



GAUISUS

SELECTED SCHOLARSHIP ON TEACHING AND LEARNING at ILLINOIS STATE UNIVERSITY

Volume 5 • April 2017

Exploring the Designed Environment and Human Behavior Course to Enhance Student Competencies in Interior Design

Taneshia West Albert

Department of Family and Consumer Sciences • Illinois State University



Taneshia West Albert, MFA, EDAC is an enthusiastic educator and design practitioner. Her design career is focused in Interior Design for healthcare environments, corporate interiors, and higher education spaces with a unique background in Medical Equipment Planning and Facilities Design and Construction. Taneshia offers a passion for design and a record of accomplishment for managing large capital projects, handling client relationships and developing creative solutions to solve difficult and complex issues. She teaches Interior Design at Illinois State University, where her scholarship focuses on diversity and inclusion.

Miyoung Hong, Ph.D.

College of Architecture • University of Nebraska-Lincoln



Dr. Miyoung Hong engages in creative, interdisciplinary projects and research in partnership with market leaders committed to evidence-based design. Interdisciplinary aspects embracing design pedagogy, student development, sustainability, and healthcare design define Hong's scholarly work. Hong has practiced professionally in Asia and the United States with focus on hospitality, corporate, and healthcare design.

Core competencies such as analytical skills, content knowledge, and awareness of human behavior set the foundation for learning among emerging interior design professionals. A human behavior course is the perfect medium to synchronize these ideas in the context of interior design challenges. Presently, significant gaps exist regarding the pedagogical approaches that prepare interior design students to integrate these skills into innovative design solutions. This paper discusses how objectives identified through the literature review influence the creation of lecture activities, project assignments, and student assessment to meet each identified objective. The authors offer respective strategies for building the course curricula.

Keywords: Evidence-based design; critical thinking; problem solving; interior design research

Introduction

In the field of interior design, core competencies such as analytical skills, content knowledge, and awareness of human behavior set the foundation for learning among emerging interior design professionals who are expected to “problem-solve to enhance the built environment” (Poldma, 2008). Based on this assumption, the authors created an interior design course structure that began with the micro effects of interior design on the self/person and concluded with the macro effects of interior design on the global scale. To that end, the authors developed a three-tiered pedagogical approach to a course that began with course content most familiar and comfortable to students and progressed to research-based materials and assignments that challenged students to think and perform outside of their intellectual comfort zone. The goals of the instruction were to 1) develop critical-thinking and problem-solving skills, 2) create a foundation for evidence-based design as a design strategy and practice, and 3) develop research-based solutions as visual design representations.

The Perception Problem

While the professional domains of interior design practice and interior design education are symbiotic in nature, these two fields often find themselves at odds with each other. Whereas the interior design profession is often perceived as one of decoration or ornamentation (Konkel, 2014), the reality of interior design is far beyond decoration. It is a profession that deals directly with the human element through a value-added prescriptive design process of technical problem-solving, creative discovery, and project management that co-authors the owner and/or client to meet the project vision and objectives (Poldma, 2008; Konkel, 2014). When students enter an interior design education program, they must often overcome the false perception about the profession as they learn about the pedagogical underpinnings of the field. For example, students begin to learn that interior design is a research-based profession that seeks to understand how humans use and react with the built environment through various tools and methods (Poldma, 2008). Moreover, students learn that interior design education seeks to understand how interior designers use the “built environment” to improve the human condition by using concepts such as place attachment, ergonomics, cognition, and symbology to elicit a physical, physiological, or emotional response (Poldma, 2008; Resende & Vasconcelos, 2012) as a “dynamic interplay of human meaning” (Poldma, 2008).

The purpose of this paper is to examine the ways in which interior design education seeks to provide a basic and functional understanding of the profession (Dickinson, Antony, & Marsden, 2012), thus allowing students to create reasonable and justified conclusions regarding encountered design challenges (Carmel-Gilfilen & Portillo, 2010), both those encountered in an academic setting and in future professional practice. Additionally, this paper provides insight into the ways in which the domains of interior design education and

perceptions of professional practice which shape students' perception of their educational contents and experiences are often at odds (Thompson, 1992; Vaikla-Poldma, 2003; Poldma, 2008), or not seen as fully interrelated.

Nowhere is this professional and academic disconnect more present than in the classroom. Tiiu Poldma stated, at a 2007 IFI Round Table Conference on the future of interior design, regarding the focus of interior education:

Interior designers have a fundamentally personal role in studying human interactivity and humans in movement... What we do inside our homes, offices, and public spaces is multilayered yet simultaneously grounded in social, political, and personal relationships that we create to navigate our everyday world (Poldma, 2008).

However, students have a high tendency to relate what they are learning in the classroom not to their professional preparedness but to the grade awarded, often missing the rooted connection between the presented material and their future professional practice. This educational perception not only influences their immediate learning outcomes, but also their confidence in their preparedness for professional practice (Miller & Parlett, 1974; Snyder, 1971; Smith, 2013). Furthermore, students can become demotivated if they perceive the recorded grades to be apart from their actual work, thus further diminishing the learning objective of the course (Smith, 2013).

For a lecture-based course in an application course of study, as interior design falls, the division between immediate learning outcomes and demotivation is at an even greater opportunity as compared to a production-based course, like an interior design studio. In these production-based courses, lectured concepts are rarely abstract but practical and directly applied to active student projects in a build-and-learn environment (Konkel, 2014). However, preparing the industry's next generations of design professional relies on an education that strengthens a student's ability to undergo reflective observation, to utilize abstract conceptualizations, and to manipulate active experimentalism (Konkel, 2014). Likewise, these entail all instructional challenges in which the human factors of interior design course are primed to undertake.

Literature Review

A review of the literature reveals three essential concepts to effective interior design education: 1) importance and value of research in interior design practice and education, 2) progression from production-based activities to research-based activities, and 3) the value of assessment to reinforce the instructional process.

Research in Interior Design Practice and Education

Evidence-based design in practice. The perception of research in interior design is often disconnected from its practical uses in the profession, but relegated to an academic exercise independent within itself (Poldma, 2008). Research, however, is directly related to and in sequence with the programming design phase, as

research is the action of gathering the data that is then prioritized in the programming phase (Dickinson, Antony, & Marsden, 2009), and, thus, informing and enriching the final design outcome produced (Dickinson et. al, 2012) and the impact of the design on the end user (Poldma, 2008). As educators, we teach programming as a sacrosanct stage of the design process, but scarcely teach how to or the importance of research in an undergraduate education.

Yet, there is a strong call for design solutions that are grounded in research (Guerin, 2007; Guerin & Thompson, 2004; Kroelinger, 2007; Weigand & Harwood, 2007; Dickinson et. al., 2009), strengthening the meaning and usefulness of research in the design-thinking process and creating designers who can better provide answers to culturally complex questions (Hadjiyanni, 2013; Poldma, 2008). Research, as Dickinson and team mention, “represents a higher level of commitment and learning that can benefit clients and [design] the business overall” (Dickinson et. al., 2012). In addition, research is an exploratory tool used to develop methods for improving the human condition, influencing design decisions that directly affect the well-being of end users, positively manipulating interrelated human environments, and developing new knowledge that further develops the profession of interior design (Poldma, 2008).

Evidence-based design in education. Research has a perception problem that conflicts with the current makeup of undergraduate interior design degree sequences and with interior design undergraduate students. In a study on the importance of research to an undergraduate education conducted by Dickinson et. al. (2012), 75% of professional respondents believed that research is important to professional practice and that interior design students should know how to conduct research. These respondents also believed that students should know how to apply the results they obtained from research to design projects and that an undergraduate degree is the opportunity for specialization through design and research (Dickinson et. al., 2012). However, 56% of respondents in this same study believed that there was little professional value added to a candidate or employee within their firm who had a master’s degree (Dickinson et. al., 2012). Meaning that the ability of first professional degree holders to conduct and analyze research to the benefit of creating design solutions is paramount in their ability to be prepared for the profession they will undertake. But according to Dickinson et. al. (2009), the majority of undergraduate students have a desire to conduct research and very little have enrolled in a class, design studios or otherwise, that conducted research as a milestone in the course, and most believe a graduate degree is the appropriate place for research and design industry specialization (Dickinson et. al., 2012).

Another study on the importance and the value of research in interior design conducted by Dickinson et. al. in 2009 included surveying interior design faculty. Interior design faculty placed value on research and benefits to the design process. However, the faculty members hesitated on whether undergraduates should take research-related coursework (Dickinson et. al., 2009). With the perception issues combating research and interior design profession and practice, the authors developed the following desired outcomes for the appropriateness of research in the human factors of interior design courses as they relate to developing goals for the instruction of the course and fostering the ability of undergraduate students: 1) to conduct research

using peer-reviewed and published research, 2) to use said research to address open-ended design questions, and 3) to interoperate and scrutinize said research to relate abstract concepts to practical design outcomes.

Progression from Production-Based Activities to Research-Based Activities

Interior design education and instruction are rooted in the Experiential Learning Model that follows four stages of learning: “the concrete experience; the observation of and reflection on that experience; the formation of abstract concepts based on that reflection; and the testing of new concepts from that experience” (Kolb & Fry, 1975; Konkell, 2014). This pedagogy is perfect for build-to-learn education models that bring student ideas into physical solutions, specifically in the design studio where its purpose of instruction is to simulate the reality of design practice (Konkel, 2014; Poldma, 2008) in a learning environment. This learning style and production-based courses are the most prevalent in the interior design education sequence and, thus, become the teaching and learning styles where students have the most comfortable interaction.

However, moving students beyond these learning styles requires a flexible range of pedagogy methods to ease the transition to a lecture-based learning style (Piaget, 1976; Torrance, 1996; Kim, Ju, & Lee, 2015). Lecture-based courses like human factors of interior design are paramount in introducing and furthering links between developing a context for design issues and studying the human relationship of the environment. Therefore, the authors developed the following desired teaching outcomes for evolving student work and learning in the human factors of interior design course: 1) develop students ability to synthesize and effectively communicate information through scholarly writing, 2) develop critical thinking and analytical skills that allow students to confront a diverse or unfamiliar clientele and use research to develop practical design solutions, and 3) develop the ability to convert research-based design solutions into visual design representations.

Assessment as a Medium to Reinforce the Instructional Process

A number of factors make the assessment a medium to reinforce the instructional process. Assessment, meaning the evaluation of student efforts and projects through the assignment of grades, is an influential device used by the instructor to gauge the effectiveness of disseminated information, measure the consistency or difference in the message received by each student during the same lecture, and improve learning within the classroom setting (Gibbs, 1999; Smith, 2013; Carmel-Gilfilen et. al., 2010). Assessment presents a consistent barrier between the instructor and student because of its previously mentioned use and purpose by the instructor compared to its perception by the students (Smith, 2013). Students see assessment not only as a measure of their current success in the course, but also as a measure of their future professional preparedness and success and as a measure of their identity as students (Miller & Parlett, 1974; Snyder, 1971; Smith, 2013). Assessment for students has such a powerful effect and meaning to them that it directly affects their future plans and expectations (Smith, 2013), but it limits their reception of the intended classroom instruction because they place greater weight on the end grade and not the process of completing the assignment or course (Smith, 2013). This has prompted the educators to integrate components related to

making changes on students' perceptions to their grade that allow students to understand their learning process, not their grade.

The challenge for the instructor is how to overcome the hard-wired student perceptions and value of grades so that they understand the process and not the grade. Suggestions have been made to develop an evaluation system that weights the process, not the finished product (Smith, 2013). Thus, the authors developed the following criteria to assess the desired learning outcomes in the human factors of interior design course: 1) develop skills of self-check, reflection, and self-editing 2) change perception of assessment from professor-oriented to task/outcome-oriented, and 3) make the connection of assessment and professional practices obvious to students.

An analysis of the literature shows several significant gaps in scholarly literature that allow researchers to fully understand the effects of research, assessment, and lecture-based curriculum activities on interior design education and instructive outcomes. Thus, understanding the importance and value of research in interior design practice and education, the progression from production-based activities to research-based activities in an interior design curriculum, and the value of assessment as a medium to reinforce the instructional process are the foundations that can aid to progress the field of study and profession by creating stronger future practitioners.

By examining the literature, the authors developed the course goals and objective to reflect the three approaches to the educational directives. The first course goal, *to develop critical thinking and problem solving skills*, addresses the directives to: develop thinking and analytical skills that allow students to confront a diverse or unfamiliar clientele and use research to develop practical design solutions; use said research to address open-ended design questions; and develop skills of self-check, reflection, and self-editing. The second course goal, *to create a foundation for evidence-based design as a design strategy and practice*, addresses the directives to: develop skills to justify design decisions through research and writing; conduct research using peer-reviewed and published research; and interoperate and scrutinize said research to relate abstract concepts to practical design outcomes. The third course goal, *to develop research-based solutions as visual design representations*, addresses the directives to: develop the ability to convert research-based design solutions into visual design representations; change perception of assessment from professor-oriented to task/outcome-oriented; and make the connection of assessment and professional practices obvious to students.

The Teaching Strategies

The human factors of interior design course is a lecture-based course taken within a Council for Interior Design Accreditation (CIDA)-accredited undergraduate interior design program at a state university. The CIDA Standard 7. Human-Center Design states that “the work of interior designer is informed by knowledge of human factors and theories of human behavior related to the built environment.” The course is unique to the degree sequence in that the curriculum is solely concentrated on understanding and developing the concepts of human psychology and the interplay of man-made environments. Lecture activities and assignments

provide avenues for students to apply behavioral theories to design challenges as solutions that address human-centered conditions such as anthropometrics, universal design principles (Standard 3a, 3b, 3c, and 3d), social justice, and diversity in ethnicity, culture, and socio-economic standing.

Course Overview

The Fall 2016 course changes included the course structure, objectives, and assignments. Prior to Fall 2016, the course was organized as a lecture- and activity-based course; however, in Fall 2016, the course was restructured into a discussion-based course, requiring students to read outside of class and participate in conversation centered around the topic presented. The new structure also allows for the inclusion of video testimonies and active learning through open deliberation of personal experiences the students may have and wish to share, and, thus, creating a safe and personal space where students can directly apply the learned, technical material to a personal acquaintance or experience and hopefully create acquiescence of the material. The most significant change to the course was the change to the topics of focus as indicated below:

Topics of Focus		
Prior to Fall 2016	Fall 2016*	
<i>Human-Centered Design</i>	<i>The Human Body and the Environment</i>	
<ul style="list-style-type: none"> • Personality • Proxemics • Anthropometrics • Special Populations • Universal Design 	Existing to Curriculum <ul style="list-style-type: none"> • Anthropometrics • Proxemics 	Change to Curriculum <ul style="list-style-type: none"> • Ergonomics • Man vs. Home
<i>Environmental</i>	<i>Personal and Public Space</i>	
<ul style="list-style-type: none"> • Theory • Behavior • Color 	Change to Curriculum <ul style="list-style-type: none"> • Man vs. Public Space • Territoriality • Secondary Spaces and Cues • Lighting as Space Cues 	
<i>Global Perspective</i>	<i>Community Spaces</i>	
<ul style="list-style-type: none"> • Ecological • Socio-Economical • Cultural 	Change to Curriculum <ul style="list-style-type: none"> • Design for Inclusion • Urban Design and Interior Design • Social Justice and Interior Design 	
	<i>Designing for the Planet</i>	
	Existing to Curriculum <ul style="list-style-type: none"> • Designing in a Cultural Context 	Change to Curriculum <ul style="list-style-type: none"> • Sustainability • Globalized Design

*See Appendix A for a detailed outline of the Fall 2016 topics of focus.

The progress of topics in the course is structured to elicit student buy-in in the course by beginning with a focus on micro issues of self and space interaction and progressing to a macro-topic focus of the interior on the global scale. The topics of focus are used to create a foundation and a high-level outline to address the goals of the lecture course; to develop critical-thinking and problem-solving skills; to create a foundation for evidence-based design as a design strategy and practice; and to develop research-based solutions as visual design representations.

Goal #1: To Develop Critical-Thinking and Problem-Solving Skills

The instructor began the course with the topic of focus “The Human Body and the Environment” in an effort to create student buy-in through self-reflection. Assigned reading and class lectures focus on behavior, personality traits, symbology, meaning of place, and place attachment. These topics not only allow students to place themselves mentally as an end user for any open-ended questions the instructor proposes during lectures, but also to analyze differences between their interpretations of environmental effects on self and that of their peers in the class. Two activity-based assignments, the Myers-Briggs Test and Residential Map project, are to reinforce topics presented in the lectures. The Myers-Briggs test requires students to reflect on their strengths and weaknesses as a self-assessment activity grounding their perceived abilities as an interior designer. The subsequent Residential Map project then requires student to reflect and analyze a previously completed design project in order to understand and edit their design choices as they relate to the concepts of self.

In the second half of the course, the instructor used specific lecture topics and assigned projects to develop opportunities for critical thinking and problem solving while also developing analytical skills and introducing students to diverse populations. The topic of focus, “Community Spaces”, allows the instructor to assign varied peer-reviewed articles as reading assignments that are concentrated on social justice topics of food deserts and urban/community design topics of urban housing projects and donut cities. In addition to assigned reading topics, the instructor steers students through user outcomes and perceptions with design initiatives and concepts with a series of open-ended discussion topics. The progress of reading and discussion is a method used by the instructor to guide students through learning in a secure environment about populations or concepts they may be unfamiliar with. Two research-based assignments, the Inclusion Research Paper and Design for Social Justice Project, are then consecutively assigned, with the latter being a fusion of research and graphic design solution. These projects are specifically designed to mentor students through gathering research and analyzing what information is relevant to design initiatives [Appendix B].

Both “The Human Body and the Environment” and “Community Spaces” topics of focus include readings, lectures, and assignments that aim to: develop thinking and analytical skills; use research to address open-ended design questions; and develop skills of self-check, reflection, and self-editing. Students are encouraged to confront diverse or unfamiliar clientele and develop practical design solutions utilizing research. The combination of these initiatives work together to create a foundation for developing critical-thinking and problem-solving skills. Skills of critical-thinking, self-reflection, and self-editing are lifelong learning processes that the authors are providing tools of guidance to start students down this pathway of development. Lifelong

learning and evidence-based practice describe the continuous process of keeping up-to-date with rapidly changing knowledge. It is the role of the educators to lead students through the process of how to locate and interpret new and rapidly changing information; develop skills to effectively synthesize this information; and provide purpose and meaning to the design process so that when ambiguity and uncertainty occur in practice, students/professionals can be effective and competent as problem solvers.

Goal #2: To Create a Foundation for Evidence-Based Design as a Design Strategy and Practice

Three assignments were developed to cultivate student skills in researching through peer-reviewed and published resources, scrutinizing said research as it relates to practical design outcomes, and creating researched-based justifications for their design decisions. The Inclusion Research Paper, Design for Social Justice Project, and Cultural Research Paper and Presentation are respectively assigned to first introduce students to design research methods, to apply said research methods to a design problem, and then to justify design decisions based on the research. Using each project as a stepping-stone, the instructors demonstrate the connection of these projects and the progression towards creating a foundation for students to use evidence-based design.

The Inclusion Research Paper requires students to locate the best available research about a chosen community space and to convert the gathered information into answers to a series of questions proposed by the instructor: how and who does [the current design construct] exclude; who does it include or who was it established for; what does it say about the people it excludes/includes; what spaces does this activity, issue, etc. include and operate in? They must then critically evaluate the information and develop recommendations for redesigning the community space to improve the design. The succeeding Design for Social Justice Project requires the previously mentioned strategies, but then requires students to investigate a contemporary issue with the possibility of limited research. With this requirement, students must integrate new research with fact-finding data to create a design addressing the recently relevant topic. Similarly, the Cultural Research Paper and Presentation combines all previously mentioned efforts, but requires students to evaluate the effectiveness and efficiency of data by applying the data to an appropriate contemporary design solution for a non-Western (North American or European) client(s). Thus, the gradual learned behavior of collecting evidence and validating them through the creation of design programming, followed by the actual design solution, roots each student in the practice of evidence-based design. Advancing in difficulty, each project builds off the skills developed from the previous, creating a feed loop of information gathering, synchronizing findings (evidence), programming, and evidence application (testing) practice that creates a foundation for evidence-based design practice.

Goal #3: To Develop Research-Based Solutions as Visual Design Representations

Three projects aid in transitioning students from a visual design outcome, to a research-based outcome, and finally to a researched-based design outcome that is visually represented. The instructional approach to this method is to gradually move design students, who are most comfortable in visual-based design outcomes, towards research in a non-confrontational manner. The Territoriality Map Project, assigned in the early weeks

of the course, is rooted in the build-to-learn theory in that it requires students to create a visual representation of the design theory of territoriality. Although this project requires minimal qualitative data in the form of site observations, this project is not rooted in research, and so completing this project is a familiar process for design students. Assessment for this project is based on how they visually answered or displayed the theories learned and observed for their chosen space and requires no academic critique, but rather a design critique that students are familiar with seeing and understanding.

However, in the later quarter of the course, the Design for Social Justice Project requires students to develop a design solution that is based on peer-reviewed research and data. The assessment for this project is equally divided among their academic report, their design solution, and the quality of their oral presentation and materials, requiring student to place equal effort on each end result of the project. This assessment introduces students to an academic critique regarding the points and strengths of their report, plus a design critique that is based on design programming requirements they develop and express in their report. The final project for the course is the Cultural Research Paper and Presentation that involves rigorous research to originate an evidence-based design solution. Assessment for this project places 66% of the possible score on the design solution that is visually represented, similar to a professional schematic design presentation; however, the design solution is completely based on the research. These projects step students from a project that is solely visual to a project that visually represents a research-based design solution.

Assessment, meaning the evaluation of student efforts and projects through the assignment of grades, is used by the instructor to focus each student on the assigned task and to derive an outcome that is of high professional quality. The assessment for the Territoriality project [Appendix D], for example, is centered on providing clarity and expression of theory, following basic directions provided, and displaying the level of professional artisanship and visual composition. This critique is a traditional design critique and most at ease with design students. The assessment for the Cultural Research Paper and Presentation [Appendix E], by contrast, is centered on application of research to design outcomes, consistency of design concept and its presence in the end product, and the quality of design outcome as it relates to its relevancy to the client. This method is a practice-based critique in that it is criteria that most professional schematic design projects use and is evaluated on by their intended audiences and clients. The instructor gradually moves students from a familiar to an unfamiliar type of critique by gradually developing the type of assessment students are subjected to. In this progression, the instructor elevates the assessment of student work from a design critique, to an academic critique, and finally to a practice-based critique, thus, making the connection of assessment to professional practices clear to students and developing their expectations for professional practice critiques.

Conclusion

The authors pedagogical approach to a lecture course was based on the expectations that the human factors of interior design course is the perfect conduit to lay a foundation for preparing the industry's next generations of design professionals. To do so, the course must strengthen a student's ability to undergo reflective observation, to utilize abstract conceptualizations, and to manipulate active experimentalism

(Konkel, 2014). Beginning with the micro effects of interior design on the self/person and concluding with the macro effects of interior design on the global scale, the authors developed a tiered pedagogical approach to the course. This approach began with presenting materials students were most familiar with and creating design-based assignments that students were most comfortable undertaking, to presenting materials they were less familiar with and creating research-based assignments that students were fairly uncomfortable with.

The authors developed goals and objectives for the course by using a foundation from published literature that scrutinizes interior design practice and education as they relate to the importance and value of research in interior design, the progression from production-based activities to research-based activities in an interior design curriculum, and the value of assessment as a medium to reinforce the instructional process. Although significant gaps of published literature existed in regards to the effects of research, assessment, and lecture-based curriculum activities on interior design education and instructive outcomes, the authors crafted three distinctive course goals: to develop critical thinking and problem solving skills, to create a foundation for evidence-based design as a design strategy and practice, and to develop research-based solutions as visual design representations.

The urgent need to improve the foundation course of interior design calls for new solutions. One answer may be to prepare students who enhance the built environment and bring with them the best knowledge and tools to solve very complex problems. The authors have enumerated the many obstacles to educating students concerned with each piece of this vision together: course goals/objectives, lecture activities, project activities, and assessment. The authors have described each goal and how lecture activities, project assignments, assessment, or a combination of all three aid in meeting each goal [Appendix F]. The authors believe these changes offer an important starting place for examining what students will need to work to create better physical environments. Designing the course to achieve these objectives offers the next set of challenges. The initial forays into the human factor of interior design course have led to models of education based on discovery-based learning and evidence-based design process. It is anticipated that faculty in the interior design will need to enable students to lead the design of better environments, using evidence-based design practices as fodder for this forward movement. Further stages of this work will include an empirical study over several semesters of the student perceptions of the course at both the beginning and end of the course and analysis of students' outcomes.

References

- Carmel-Gilfilen, C., & Portillo, M. (2010). Creating mature thinkers in interior design: Pathways of intellectual development. *Journal of Interior Design, 35*(3), 1–20.
- Dickinson, J. I., Anthony, L., & Marsden, J. P. (2009). Faculty perceptions regarding research: Are we on the right track? *Journal of Interior Design, 35*(1), 1–14.
- Dickinson, J. I., Anthony, L., & Marsden, J. P. (2012). A survey on practitioner attitudes toward research in interior design education. *Journal of Interior Design, 37*(3), 1–22.
- Gibbs, G. (1999). Using assessment strategically to change the way students learn. In S. A. Brown & A. Glasner (Eds.), *Assessment Matters in Higher Education: Choosing and Using Diverse Approaches* (pp. 41–54). Buckingham: SRHE & Open University Press.
- Guerin, D. A. (2007). Defining graduate education in interior design. *Journal of Interior Design, 33*(2), 11–14.
- Guerin, D. A., & Thompson, J. A. (2004). Interior design education in the 21st century: An educational transformation. *Journal of Interior Design, 30*(2), 1–12.
- Hadjiyanni, T. (2013). Rethinking culture in interior design pedagogy: The potential beyond CIDA standard 2g. *Journal of Interior Design, 38*(3), v–xii.
- Kim, M. J., Ju, S. R., & Lee, L. (2015). A cross-cultural and interdisciplinary collaboration in a joint design studio. *International Journal of Art & Design Education, 34*(1), 102–120.
- Kolb, D., & Fry, R. (1975). Toward an applied theory of experiential learning. In C. Cooper (Ed.), *Theories of Group Processes*. London: John Wiley.
- Konkel, M. T. (2014). Build-to-learn: An examination of pedagogical practices in interior design education. *Journal of Interior Design, 39*(2), 1–16.
- Kroelinger, M. D. (2007). Defining graduate education in interior design. *Journal of Interior Design, 33*(2), 15–18.
- Miller, C. M. L., & Parlett, M. R. (1974). *Up to the mark: A study of the examination game*. Gildford: Society for Research into Higher Education.
- Piaget, J. (1976). *To understand is to invent: The future of education*. New York: Penguin Books.
- Poldma, T. (2008). Interior design at a crossroads: embracing specificity through process, research, and knowledge. *Journal of Interior Design, 33*(3), vi–xvi.

- Resende, A. E., & Vasconcelos, F. H. (2012). Design of educational artifacts as support to learning process. *Work, 41*, 61–68.
- Smith, K. M. (2013). Assessment as a barrier in developing design expertise: Interior design student perceptions of meanings and sources of grades. *International Journal of Art & Design Education, 32*(2), 203–214.
- Snyder, B. R. (1971). *The hidden curriculum*. New York: Knopf.
- Thompson, J. A. (1992). Design research. In J. A. Thompson (Ed.), *ASID professional practice manual* (pp. 47–50). New York: Whitney Library of Design.
- Torrance, E. P. (1966). *The Torrance Tests of Creative Thinking: Norms-Technical Manual Research Edition. Verbal Tests, Forms A and B: Figural Tests, Forms A and B*. Princeton, NJ: Personnel Press.
- Vaikla-Poldma, T. (2003). *An Investigation of Learning and Teaching Process in an Interior Design Class: An Interpretive and Contextual Inquiry* (Unpublished doctoral dissertation). McGill University, Montreal.
- Weigand, J., & Harwood, B. (2007). Defining graduate education in interior design. *Journal of Interior Design, 33*(2), 3–10.

Appendix

A: Expanded Lecture Topics Chart

Topic #1: The Human Body and the Environment		
Issues of the Mind <ul style="list-style-type: none"> ○ Brain Physiology and Behavior ○ Personality Traits ○ Cognition and Memory ○ Gestalt Psychology ○ Color and Psychology ○ Maslow's Hierarchy of Needs 	Issues of the Body <ul style="list-style-type: none"> ○ Anthropometrics ○ Ergonomics ○ Proxemics 	Issues of the Home and of Place <ul style="list-style-type: none"> ○ The Meaning of Place ○ Place Attachment ○ Symbolology
Topic #2: Personal vs. Private Spaces		
Man vs. His Environment <ul style="list-style-type: none"> ○ Relationships with the Environment ○ Conditioning ○ Public vs. Private Spaces 	Man's Movement Through Space <ul style="list-style-type: none"> ○ Lighting Design and Space Delineation ○ Way Finding ○ Design Cues for Public Space 	Man and Secondary Spaces <ul style="list-style-type: none"> ○ Territoriality ○ Types of Territories ○ Behavior Settings
Topic #3: Community Spaces		
Urban and Community Design <ul style="list-style-type: none"> ○ Urban Sprawl and Donut Cities ○ Urban Housing Projects ○ Gentrification ○ New Urbanism 	Social Justice & Design <ul style="list-style-type: none"> ○ Aging in Place ○ ADA and Universal Design ○ Food Deserts ○ Access to Healthcare Choice 	
Topic #4: Designing for the Planet		
Design in a Social Context <ul style="list-style-type: none"> ○ Aging Population in US and Globally ○ Designing for Non-Western Cultures: Asian, Latino, Muslim, African 	Globalized Design <ul style="list-style-type: none"> ○ Export of Design Archetypes of Western Countries ○ Export of Design Product through Big Box and Internet Stores 	Sustainability <ul style="list-style-type: none"> ○ Human Capital and Sustainability ○ Material Harvesting and Product Creation ○ Product Life Cycle ○ True Cost of a Product

B: Purpose, Requirements, and Assignment Output of Inclusion Research Paper and Design for Social Justice Project

	Inclusion Research Paper	Design for Social Justice Project
Purpose	The purpose of this project is to look at an activity, issue, etc. in the community space and analyze it in reference to the human and urban design conditions discussed during the course lecture.	The purpose of this project is to understand the role of interior design in addressing social justice issues and to understand how you, as an interior designer, fit into the realm of those fighting for social justice.
Requirements	Students must take a current design construct and discuss how it was conceived, funded, designed, and being used currently.	Students must take a global issue that is or has become relevant within the last five years, including a present issue, and create a design that addresses the issue referenced.
Assignment Output	Minimum of 2500 word, double-spaced research paper with references and appendix	<ul style="list-style-type: none"> • Brief summary of the issue utilizing peer-reviewed research. • Create a program for a design solution including criteria for solving the issue. • Graphically represented design a solution and oral presentation.

C: Project Assignment Examples

Territoriality Map

The purpose of this project is to map out how someone expresses territoriality in a public space. Students are to:

- Visit a public space of their choice.
- Create a floor plan of the space, indicating furniture and fixture layout. This does not have to be perfect or to scale, but as correct as possible. It can be sketched or done in CAD.
- Choose a location used by a person who seems to be staying for a while or is a frequent visitor and seems to make the space their own. Map/sketch the items used by the user in the location they are sitting in.
- On your map, highlight the items that express territoriality or temporary ownership by the user.
- Explain their posture, use of space, etc. as explained by the theory of territoriality.
- What does this expression and confiscation of space say about the person? What does it say about the space?

Student's final product should be presented on a 24" x 36" poster board or similar material; however, you have the freedom to display the information however you would like. Neatness and craftsmanship are as important as the material presented. You are presenting to a professional audience, so please design accordingly.

Cultural Research Paper and Presentation

The purpose of this project and paper is to understand how to design for another culture. Students are to choose a global location outside of what is considered "The West" (North America or Europe) and develop the following:

- A client profile which includes cultural standards as a guide for design
- Prepare a design concept board for your design that reflects the culture you have chosen and will assist in developing a design for your client
- Design a living, dining, and communal room layout to accommodate their needs
 - Furniture, finishes, etc. are required
- A 20-minute presentation highlighting your design, cultural issues affecting design (color, proximities, etc.), and summarizing your chosen culture/location.
- A research paper highlighting your chosen culture/location, cultural standards, three issues that specifically impact design in this region, and include in the summary your reason for choosing this location. (1800-word minimum, double-spaced, Times New Roman font, with five (5) scholarly sources)
 - Reference pages required
 - Appendix for supporting fact and images recommended

D: Territoriality Map Assessment Form

Section	Evaluation Questions	Possible Points	Student Assessment	Points Received
Floor Plan(s) and Sketched Items	Was there a floor plan sketched/drawn of the space?	2.5		
	Was there a person highlighted on the floor plan?	1		
	Were the items of the highlighted person sketched and placed on the floor plan?	1		
Items Explanations	Was there an explanation of the items used to express territoriality and ownership?	2.5		
	Did these explanations correctly express the use of territoriality and ownership?	2		
Body Language Explanations	Was there an explanation of body language used to express territoriality and ownership?	2.5		
	Did this explanation correctly express the use of territoriality and ownership?	2		
Space Explanations	Was there an explanation of the space and how it supports territoriality and ownership?	2.5		
	Did these explanations correctly express the use of territoriality and ownership?	2		
Overall Project Requirements	Was the correct project board used?	2		
	Was the overall project composition neat and professional?	2.5		
	Total Possible Points:	22.5	Total Points Given:	

E: Cultural Research Paper and Presentation Assessment Form

	Expert	Proficient	Apprentice	Novice	Points Given
Research Paper	The topic is focused narrowly for the scope of this assignment. The paper provides cultural background for the project. A contextual review and elaboration of design-related and cultural issues regarding topic were expertly provided. Reasoning for choosing topic expertly provided.	The topic is focused narrowly enough for the scope of this assignment. The paper provides some cultural background for the project. A contextual review and elaboration of design-related and cultural issues regarding topic were somewhat provided. Reasoning for choosing topic somewhat provided.	The topic is too broad for the scope of this assignment. The paper provides cultural background for the project that lacks pertinent information for the topic chosen. A contextual review and elaboration of design related and cultural issues regarding topic provided lacks clarity and context. Reasoning for choosing topic not clearly provided.	The topic is not clearly defined. The paper provides cultural background for the project that lacks pertinent information and is too broad. A contextual review and elaboration of design-related and cultural issues regarding topic provided are missing clarity and context. Reasoning for choosing topic expertly provided was not provided.	
	In-depth discussion and elaboration in all sections of the paper.	In-depth discussion and elaboration in most sections of the paper.	The writer has omitted pertinent content or content runs on excessively. Quotations from others outweigh the writer's own ideas excessively.	Cursory discussion in all the sections of the paper or brief discussion in only a few sections.	
	Ties together information from all sources. Paper flows from one issue to the next without the need for headings. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	For the most part, ties together information from all sources. Paper flows with only some disjointedness. Author's writing demonstrates an understanding of the relationship among material obtained from all sources.	Sometimes ties together information from all sources. Paper does not flow— disjointedness is apparent. Author's writing does not demonstrate an understanding of the relationship among material obtained from all sources.	Does not tie together information. Paper does not flow and appears to be created from disparate issues. Headings are necessary to link concepts. Writing does not demonstrate understanding any relationships	

	No spelling and/or grammar mistakes.	Minimal spelling and/or grammar mistakes.	Noticeable spelling and grammar mistakes.	Unacceptable number of spelling and/or grammar mistakes.
	More than 5 current sources, of which at least 5 are peer-reviewed journal articles or scholarly books. Sources include both general background sources and specialized sources. Special interest sources and popular literature are acknowledged as such if they are cited. All web sites utilized are authoritative.	5 current sources, of which at least 3 are peer-reviewed journal articles or scholarly books. All web sites utilized are authoritative.	Fewer than 5 current sources, or fewer than 2 of 5 are peer-reviewed journal articles or scholarly books. All web sites utilized are credible.	Fewer than 5 current sources, or fewer than 2 of 5 are peer-reviewed journal articles or scholarly books. Not all web sites utilized are credible, and/or sources are not current.
	Cites all data obtained from other sources. APA citation style is used in both text and bibliography.	Cites most data obtained from other sources. APA citation style is used in both text and bibliography	Cites some data obtained from other sources. Citation style is either inconsistent or incorrect.	Does not cite sources.
	30–25.5	25–22.5	22–18	17.5–13.5
	Comments			
Design Concept, Client Profile, and Design Solution	The concept board demonstrates that the designer fully understands the chosen region and has applied concepts learned in the research. Concepts, client needs, client requirements mentioned in client profile are integrated into the designer's own insights. Designer has	The concept demonstrates that the designer, for the most part, understands the chosen region and has applied some concepts learned in the research. Some concepts mentioned in the client profile are integrated into the designer's own insights. Designer has demonstrated	The concept board demonstrates that the designer is struggling to understand the chosen region and to apply concepts learned in the research. Issues with concepts mentioned in client profile were present or poorly integrated into the designer's own insights.	The concept board does not demonstrate that the designer has understood the chosen culture nor applied concepts learned in the research. Many issues with requirements mentioned in client profile are present and poorly integrated into the designer's own insights. Designer has demonstrated lack of creative

	demonstrated creative applications and concepts supported by their design concepts and own insights. All required items are present (furniture, materials, finishes, etc.).	some creative applications and concepts somewhat supported by their design concepts and own insights. Some required items are missing (furniture, materials, finishes, etc.).	Designer has demonstrated limited creative applications, concepts are limitedly supported by their design concepts, and own insights are lacking. Several required items are consistently missing (furniture, materials, finishes, etc.).	applications, concepts not supported by their design concepts, and none of their own insights are present. Many required technical items are missing (furniture, materials, finishes, etc.).
	30–25.5	25–22.5	22–18	17.5–13.5
	Comments			
Presentation	Presentation content (PowerPoint, etc.) was clear, of high quality, full of complexity, appropriate for client presentation, and supported the design concept. Presentation was organized, flowed from one idea to the next smoothly, and showed clear content. Delivery (oral presentation) was professional and confident, engaged the audience, clearly delivered with a good pace, used professional language, and responded to questions appropriately. Presenter used all 15 minutes for content presentation.	Presentation content (PowerPoint, etc.) was, for the most part, clear, of high quality, full of complexity, appropriate for client presentation, and supported the design concept. Presentation was mainly organized, flowed from one idea to the next smoothly, and showed clear content. Delivery (oral presentation) was, for the most part, professional and confident, engaged the audience, clearly delivered with a good pace, used professional language, and responded to questions appropriately. Presenter	Presentation content (PowerPoint, etc.) had issues with clarity, quality, complexity, appropriateness for client presentation, and support of design concept. Presentation had issues with organization, flow from one idea to the next, and clarity with content. Delivery (oral presentation) had issues with professionalism and confidence, engagement with audience, pace, professional language, and responds to questions appropriately. Presenter used less than 10 minutes for content presentation, but more than 5 minutes.	Presentation content (PowerPoint, etc.) had major issues with clarity, quality, complexity, appropriateness for client presentation, and support of design concept. Presentation had major issues with organization, flow from one idea to the next, and clarity with content. Delivery (oral presentation) had major issues with professionalism and confidence, engagement with audience, pace, professional language, and responds to questions appropriately. Presenter used less than 5 minutes for content presentation.

		used less than 15 minutes for content presentation, but more than 10 minutes.		
	30–25.5	25–22.5	22–18	17.5–13.5
	Comments			
	Total Points Possible:	90	Total Points Given:	

F: Summary and Fulfillment of Goals

Goal Overview			
Goals	Lectures	Assignments	Assessments
To Develop Critical-Thinking and Problem-Solving Skills	<ul style="list-style-type: none"> • Community Spaces Lecture Series • Issues of the Mind Lecture Series • Issues of the Home and of Place Lecture Series 	<ul style="list-style-type: none"> • Myers-Briggs Test • Residential Map • Inclusion Research Paper • Design for Social Justice Project 	
To Create a Foundation for Evidence-Based Design as a Design Strategy and Practice		<ul style="list-style-type: none"> • Inclusion Research Paper • Design for Social Justice • Cultural Research Paper and Presentation 	
To Develop Research-Based Solutions as Visual Design Representations		<ul style="list-style-type: none"> • Territoriality Map • Design for Social Justice • Cultural Research Paper and Presentation 	<ul style="list-style-type: none"> • Territoriality Map • Design for Social Justice • Cultural Research Paper and Presentation

About GAUISUS

Gausius is the internal, peer-reviewed scholarship of teaching and learning (SoTL) publication at Illinois State University (ISU). Its purpose is to provide instructors writing about their teaching and learning a local but peer reviewed publication outlet and to offer other instructors and students an accessible publication to read to obtain a sense of, and learn from, some of the scholarly teaching and SoTL projects conducted by their colleagues on our campus. The name, *Gausius* means glad, gladly, or joyful in Latin, as in the Illinois State motto/logo, "Gladly we learn and teach."

Find the latest edition online at gausius.weebly.com

The Cross Endowed Chair in the Scholarship of Teaching and Learning can be found at SoTL.IllinoisState.edu