INTE 2014

"Exploratory" and "descriptive" aspects of environmental psychology course within the interior design education

Dr. Meryem YALÇIN[1]

TOBB Economy and Technology University; Fine Arts, Design and Architecture Faculty; Interior Architecture and Environmental Design, Söğütözü cad. No:43, 06560 Söğütözü/Ankara; Phone: +903122924560; e-posta; myalcin@etu.edu.tr

Abstract

Identifying human attachment to the environment by developing different degrees, spatial ranges and dimensions, this study aims to further the growing body of knowledge about the discipline of Environmental Psychology within the process of interior design solving problems. Environmental Psychology provides an analytic point of view up on the existing built environment with a rich and diverse set of quantitative indicators for characterizing spaces in many ways that are potentially relevant to a variety of psychological responses, including choosing routes while locomotion, orientation and disorientation, spatial knowledge acquisition, perceived spaciousness, privacy and social interaction, stress and fear, and aesthetic judgments (Kolb, 1984). Experimental Learning Theory defines learning as "the process whereby knowledge is created through the transformation of experience". This study makes the emphasis on "exploratory" and "descriptive" aspects of the Environmental Psychology within the real life context, providing comprehensive information to be inferred and issued in a complementary manner in interior design education. In such a way that; viable physical environment, social organization and norms, characteristics of people objectives are to determinants empirically whether, and how the use of experience and practices can improve design problem-solving by both novice and expert designers. In this context, this study presents applied samples and outcomes of course works of case-based instruction and its description development to be applied as medium synthesizing and/or assimilating with various observations for new idea generation process of design.

1. Introduction

Environmental psychology is that branch of psychology that studies the relationship between people and the socio-physical features of the built and natural environment, in order to enhance human wellbeing and to improve human–environment relations. It emerged as an autonomous field of scientific inquiry at the end of the 1950s and during the 1960s. Environmental psychology is the study of the impact of the physical environment on people and the impact

* Corresponding author. Tel.: *+903122924560*
E-mail address: myalcin@etu.edu.tr

of people on the physical environment. It is an area of applied psychology, although a substantial portion of the research is devoted to theoretical and methodological development. A research problem in environmental psychology has three facets: the molar environment, the psychological characteristics of persons (or groups), and the intra-person psychological processes. Major research focuses include acquisition, representation, and use of spatial and non-spatial knowledge in environmental choice. In this context, the course of Environmental Psychology covers subjects such as perception, cognition, personal space, privacy, territoriality, crowding, way finding and spatial orientation and aims to improve students' knowledge about human behaviour, people and their interaction with the environment (interior/exterior). Examination of the interrelationship between environments and human behaviour is among the objectives of the course. Definition of the terms including environment, natural environment, social settings, built environments, learning environments and informational environments helps to explore and define design parameters affecting humans interaction with their social and physical environment. *Experimental Learning Theory* defines learning as "the process whereby knowledge is created through the transformation of experience". This study makes the emphasis on **"exploratory" and "descriptive"** aspects of the Environmental Psychology within the real life context, providing comprehensive information to be inferred and issued in a complementary manner in interior design education. In such a way that; viable *physical environment, social organization and norms, characteristics of people* objectives are to determinants empirically whether, and how the use of experience and practices can improve design problem-solving by both novice and expert designers.

2. The course of environmental psychology within the design education

In design education, learning and teaching methods aim to balance the creative process with a critical awareness of more objective criteria in the development of a proposition. Each design outcome tends to be unique, non-repetitive and immanent in its conception and development (Demirbas, Demirkan, 2007; 2003) . The rationale of the curriculum has to enable the students to build up a model that will guide them to understand and apply the knowledge, skills, process and theories of design and to provide a balanced synthesis between the artistic, technological and humane aspects of the profession (Demirbas, Demirkan, 2007; 2003). For this reason, design students have to identify and cognize these circumstances. Although the studies classify different learning types and/or styles in different ways, their aims and approaches are similar. Felder (1996) claims that since the instructional approaches around the cycle of learning models are similar, it is not important, which learning style instrument has been chosen. Among the various learning style theories, Kolb's (1984: 41) ELT that defines learning as "the process whereby knowledge is created through the transformation of experience. [and in which] Knowledge results from the combination of grasping and transforming experience" was chosen to underpin this study. ELT suggests that learning is a cycle that begins with experience, continues with reflection and later leads to action, that becomes a concrete experience for reflection (Kolb, 1984). In the Experiential Learning Model, there are four phases of the learning cycle, namely concrete experience (CE), reflective observation (RO), abstract conceptualization (AC) and active experimentation (AE) (Demirbas, Demirkan, 2007; 2003; Boyatzis, Mainemelis, 1999).

2. 1. David Kolb's Learning Style Inventory

In 1971 David Kolb developed the Learning Style Inventory (LSI) to assess individual learning styles. While individuals tested on the LSI show many different patterns of scores, research on the instrument has identified four statistically prevalent learning styles -- Diverging, Assimilating, Converging, and Accommodating.
Diverging: The Diverging style's dominant learning abilities are Concrete Experience (CE) and Reflective Observation (RO). Research shows that they are interested in people, tend to be imaginative and emotional, have broad cultural interests, and tend to specialize in the arts. In formal learning situations, people with the Diverging style prefer to work in groups, listening with an open mind and receiving personalized feedback.
Assimilating: The Assimilating style's dominant learning abilities are Abstract Conceptualization (AC) and Reflective Observation (RO). Individuals with an Assimilating style are less focused on people and more interested in ideas and abstract concepts. Generally, people with this style find it more important that a theory have logical soundness than practical value.
Converging: The Converging style's dominant learning abilities are Abstract Conceptualization (AC) and Active Experimentation (AE). They have the ability to solve problems and make decisions based on finding solutions to

questions or problems. Individuals with a Converging learning style prefer to deal with technical tasks and problems rather than with social issues and interpersonal issues.

Accommodating: The Accommodating style's dominant learning abilities are Concrete Experience (CE) and Active Experimentation (AE). They enjoy carrying out plans and involving themselves in new and challenging experiences. Their tendency may be to act on "gut" feelings rather than on logical analysis. In solving problems, individuals with an Accommodating learning style rely more heavily on people for information than on their own technical analysis (Kolb, Boyatzis, Mainemelis, 1999).

Students with different learning style perform differently depending on the examination format. Therefore, different assessment strategies are required for measuring overall performance of students. When all courses across the design curriculum are taken as a whole, it is possible to propose that all learning styles should be considered in design education. Since it is claimed that design studio is the combination of all other courses in design education. Interior design needs to develop various types of criticism of the interior environment. Implicit, exploratory, or interpretive criticism(Demirbas, Demirkan, 2007; 2003; Boyatzis, Mainemelis, 1999). The purpose of this type of criticism will be to explain the meaning and structure of the environment to enhance the experiential qualities of the visitor or user, resulting in greater societal appreciation of the benefits gained from qualified interior design and increasing the value of the interior designer. This style of criticizing provides subtle point of abstract student learning in design education.

3. The course of environmental psychology and student projects

Inherently, the course of 'Environmental Psychology' provides Interior Architectural students the accumulation of knowledge to understand and criticize humans responses within their environment and assessing human ware interior design projects. This course help student to examine the following issues;

- Introduction: space, human behaviour, design,

- Scope of environmental psychology: history, theories, research methods,

- History of environmental psychology: human evolution and adaptation to the environment,

- Theories and research methods: Barker, Maslow, observation, interview, simulation,

- Human behaviour: fundamental processes, Environmental Attitudes, Appraisals and Assessments,

- Spatial behaviour: elements of environmental perception, legibility, orientation, way finding,

- Cognitive process: perception and cognition, cognitive mapping, information processing,

- Privacy, territoriality, density, crowding, control,

- Socio-economic aspects: status, wealth, age, gender,

- Cultural aspects: gender, age, country, cultural background,

- Technological aspects: virtual environments, interpretation of information transportation, new materials,

- Design aspects: impact of human need on design, impact of design on human behaviour,

- Future implication (Bozdayı, 2004).

The design projects discussed in this paper helped students understand the cultural, social, economic, and political realities of societies and the ways in which these issues impact design. While previous studies have discussed and illustrated the significance of integrating global issues and divers issues in the design process in different socio-demographic settings. This paper illustrates global design issues having examined by student through existing spatial design in different functional settings. Additionally, students are helping to address

design problems specific to these parameters.

As mentioned these issues helps to develop a point of view and interdisciplinary multi dimensional recognition how a design problem is handled. And this accumulation of knowledge is processed on various interior spaces like hospital rooms, restaurants, hotel rooms, preschools etc... by students. handling parallel functional solutions in divers psycho-social settings provide them to realize and recognise how diverse design perspectives are introduced, and abstract inclusion, contribution, and transformational issues of demographic elements are concretized. The projects, outcomes and impacts on students taken this course are as following:

3. 1. Student Project's held within the course of Environmental Psychology

Drawn up on the knowledge of human-environmental interaction, this study offers discussions and analyses which were examined by 83 junior interior architecture and environmental design students and 38 other departments' students of the 2011/2012 Summer, 2012/2013 Autumn and 2012/2013 Summer semesters from the course of 'İÇT 307 Environmental Psychology' at TOBB ETU located in Ankara, Turkey. In the context of viable *physical environment, social organization and norms, characteristics of people* objectives which are the determinants empirically whether, and how the use of experience and practices can improve design problem-solving by both novice and expert designers. In this context, this study presents applied samples and outcomes of course works of case-based instruction and its description development to be applied as medium synthesizing and/or assimilating in different human-environment setting within various observations for new idea generation process of design. Connected with these issues consecutive cultural variables have examined as following.

In such a way that aspects of interior design, expands their parameters beyond style, function, objects, spaces, and finishes which are **"Exploratory" and "Descriptive" aspects**. These are describing a dynamic systems view of interior design, incorporating criteria that warrant consideration when designing spaces for both living systems, as defined by human activity, and artefacts (Davey, 2008; Rapoport, 2001; Gür, 1996; Gürkaynak, 1996). Besides; human imagination, expression, and the interrelations within and among global the means of modelling the natural, social, and the values and histories underlying societies globalism, a comprehensive consideration of events, actions and consequences, is affecting the interior design profession whether interpreting clients needs, designing and planning diverse spaces, specifying final version, or constructing the interior built environment (Bozdayı, 2004; Gustafson, 2001;Bell, Fisher, Baum, Greene,1996; Hasell, Scott, 1996). These are also identifiers of a comprehensive approach so that abstract thought and images may be directed beyond specific application, and generalizable theories become a possibility. In this respect most significant student works are described and summarized as following;

3. 1. 1. Hospital, Delivery room: Students identified especially in the new born rooms mothers draws very much attention to interior design and decorations to attract people. Student have experienced here how interesting people can react in some special cases such as; mother considers appearance of the room before or besides health consequences which is actually more important.

Images 1-2. Delivery room of the Medicana Hospital, Ankara Turkey, Sample of a student work for the spatial

reflection of the contemporary expectations and requirements of new mother.

Images 3-4. Medicana Hospital, a very luxurious delivery room.

Images 5-8, Delivery rooms in Europe and Turkey.

3. 1. 2. Restaurants: Students who have studied the restaurants have examined and compared traditional and contemporary popular restaurants. They have identified traditional features are interpreted in terms of contemporary requirements and expectations and besides new popular ones tries to catch a continuity in Institutional Identity. They found out even ethical or franchising restaurant image or spatial identity varies in terms of socio-economic parameters. On the other hand Traditional restaurants had to adapt new condition and its spatial reflections are recognised by students.

Images 9-10. Uludağ restaurant, a traditional restaurant with a contemporary attempts.

Images 11-14. Washington Restaurant (Yalçın, 2011).

Images 15-16. Tike Restaurant in Panora Mall, Ankara (Yalçın, 2008).

Images 17-18. Scene of the dining hall of Panora Mall (Yalçın, 2008).

Images 19-20. Ethnical samples of Italian 'Pastarito' and Mexican 'Cantina Mariachi' restaurants in Panora Mall, Ankara (Yalçın, 2008).

3. 1. 3. Doğramacızade Ali Paşa Mosque: granted by Doğramacı Foundation in Ankara, is inaugurated for community use in September 2008, in Bilkent, Ankara. The mosque has a unique architectural style in such that the Architect differentiates classical understanding of mosque image by his eclectic imitation with an aim of bringing more quality to the classical model. This structure is not only a mosque, the worship building is planned to serve for Christian and Jewish uses as well. The complex houses multi-functional facilities including concert, conference and exhibition uses. With its exclusive architecture, technology and respect towards different beliefs and religions, the structure brings a new understanding to the Mosque typology. All these features makes this structure valuable and comprehensive for assessing different cultures, functions and design solutions at once for students .

Images 21-22. Doğramacızade Ali Paşa Cami, Exterior view

Images 22-25. Doğramacızade Ali Paşa Mosque, Entrance door, window detail, shoe cases, and praying corners of the Muslims.

Images 26 -27. Doğramacızade Ali Paşa Mosque, Dome detail and its interior atmosphere

Images 28-31. Doğramacızade Ali Paşa Mosque, general atmosphere and stages where the imam makes his speeches.

On the other hand, If the value of an interior environment is to be defined by its effectiveness, serviceability, affordability, beauty, satisfaction, and delight and if the designer's work is to demonstrate how all of these contribute to productivity and environmental satisfaction, then what are some of the questions that need to be addressed to get at these issues in accordance with the psycho-social circumstances (Davey, 2008, Gustafson, 2001, Fransson, Gearling, 1999; Kostof, 1995), critical reviews of interior environments should be analyzed according to the following items to the design problem:

- The relationship between the design program and the end users' perception and evaluation;
- The facility's contribution to supporting the values of the end users;
- The facility's contribution to promoting the quality of life of the users;
- The manner in which the design solution addresses contextual issues, such as economic, historic, environmental impact, political, and social, within a global context;
- The manner in which aesthetic issues reflected in the design solution address performance issues (e.g., social, physical, psychological, economical, flexibility), contextual issues, and issues of social relevance;
- The manner in which the totality of the whole environment evokes emotions of satisfaction and delight for its end users; And, in addressing the above issues, how the design solution reflects evidence of originality (Asojo, 2001).

2. 2. Findings and Discussion

The process of conducting this type of research, and the role that the behavioural scientist can play in the translation of subsequent information for use by the designer, is consistently dealt with throughout the document.

Environmental programming is developed as the common area of interest that would draw the researcher and designer into meaningful interaction.

As result the findings of students; this study explores the human-environmental issues definition through elements have concretized abstract element in their mind which is a systematic inquiry in to international, educational, and design literature revealed recurring issues that impacts the interior design problem and, therefore, interior design education. Identification of these issues allowed student to identify subtle issues which include space identity, contemporary and social reflection of spatial items, interdisciplinary elements, international concerns, technology integration, and scholarship activities. (Knieling, Othengrafen, 2009; Khaslavsky, 1998; Dickson, White, 1997; Proshansky, 1978; Proshansky and Fabian, 1987; Proshansky *et al.*, 1979, 1983, 1995). Psycho-Social factors affecting people, directing spatial design and identity that student were asked to establish their analysis providing **"Exploratory" and "Descriptive" aspects** to the design problem. These descriptive indicators in different psycho-social settings that student found out are as following;

- **Spatial Identity:** Institutional identity, concept, spatial image, design perspective, function
- **Economical Factors:** Material, budget, costumers, spatial identity, function.
- **Physical Factors:** Spatial requirements**,** materials, location, space organization, function, openings, climatic.
- **Social Factors:** Human expectations and requirements, conceptual design, function, spatial allocation of environment(Bozdayı, 2004; Bell, Fisher, Baum, Greene,1996),

This analytic study showed the instructors that students gets a deeper understanding and tangible knowledge as the result this method. It provided a process-way of thinking during which the many elements, issues, possibilities, and constraints of interior design knowledge are integrated.

3. Conclusion

To sum up people develop affective relationships in various contextual index with their environment deeply and in layered functionalities. These relationships provide not only emotional and psychological affordances, but also cognitive and social affordances which satisfy sense of place, integrate and enable engagement (Davey, 2008; Zimmerman, Stumpf, 2004; Rapoport, 2001). As mentioned before configuring environmental design criteria's for the end-user covers many aspects such as socio-economic items, values, beliefs, social environment, physical setting, aesthetic, location etc. Within the human-environment interaction (Gür, 1996).

There is presently limited body of literature comprising "environmental psychology" as a tool of description atmospheric interior design solution. There are, however, many theoretical approaches from related fields that have application to the field of interior design. Program must provide learning experiences that address diverse perspective and approach to thinking and problem solving (viewing design with awareness and respect for demographic and psycho-social differences of people; understanding issues that affect the interior environment; understanding the implications of conducting the practice of design within a world market).

As mentioned deeply in the previous sections students have examined spatial reflections; different psycho-social items in the identical functional interior environmental settings; under the headings of *Spatial Identity, Economical Factors, Physical Factors and Social Factors.* (Zimmerman, Stumpf, 2004; Fransson, Gearling, 1999).

References

Bechtel, R. B., (1997), *Environment & Behavior An Introduction*.
Bell, P., Fisher, J., Baum, A., Greene, T., (1996), *Environmental Psychology,* Ft.Worth, TX: Holt, Rinehart&Winston.
Boyer, E. t., & Mitgang, L. (1996). Building Community, *"A New Future for Architecture Education and Practice"*.   Princeton, New Jersey: The Carnegie Foundation for the Advancement of Teaching.
Bozdayı, A. M., (2004)" *İç Mekan ve İnsan."* Hacettepe Publications.
Davey, J., (2008), "*Educating Design Intuition: a Survay of Problem Solving Methods used in   Architecture and Interior   Design Studios*", Online Journal of Workforce Education and Development Volume III, Issue 1, College of Applied Sciences, Southern Illinois University Carbondale.Dickson, A., W., White, A., C. (1997). *"Interior   Design Criticism: Developing a Culture of Reverence for the Interior Environment",* Interior Design Educators   Council, Journal of Interior Design 23(1): 4-10.
Fransson, N., Gearling, T., (1999), *"Environmental Concerns: Conceptual Definitions, Measurements Methods, and   Research Findings"* Journal   of Environmental Psychology 19, 369-383.

Gustafson, P., (2001), *"Meanings of Place: Everyday Experience and Theoretical Conceptualization"* Journal of Environmental Psychology 21, 5-16.

Gür, Ş., Ö., (1996). "*Mekân Örgütlenmesi"*

Gürkaynak, İ. (1988). "*Çevresel Psikoloji: Doğası, Tarihçesi, Yöntemleri"*. Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 21(1)1-9.

Hasell, M. J., & Scott, S. (1996). *"Interior design visionaries"*, 1-14.

Kolb, A. Y., & Kolb, D. A. (2005). *Learning styles and learning spaces: enhancing   experiential learning in higher education*. Academy of Management Learning and Education, 4, pp193-212.

Kolb, D., Boyatzis, R. E., Mainemelis, C., (1999),*"Experiential Learning Theory: Previous Research and New Directions"*.
        Department of Organizational Behavior Weatherhead School of Management Case Western Reserve University, pp. *1-40.*

Kolb, 1984 D.A. Kolb Experiential learning*: Experience as the source of learning and   development* Prentice Hall, Englewood Cliffs, NJ (1984)

Kolb, 1999 D.A. Kolb Learning style inventory. Version Hay/McBer, Boston.

Proshansky, H. M. (1978) The city and self-identity, *Environment and Behaviour*, 10, 147-169.

Proshansky, H. M., Fabian, A. F. and Kaminoff, R. (1983) *"Place identity: physical world socialization of the self"*, Journal of Environmental Psychology, 3, 57–83.

Proshansky, H. M., Fabian, A. F. and Kaminoff, R. (1995) *"Place identity: physical world socialization of the self"*, In: D. Canter (Ed.), Readings in Environmental Psychology. Given Places Meaning. London: Academic Press.

Rapoport, A. (2000), "*Culture, Architecture and Design*", Locke Science Publishing Company, Inc.

Yalçın, M., (2008) *" The Determiners in Identity Formation of the Dining Spaces within the Context of Human- Environment Interaction"* Master's Thesis, Hacettepe University, Ankara.

Yin, R. K. (1994*). "Case Study Research: Design and Methods* "(2nd edn.). Thousand Oaks, CA: Sage.

Zimmerman, D. & Stumpf, K. (2004). *"Taking the lead in collaborative international interior design education: Finding the common ground between disciplines*". *lDEC* International Conference Proceedings, 31 -32.