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Background and Purpose

Alongside the enduring paradigm that considers aging as something negative, and as a period of decline, a new paradigm is emerging alongside this one which conceives of aging in positive terms, as a period of the life cycle in which people can prosper, grow and develop.

Influenced tremendously by what now social scientists call the positive psychology school, positive aging is exactly that: while aging well is a challenge it is possible even in the face of illness and decline in some domains of physicality. Movements are forming within American society that call for “design for all,” “smart cities,” design that facilitates human functioning and interaction, and the augmentation of support systems that facilitate community involvement of citizens who require assistance in daily living. The aging in place movement recognizes that people can remain in their communities as active citizens, and find fulfillment in independent living with support from their community. The Photovoice project aims to document the environmental inequities older adults face in their daily lives as a subcomponent of participatory action research undertaken by an interdisciplinary group of academics in a small city of the south central region, USA (figure 1). Participants develop the aims and purposes of project, and determine how they will enact the research process and disseminate findings (Downey, 2006).

Discussion of Findings and Conclusions

Photovoice helps the participants understand in an evocative manner the substantive dimensions of their environment. Photovoice methods enable (1) other participants to learn directly about the suitability of an environment given the needs or qualities a specific person possesses, (2) foster the involvement of elders in the documentation of their own life circumstances, which can contribute to an environmental design advocacy agenda, and (3) bring elders directly into the research process amplifying their own perspectives and issues as data with legitimate standing. Broad based participation within action research projects can include involvement of participants in governance and advisement roles, specification of research purpose, objectives, and questions, design activities, implementation, analysis and interpretation, and dissemination and utilization (Cargo & Mercer 2008). The presenter will examine the promise and outcome of Photovoice as a strategy for involving elders directly in documenting their environmental contexts and the barriers they face that can frustrate their independence and quality of life and will discuss the stages of participation in this participatory action research method (figure 2) as well as the results of the exhibit satisfaction survey.

References

The Unexplored Frontier of Learning Places
Catherine Dowling
Ryerson University

Education meets interior design within the learning place of a specific geography and time. As interior design educators, the opportunity to build design literacy directly from a place of learning is often a missed opportunity. A unique aspect of any progressive institution is the recognition of the ‘environment as third teacher. …Every corner of every space has an identity and a purpose, is rich in potential to engage and communicate, and is valued and cared for’ (Caldwell, p. 5). The places we inhabit, teach in, and design, communicate the culture we belong to. Real or virtual, the language of space reflects and informs society as a physical construct that conveys information and values.

This presentation builds on existing research into the role of education in cultural design awareness and literacy. ‘Years of research indicate that the lay public has not grown much beyond the fourth grade level in visual literacy. The danger in leaving our culture dangling at the fourth grade level, visually, is that it is a human tendency not to miss that which we do not know. Quality, then, when not imagined or recognized, is not even missed—much to the joy of mediocrity and her friends congregating on each corner’ (Winters, p. ix). Interior designers understand the transformative power of space through the process of design as teachers understand the transformative ability of knowledge through the process of teaching.

This research presents the two professions simultaneously with an exploration of school architecture, pedagogy and curriculum; exploring their interconnectedness and the opportunities for innovative design education in the frontier of a learning place. Documented site tours of two schools, one located in Asia (HKICC Lee Shau Kee School of Creativity, Hong Kong), the other in North America (St. Ann’s School, Brooklyn) focus on the integration of space, pedagogy, and curriculum within the learning place. The comparison examines the culture and interior design within each school based on the educational theories, and programs of Froebel, Waldorf, Montessori, Reggio Emilia, Learning Through the Arts, Art Soup, and Native Child 7th Generation Image Makers to support the presentation.

An unexplored frontier for Interior Design educators is the place they meet and inspire students. Space itself is a compelling (and often unrealized) vehicle for curriculum and pedagogy in design education warranting continued research of learning environments and their ability to serve as a tacit tool for design educators. ‘The one thing everyone agrees on is the mastery of a domain is essential before truly creative work can be done’ (von Vegesack, p. 62).

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School tours and interviews
The Relationship between the Built Environment and Stress Relating to Pediatric Patients
Michelle Pinson
Texas Tech University

Hospitals have one key commonality with all other existing buildings: they are shaped by the users of the space and the environment has an impact on the user’s behaviors (Adams, Theodore, Goldenberg, McLaren & McKeever, 2010). Architects, interior designers, and health care administrators have come to agree that the built environment of a hospital can affect stress levels of patients. When a patient perceives the built environment negatively, it can act as a source of stress (Varni, Burwinkle, Dickinson, Sherman, Dixon, Ervice, Leyden, & Sadler, 2004). In contrast, when a patient perceives the built environment positively, it has the potential to promote healing.

Children have shown that the built environment contributes directly to their healing processes by either preventing or facilitating stress. It has been suggested that hospital environments are perceived as stressful to children because they are unfamiliar to their everyday settings, and are viewed as overly complex. Perceived stress of pediatric patients has been linked to negative health outcomes including physical pain, emotional distress (Whitehouse, Varni, Seid, Cooper-Marcus, Ensberg, Jacobs, & Mehlenbeck, 2001), greater need for medication and higher rates of delirium (Douglas & Douglas, 2005).

In order for children to cope with the stresses of hospitalization, the built environment should maintain a connection with familiar environments, routines, and activities. A well planned and researched hospital can support patients and families by providing three crucial environmental factors: control, privacy, and a design that facilitates social interaction (Rollins, 2009).

The objective of this paper is to review existing, updated literature on the relationship of the built environment and how it relates to stress of pediatric patients, and to provide research based knowledge for those who have an impact on the design of hospital environments. The three main areas of focus will be the stress reducing effects of control, the importance of privacy, and the implementation of social interaction.

In order to identify literature on the relationship of the built environment and how it relates to stress of pediatric patients, a computerized literature search was completed using the EbscoHOST, JSTOR and GoogleScholar databases. The search was executed using a combination of key words such as children, pediatrics, environment, healing, hospital, patient healthcare, treatment, interior design, architecture. The search eliminated any articles that were not written in English or were not peer reviewed.

On a number of occasions the databases would yield results that were related to the area of study that was being researched in a toolbar either located on the bottom or side of the computer screen. An unspecified number of these articles were reviewed and selected to be implemented in this literature review. A total of twenty-eight articles were selected based on the identified criteria.
References


The Home Office: Intermingling of Work and Family
Pax Chagnon
Texas State University

“As the decentralization of work becomes more and more effective, the workshop in the home grows and grows in importance.”

Christopher Alexander

Context

Many skilled workers and professionals affected by economic challenges of the last decade have decided to approach their trades and professions independently in lieu of pursuing employment from other large companies. They join approximately 15 million self-employed workers (Hipple, 2009, September). This independent transition requires these individuals to make decisions about how they will solicit, procure, execute, and deliver their goods or services. One of the most important choices that will be made is the place where their work will be done. According to the U.S. Small Business Administration, more than half of all U.S. businesses are based out of an owner’s home (U.S. Small Business Administration, n.d.).

Theory

This cyclical emphasis on an independent approach to doing business presents opportunity and programmatic challenges to the design professional. In A Pattern Language, Christopher Alexander refers to this place as the home workshop. It is described as “a place in the home, where substantial work can be done; not just a hobby, but a job” (Alexander et al., 1977, p. 739). Alexander (1977) advocates the WC 495 space be connected to community through physical and visual connection to the street, windows that overlook life, and quality natural lighting.

Application

The following case study presents the programming and design of a home office for a small business owner in San Marcos, Texas. The client, an arborist with a growing business and family, desired to renovate an existing garden outbuilding in lieu of leasing space away from the home and family (see image 1). The program consisted of workstations for the owner and part-time bookkeeper, a small meeting table, and spatial requirements for office equipment and supply storage. Key design issues included proximity to the home and family, economy, and sustainability.

Proximity of the 200 s.f. office balances the connection to and insulation from the daily family activities. The renovated outbuilding provides acoustical separation and public access independent of the family space. Window wall views of the garden, the primary outdoor social area for the family, allow visual connection and varying levels of interaction throughout daily business and family activities. The connection to community is strengthened through views of the street and neighborhood beyond (see image 2).

The form of the office was highly influenced by the reuse of the existing foundation and roof. This sustainable outcome was driven by economic decisions, whereby utilizing existing building components saved 25% of the project budget.
The building envelope was articulated with opaque, translucent, and transparent components to control views and quality of light as it enters the space. Glass and WC 495 polycarbonate glazing systems, shaded by porch and eave overhangs, were implemented to provide views, block views, and maintain soft, consistent natural light in the space allowing a reduction in artificial light usage (see image 3).

Conclusion

I propose that given today’s decentralized workforce and technological connectivity, the home office will become a more prominent part of the house. Perhaps it will someday challenge the status of the kitchen and be far more than a garage hobby shop.

References


From the Classroom to the Community: A Case Study of Partnering with Habitat for Humanity

Jillissa Moorman
University of Northern Iowa

As a creative profession that involves great amounts of communication, it is imperative for interior design students to connect with all different members of society. As Confucius stated, “Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand”. The ability for an interior design program to be involved within the community provides students the opportunity to connect with the community to establish understanding and connections within a real world setting. As Steffes (2004) shared, “non-traditional educational experiences connect students’ cognitive learning inside the classroom with their affective learning in the studio, on the job or at the community service-learning site.” In addition to moving learning opportunities from the classroom to the community, the ability to provide millennial students from this current generation with the opportunity to serve their community is important. Due to millennials’ civic orientation, and because of their practical approach to achieving outcomes, they believe in community service (Zemke, Raines, and Filipczak, 2000). In this paper the author shares and discusses the case study of experiential service learning of upper level interior design students through a 3 year partnership with Habitat for Humanity.

Heffernan (2008) described six types of models that service learning fall under. The case study outlined in this paper fits appropriately within Heffernan’s discipline based model where students participate throughout the semester and reflect regularly as they use the information gained during the course. This model is also a problem-based model because students are set up to educate, inform, and consult with homeowners participating in the Habitat for Humanity program. Of course, students demonstrated the ability to reflect and apply this information to their education. However, unlike common fictional design problems, this study has shown student connections to community which continue following the completion of the course, semester, and even the academic career.

The findings through participation with the Habitat for Humanity organization have proven to be incredibly positive for active student learning, engagement, and understanding of the design process, products and actual project communication, the significance of community unity, and connecting with clients to provide interior design. Service learning is an emphasis in many design programs but studies suggest that there is a lack of students’ abilities to understand design on a human relationship level when given fictional design projects. Through working with Habitat for Humanity this study has provided students with opportunities to not only experience the building and construction process, but also the process of communication with homeowners from different economic backgrounds through interviews, student presentations, and informal consultation and creative idea generation.

Different examples, projects, and documentation collected over a 3 year time span are shared in this paper which not only provides information about this partnership, but also offers ideas, suggestions, and tips to educators about the multiple opportunities with this organization that interior design programs could capitalize on to enhance students’ learning experiences and community connections.
References


Design education often focuses on developing solutions for new spaces; however, it is becoming increasingly important for designers to utilize existing building stock in the pursuit of more sustainable design strategies. If design professionals have not had adequate education and experience working with historic buildings, valuable resources can be lost or damaged beyond retrieval. The primary research question for this study was targeted toward discovering if there had been a change in the number of projects that involved some aspect of historic preservation between two distinct periods of time. The underlying focus of the study was to determine if the design professionals involved in those projects believed their educational background prepared them to work on historic buildings and examine their attitudes toward an increased emphasis on historic preservation education. Using a cross-sectional survey methodology, an online questionnaire was distributed to all registered architects and interior designers in a southwestern state. The results indicated a significant increase in the percentage of interior designers involved with projects on historic or older buildings over the past five years; both disciplines surveyed indicated that they believe there is a need for additional opportunities to gain practical experience in historic preservation. Due to the low number of practicing interior designers who attend graduate school in that field, experience in historic preservation should occur during their undergraduate degree program to provide a solid background that benefits their professional practice and the larger community in which they practice.

Building off the previous results, another study was conducted in a southwestern state to assess the undergraduate interior design student’s level of knowledge and interest in historic preservation. Identifying these factors will help design educators understand where a potential weakness may lie and if there truly is interest in the topic on the part of interior design students. A cross-sectional, self-administered online questionnaire was provided to all undergraduate interior design students in that state. The results indicated that the issue of historic preservation is not emphasized, or at least not clearly explained to students. However, the survey did show that students are interested in the topic and feel that interior designers play an important role in the preservation process. The study also suggests ways the historic preservation community could work with interior design students and educators to increase awareness of the subject and a growing need for collaboration to prevent the destruction of valuable historic buildings.

References


INTERIOR DESIGN AS EDUCATOR: APPLYING REGGIO EMILIA
Jean Edwards
University of Louisiana Lafayette

Purpose

As designers we begin from the premise that the design of an interior has the potential to positively impact the quality of life and the outcome of activities that take place within it. The purpose of this presentation is to look at the design of educational environments to discover its potential to promote student learning. This study will focus on the application of Reggio Emilia theory to the design of three art classrooms in local public schools.

Literature Review

Studies published in the Journal of Interior Design have tended to focus on introducing interior design as a subject into the K-12 curriculum (Clemons, 2006; Portillo and Rey-Barreau, 1995). Studies of the learning environment itself (also published in JID) have focused on the studio environment in which interior design education is conducted (Kucko, 1994). Otherwise, the design of school learning environments seems to have received scant attention by interior design educators. Much of the related professional education literature focuses on the evaluation of curricula and/or teaching strategies to determine the effectiveness of competing methodologies. Among the various theories presented, however, the Reggio Emilia approach, in particular, appears to have important implications for the interior design of classroom environments.

Conceptual Framework

The Reggio Emilia approach to early childhood education proposes that the environment, as the “third educator” in the classroom dynamic of teacher and child, plays a crucial role in children’s learning. “In its attention to how space can be thoughtfully arranged, Reggio Emilia has reconceptualized space as a key source of educational provocation and insight” (Strong-Wilson and Ellis, 2007). Using this approach, special attention is to be paid to the following qualities and elements of the interior: visibility, flexibility, light and shadow, reflection, and multi-sensory space (Naldrett, L., 2010 citing Thornton and Brunton, 2007).

Methodology

A pilot study conducted in early 2011 has assessed the existing conditions in three visual art classrooms – one high school, one middle school, and one elementary school. This study included observational site visits to the three schools, visual documentation of the sites, and interviews with the art teacher and students at each of the three schools. Using this information and the Reggio Emilia conceptual frame, third year interior design students undertake the re-design of these three classrooms. Following team research and design development, final design proposals are presented to representatives of the project schools. Project deliverables to the schools include specific design suggestions for alterations and illustrations of the proposals. The thirdyear students will also participate in design charrettes with art educators attending the state Art Education Association meetings in fall 2011. The goal of the charrettes is to help teachers re-conceptualize their classroom environment to better support the creative engagement and innovation of their students.
Proposed Outcomes

Interior design students have the opportunity to test the Reggio Emilia theory in the context of real classrooms and its possible applicability beyond the early childhood learning environment. Follow-up studies are proposed to determine the success and impact of the classroom changes (if they can be effected) on instruction and student learning.

References


Repurposing historic buildings to increase tourism: Public policy promotes design interventions for public benefit

Ted Drab
Oklahoma State University

The Issue

Tension exists between individual freedom and public good, with recent actions by municipalities claiming eminent domain highlighting conflicts between citizens’ rights to private property and governments’ rights to shape the built environment. This paper will examine several regulatory scenarios and their impact on cities, citizens, historic buildings, and the design/redesign of their interiors.

Public Benefits

Three areas with potential civic benefit are sustainability, preservation of cultural heritage, and promotion of tourism. Each of these contributes to quality of life as well as to economic development. Harrill and Potts (2003) present tourism as particularly profitable for communities that previously profited from industrial production. They indicate that residents benefit from tourism because of improved public services, better restaurant and shops, and enhanced cultural resources (pg 9). Robertson (1999) observes that renovation/repurposing of historic structures and their interiors “exerts a tremendously positive impact on downtown’s sense of place” (pg 275), an assertion expanded upon by Wansborough and Mageean’s (2000) discussion of design’s role in achieving “cultural regeneration” in Manchester, England. The latter authors see the protection of architectural heritage and craftsmanship as more than assuring a sense of place or place making; they term it “place-marketing” (pg 183) due to its importance in attracting residents and tourists alike, as well as attracting companies seeking sites for corporate headquarters or other facilities. Hyllegard, Ogle, and Dunbar (2003) simply state that “by definition, historic preservation contributes to sustainability” (pg 33), paper; theory and research; focusing on the interior design of retail stores within historic structures, important to both residents’ and tourists’ evaluation of a city’s livability.

Regulation

Regulation regarding historic properties in the United States is chiefly limited to the exteriors of structures 50 years old or older designated as historically significant, listed on the National Register of Historic Places, or recognized by other agencies. In Italy, as a matter of law, the owner of a building 50 years old or older must demonstrate that it is not historically important before being issued a permit to make interior or exterior alterations or to demolish. Abramson (2006) reported on a 12 year study of the preservation and restoration of historic buildings in China, relating the conflicts over environmental sustainability, individual and collective rights, and concepts of property and community that have similar impact on how historic building are dealt with in Italy, England, the United States, and all nations grappling with these issues. Abramson concludes that a realization among citizens that they have a communal interest in reaping the economic benefits historic preservation can provide is the key to success. The role of architects and interior designers in promoting this realization is clearly important, and should be an important component of their training.

The Economics of Tourism
The United States, Italy, China, and the United Kingdom are among the top 6 nations ranked by both international tourist arrivals and international tourism receipts (UNWTO, 2008). Given the difference in size between these four nations, it is clear that the larger countries could substantially increase tourism receipts by “place-marketing” through a government regulated program of repurposing historic buildings.

References


Trash to Treasure: An Innovative Project that Enables Students to Better Understand the Complete Design Process, Collaboration, and Sustainability through Furniture Design

Amy Jacobson-Peters
University of Central Oklahoma

The academic experience of most interior design students is very unique. Unlike a graphic design student who can see a project through to the end by printing off a final design, or a fine art student who can see their concept go from beginning to end by producing a sculpture or painting, the interior design student spends their academic career producing projects that are only partially complete. To be able to produce an entire interior design project from concept to the final installation involves time and financial constraints that most academic institutions cannot provide. The “Trash to Treasure Project,” as part of an undergraduate Interior Design program, allows an interior design student to fully explore the design process from start to finish creating an extremely valuable experience.

The “Trash to Treasure Project” is part of a Custom Furniture class students are required to take their second semester, sophomore year. For this project, students work in groups of 2 to 4 developing designs for a piece of furniture or a light fixture that is made out of materials that would otherwise have gone in the trash. Since McDonough and Braungart’s book, “Cradle to Cradle” came out in 2002; the design industry has been steadily working to develop products and spaces that aspire to the philosophy of sustainability, and eco-effectiveness (McDonough & Braungart, 2002). To this day, however, our society still faces serious issues when it comes to dealing with excess waste. This is especially true in the Southwest region of the United States where according to the Environmental Protection Agency, many states rank poorly in recycling practices (Williams, 2011). This type of statistic illustrates why it is still important to teach students the value of environmental responsibility.

Through the Trash to Treasure project, students must research their chosen material; how much is produced in a year, and how much ends up in landfills? They must look at what other designers are doing with that same material, and through this, begin to develop their own designs. The entire design process is explored through early concept sketches, sketch models, material experimentation, and final mock-up construction. Students also produce renderings and working drawings and present their final project to the class in a formal presentation. Each group also collaborates with students in the Graphic Design program. The graphic students develop branding materials for the interior design students like logos, hang tags, web pages or brochures that represent the furniture pieces and the interior design student’s groups.

Through inner and intra-disciplinary collaboration, the Trash to Treasure project has been a great success. The experience has been ranked by many students as one of their favorites while in school, and has changed many attitudes and opened minds about recycling and sustainability. The project has garnered local attention through newspaper articles and local exhibits, impacting society and spreading the word about the importance of utilizing our precious resources in the most responsible manner possible.
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Designing for Autism: Adapting Classroom Designs for the Home

Kathryn Lopez
Texas Tech University

In recent years, research has shown that the educational environment has a profound effect on learning and performance in students, especially those with autism. Many design solutions that target autistic populations have been introduced for implementation in both mainstream and special education classrooms. For most students with autism, education is centered on learning skills for future independence. If classrooms and learning environments are not designed to accommodate students with developmental disabilities, it can be assumed that they will not learn these important skills and will struggle to live independently. Obviously, these learning environments are important for children and more research still needs to be done on these kinds of spaces, but the home environment is equally, if not more, vital to growth and learning. However, there is little information on how to design residential spaces for children with autism and other developmental disabilities. Most of the design methods used in classrooms can be modified for a residential setting. Families that have a child with autism in the home face the same struggles as teachers in the classroom do. Most autistic children struggle with communication and social interaction, changes in their environment or routine and sensory processing. Some of these children try to create sensory experiences or cope with sensory overload with repetitive, compulsive behaviors like arm flapping or noise making. These repetitive behaviors can sometimes be self-injurious, like banging the head on hard surface.

There are design solutions to help minimize these kinds of challenges children with autism often face. Designing for autism should be based on each individual child, because no two cases of autism are alike. Therefore, this article examines the case of Noah, a ten year old male with diagnosed autism, and his family. Noah’s case is fictional but was developed based on case studies of real children with autism. Like a lot of other children with autism, Noah struggles with change, including transitions between daily activities and changes in his routine even though he is considered on the high functioning end of the autism spectrum. He is hypersensitive to touch, motion and sound and can be prone to occasional, aggressive tantrums. The space planning of the home addressed Noah’s sensitivities to sound and his dislike of small, crowded spaces and implemented spatial sequencing. One treatment for autism is sensory integration therapy, a method that builds tolerance in children that are hypersensitive and creates safe sensory experiences for children that are hyposensitive. A sensory integration space is included in the home, where the child can safely interpret sensory information. Since Noah is sensitive to touch, sound and motion, the room includes toys that make music and other sounds, toys that help him practice balance and movement and textures and materials that are very tactile. The home also includes an escape space, an area that has been successful for reducing disruptive behavior in classrooms. These design solutions accommodate Noah’s symptoms but are also developed to help Noah build a tolerance to incoming sensory information.

References
Empowering the Interior Design Student: Strengths-Based Education

Diana Allison
Johnson County Community College

In today’s business climate of teamwork and collaboration, it is important for interior design students to develop collaborative skill sets. Many times students are put in group work and team work to sink or swim and develop these skills through trial and error. There are assessment-type tests that can help them understand each other’s approach to group/team assignments. Standardized personality tests such as Myers-Briggs Type Indicator and DISC Assessment may help them understand each other’s personalities better, but these personality tests do not fully address skills they may have that will be beneficial in group/team assignments. A newer type of assessment called Clifton StrengthsFinder, developed by Gallop, uncovers a person’s strengths (Clifton et al., 2006; Lopez & Louis, 2009). Rath (2007) describes strength as a consistent and near-perfect performance on an activity. Through a series of questions over approximately 20 – 30 minutes, this test forces decisions about given scenarios. In the end, the person’s five top strengths, as determined by this test’s 34 strength categories, are uncovered. These findings go beyond personality traits to showcase talents that can be developed further by the individual, and that can also be used to better understand team members and collaborative settings.

Strengths-based education involves five principles: 1) identification of students’ strengths; 2) personalizing the students’ learning experience based upon their strengths; 3) networking and communication of students’ strengths with those who will support and acknowledge strength-based success; 4) deliberately applying strengths inside and outside of the classroom; and 5) intentional development of the students’ strengths (Lopez & Louis, 2009). As students learned about their own strengths in the Capstone classes, it helped them understand themselves better, which in turn allowed them to focus and fortify their cover letters and resumes based on these strengths. As they learned each other’s strengths, it gave them insight into their classmates’ approach to learning and to collaborative work. The students reviewed and reflected upon their strengths through the semester by journaling and by discussions in class. Students’ comments included such things as, “I wish we had done this in our first class in the program”; “I wish all of our instructors knew what our strengths were before they put us on teams”; and “Now I understand why you approached that the way you did”.

The results and feedback from students have been so positive and encouraging that Clifton StrengthsFinder will be implemented in earlier classes in this interior design program. This presentation will explore strengths-based education through the use of the Clifton StrengthsFinder in two interior design capstone classes, a strengths overview of 17 students and 2 instructors, and the affect it had on the students and instructors in their Capstone and studio classes.

References

The aim of this study was to investigate nursing home design to improve the physical environment to either reduce or positively promote wandering behavior. According to Hiatt (1991), the building shapes and corridor layouts of nursing homes may contain awkward angles that can naturally cause disorientation for its residents. Five different building shapes from existing floor plans were selected based on Hiatt’s (1991) building shapes and were evaluated on fifteen positive design elements of wayfinding compiled from literature reviews. Evaluations showed that some building shapes hypothesized to create the most disorientation in nursing homes had more positive design features than simpler building shapes, creating the assumption that not only the building shape, but the organization layout of common rooms, use of visual cues, and the overall size of the floor plan affects the disorientation level in nursing homes. A prototype nursing home design was created based on the criterion of the fifteen positive design features and five main recommendations were described: looped corridor interior path, looped exterior wandering path, continuous progression of common areas, visual access and control, and unique and differentiated visual cues.

Reference

Home Design Recommendations for Wandering Behavior
Linna Yoon, Zane Curry, & Kristi Gaines
Texas Tech University

The aim of this project was to provide interior design recommendations and solutions for the residential setting of critical wanderers. Wandering behavior is a common and challenging characteristic found in elderly dementia patients and has been associated with negative consequences such as fatigue, injury, and death (Algase et al., 2010). Research has shown that modifications to the physical environment can positively influence the therapeutic environment and quality of life of individuals. This contemporary residential design strived to utilize wayfinding techniques and design concepts to allow the wandering individual to fully explore the extent of his or her home in a safe and secured environment. A looped corridor design, visually open spaces, several visual cues, warm color tones, and several destination rooms were incorporated in the design to increase quality of life and reduce or positively promote wandering behavior in the home.

Reference
Cowboys (and cowgirls) of creative culture: Investigating creative cognitive processes of interior design students
Amy Mattingly, Katherine Leigh, Kenneth Tremblay, James Banning, & Rob Work
Colorado State University

Western cowboys were among the first ‘cultural creatives’ – impacted by the unknown and unpredictable, innovative and resourceful they were among the first western creators. Given this rich heritage, the metropolitan area of Dallas-Fort Worth continues to thrive. Cultural demographer Richard Florida (2008), ranked the DFW area high in terms of key creative class attractors known as the three T’s - technology, talent, and tolerance. Students, preparing to lead the way of the future, will contribute to creative economies, BUT only if their individual creativity can be harnessed and captured. This paper explores personality characteristics and the cognitive activities by which design excellence is achieved to advance understanding of the creative process (Santanen, Briggs, & DeVreede, 2004).

Qualitative data were collected from journal responses, demographic information, and expert evaluation of creative outcomes. A creative process model was conceptualized from analysis and synthesis of ten creative process models spanning diverse design disciplines. Models were grouped according to the transitional nexus forming a common baseline between analysis and synthesis. Four distinct categories were revealed based on complexity and content of stages and designated as simple, balanced, complex analysis, and complex synthesis. Student processes were compared to reveal similarities or differences to the proposed model with examination of demographic and outcome characteristics.

20 senior level interior design students from a western university accredited by the Council for Interior Design Accreditation (CIDA) participated in the study. Their class was assigned the design of a lounge chair during a two week period where they were asked to answer predetermined question prompts based on their activities and Amabile’s (1996) components of creativity. Template analysis coding was used to define these task activities. A scaled furniture model and design process board (outcomes), reviewed by external evaluators, established quality level based upon the seminal creativity definition.

Two distinct groups were revealed, demonstrating high and low creativity. Task descriptions, demographic data, and quality of creativity were compared and the proposed model reexamined for refinements.

Differences were evident in the findings. GPAs, transfer credits, and total credit hours were higher for individuals whose product outcomes were rated high on creativity, with higher levels of abstract thought and implementation of greater divergent thinking. These students also demonstrated increased depth of thought and higher motivation levels throughout their creative process.

References
Environmental Preferences of Users in Collocated Workplaces/Colleges
Jan Parker
Art Institute of Dallas

Merriman-Webster defines collocation as “the act or result of placing or arranging together” (Merriam-Webster Online, 2011). Collocation can be two or more businesses, organizations, or cultures that occupy the same space and share resources. In the business world, this situation is referred to as a corporate campus or multiplex, while in the medical and community service fields it is referred to as shared-use. The goal of this research is to determine the environmental preferences of the users of the collocated space occupied by College-A and College-B. (Code names used for anonymity purposes.)

Conceptually, collocations, corporate campuses, shared-use facilities and multiplexes are similar, and the terms are often interchanged. Most were developed to promote economic efficiency (de Neufville & Belin, 2002). Sharing resources between firms can reduce impact on the environment (Chertow & Lombardi, 2005). Efficiency and control, identity and ease of direct communication between departments can be the primary values for merging into a corporate campus (The Value of a Campus: Costs and Benefits of Collocation, 2002). Additionally, flexibility, branding, security, attraction/retention of staff and provision of amenities should be added to this list (Becker, Sims, & Schoss, 2002).

Collocation was initiated by moving College-B into the same facility at which was, since 1988, and continues to be occupied by College-A. The colleges occupied floors one through five and leased part of the eighth floor on an as-needed basis.

The collocation directly impacted the following existing spaces: Reception, Mail Room, Library, Human Resources, Technology, Security, Parking Garage, and Facilities Management. Originally, the Admissions departments for both colleges were located together but were separated due to insufficient space. Classrooms were shared through an intricate and manual scheduling process maintained by the Registrar at College-A.

The shared spaces created an environment that lacked unity and transition. A branding effort from College-B further contributed to identity confusion among College-A students and visitors. As College-B’s student population grew, the college was forced to utilize former College-A storage areas for classrooms which were not functional, efficient or aesthetically pleasing.

A focus group of 12 participants was held with participants from College-A, consisting of staff, faculty, administrators and students. Another focus group of five participants from College-B was held. The question presented was, “In order to create unity, transition and a satisfying working/learning environment for students, faculty and staff of both colleges, what environmental factors are preferred?”

The analysis indicated the top five preferences observed included the need for functional space; privacy; adequate space; logical adjacencies; and aesthetically pleasing environments. Security, acoustics and flexibility of spaces were also cited. By programming collocations to include these preferences, a unified environment with transition between the two organizations could produce a satisfying environment for occupants.
References


Student Usage and Perceptions of a College Student Lounge  
Rebekah Thompsen  
Oklahoma State University

Purpose

This post-occupancy study gauged usage patterns and user satisfaction with the current physical attributes of a college student lounge. Along with a review of relevant literature, opinions and suggestions of student respondents were collected and analyzed to form an empirical basis for a proposed interior design renovation. Potentially serving as a model for successful student lounge planning, this project utilized Nussbaumer’s (2009) evidence-based design as a theoretical framework.

Review of Literature


Methodology

A 22 question survey was comprised of five multiple choice/single answer questions, one multiple choice/multiple answers question, 14 Likert-type scale questions, and two open-ended questions. Respondents were queried regarding their opinions of the student lounge and were asked about their frequency and purpose of using the lounge as well as their perceptions of the lounge’s effectiveness in meeting their needs. Convenience sampling was used to select a total of 210 subjects from students taking courses within the college during the Fall 2010 and Spring 2011 semesters. After analyzing survey responses, the results were used to inform such decisions as space planning and furniture selection.

Results

Analysis of the surveys revealed distinct trends in both participants’ use and opinions. As illustrated in Figure 1, the purpose for visiting the student lounge most often indicated by survey respondents was “preparing for class.” This was closely followed in percentage by “reading,” “studying alone,” and “computer usage for school purposes.” Figures 2 and 3 illustrate the distribution of responses for the 14 Likert-type scale survey questions. Figure 2 depicts respondents’ agreement and strong agreement with ten statements about specific elements of the current design. Conversely, Figure 3 depicts respondents’ neutrality, disagreement, and strong disagreement with the four remaining statements about the current design. The separation of results into two charts serves to illustrate the divide between design elements which respondents generally considered to be positive or satisfactory (Figure 2) and those which were seen as predominantly neutral, negative, or unsatisfactory (Figure 3).

Conclusions

Because respondents indicated “studying in a group” and “socializing” as their purpose for visiting the student lounge with such low frequency and the purposes of “studying alone” and
“reading” with such high frequency, the results illustrated in Figure 1 suggest that the student lounge currently functions as a place for solitude rather than interaction.

Relevance

This study benefits the college by providing an opportunity to gauge the effectiveness of the overall interior design of their student lounge as well as students’ satisfaction levels with the lounge’s current state. Post-occupancy evaluations such as the current study, contribute to the general interior design body of knowledge about usage patterns and perceptions of end-users which aids in bridging the “significant gaps” present between the intention of a designer and the actual effectiveness of the design (Loftness et al., 2009, p. 249).

References


A Comparative Study of Design Interventions for Students with Autism: United States versus United Kingdom
Kristi Gaines
Texas Tech University
& Ghasson Shabha

Purpose
This research is intended to compare and contrast the findings of the empirical studies that were conducted in both the UK and the US on the impact of a few sensory environmental stimuli, mainly visual and acoustical stimuli, on individual’s behavior in school buildings.

Design/methodologies/approach
An analysis of teaching layouts and the sequence of activities in selected school buildings was conducted. Opinions of focus groups including teachers and carers working with individuals with Autistic Spectrum Disorders (ASD) were initially explored to assess the extent of the sensory problems associated with the existing teaching settings and to highlight any operational design limitations and constraints. A questionnaire was formulated based on the feedback gleaned from the focus groups. Relevant perceptual information about behavioural reactions to varying sensory stimuli was compiled. Key sensory triggers were identified. Visual information of selected schools including photos and visual diagrams of ASD workstations were compiled annotated and analyzed for further examination.

Findings
Several sensory parameters were observed in the teaching environment including bright colours and light, pattern, glare, echoing, sudden and impact sound, high and low pitch sound and background noise levels. Some variations between the two studies exist regarding particular sensory triggers and their importance as perceived by respondents. These can be directly attributed to differences in school design layout, internal finishing and workstation configuration. Other extraneous factors including the size of the study sample, location of schools and climatic factors are also implicated however significantly consistent adverse effects on individuals' behaviour have been indentified in both studies.

Practical implications
The study provides further understanding of the key factors contributing to the quality of teaching environments in schools building both in the UK and the US. This might assist in developing alternative school design guidelines based on user-centered approach, and ultimately creating a responsive teaching environment that is more humanely-attuned to the needs of affected groups.

Originality/value
This paper will highlight issues for open discussion among decision makers and built environment professionals to enhance the quality of life of the affected groups. This is particularly important given the extent of the sensory processing problems of individuals with ASD in both the UK and the US. The findings will be relevant at strategic, tactical and operational levels including inter alia federal government agencies and decision making bodies. Professionals involved in the process of planning, design and management of school buildings in both the UK and the US may benefit. The operational efficiency of education facilities may be maximized through control of the design and construction of school buildings. By further reducing the undesirable consequences of sensory triggers in educational facilities, the quality of life of the affected individuals may be improved.
An Integrative Approach to the Design of Independent Living Environments for Adults with Neurodiversities
Angela Bourne & Kristi Gaines
Texas Tech University

The transition to adulthood is challenging for all individuals, but even more difficult for individuals with Autism Spectrum Disorders (ASD). At this juncture, entitlement to public education ends and choices must be made regarding education or vocational training, employment, housing, and social involvement. In the U.S., a projected 500,000 children with ASD are expected to reach adulthood within the next 15 years. Currently, there is a limited amount of appropriate housing to fill this need (Ahrentzen, 2009).

Additionally, aging parents are concerned with how their children with Autism Spectrum Disorders (ASD) will function in society when they are no longer living (Weeks, Nilsson, Bryanton & Kozma, 2009). To date, support for independent living (IL) has been instigated and maintained by caring charitable foundations. Their focus has been on the creation of communities rather than institutions. They advocate “village” like atmospheres as research has shown these types of environments help individuals with ASD transition from their homes more smoothly. There is evidence to show that young adults with high functioning autism can be trained to take some ownership for their care and that they can live independently with minimal supervision (Felce & Emerson, 2001).

In order to facilitate independent living, a new paradigm is needed that focuses on minimizing the symptoms that individuals’ with ASD experience so that they can live relatively independent. This study examines the neurological connections between how people with ASD see and approach the environments in which they live, work and play. Environmental behavior, neuroscience, design and architecture were surveyed in context to inform the spatial design of independent living environments for adults with ASD. On site visits to independent living communities further aided in the development of a prototype community. The aim of this study is to formulate best practices for the design of independent living communities for adults with neurodiversities. The results of the study will be practical and informative. Implementation of the findings will assist parents, families, professionals and help people with autism live healthy and happy lives as they age.

References

Conference Schedule

Friday, October 14th

8:00       Breakfast
9:15       Key Note Address by Provost Nowell Donovan.
            “The Decent and Abduction of Curiosity”.
10:30 to 12:00   Paper Presentations

12 to 1:00  Lunch

1:00 to 2:30  Paper Presentations
2:30 to 3:00  Break and Learn about the Quad of TCU
3:15 to 5:00  Tour of Botanical Research Institute of Fort Worth,
              and the Modern Art Museum

5:00 to 7:30  Wine and Cheese, Buffet dinner at Kimball Art Museum

Saturday, October 15th

8:00 to 9:00  Breakfast
             Concurrent Poster Session
9:00 to 10:00 IDEC Regional Business Meeting
10:00 to Noon  Paper Presentations

Noon to 1:00  Lunch
1:00 to 2:30  Paper Presentations
2:30 to 3:00  Award Presentations and Conclusion
2010 IDEC Southwest Regional Conference Attendees