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Conference Chair
Sally Ann Swearingen
Stephen F. Austin State University

Creative Scholarship Coordinator
Diana Allison
University of the Incarnate Word

Southwest Regional Chair
Kristi Gaines
Texas Tech University

Keynote Speakers
Anita Howard
Regional Sales Manager Architecture & Design, Steelcase

Proceedings Editor
Suchismita Bhattacharjee
University of Oklahoma
# TABLE OF CONTENTS

## Oral Presentation - Scholarship of Design Research

- **Designing for the Millennial Generation and Beyond** ................................................................. 5  
  *Shelby Brock* ............................................................................................................................... 5
- **Entry Level Practitioner Preparedness: Evaluation of CIDA Standards by Beginning Interior Design Process** ......................................................................................................................... 7  
  *Natalie Ellis and Elizabeth Pober* ............................................................................................... 7
- **Preliminary Results of a Case Study Examining Teacher Attitudes about their Classroom Physical Environment** .......................................................................................................................... 9  
  *Alana Pulay, Paula J. Tripp, Tilanka Chandrasekera, and Tutaleni I. Asino* ......................... 9
- **Sensory Design Recommendations for Visual Inclusion** .......................................................... 11  
  *Kristi Gaines, Michelle Pearson, Angela Bourne & Huili Wang* ................................................. 11
- **Speech Intelligibility for a Speech-Language Therapy Clinic** ................................................. 15  
  *Michelle Pearson* ........................................................................................................................ 15
- **The Relation of Occupants Psychosocial and Demographic Characteristics with Designed Indoor Environment** .................................................................................................................. 17  
  *Suchismita Bhattacharjee* ......................................................................................................... 17
- **Playground design for enhancing cooperative behavior among children** ................................ 19  
  *Sahand Abbasi, Michelle Pearson & Kristi Gaines* .................................................................... 19
- **Towards ‘Positive’ Interior Design Education: Examining Conflict, Communication, Collaboration and Creativity** .................................................................................................................. 26  
  *Laura Malinin* ............................................................................................................................ 26
- **Impact of Physical-Digital Hybrid Environments on the Human Experience** ....................... 28  
  *Amy Roehl* .................................................................................................................................. 28

## Oral Presentation - Scholarship of Teaching and Learning

- **Collaborating to Benefit the Homeless: Transferring Skills Learned in the Classroom into Profession** 30  
  *Sally Ann Swearingen, Mitzi Perritt, and Leisha Bridwell* ......................................................... 30
- **“You Can’t Win if You Don’t Play”: Integrating Competitions into the Interior Design Curriculum** 37  
  *Valerie Settles* ............................................................................................................................ 37
- **Design Studio Fosters Social and Cultural Awareness: A Transformative Experience** ........... 44  
  *Silvana Polgar* ............................................................................................................................ 44
- **Towards a Design-Build Education: Seven Projects, Seven Points** ....................................... 51  
  *Albert Marichal* .......................................................................................................................... 51
- **Immersive Cohabitation Design Critiques: The Integration of Virtual Reality Platforms into an Interior Design Capstone Studio** ................................................................. 58  
  *Elizabeth Pober and Matthew Cook* ......................................................................................... 58
Poster Presentation

A Mobile Environment for Children to Feel Sense of Place Attachment ......................................................... 64
Saman Jamshidi and Kristi S. Gaines................................................................................................................ 64

Blue space as a therapeutic concept: The applicability in healthcare environments ............................... 66
Fares Alsaygh................................................................................................................................................ 66

Need for Access to Nature in Nurses Work Environments ..................................................................... 67
Apoorva Rane and Dr. Michelle Pearson........................................................................................................... 67

Children behavior and learning in playground: Play- block- environment .............................................. 69
Maryam Hosseinioun...................................................................................................................................... 69
Designing for the Millennial Generation and Beyond

Shelby Brock
Sam Houston State University
Huntsville, TX

Designing for the Millennial Generation and Beyond Abstract Background: Mastercard’s correlation between “priceless” life experiences and making people happy is being embraced by the millennial generation. Popular blogs include statements such as, “the key to happiness is not spending our time and money acquiring goods…the key to happiness is spending our time and money experiencing life”. These attitudes are being personified daily on social media, in mainstream conversations and interjected into the interior design community through television shows about tiny homes and sustainable living. These ideas include topics which range from new urbanism, the happiness project, sustainability, minimalism and hugge (pronounced hue-guh). Educators and designers need to be informed of these concepts to incorporate new design strategies and ideas into the built environment. Future clientele will be knowledgeable about these concepts and designers and educator’s a like need to be prepared to meet these needs. Purpose and Methodology: The purpose of this research is to educate individuals on the different movements and ideas currently impacting the design of the built environment. Documentaries such as “Minimalism”, directed by Matt D’Avella, are introducing the public to topics such as sustainable living, happiness, simplicity, and minimalism. New Urbanism is not a new concept for the design community but it is becoming more popular through social media. Congress for the New Urbanism has defined new urbanism as “a movement united around the belief that our physical environment has a direct impact on our chances for happy, prosperous lives”. A Danish way of living called hugge recently made national news and is defined as a “quality of presence and an experience of togetherness” (Brits, 11). Another concept titled, The Happiness Project is an “independent think tank focusing on well-being, happiness, and quality of life” (Wiking, 2016, p.viii). The American way of living is slowly shifting from defining success in material things and large living environments back to the pre-World War II concept of happiness and community. Expected Results: Projects are being developed for the junior level commercial and residential design studios for the fall and spring semesters that include the concepts mentioned above. The newly developed projects will align with the Council for Interior Design Accreditation standards to ensure compliance. By bringing these concepts and ideas to the design community and introducing them to students and educators early we can make an impact on the future of design.
References


Entry Level Practitioner Preparedness: Evaluation of CIDA Standards by Beginning Interior Design Process

Natalie Ellis and Elizabeth Pober
University of Oklahoma
Norman, OK

Introduction and Purpose As design educators and practitioners seek to understand and map out our students and young practitioners path, we are constantly assessing where the interior design profession is heading and how we can improve interior design education. Past studies by Albanese, Hines and Rainey (1995); Baker & Sondhi (1989); Harwood (1989) sought to inform academics to better prepare students to enter the profession. Program and individual assessment is critical for implementing change and improving not only our student’s education, but also practice as an evolving profession. Most commonly, practitioners are asked to consider if programs are successfully contributing well-prepared new interior designers. This research seeks to take a different perspective by instead asking this question of new practitioners within their first months of practice and who have not yet taken the Interior Design Fundamentals Exam. This study will pursue knowledge with a descriptive and correlative mixed methods research study of recent student’s evaluation of their level competencies and attributes as stipulated by CIDA standards.

Study Methodology While there are two primary design program organizations, National Association of Schools of Art and Design (NASAD) and the Council for Interior Design Accreditation (CIDA) for the United States, this study will only consider CIDA at present for its relevant connection to the present study program. This will be the first in a series of longitudinal data collections of new professionals affected by the Council for Interior Design Accreditation Standard versions 2009 forward. The focus is grounded upon asking new practitioners questions which evaluate how well their education prepared them to enter the interior design profession. Considering the 2017 CIDA standards regarding Global Context, Collaboration, Business Practices and Professionalism, Human-Centered Design, Design Process, Communication, History and Theory, Design Elements and Principles, Light and Color, Products and Materials, Environmental Systems and Comfort, Construction, Regulations and Guidelines, students will be provided a survey series of questions asking for their level of preparedness and applicable education use or anticipated use in practice. New practitioners will also be asked to provide additional information regarding needed curriculum content that might not be included in the adopted standards of their academic program in an open answer and elective personal interview.

Relevance and Implications Much like a post-occupancy, this study seeks valuable feedback to
improve our student’s learning experience (Hay, Samuel, Watson, Watson, 2017). Design firms that do not seek feedback are potentially forever stuck in a single-loop cycle. Feedback of this nature can improve and maintain a double-loop learning model where we can evolve beyond what we might otherwise expect. CIDA standards are changing along with the continuous advances of interior design’s professional practice. Educators need to be informed about our recent graduate’s work in practice to fully assess CIDA standards and the academic program’s adequacy in providing needed skills and knowledge for students entering the profession.

References
Preliminary Results of a Case Study Examining Teacher Attitudes about their Classroom Physical Environment

Alana Pulay, Paula J. Tripp, Tilanka Chandrasekera, and Tutaleni I. Asino
Oklahoma State University
Stillwater, OK

There are 3.5 million public school teachers in the United States that each, on average, miss 10 school days per year (Gershenson, 2012; USDOE, 2016). When teachers are absent it negatively influences classroom educational activities, encourages student absences and weakens the quality of teaching (Sezgin et al., 2014). It is estimated to cost $40 billion a year in substitute teachers and productivity loss (Rosenblatt & Shirom, 2005). Good substitute teachers are difficult to find (Miller et al., 2008) and are not as effective in instruction since they do not know the individual needs of the students (Miller, et al., 2008) or have advanced degree requirements like regular teachers (Gershenson, 2012). Studies have been performed to reduce teacher absences such as monetary incentives (Tingle et al., 2012), pay backs for unused sick days (Roby, 2013), and protocols in which teachers are required to call in sick directly to the school principal (Miller, et al., 2008). However, limited studies have been performed to examine teacher absences in regards to school building quality. It is known that the quality of the built environment influences worker health and productivity in the workplace (Hawes et al., 2012) yet the influence of the classroom built environment on teachers is unknown. Our overall objective is to examine teacher attitudes about classroom variables to discover if a specific one contributes to teacher absenteeism. Our central hypothesis is that wall color, lighting, flooring, and furniture, which influence the perceived quality of the building, also contribute subliminally towards teacher absences. Our hypothesis has been formulated based on the existing literature demonstrating that workers are more productive and take less sick days in perceived higher quality buildings (Hawes et al., 2012). Research Strategy To research this topic, we inventoried the existing interior variables within the state public school classrooms and administered a survey to public school teachers. To inventory the classroom environment, we asked the survey participants to e-mail digital photographs of their classrooms to the research team. The photographs documented floor finishes, wall color and material, interior lighting, windows and views, and classroom and teacher furniture. Various school districts and locations were examined to compare and contrast classroom interior variables. The survey to public school teachers was based upon the Teaching and Learning International Survey (TALIS) that uses a Likert scale to document learning environments and working conditions (He & Van De Vijuer, 2015). The survey gathered teacher
attitudes and perceptions of the classroom interior variables such as floor covering, wall color, lighting, windows and views, and furniture. We collected demographic information and self-reported number of sick days. Expected Results While this study is currently being performed, the expected outcomes of this study will have identified if there is a connection between the classroom built environment and teacher absences. The results will also present teacher attitudes towards their classroom built environment and identify interior variables that influence their perception of their workspace. Documenting and inventorying classroom physical variables by photographs will verify the survey results and compare classroom physical variables.

References
Sensory Design Recommendations for Visual Inclusion
Kristi Gaines, Michelle Pearson, Angela Bourne & Huili Wang
Texas Tech University
Lubbock, TX

Introduction
Vision is the most widely used sense by the general population. Typically, people receive information about a space based on all of their senses collectively: smell, sight, taste, sound and touch. This ability is known as sensory integration and is essential to achieve a coherent perception of a situation and to decide how to act (Iarocci & McDonald, 2006). Sensory processing disorder is diagnosed when sensory signals do not integrate to provide appropriate responses. Visual sensitivity can be incredibly disruptive and challenging to cope with for individuals with sensory processing disorder. Like most sensory symptoms, visual sensitivities can mostly be categorized as hyper-sensitive or hypo-sensitive. People with visual hyper-sensitivities may appear to notice everything in the environment and intensely focusing on the most minute of visual details. Visual hyper-sensitivities may also be exhibited by a difficulty making eye contact because of the intolerance for the movement of another person’s eyes (Grandin, 2006). Contrary to the often overwhelming effects of visual hyper-sensitivity, visual hypo-sensitivity is almost like possessing a visual impairment. Some individuals may enjoy bright colors and bright lights, things that would be overwhelming, even terrifying for an individual with visual hyper-sensitivity (Gaines, Bourne, Pearson, and Kleibrink, 2016). As with all sensory symptoms, both hyper- and hypo-sensitivities, occurrence and severity vary widely. The purpose of this study was to develop evidence-based design recommendations for individuals with visual processing difficulties.

Method
The theoretical framework for this study was Sensory Integration (SI) theory. After a review of literature, IRB approval was obtained. A mixed methods approach was utilized to gather data including 1) interviews, 2) observations and 3) surveys. Data was collected from over 600 individuals through the three methods. The target population was individuals with sensory integration disorder and their caregivers.

Findings/Relevance to Interior Design
The findings show that individuals with sensory processing disorder view their environment differently than the general populations. The researchers observed that visually hypo-sensitive persons often see only the outlines of certain objects and might prefer bright colors and bright sunlight. Furthermore, individuals frequently avoid eye contact with people and use their eyes more directly to examine objects. Deferential eye gaze and pointing is a prominent observed behavior. This differentiated vision appears to produce distorted perceptions and individuals were often unaware of the presence of other people when they were involved in tasks.
such as drawing, painting and working. Five predominant themes emerged in the analysis of the data. These themes were categorized into the following recommendations for designing for inclusion: legibility, boundary, transition, predictability, and flexibility. Each of these themes were further dissected to develop practical guidelines based on design elements and principles. These outcomes are useful for researchers and designers to develop improved environments for individuals with visual sensitivities as well as the general population. This presentation will explain each recommendation and provide practical examples for integration into interior spaces.

References

APPENDIX

Since this presentation is about vision, many illustrations will be presented with practical applications. The images below illustrate a small portion of the images that will be used to illustrate residential and nonresidential applications.

Color is a useful tool in wayfinding for all users including individuals with visual sensitivities.
Adjustable color systems serve individuals with visual hypo and hyper-sensitivities.

Transparency through spaces allows for previewing. Retractable blinds allow flexibility in the control of light intensity and glare.
Speech Intelligibility for a Speech-Language Therapy Clinic

Michelle Pearson
Texas Tech University
Lubbock, TX

When designing a therapeutic environment, such as a speech-language clinic, one key design feature that can aide in controlling unwanted sounds and improved speech intelligibility is acoustics. Generally speaking, therapeutic spaces help promote a patient’s overall health and well-being during therapy sessions. A speech language clinic is a therapeutic environment that is used for patient with diminished speech, hearing, and cognitive processes. These spaces often service all age groups, many with a diverse range of disabilities and disorders. Therapeutic environments are highly influenced by sounds and “unwanted sounds can be detrimental to the patient and staff health” (Joseph & Ulrich, 2007, p.2). Some impacts of unwanted sounds on patient health include increased annoyance, decreased oxygen and elevated blood pressure, and increased heart and respiration rates. When sound perceived as noise is at low level of decibels it can also cause problems such as nervousness, headaches, and digestive problems (Joseph & Ulrich, 2007; Lechner, 2012). Having an appropriate acoustical level, that is neither too high nor too low, within a speech-language clinic is highly important for speech intelligibility within a space.

Quality of sound is an important aspect of the therapy and learning that take place within a speech-language clinic. There are several design features that can be applied to a space to help block and enhance certain types of sound for speech intelligibility and speech privacy. Unwanted sounds can come from a variety of sources such as: exterior sources, air ducts, lighting, people, machines or other mechanical devices. Sound can travel through and within a space by four main ways: transmission (sounds passing through an object into another space), diffusion (scattering of sounds), reflection (sound hits a surface and bounces off), and absorption (sound absorbed) (Seep, Glosemeyer, Hulce, and Aytar, 2000). The construction of walls and other architectural elements are also a factor for speech intelligibility and speech privacy due to the different ways sound travels within and through a space. By understanding how sounds travel, a space can provide the optimum level of acoustics for a specific population. The purpose of this research is to review acoustical designs and methods that improve therapeutic environment for both children and adults with different speech, language, communication or swallowing disorders. The findings provide design recommendations, methods for incorporating different acoustical improvements to different interior surfaces including the walls, floors, lighting, windows, doors and ceilings to
provide good levels of acoustics within a speech-language-hearing clinic. This information is imperative for healthcare designers, healthcare administrators, and most importantly the patients.

References


The Relation of Occupants Psychosocial and Demographic Characteristics with Designed Indoor Environment

Suchismita Bhattacharjee

University of Oklahoma
Norman, OK

Built environment has significant impact on occupants’ health. The design and construction of the buildings define the Indoor Environmental Quality (IEQ) to a great extent. IEQ is assessed based on comfort parameters such as light, temperature, and relative humidity, presence of pollutant concentration, and gases. Poor IEQ leads to various health symptoms of the occupants such as Sick Building Syndrome (SBS), which include inflammation of eyes and respiratory system, headaches and tiredness, inability to concentrate, nausea. Extensive resources have been devoted to the investigation of IEQ problems in offices, public buildings, and school buildings. However, to date, there is no work which tries to identify the variation in the perception about indoor environmental quality by its occupants from the actually condition. The goal of this study was to find an association between the actual designed indoor parameters and the perceived indoor parameters by its occupants. The study focuses on the IEQ of 100 office buildings (in 25 US states) with data from more 4326 participants who worked in these buildings. The study uses assessments on IEQ parameters of office spaces and survey responses of the workers from these offices. These assessments were a part of the EPA BASE data (Environmental Protection Agency's Building Assessment and Survey Evaluation). EPABASE study used a self-administered questionnaire to assess the perceived indoor environmental condition like the quality of light, freshness of the indoor air etc. and prevalence of self-reported physician-diagnosed (SRPD) health problems such as migraine, asthma, eczema, hayfever, and allergy. IEQ parameters were collected from each building over a 1-week period and included carbon-dioxide, carbon-monoxide, temperature, relative humidity, particulate matter, volatile organic compound and light. Data was analyzed using SPSS software and frequencies and mean perceived and exposure values were computed. Regression analyses were used to test associations between the perceived indoor environmental characteristics versus the actually indoor environmental condition. Of the 4326 participants, 66% were females and 61% were between 30 and 49 years. Significant correlations were found among multiple IEQ parameters and health symptoms of the respondents. No significant correlation was found between the perceived indoor environmental condition and the health symptoms. Upon comparison between the perceived indoor environmental condition and actually environmental condition, no significant
correlation was found. Significant variations in the quality of perceived indoor environment existed by age and gender of the participants. IEQs are associated with health symptoms. Health promotion program planners must conduct periodic surveillance of health symptoms and IEQ’s by working in tandem with facility managers and industry stakeholders to minimize occupational health risk for indoor workers.

References


Playground design for enhancing cooperative behavior among children  
Sahand Abbasi, Michelle Pearson & Kristi Gaines  
Texas Tech University  
Lubbock, TX

Children can be influenced by all physical aspects of the interior and exterior environment. Wardle (2009) reported that environments suitable for children should provide opportunities to enhance the development of physical, emotional, cognitive, and social skills. Children are in a rapid brain development process and since the environment limits their experiences and their cognition depends on the surroundings, the environment plays a significant role in the child’s development (Strong-Wilson & Ellis, 2007). Children spend a large amount of their time in daycare facilities. This large amount of time should be managed to be beneficial for the child. Hence the physical environment of such facilities plays an important role in children’s development and has a significant effect on the learning outcomes (Berris & Miller, 2011). Environmental design helps children to change their behaviors. Design strategies use theories and past research to significantly expand design objectives. The main goal of such strategies is to build an environment to provide cognitive development in children. There are psychological and behavioral aspects of the environment which have such a strong role in children’s development. Children gain physical and social experiences through social interaction with each other and with the environment. And this allows them to establish their own personal perception of the world (Vygotsky, 1978b). Vygotsky strongly believed that the environment plays an essential role in the "making meaning" process for children. Physical design features, such as color, lighting, flooring, and structural design have vital influences on children's behavior and should be considered in designing an environment for children (Moore & Sugiyama, 2007; Weinstein, 1977). The physical environments of children have been investigated primarily. Some of these basic design features have been investigated in recent decades (Clark & Uzzell, 2002; Knez, 1995; Kopko, 2013; Van Andel, 1984; Weinstein, 1977). Admitting that the play area for preschool children has been studied extensively, little has made an empirical research and propose a design solution in term of encouraging and enhancing cooperative behavior among children. This study, based on the theoretical framework, which is social development theory by Vygotsky and theory of affordances by Gibson, alongside with the findings derived from a systematic literature review, tries to propose a design solution considering the relationship between physical design features and children’s cooperative behavior and to determine whether changes in physical design influenced preschool children’s cooperative behavior, taking into consideration their gender and age. This report
recommends a set of physical design solutions and strategies for children’s environment. The results from this study will add to the body of knowledge by providing greater information on color perception of children, ground surface materials, light, structure, and ways to enhancing the cooperative behavior among children. This research tries to answer the following research question: How can the design of a playground enhance cooperative behavior among children?

References

APPENDIX

Figure 1. ZPD (the Zone of Proximal Development)

<table>
<thead>
<tr>
<th>Vygotsky</th>
<th>Piaget</th>
</tr>
</thead>
<tbody>
<tr>
<td>More emphasis on culture affecting/shaping</td>
<td>Universal stages and content of development</td>
</tr>
<tr>
<td>Considerably more emphasis on social factors contributing to cognitive development</td>
<td>Maintains that cognitive development stems largely from independent explorations in which children construct knowledge of their own.</td>
</tr>
</tbody>
</table>

More emphasis on culture affecting/shaping cognitive development

Considerably more emphasis on social factors contributing to cognitive development

Maintains that cognitive development stems largely from independent explorations in which children construct knowledge of their own.
More (and different) emphasis on the role of language in cognitive development

Adults are an important source of cognitive development

Influenced by Marx and Hegel

Language depends on thought for its development

Importance of peers as peer interaction promotes social perspective taking

Influenced by Kant

Table 1. Comparison between Vygotsky and Piaget (McLeod, 2007)

Figure 2. Different types of affordances

Figure 4. Processing loop applied in interactive playgrounds
Figure 6. The Anthropometric Design Process. Anthropometric errors are now prevented by following the steps in this diagram. Adapted from "Revision of the design of a standard for the dimensions of school furniture" by J. F. M. Molenbroek, Y. M. T. Kroon-Ramaekers and C. J. Snijders 2003, Ergonomics, 46, p.681. Copyright 2003 by the Taylor & Francis Ltd.
Figure 17. Improved layout of the site
Towards ‘Positive’ Interior Design Education: Examining Conflict, Communication, Collaboration and Creativity

Laura Malinin
Colorado State University
Fort Collins, CO

Positive education is defined as “education for both traditional skills and happiness” (Seligman, Ernst, Gillham, Reivich, & Linkins, 2009). It involves incorporating knowledge from positive psychology into classroom practices. The movement is, in part, a response to marked increases in level and frequency of psychological distress experienced by students and high dropout rates reported by universities (Oades, Robinson, Green, & Spence, 2011). Although students are generally better off today economically, socially, and environmentally, their morale is low and prevalence of mental illness alarmingly high (Seligman et al., 2009). At the same time, universities are called to educate students to lead global challenges of unprecedented complexity. Positive education equally considers academic achievement, wellbeing, and character strengths as three core components of student development. Character strengths are positive qualities important for success in the workplace, sometimes referred to as soft, non-academic, or 21st century skills. Theses include personal qualities such as creativity, curiosity, perseverance, resilience, social intelligence, collaboration, communication, and leadership, to name a few. Wellbeing is conceptualized across emotional, psychological, and social dimensions and includes positive mood, engagement, relationships, meaning, and accomplishment (Oades et al., 2011). Research suggests cultivating character strengths will improve student wellbeing, and, consequently, benefit academic and future workplace success. This presentation will use the positive education lens to present findings from an exploratory study of interior design student teams. The research examined a cohort of senior interior design students who worked in four-person teams on a six-week long service-learning design project. Data were collected through an online a self-reflection survey combining qualitative open-ended questions with quantitative Likert-scale responses, which was administered weekly. The prompts gathered information about the creative design processes within and between teams and student perceptions of their experiences. These self-reflective responses presented an opportunity to capture insights regarding the students’ feelings, emotions and thoughts as throughout the design process. Final project outcomes were evaluated for creativity by a blind external panel of interior design professionals. In conclusion, a preliminary framework will be introduced to facilitate audience discussion about how interior design courses do or do not align with the positive education
philosophy, and ways in which positive education might align with or overlap other learning philosophies and practices adopted by interior design programs.

References


3. 
Impact of Physical-Digital Hybrid Environments on the Human Experience

Amy Roehl
Texas Christian University
Fort Worth, TX

Two chairs placed facing one another offer an opportunity for a face-to-face conversation, an optimal condition for human connection. Two chairs facing away from one another inherently oppose conversation, and thus inhibit human connection. This is a small, but powerful example of how the built environment impacts human behavior. Since the beginning of time, the physicality of the world is something known and understood as a place within which humans interact. Over the past few decades, the introduction of the digital world into daily life, shifts the notion of space and environment. As we stumble our way through relatively new digital environments, mergers between the digital and physical world produce hybrid environments. This paper presentation examines how human interaction with physical-digital hybrid environments may impact our relationship to both the physical world and to each other. Prototypes and completed built spaces demonstrate variations of physical-digital mergers. Examples of these hybrid environments include (1) integration of technology into the physical environment such COOP: Supermarket of the Future, where customers point to products in order to receive information from intuitive digital displays (“Supermarket of the future”), (2) venues traditionally manned by humans now feature robots such as the robot-staffed Bionic Bar (“World’s first crowd-controlled robotic bar”), (3) use of “hybrid ecologies,” as demonstrated through the game, “Uncle Roy All Around You,” where humans in a physical space team with online partners, using technology to solve a problem within the physical space (Crabtree & Rodden, 2008), and (4) technology-infused clothing worn by users, participates with a physical space to create an experience, such as Diller Scofidio + Renfro’s BLUR building (“BLUR building,” 2002). In thinking about emerging physical-digital hybrid spaces, one questions how humans will engage with environments of the future, and ultimately how these interactions may impact human-to-human behavior and connection. As educators, we consider both the psychological impact of these relatively new environments upon our students, as well as the impact that these mergers will have upon how we teach and practice design. As adults who experienced a pre-digital age, we must attune ourselves to the subtlety with which digital technology enters contemporary life. For example, our current (and future) students do not find it unusual that their cars and other digital devices talk to them. Considering the seamless quality of digital technology integration into our lives, what types of skills will we need to cultivate in our future students? What does the design team of the future look like and
what kinds of expertise will be needed to design and build in the future? How will interior designers define their role within that team of professionals? These are critical questions that educators must start to consider as digital technology rapidly enters our physical world.

Reference
Collaborating to Benefit the Homeless: Transferring Skills Learned in the Classroom into Profession

Sally Ann Swearingen, Mitzi Perritt, and Leisha Bridwell
Stephen F. Austin State University
Nacogdoches, TX

Engaging students in meaningful public service also provided a vehicle for mentoring freshmen and improving retention. The service opportunity arose when advisory board members of a local faith-based organization realized that the community’s long-term homeless had no place to wash clothes or bathe. The local shelter’s 30-day stay policy left these people living in city parks and beneath overpasses. Thus, the program-wide public service project was conceived, and the program developed (see Attachment A). The program implemented a community service requirement of students the previous semester to fulfill CIDA’s “public service” indicator (CIDA, 2017). The service type was left to student choice. At the semester’s end, students scampered to find service opportunities, most having no connection to interior design. It also appeared that the message of social responsibility—the ethical and sensitive behavior toward social, cultural, economic, and environmental issues (Enevoldson, 2016)—had been missed. Faculty purposed to improve future public service by involving students in a project that required interior design skills and could promote a better understanding of social responsibility. The itinerary (see Attachment B) of the 10-hour public service experience involved students in programming, conceptualization, design development, presentation, and reflection (see Attachment C). Each student team included students from all levels with seniors serving as captains. This team structure established vertical learning wherein upper-level students peer mentored lower-level students while lower-level students contributed enthusiasm and energy (Drury, 2013). Students experienced the “dynamics of collaboration” (CIDA, 2017). Also, as students shared responsibilities for achieving a final product and shared goal, camaraderie resulted. This structure created friendships across levels rather than leaving freshmen to feel isolated (Drury, 2013). Faculty predicted that this student-to-student instruction could also favorably impact freshman retention. A social was added to the itinerary to promote socialization among levels. The public service event received positive feedback from the students, faculty, organizational advisory board, and community. A post-event reflection administered through Qualtrics produced student data confirming the event’s success. The analysis indicated that: 75% now know another student they can contact 77% felt the project promoted student camaraderie 79% felt their ideas were
considered by the group 92% were encouraged to give back to the community in the future 95% better understood the design process 98% will design with more sensitivity • Faculty valued the improved retention rate as well as the numerous CIDA indicators addressed including collaboration, communication, integrated team process, human-centered design (universal design), design process, and public service (CIDA, 2017). • The organization's advisory board and director marveled at the students’ quick turnaround time and the quality of their proposals and presentations. A note of appreciation was published in the organizational newsletter. • The community learned of the service project via the local newspaper and television coverage, prompting positive feedback. In conclusion, the public service endeavor provided an exciting beginning for the academic year. Besides the benefits mentioned, faculty observed more student engagement in the curriculum, greater participation in design student organizations....and a closer-knit program.

References


Appendix A

Shower & Laundry Charrette Preliminary Program
Thursday 2-6 p.m. (Social 6-8 p.m.); Friday from 8:30 a.m.- 6 p.m.

This bathing and wash house facility along with a separate sleeping area will be used to assist individuals and families in need. In addition, your team will come up with a name for the facility and a logo if time.

The exterior building is made up of CMU block (Concrete Masonry Units). Interior walls need to be specified of durable maintenance free materials. Need a new roof – could be a built-up pitched roof. Need to add HVAC – recommending motel units.

Considerations: Natural light, general lighting, electrical placement, finishes, concrete floors, ADA accessible, security cameras – monitor located at LOVE INC office, exterior lighting, ventilation, security in general, etc.
Cleaning considerations of furniture, built-ins, etc.

**Spaces needed within the facility:**

1. Secured/ lockable entrance with a doorbell and view to the exterior
2. Area to sign in and check out supplies to shower area.

**WET AREA**

3. 3 Stalls: Each stall to include a shower, watercloset (toilet), sink, place for clean clothes (like shelf / hooks), bench, and mirror. (1 stall must meet ADA/TAS requirements)
4. Outside 3 stall area – place for soiled linens (towels)
5. Outside area seating space / example: bench for people waiting
6. Lockable storage area for linens, shampoo, cleaning supplies
7. Mop closet – floor mop sink, shelf for supplies, space for mop bucket on rollers
8. Water fountain

**CLEAN AREA for Volunteers only**

9. Lockable Counter with lockable storage for volunteer to keep notebooks – for inventory, volunteer hours, minimum office supplies, stool or chair to sit to handle paper work. (Area must be ADA accessible)
10. Cabinets with storage below and upper storage for towels, linens, clothing, food items, etc. Sink, space for coffee pot and small microwave (aprox. 8-10 LF – does not have to be continuous.
11. 2 standard washing machines and 1 commercial washing machines
12. 2 standard dryers and 1 commercial dryers
SLEEPING AREA (ATTACHED/ ACCESSIBLE TO VOLUNTEER AREA BUT ALSO A SEPARATE ENTRANCE)

13. Sleeping area to include a double or queen bed, bunk bed, small unit to house small refrigerator, microwave and coffee pot (example: see in a motel)
14. Bathroom – shower, sink and watercloset
15. Floor space for additional cots if necessary.

APPENDIX B

Interior Design Charrette (Required for all ID students)

Thursday, September 8th

2 p.m. Sharp meet at XXXX Inc’s office 917 XXXX Street (Bld on the corner of Ruby and XXXXX Street/Creek side. At this time we will meet and measure the building, interview client, and gather research.

Student teams will be posted in HMS South, Thursday noon. Student’s need to bring their tape measures, notepad and listening ears.

Scope of Services we will perform:

Thursday, September 8th

1. Walk around proposed site 2-2:30 p.m. with Board
2. Interview of client (Board, builder, city inspector) 2:30-3:30 p.m. inside, may have to sit on floor.
3. Measurement of building and asking additional questions 3:30-4:30 p.m.
4. Start entering measurements into computer and printing an existing floor plan. 4:30-6 p.m. Confirm, in case you have to re-measure. Get thickness of CMU exterior walls & heights.
5. 6-8 p.m. ASID/IIDA will host a cookout at XXXXX Park
6. Optional/ Teams can divide research for the evening or work in building.

Friday, September 9th

8:30-5 p.m. Teams will work in HMS building.

1. Doors open at 8:30 a.m. If a team needs additional measurements please go before this time. (Building opens at 7:30 if you want more time)
2. 8:30-9:30 Review and write your program/ Bubbles and Brainstorm
3. 9:30-10:45 Prepare schematics to scale and review with program to determine which plan works the best. (review against your interview notes)
4. 10:45-11:30 Review and implement ADA requirements, review codes (faculty can give a quick eye)
5. 11:30-12 Lunch in gathering area (Pizza & Drinks)
6. 12 -1 Research and determine materials, color schemes, prepare 3D sketches etc.
7. 1-2 Assembly a presentation to be review: Scaled Floor Plan with notes, Materials, Color Schemes, pictures, perspectives, name of facility, inside and outside, ideas etc.
8. 2-5 p.m. Presentations to Client (Required writing summary of feedback given from team).
9. 5 p.m. Leave presentations with student’s names attached and summary.

Presentations will be in room 108. Teams may work all throughout the building.

**KEY: Do some research ahead of time of campground bathing facilities, truck stops, rest stops, etc. Come prepared and ready to share with team. Don’t be shy everyone’s idea is important!**

**APPENDIX C**

PHASE 1: Thursday Activities
Meeting at Love Inc. with director and staff to find out needs
Students breaking into groups, meeting each other, and measuring the building.

IIDA & ASID Student Chapters hosted group Thursday night for a Picnic at the Park.

PHASE 2: Friday Activities

Meeting in groups to execute the designing process.

Pizza Provided by faculty for Lunch
Team Presentation to the Staff and board of directors of Love Inc.
“You Can’t Win if You Don’t Play”: Integrating Competitions into the Interior Design Curriculum
Valerie Settles
University of Central Oklahoma
Edmond, OK

Educators understand that entering work in a design competition is beneficial for interior design students in many areas, including gains in proficiency and confidence as designers, the ability to design in a niche not represented by the curriculum, or simply to challenge themselves. However, enticing students to enter a competition can be difficult; participation is more likely if the competition is integrated into the curriculum, but competition parameters may not meet the desired outcomes or timing of a design program. When competitions are embedded into a course curriculum, students are exposed to the advantages of competition and gain experience in taking creative risks. Ellis and Meneely (2015) discuss the benefits of creative risk-taking and describe personalities of students as having either “safekeeping” or “risk-taking” qualities that speak to the willingness of students to participate in design competitions. While the obvious goal of competing is to become a more proficient designer, competitions also allow students to fail with few consequences; Cooke (2015) discusses how valuable a lesson failure is and how students can learn from failure to be a stronger competitor in future events. To encourage interior design students in a southwestern university to enter design competitions, the program developed an elective course titled “Competition Studio.” Students participated in a variety of competitions, ranging from small scale (such as the design of a piece of furniture) to large-scale (such as the NEXT Student Design Contest). The course was intended as an opportunity for students to refine design skills, evaluate their work in relation to other projects submitted, build an impressive body of work for their portfolio, gain exposure for their work that may be seen by potential employers, and have fun. To gain insight into how students grow as a result of participating in design competitions, a research study utilized student focus groups of those who have participated in a competition to determine: (a) why they decided to enter a design competition; (b) if entering a competition was a positive or negative experience and why; (c) what they got out of entering work in a competition; (d) if they would enter a competition again; and (e) how they feel participation will impact their ability to be an effective designer in the future. Student responses included: “It was empowering for our class as a whole.” “I plan to enter many [competitions] before I graduate so that way an employer can see that I’m really passionate about what I’m doing.” “It gives me a sense of confidence that I’m entering the competition – I’m putting myself out there, whether I win
or not." "It allowed me to motivate myself not by ‘get the right grade,’ but motivate myself creatively." "It makes you feel good; like you’re in the right place doing the right thing.” Results indicate that once students take the plunge and enter a design competition they understand the benefits of participating in the larger world of design and their confidence as designers grows, regardless of whether they win or lose.

References


APPENDIX

DES 3713 Competition Studio
Course Meeting Time & Location Tues & Thurs 9:00 - 11:50
Classroom: A&D 103

Course Description
In this studio course students will develop designs for entry into competitions. Prerequisite(s): Enrollment open to Design majors only with junior or senior standing.

Course Objectives
Refine concept development skills
Analyze and critique the effectiveness of design
Meet requirements and deadlines for a specific organization or cause
Develop valid and persuasive rationale for design decisions
Work with other students in a team environment
Evaluate personal work in relation to other work produced for competition
Build an impressive body of work
Develop national and international exposure to network for future employment
Have fun

This course is designed to provide an opportunity for students to produce work outside the interior design curriculum that will be viewed on a national or international scale. Emphasis is placed on innovation, creativity and expansion of the individual’s frame of reference combined with practicality and feasibility. Through the studio experience, the student will develop confidence in developing innovative solutions to specific design problems in a variety of formats. Students will grow as decision makers, creative problem solvers, and persuasive communicators. This is a demanding class – expectations and standards are high.

Grading
Numerical scores will be assigned in accordance with the expectations of the instructor and the department. Numerical grades will be based on the following 100 point scale:

90 – 100 A
80 – 89 B
70 – 79 C
60 – 69 D
0 – 59 F

The grade for each student will be generated by rubric(s) developed for the specific design competition(s) involved. The number of competitions entered will vary with each student and will depend on the scope of the project.

The instructor will evaluate the success of all projects with consideration for:
General Overall Design – accuracy, following the program and/or directions, meeting competition deadline.
Visual Presentation and Creativity – neatness, impact, accuracy, graphic skill.
Written and Verbal Material – description of the project, design solution and presentation of the final design.
The interior designer of the 21st Century reaches all corners of the globe and inspires social responsibility and social change. This year we will focus on the Amazon Rainforest, indigenous populations, and the role of education and service learning in an effort to preserve them.

As a final outcome, consider how your project will illustrate the power of research and evidence-based design in a global context.

The Project
The Amazon Rainforest covers most of the Amazon Basin of South America with parts of it included within the borders of nine different nations. The Amazon Rainforest is significant in that it represents over one-half of the total remaining rainforests in the world. Recognized as the largest and most biodiverse tropical rainforest, the Amazon Rainforest has suffered greatly due to climate change and human activities including deforestation.

In an effort to save the Rainforest, an increase in service-learning opportunities is evident and has been supported by Save the Amazon, an non-governmental organization (NGO) solely focused on this mission. Save the Amazon has initiated a call for proposals seeking ideas for their orientation and education center, a facility to be located near Miami, Florida that will serve as the orientation and educational space for individuals embarking on a service-learning trip to the Amazon Rainforest.

The proposal should reflect the following:
Cultural context of the Amazon Rainforest in all public spaces
Recognition of the importance of education and the role of service learning
Current and new strategies for educational spaces in the 21st Century

Statement of the Design Problem
You have been asked to design an educational facility, located near Miami, FL that will serve as the orientation and educational space for individuals embarking on a service-learning trip to the Amazon.

http://www.idec.org/i4a/pages/index.cfm?pageID=3961
8/25/2016
NEXT is a global architecture and interior design firm with 15 locations and 1,000 employees across the Americas, Europe, and Asia. The company has been in business for over 40 years and is headquartered in New York City. NEXT has several current practice areas including Corporate, Government, Healthcare, Education, Retail, Sports and Hospitality. They are currently growing the practice by establishing new office locations, expanding their vertical markets, and increasing service offerings.

In a recent real estate market shift, several competitors, large clients, and design vendors have moved into downtown Los Angeles. The lease on NEXT’s existing Santa Monica office is expiring and they have decided to follow the action by moving to the downtown area. The relocation provides a unique opportunity for NEXT leaders to re-fresh local brand presence, re-evaluate needs, eliminate outdated ways of working, and design a work studio of the future.

Please note, NEXT is a fictitious organization. The site is a real, though some dimensions and details have been fabricated for the purpose of this student design competition.

LOCATION
1150 S Olive Street 32nd floor
Los Angeles, CA 90015

SCOPE
Plan and design NEXT’s new, top floor office space, measuring approximately 11,300 ft². Do not include building core elements, such as restrooms, elevators, stairs, and utility rooms labeled NIC (Not in Contract) and shaded on the floorplan.

SITE
NEXT will inhabit the top floor of its new building. Amenities on the ground and basement floors include full time security, valet parking, a bus stop for public transit, a coffee shop, deli, fast food restaurant, outdoor seating, and a cafeteria.

Ceiling height on the 32nd floor is 22'-0" from finished floor to underside of deck and features an open, exposed HVAC, fire suppression, electrical, and lighting systems. Designers may leave the ceiling exposed or add a dropped, finished ceiling. The building’s exterior glazing is designed to be floor to ceiling, approximately 16'-0"H with two 8'-0" spans of glass, separated by a 2"H horizontal mullion.
Design Competition

CliffYoung Ltd 2017 Contemporary-Modern Furniture Student Design Competition

The Educational Foundation of IFDA (International Furnishings and Design Association) invites all undergraduate students currently enrolled at an accredited college, university or art school who have completed at least one semester of design course work to enter this exciting design competition.

$3,000 prize plus a trip to New York City in September 2017 to attend the awards ceremony at "What's NewWhat's Next" Gala sponsored by Cliff Young Ltd. - Winning and Honorable Mention entries will be on display, plus Winning entry may be put into production - under a separate agreement with Cliff Young Ltd.

Detailed requirements and application available at www.ifdaef.org Deadline for entries is February 28, 2017

1. Application form
   Official transcript, included with entry or if necessary it may be sent separately but received on later than February 28, 2017
   Essay to express your creative process, inspiration, and envisioned use for your furniture piece (200 - 500 words)
   Challenge is to create a classic piece of Modern furniture...Classical references, Clean design, Sophisticated details, Innovative combinations of finishes, textures; materials, Hip and edgy, Warm and organic, Comfort, Timeless simplicity (not minimal), Functionality, Aesthetics within a modern lifestyle.
   Specifications to include no more than two (2) sheets with technical (to scale) drawings, 1 or 2 colored renderings of the piece, plus one (1) sheet showing finish materials, no page larger than 11" x 17" format
   All entries must be sent electronically in PDF format

Submission dates: January 1 to February 28, 2017 Winning entry announced by June 30, 2017

Send your entries to: IFDA-EF Director of Scholarships & Grants: Linda Maria, ni FIFDA linda@west o nstudiodesign.co m
Design Studio Fosters Social and Cultural Awareness: A Transformative Experience

Silvana Polgar
California State University
Fresno, CA

This study examines the interest of higher education students in social and cultural issues and whether a studio class can be a platform to stimulate social and cultural awareness. One objective of the study was to explore and analyze, quantitatively and qualitatively, the students’ interest in social and cultural topics at the beginning of the semester compared with the students’ interest, increased social awareness and cultural sensitivity at the completion of the project. By analyzing any changes in the students’ awareness of and sensitivity to the issues selected for their respective projects, and the impact that the selected issues had on the students at an academic and personal level, a strong case can be made that a studio class can inspire social and cultural awareness. A cohort of 27 senior interior design studio students (from two Capstone classes) were encouraged to identify and choose a social and/or cultural issue and propose a design solution for it as their senior projects. They were asked to address their respective issues by applying evidence-based design (EBD). At the end of the semester, students were administered a short, reflective questionnaire to submit informational data for a final assessment of their social and cultural awareness and sensitivity. The students’ answers to the questionnaire measurably revealed that the project resulted in an increased sense of social awareness and cultural sensitivity for students at both the academic and personal level. The project was a transformative experience with positive impacts. This study highlights and opens discussion about the beneficial stimulus and constructive effects that students derive from working on social and/or cultural project themes, especially if the students tie their projects to connections with their communities. Future studies may assess whether the positive impact of the senior project has a long-term effect on the students’ philosophical and behavioral social responses.

References
APPENDIX
Course Goals
To satisfy the course requirements, the following are the important components that will be addressed:

Evidence Based Design (EBD): Each student, after writing the proposal for a chosen project revealing a social, political and/or cultural theme, should retrieve information, analyze and interpret research and data, and in final analysis find existing (factual) and new design (empiric) evidence applicable to the project.

Senior Project Committee: Under the guidance of the project committee members (consisting of two faculty members and a professional interior designer and an architect), each student shall develop an innovative, intellectually stimulating and high standard design proposal.

Exhibit: The Senior Projects presentation boards will be exhibited at the Gymnasium on May 8th The course will aim to:

- To offer students a platform to work on humanity based design to respond to societal needs
- To improve research methods, including interviews and surveys
- To promote creativity
- To promote critical thinking
- To promote intellectual exploration

Learning Outcomes/Output
By the end of this course, students in this course will have:

- Worked on Research and analysis
- Presented 10 case studies
- Toured, surveyed and analyzed available precedents and presented written reports
- Retrieved, processed, analyzed and interpreted collected data, information and research (referred to Evidence Based Design)
- Demonstrated competency to work in all phases of the design process
- Quickly produced hand sketches in 2D and 3D to visualize and solve spatial problems
- Researched and applied appropriate color schemes as appropriate for the project
- Applied existing and new design evidence to produce a project that reflected and responded to the socio-economic and organizational needs related to the project and the users of the space
- Applied principles of Sustainability
- Researched, applied and integrated on one of the presentation boards technical details related to the project, as for example, indoor air quality, acoustics, lighting, thermal systems, construction details, special materials, etc.
- Developed critical thinking through written reflections
- Wrote narratives (or use tableau formats) of ten case studies (included visual references with citations)
- Applied all the phases of the design process from research and analysis to final project presentation
- Applied previously acquired knowledge and skills as appropriate to the project
- Participated in class Pin-ups and Critiques
- Participated in group and class discussion
- Presented three design solutions (only one developed) based on research and analysis during the first pin-up and critique
- Produced working drawings, including a minimum of three construction details
- Created presentation boards integrating graphics, materials, finishes, furniture and chosen supportive technical details (final presentation)
- Presented good quality computer-generated, and rendered Work
- Organized and maintained a binder
- Worked on time management
- Presented “The Design Process Book” related to the project
- Participated in the Senior Project exhibit
End of the Semester ID 155 Reflective Thoughts Name____
Date____

Use the back of the paper if you need extra space.

What goal(s) did you have for the class at the very beginning of the semester?

As a result from researching, analyzing, and working on case studies to posters production, what impact did the senior project have on you academically and personally? Why?

Did the project make you think about the importance of advocacy for the social and/or cultural justice theme of your project? Why?

Was the project a transformative experience? If it was a transformative experience, explain why.

Did engagement with the community (through interviews, site visits, phone conversations, questionnaires, etc.) make you feel invested in yourself and empowered (versus taking the class thinking “it’s just a class” and I need a grade)?

What is your message to the 2018 senior students about the importance of their academic and personal growth in relation to the senior project?

Thank you. Best wishes to you. Have a good summer.
Proposed Central Valley LGBTQ CENTER

Figure 1: Entrance
Figure 2. Lobby

Figure 3. Building Exterior

Figure 4. First Floor
Proposed BloomYouth Haven
SKID ROW OF LOS ANGELES, CA
Towards a Design-Build Education: Seven Projects, Seven Points

Albert Marichal
Texas Christian University
Fort Worth, TX

Premise Giovanni Battista Vico’s maxim, verum ipsum factum, truth through making, may best be applied with a design-build pedagogical model (Frascari, 23-37). Interior design is a material art and it involves the assembly of physical materials, with their requisite detailing. Problem "The built is first and foremost a construction and only later and abstract discourse based on surface, volume, and plan..." (Frampton, 2). The pedagogical objectives of these design-build projects aimed to demonstrate the importance of construction, fabrication, or assemblage in developing any design work. The work presented here reflects seven projects, to produce seven points of consideration, in employing a design-build methodology within design education. Methodology A design-build methodology was developed over 7 projects at a number of institutions, public and private, in different climatic regions (Appendix A). Projects ranged in scale and scope from a 1,600 SF outdoor classroom, to a 1,000 SF interior design thesis exhibition, to a student veterans memorial installation in a university library at less than 100 SF. These projects were completed over a single semester or multiple semesters and often included a summer semester. Pedagogically, the design-build curriculum placed significant emphasis on tectonics, or 'the poetics of construction,' and relied heavily on analog modeling. Outcomes Analysis of the design-build methodologies developed over these 7 projects revealed 7 points of consideration in developing a sustainable design-build curriculum: the client or end-user, scale and location, fabrication tools and facilities, professional consulting or contracting, funding, liability, and scheduling within the traditional university semester system. The client may influence more than half of any design project; and certainly the client affects almost every point made here. However, if the client and the end-user are not the same, or at odds with each other, ultimate project goals may lie with the end user and be difficult to recognize. The project scale and location impact the project schedule and whether or not outside consultants may be required. Fabrications over 500 SF proved difficult to design and build ‘in-house’ in a single fall or spring semester. Project sites more than 5 miles from campus, required scheduling during summer semesters. In all of the projects, the design-build process demonstrated that students benefit from analog models and full-scale constructions in ways not possible by any other common method(s) of design inquiry, ie: sketching, drafting, digital modeling. Fabrication tools and facilities, including dedicated shop and studio space, proved critical in this regard. Professional consulting or contracting added time
to the projects, particularly if provided pro-bono. Institutional bureaucracy yielded delays in engaging outside contractors and funding reimbursements. Although contracts and waivers were drafted and signed, there always remains the risk of a liability. Scheduling many of the design-build projects within a traditional university structure proved difficult. Summer scheduling was often preferred for climatic reasons and because significantly scaled work could not be completed on a part-time basis while students were completing full-time studies. Many of the project schedules were extremely taxing and required significant student and instructor time, particularly outside of the usual school-time hours such as weekends and academic breaks. Consideration could be made for shifting instructor scheduling to 'full-time' status during the summer and increasing the number of credit hours awarded to students. In the final analysis, these 'external' factors had a significant influence on the 'design,' 'build,' and final project outcome. Students gained an education in the symbiotic relationship between design and construction through unforgettable bonding and learning experiences.

References


APPENDIX

Appendix A:

PROJECT I
Type: Fragment of hypothetical 'Montessori School' studio project emphasizing materiality & tectonics.
Scale: 100 SF
Location: On campus.
Fabrication Tools & Facilities: Specialty tools provided by Masonry Union. University shop available and nearby.
External Professional Consulting: Masonry Union Contractors pro-bono. Funding: Provided by the academic institution as well as outside sources. Liability: Minimal.
Scheduling: One weekend.
Notes: Built project had no programmatic utility and was demolished at the end of one year to sustain the design-build program annually.

PROJECT II
Type: Fragments of an Off-the-Grid Cabin
Scale: 800 SF
Location: 60 miles from campus.
Fabrication Tools & Facilities: Tools provided by course instructor. Project built on-site.
External Professional Consulting: None.
Funding: Provided by a grant and the course instructor.
Liability: Yes.
Scheduling: Summer. Cold climate limited construction schedule during fall, winter, spring.
Notes: The project location, 60 miles from campus, limited student participation. Students participation was on fragments only and not the entire scope of the project.

PROJECT III
Type: Outdoor Classroom for a local Public School.
Scale: 800 SF
Location: 3 miles from campus.
Fabrication Tools & Facilities: University Fabrication Shop Available.
External Professional Consulting: A number of influential community members were involved to seek external funding as well as pro-bono construction support.
Funding: External funding was sought after, but not found in sufficient time to schedule project commencement.
Liability: N/A
Scheduling: Planned for summer, due to the cold climate and summer holiday at the site.
Notes: This project was not realized, but remained in a fund-raising stage when the instructor moved to another institution.
PROJECT IV
Type: Donation storage and distribution facility.
Scale: 640 SF
Location: Less than 1 mile from campus.
Fabrication Tools & Facilities: University Fabrication Shop Available, not including digital fabrication tools. Tools provided by the student and the course instructor.
External Professional Consulting: None.
Funding: A modest amount provided by the project owner, a non-profit institution.
Liability: Yes. Only one student was involved in this project.
Scheduling: Fall/Spring, but much work was completed over academic breaks.
Notes: This project was an independent study project completed by a single student and required a lot of instructor time over weekends and academic breaks when it was most convenient for the full-time student to work on the project.

PROJECT V
Type: Outdoor Classroom/Park Pavilion used to serve school-aged children subsidized summer lunch services in a 200-unit low-income housing community.
Scale: 1,600 SF structure in 8,000 SF site.
Location: 5 miles from campus.
Fabrication Tools & Facilities: University Fabrication Shop Available, not including digital fabrication tools. Tools provided by the course instructor.
External Professional Consulting: Architectural services, structural engineering and earthwork sub-contracting provided pro-bono. Concrete finishers, electrician and steel fabricators engaged.
Funding: Significant funding provided by the project owner, a non-profit institution. Liability: Yes. Contracts were drafted and waivers were signed by all parties involved. Scheduling: Spring/Summer/Fall
Notes: Some pro-bono work was not provided in a timely manner. Equipment provided by the course instructor was damaged and a significant number of tools were lost to an overnight larceny. Project funding did not always coordinate well with the academic schedule. Summer scheduling is preferred over fall/spring as significantly scaled design-build work cannot be completed on a part-time basis while students are completing full-time studies. The schedule was extremely taxing and required significant instructor time, particularly outside of the usual school-time hours. The scale and scope of this project would be difficult to repeat in a sustained curriculum with only a single instructor. Consideration could be made for shifting instructor scheduling to 'full-time' status during the summer. Graduate students participated significantly in the 'design' part of the project and worked very well in supportive team structures.
Undergraduate students took more interest in the 'build' part of the project than graduate students and had significant bonding experiences during this unforgettable 'moment' in their individual academic histories.
PROJECT VI
Type: Student Veterans Memorial.
Scale: Less than 100 SF
Location: On campus in the University Library.
Fabrication Tools & Facilities: University Fabrication Shop Available, not including digital fabrication tools. Tools provided by pro-bono subcontractors.
External Professional Consulting: Fabrication sub-contracting provided pro-bono. Funding: A modest grant provided for materials as well as pro-bono fabrication sub-contracting.
Liability: Minimal.
Scheduling: Fall/Spring, but funding delayed the project.
Notes: There are actually two projects associated with this work: an interior memorial in the University Library, completed, as well as an exterior 'sculpture-like' memorial to be located outside the University Library, still awaiting funding. Funding delays limited student participation in the 'build' portion of the project, which ultimately compromised the result. This project was completed by undergraduate students who were very enthusiastic about the work.

PROJECT VII
Type: Interior Design Thesis Exhibition. Scale: 300 SF structure / 1,000 SF space Location: Art Gallery, 4 miles from campus.
Fabrication Tools & Facilities: University Fabrication Shop available for a limited time; no digital tools available. Additional tools provided by the course instructor.
External Professional Consulting: None.
Funding: Provided by a graduation exhibition course fee. Modest external funding provided by an interior design professional organization. Furniture provided in-kind by a major furniture showroom.
Liability: Minimal.
Scheduling: Fabrication on-campus during a 'three-day-weekend' and installation after classes ended.
Notes: This project went well partially due to its compressed size and schedule. No external consulting was required. Funding was available upfront. Fabrication took place on-campus. Installation was 'down the road', about 4 miles away. A significant amount of 'trucking' materials was involved for raw materials, installation, de-installation, and in-kind furniture delivery and return.
A designer’s ability to visualize the spatial characteristics of an interior is one of the main skills used to solve design problems (Guerlin & Nussbaumer, 2000). Indeed, designers must be able to accurately visualize multiple spatially specific design ideas simultaneously in order to work through, evaluate, and build upon their various solutions to a given design problem. Throughout this iterative design process, both students and professionals rely on spatial thinking to develop and simulate final design solutions. Unfortunately, current tools of representation are noticeably limited to the two-dimensions of visual information viewable on a traditional computer monitor or sheet of paper. Although the design of the spaces can still be analyzed and revised with these methods, graphic representations do not provide a full scale spatial environment to experience, nor do they provide the means to maneuver through environments in a natural way, as future inhabitants will ultimately do. Rather, current design tools provide only scaled representations, requiring the student to imagine themselves looking and moving around the space. This process is susceptible to mistakes in spatial perceptions because of the required changes in scale (Henry & Furness, 1993). Insofar as they respect real world scale and natural, body-centered interaction paradigms, the use of virtual reality systems can support instruction focused on spatial reasoning.

An immersive cohabitation of the designer within their detailed and complex model—a at full-scale, in three dimensions—better supports and augments spatial thinking by allowing designers to both conceptualize and reason volumetrically. Moreover, there are now low-cost tools that provide a means for virtual cohabitation within scaled architectural environments. The proliferation of affordable virtual reality hardware, as well as the accessibility of software traditionally reserved for video games, has resulted in the emergence of a new platforms to create first-hand learning experiences in “full-scale” immersive architectural environments. These platforms allow multiple users to collaboratively analyze and manipulate 3D architectural assets across a network of Head Mounted Displays (or HMDs), like the Oculus Rift or HTC Vive. As a result of key platform characteristics associated with breadth and depth of the interactive visual field, these systems can help students determine if their design solutions will function spatially (Ragan, et al, 2013). As a design analysis and critique tool, virtual reality platforms were integrated into the senior level Interior Design Capstone course. Critique sessions were held in immersive full-scale
environments simulated with virtual reality platforms. The first sessions began with an analysis of the existing spatial conditions (core and shell) of the buildings with additional sessions continuing on through schematic and design development stages of the project. The student presenting their project development acted as the “driver” within the virtual reality platform while one other student and the professor were able to simultaneously experience, study, analyze, and provide feedback about the design during the critique sessions. This presentation will explore the experiences of the interior design students and faculty using virtual reality platforms during design critiques, and the challenges and impacts of incorporating full-scale analysis into the student’s design process.

References


APPENDIX

Figure 1: Students using VR Platform

Figure 2: Students using VR Platform

Figure 3: Students using VR Platform
Figure 4: Student Screen Captures from within VR Platform

Figure 5: Student Screen Captures from within VR Platform
Figure 6: Student Screen Captures from within VR Platform
INTERIOR DESIGN CAPSTONE

Virtual Reality Review Deliverables

For each weekly review we have using the virtual reality platform for the immersive visualization studies of your project development, please provide a narrative to the questions below. This document will be submitted in addition to your regular weekly review deliverables. *Please create a separate document for these questions to turn in.*

1. Provide an overview of your specific project development analyzed during the review (associated with the review focus as scheduled in the syllabus)

2. Provide a list of the spaces experienced during the review and include their approximate volumetric composition (plan dimensions, ceiling height(s) and any other additional impactful volumetric design features.

3. Provide a summary of the experience in terms of spatial understanding, for example – did the experience lend you to understand that the space was larger or smaller than what you had initially envisioned? Was the ceiling higher that what you had pictured? Was the circulation more generous or more constricting than what you envisioned? Did the ff&e/millwork take up more or less space than you had originally envisioned? Etc.

4. Provide a summary of the spaces specifically analyzed, what analysis occurred in the review, what were the resulting outcomes for moving forward in the development of your project from this analysis.

5. What were your overall experiences? How was this tool helpful or not helpful in your design development at this stage?

Submissions should be in pdf format with the file name as yourlastname_VRreviewX.pdf

Printed copies of these documents must be organized and kept in your project notebook and will be submitted at the end of the semester to document your progress.
A Mobile Environment for Children to Feel Sense of Place Attachment

Saman Jamshidi and Kristi S. Gaines
Texas Tech University
Lubbock, TX

Children spend most of their time at home, neighborhood, and school, so helping them to have a better experience in these three environments can have a significant impact on their lives. This study focuses on environmental factors that contribute to the psychological well-being of children at school as a place for learning, socialization, and mental development. There is a body of literature that assume place identification and place attachment are influential on people in a variety of ways. For instance people’s well-being, social development, development of emotional bond in adulthood (Morgan 2010). Place attachment may occur for different reasons. It can be due to physical features of an environment or community exists in a place or activities that take place in a place. Theodori (2001) claims that community attachment is significantly influential on individual well-being. One of the physical environmental factors that can contribute to more place attachment and place identification is personalization (Harris & Brown, 1996; Wells, 2000; Wells & Thelen, 2002), however, there are not many studies on the process of place attachment in the literature. In people-place studies, several definitions are used with each other, such as place identity, sense of place, place dependence, place attachment, rootedness, place satisfaction, group identity, etc. (Lewicka, 2011). Marcouyeux and Fleury-Bahi (2010) argue that place attachment, place dependence, and group identity as three subdimensions of place identification. In the same direction Hernández et al. (2007) said that place attachment occurs before place identity. This study tries to find out what sort of manipulable object spaces can be designed to modify the existing place to improve children psychological well-being. A literature review was conducted in the electronic database of Texas Tech University Libraries using keywords such as privacy, place attachment, place identity, and classroom. Among 20 articles six articles were identified which consist of one review on place attachment, one review on educational environment psychology, and three research about the impact of physical environment on students. The selected articles are certainly not comprehensive because they are a limited number of articles. Additionally, a concept design was provided to demonstrate how making a simple adjustment in space can help children to feel better. There are two important issues. First, the current places are designed for adults, and second, private places for children are not considered in designing classrooms. To address these problems, a set of mobile private space is proposed which can be used in different positions and for various functions. For instance one of
the designed mobile spaces can be a study environment which can be set in the corner of a classroom or living room, so the child will have his/her place and simultaneously feel connected with others (based on literature being seen by an adult is an important factor for children). The forms of these tents are cubic, cure, and free form so covers different tastes. They are designed to be places in the middle of a room or a corner so that it can fit well in small rooms. It is supposed that letting children choose from a broad variety of ready-made private spaces can satisfy their need to have their specific private place. Apart from that, it is a cheap solution so it can easily be used in different places, like a classroom, home, etc.

References

Blue space as a therapeutic concept: The applicability in healthcare environments

Fares Alsaygh
Texas Tech University
Lubbock, TX

Healthcare waiting areas are one of the most stressful places for the patient families which provide care and support to the patients. The literature on evidence-based design aims to provide an efficient solution to reduce stress and anxiety in such public spaces. However, the impact of blue space (water feature) in healthcare waiting areas is yet to be explored. The water feature provides multiple sensory benefits; such as sound, sight, etc. The empirical evidence clearly indicates the therapeutic effect of green (vegetation) and blue space (water feature) in the field of landscaping. A systematic review of the literature was conducted to scrutinize the impact water features and water spaces (blue spaces) as natural design elements on occupant’s health and well-being. Considering the complexity and strict regulation of infection control requirements, this literature review aims to present set of recommendations for including blue space in a healthcare environment. The findings indicate positive psychological response such as alleviating stress and anxiety. These recommendations may lead to a compelling physical design which leads to the well-being of the family and support for the patients.

References

Need for Access to Nature in Nurses Work Environments

Apoorva Rane and Dr. Michelle Pearson
Texas Tech University
Lubbock, TX

Nurses are the primary caregivers to the patients. They also help patient’s families, assist doctors, and support the administrative operations in the hospitals. In a service based organization like hospitals, nurse’s role is critical and inseparable (Berry et al., 2004; Hendrich, Chow, Skierczynski, & Lu, 2008). Nurses are expected to provide effective and efficient care around the clock. Despite, nurse’s long working hours, stressful work environments and inconsistencies in the staffing legislation engendered job dissatisfaction and burnout which thoroughly documented in the recent anecdotal literature (Garrett, 2008; Hendrich et al., 2008; Nejati, Shepley, & Rodiek, 2016). This literature on nurse’s work environments indicates that nurses spend 93% of their time on the unit, serving the patients and performing administrative chores (Hendrich et al., 2008). Although the nursing management addressing the nurse’s issues in an operational point of view, the evidence-based design can also address these issues to ameliorate the psychosocial needs. The current literature on the physical design of healthcare environment concentrates on functional working configuration, quality respite spaces, and incorporating outdoor break areas (Faris, Stigsdotter, Lottrup, & Nilsson, 2012; Nejati et al., 2016). To provide more control over the patient care and better work functionality, the station typology and placement of nurse station in the core of patient unit (Cai & Zimring, 2012; Pati, Harvey, & Barach, 2008). Which further leads to a bigger challenge is to incorporate visual access to nature in nurses’ workspaces where they spend most of their time. Nurses stress and burnout can be addressed as a by attention restoration theory (ART). The ART can be defined as the restorative environments, which are created with the consideration of psychological components (Kaplan & Kaplan, 1989). The restorative environments can be created by introducing biophilia in the indoor environment. Biophilia can be defined as human’s innate accord and affection to nature (Wilson, 1984). In this literature review, the scope of biophilia is limited to visual access to nature. This meta-analysis investigates the evidence-based design literature based on various tools to incorporate biophilia in the indoor work environments with respect to occupant’s needs. The investigations on the of access to nature in nurses’ work environments further, leads to various suitable tools to incorporate access to nature in their working environments. The recommendations for these tools are derived considering all the entities simultaneously available in the patient units for example patients, family members, physicians, etc. The objective of this
study can be explained in three folds. First, examining and understanding the stressors in nurse’s working environment, for example, organizational stressors like long working hours. Second, analyzing the current literature for alleviating nurse’s job-related stress and understanding the gaps in the literature. Third, explore how these stressors are treated in another setting by employing visual stimuli. The literature is later synthesized to determine the suitable recommendations for healthcare setting and nurse’s work environments.

References

Children behavior and learning in playground: Play- block- environment

Maryam Hosseinioun
Texas Tech University
Lubbock, TX

The play is an essential and fundamental part of children's healthy growth in all ages, domains, and cultures. This research will examine children’s play area as a physical environment to improve the social behavioral and educational abilities of preschool children through designed equipment. This study is projected to contain two distinct phases. The first phase entails the design of alternative play objects, the fabrication of a full-scale prototype, and the installation of a play area in site. The second phase of the project will consist of the data gathering during unobtrusive observation experiments and their subsequent analysis and interpretation. This research program is based on a series of pilot studies in collaboration with TTU' Christine DeVitt and Helen DeVitt Jones Child Development Research Center. Researchers know that working with blocks assists children to develop social skills and cognitive. Designed play area and equipment combine all of the advantages of playing with blocks on a larger scale, providing the potential to control and create the environment for children, and Encourages then to play in groups and together. The nine design solutions have examined in this research; Impact of flexibility and open end toys in a play area, the Positive impact of play equipment’s color, Controlling environment and privacy, Promoting Collaboration, Developing Visual Spatial Thinking, Improving the ability to learn math and science, Improving Language and Comprehension, Improving the Ability of Expression, and Safety.

References