This two-part article discusses the role of the physical environment in adult learning. In the first part, two activities—environment introduction and visualization—are discussed as ways to develop an awareness for improving the learning environment. In the second part, two planning activities—mapping and geometric coding—are discussed as ways to improve the learning environment. The discussions conclude that attending to the physical environment is a beneficial activity that can enhance learning. The activities can be used by adult educators to evaluate the match between learning behavior and place and to add a dimension to adult teaching methods. (KC)
This Techniques is the first of a two-part installment looking at the physical environment for learning. Two activities, environment introduction and visualization, are discussed as ways to develop an awareness for improving the learning environment.

Some adult educators recognize the influence of physical attributes on learning environments. Adult educators have joined psychologists and architects to design effective places for adult learning. Still a great deal of adult learning activity takes place in places meant for other people (usually children) and other purposes. Making the best of what one has is often the challenge for adult educators.

In dealing with the arrangements of the room, educators of adults should not attempt to design one perfect place for all learners. Expecting individuals differing widely in age, physical make-up, cultural backgrounds, and abilities to accept the same environment is not only counterproductive to learning, but unfair. The flexibility of the room—one that can be arranged and rearranged fairly easily—is perhaps the most desirable quality of an adult education “classroom”. However, the need to attend to the physical aspects of the learning environment is often not understood or accepted by adults. Either they feel that the physical environment isn’t important enough to consider or that they can’t really do anything about it, so why bother? On both counts, educators need to challenge adult learners to do something about the physical setting; especially if the learners’ needs are not being met.

It is important to recognize that where learning takes place has an influence on how and how much learning occurs! Not only must adult educators raise the level of awareness on the part of learners, they must develop their own awareness and be willing to devote some time to this effort.

Environment Introduction

Adult educators agree that introductory activities that set a climate are important to building a good social setting in adult education. Rather than always using activities that have participants talk about themselves or introduce...
another, one could try an environment introduction. This activity will allow participants to explicitly state what may not be conscious perceptions, feelings and attitudes about a place. Sharing those with others can serve as a way to break the ice with a group and to modify an individual perception based on input from others.

Begin this activity by having each individual write three words that best describe the place. Then have each individual share those three words with one or two others in the room and discuss why they chose their three descriptors. Ask each group to come to a consensus and choose one word that best describes the environment. What usually happens is that the descriptive words change from individuals to group because environments are perceived differently as individuals and groups interact. There will be great variety in words chosen and the explanations should encourage some interesting conversation.

This activity can be especially useful if the group isn't very amenable to the process of sharing information about themselves with others who may be strangers and only temporarily together. Such variation in introductions may also be appropriate for groups of people who are often together, such as members of the same club or students progressing through a degree program.

Visualization

A less group oriented and more time intensive activity is visualization which allows each person to evaluate his or her own level of acceptance of the place. Knowing the impact of the present place allows learners to adapt or adopt in ways that address many needs. Both individually and collectively, the learners can decide to make whatever changes are possible to make the place more conducive to learning activity.

Each participant is encouraged to become as comfortable as possible. Lights need to be dimmed or turned off, if there is no dimmer switch, as some very quiet background music is introduced. In a soothing, calm voice, the facilitator asks participants to close their eyes and imagine a favorite place. Participants are urged to look closely at the place in their mind's eye noticing lighting, colors, temperature, types of furnishings (not just furniture), odors—the whole place. They are told to imagine reading something. After a brief pause, they are asked to look again at the place taking note of any changes. This process is repeated using other activities that the learners will engage in such as writing and listening. Finally, with the lights on and the music off, participants compare where they are to where they were in their minds' eye. Ideas are then exchanged on how to make the two places more alike.

The facilitator should be prepared and have a sense of humor! For many learners, the ideal place will be very different from a classroom. The imagined
changes that occurred in the place as activities changed should be explored. Such visualization may not result in changes, but participants will begin thinking about the learning setting.

Conclusion

Environmental introductions and visualization are qualitative not quantitative endeavors. They will not give hard and fast answers to problems nor are they foolproof methods. What they can do is to encourage adult learners and facilitator to attend to the physical attributes of the learning environment. When classrooms do not change much as a result of these activities, perceptions of the fit of the place can change for the better. Working together on the physical environment may not only improve the design of the classroom but also contribute to social interaction in a positive way. Both of these outcomes improve learning.

It is critical to the development of awareness regarding the learning environment that adult educators facilitate the process. While the educator as the “leader” can provide the opportunity, the learning group needs to engage in the activities. Such activities will depend on the time that the adult educator can devote to the process. Environmental introductions can be completed in a few minutes while visualization requires a significant amount of time. The investment of some time and attention can pay off by eliminating detractors to learning if not actually enhancing the physical environment. By developing environmental awareness, adult educators can add one more skill to their repertoire—a skill that, if shared with the learner, can benefit adult learning.
This Techniques is the second of a two-part installment looking at the physical environment for learning. Two planning activities, mapping and geometric coding, are discussed as ways to improve the learning environment.

The first part of this techniques offered instructors and adult learners two ideas that could be used to address the physical environment during the instructional process. In addition, there are planning activities that adult educators, especially learning center managers, can use to address aspects of the physical environment in resource centers, media centers, libraries and other such places for learning outside the class or meeting room.

Planning activities can help adult educators consider how changes may improve the learning setting. But it is crucial to involve everyone in this planning process. Neither administrators nor teachers can do this planning alone. Learners spend time in the room and can feel a sense of ownership and empowerment when they are able to participate in planning the physical arrangements. In situations where individuals route through the place, as in learning centers, the use of selected learners on an advisory committee may be especially helpful in evaluating the physical environment periodically; particularly when new equipment or furnishings are introduced. Two practical planning activities include mapping and geometric coding.

Mapping

Mapping can be a very useful activity when considering furniture arrangement and movement within an area. A scale drawing of the room and scale cut outs of the furniture and equipment are necessary for mapping. Artistically talented learners can be asked to help with this part of the process. Check with a local moving company for packets with useful materials like scale cut outs of furniture or design such items with your adult learners. Cover the room map with acetate so that they can be moved later if necessary. With grease pencils, chart the movement of individuals around the room at different
times of the day and different days of the week. Soon dark lines will appear that show the pattern(s) of movement. Bottlenecks will become apparent and how the arrangement of furnishings hinders or helps movement in the room becomes visible.

Areas of the room that are most and least frequently used become apparent on the map. This information should encourage the generation of ideas about how to rearrange the room in order to improve its use and general convenience for users. Mapping is probably most useful in learning center environments where people move in and out and about frequently.

**Geometric Coding**

A qualitative understanding of the fit of the place to the activities can be gained by Geometric Coding. This activity requires a list of activities that are necessary for learning in the center. Next, the physical dimensions that need to be considered must be determined. Each physical dimension is assigned a geometrical code; i.e., circles for lighting, triangles to represent noise, and squares to indicate open space. Each geometric code is divided into three levels by size of the chosen shapes. For example, large circles for intense light; medium circles for normal lighting; and small circles for low levels of lighting.

Each learning activity is coded by shape and size. Thus, showing videotapes becomes coded as a small circle (this activity requires very low levels of lighting); whereas individual reading activity is coded as a large circle. When all activities have been coded for lighting, the circles are placed on the room map (remember, one was made when mapping) where the activity takes place in the room. Look closely and creatively at the map. Circles of differing sizes on top of each other in the same space may suggest the need for rearrangement in the room.

The same process should be applied to each physical dimension to be considered. In this example, each learning activity is coded for noise using large, medium and small triangles and for open space requirements using large, medium and small squares. The same process is completed for each dimension assigned a geometric shape. The final room map should have an appearance of order with similar sizes and shapes near each other. Glaring situations where the place and the activity do not fit will stand out. For example, activities requiring lots of open space (large squares) scattered all about the room can be clustered into one area to make better use of space. Activities generating lots of noise (large triangles) should be separated from those requiring relative quiet (small triangles).
Even if the map does not produce crystal clear information, the activity has been helpful if the participants have considered the physical environment and become aware of concerns. Geometric coding can direct attention to both problematic as well as helpful ways learning activities are arranged within the allowable space.

Conclusion

Attending to the physical environment is a beneficial activity in and of itself. Detractors to learning such as sensory overstimulation can be corrected by more careful planning in the learning setting. The physical environment can also be used to enhance learning when the messages that are conveyed to learners by such attributes as furniture arrangement are supportive of the adult learner. Also the positive influence of a physical environment that is conducive to learning on the social environment can not be ignored. Adult educators paying attention to the place can arrange the physical dimensions effectively rather than just accepting the setting as presented.

Part 1 and Part 2 of this techniques have offered adult educators ideas that are not fool-proof prescriptions but rather qualitative possibilities. All four of the activities (environmental introductions, visualization, mapping, and geometric coding) can be used to help facilitators and learners evaluate the match between learning behavior and place. In doing so, one additional factor in the equation for effective adult learning can be consciously addressed rather than simply accepted.