

Resources for Linking Learning with Space Design

Resources: Learning Theory

Summary: Svinicki, M. D. (2004). *Learning and motivation in the postsecondary classroom*. Bolton, MA: Anker.

NRC report : Bransford, J. D., Brown, A. L., & Cocking, R. R. (eds.) (1999). *How people learn: Brain, mind, experience and school*. Washington, DC: National Academies Press. <http://www.nap.edu/html/howpeople1/>

Resources: Net Gen Students

Brown, M. (2005). Learning spaces. In D. G. Oblinger & J. L. Oblinger, (Eds.), *Educating the net generation*. Boulder, CO: EDUCAUSE. Available at <http://www.educause.edu/LearningSpaces/6072>

Resources: Learning Spaces

Wu, W., & Ng, E. (2003). A review of the development of daylighting in schools. *Lighting Research and Technology*, 35, 111-125.

Hygge, S., & Knez, I. (2001). Effects of noise, heat and indoor lighting on cognitive performance and self-reported affect, *Journal of Environmental Psychology*, 21, .291-299.

Peatross F., & Peponis, J. (1995). Space, education and socialization. *Journal of Architectural and Planning Research*. 12, 366-385.

Monahan, T. (2002). Flexible space & built pedagogy: Emerging IT embodiments, http://www.doit.gmu.edu/inventio/past/display_past.asp?plD+spring02&slD=m onahan

EDUCAUSE Learning Initiative (ELI) web page. Learning space design. <http://www.educause.edu/LearningSpace/5521>

Society for College and University Planning. SCUP Publications. <http://www.scup.org/pubs/>

Main Themes: Learning Theory

- Construction of knowledge
- Social setting
- Prior experience and schema

- Direct access to information
- Active processing of information—experiential, multi-sensory, individual styles
- Rehearsal, feedback, application, transfer

Main Themes: NetGen Students

- Small group work spaces
- Access to tutors, consultants, and faculty in the learning space
- Table space for a variety of tools
- Integrated lab facilities
- IT highly integrated into all aspects of learning spaces
- Availability of labs, equipment, and access to primary resources
- Accessible facilities
- Shared screens (either projector or LCD); availability of printing
- Workgroup facilitation; access to experts

Main Themes: Learning Spaces

- Daylighting in schools can affect student performance, promote good health and contribute to the aesthetic and physical characteristics of educational environments
- Lighting standards for school have been influenced by trends in architecture, teaching theories, and economic, social and political climates
- Current use of technology in schools may call for the reassessment of daylighting standards and issues e.g, screen glare
- Set room temperature to 70 degrees F to improve memory
- Use 1500 lux lamps to improve long-term recall
- Facility plan influences learning and socialization. Goals and objectives of the learning institution must be kept in mind when designing interior layouts to ensure they support the institutional model (Peatross and Peponis)
- Consider the impact of adjacent rooms, departments and corridors on social interaction and educational goals when designing environments (Peatross and Peponis)
- Be aware that interaction, educational goals and social communities are influenced by how a space is defined as well as by how that space relates to and is integrated with other spaces (Peatross and Peponis was based on a case study of two colleges and may not be generalizable to all universities)