by using questions such as:

- What discoveries did you make in thinking explicitly about the relationship of space and task?
- Which elements in a learning space are especially important to support collaborative work?

Focus Session Resources

- All Collaborative Learning Focus Session Proceedings: [http://net.educause.edu/Proceedings/1022124](http://net.educause.edu/Proceedings/1022124).

Readings