

EXPLORING PHYSICAL ENVIRONMENT AS HIDDEN CURRICULUM IN
HIGHER EDUCATION: A GROUNDED THEORY STUDY

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ABSTRACT

EXPLORING PHYSICAL ENVIRONMENT AS HIDDEN CURRICULUM IN HIGHER EDUCATION: A GROUNDED THEORY STUDY

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This is a grounded theory study of the physical environment as hidden curriculum. A hidden curriculum is one of the side effects of an educational settings that transmits unstated norms, values and beliefs which are not openly intended. One domain discussed in hidden curriculum literature is the physical environment that conveys messages about social order, the nature of the learning process, and the role of teachers and students. In this sense, main aim was to investigate the physical environment as hidden curriculum in higher education. Grounded theory was employed to develop a theory that conceptualizes and explains the physical environment as hidden curriculum in an attempt for understanding its scope, depth, and relevance. Walking interview and photo-elicitation methods were utilized to collect data from 93 undergraduate students from seven contexts. Data were analyzed with open, axial and selective coding within the grounded theory framework. The study revealed three major dimensions of the physical environment as hidden

curriculum: (1) impact of the physical environment on students' socialization, feelings, and ideas on field specificity, (2) meaning of the physical environment as symbol of the university, and (3) invisible side of the physical environment depending on the researchers' backgrounds and underlying ideologies. This study presented a conceptual framework for the description of a university place, a practical framework illustrating the way learning places are used as an education tool and socialization place, and a theoretical framework for the contribution of the physical environment to undergraduate students' university life.

Keywords: hidden curriculum, physical environment, higher education, grounded theory

ÖZ

YÜKSEKÖĞRETİMDE FİZİKSEL ORTAMIN ÖRTÜK PROGRAMININ İNCELENMESİ: BİR GÖMÜLÜ KURAM ÇALIŞMASI

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Bu çalışma fiziksel ortamın örtük programını incelemek üzere yapılan bir gömülü kuram geliştirme çalışmasıdır. Örtük program en genel tanımı ile programlarda açıkça hedeflenmemesine rağmen, eğitim süreci içerisinde öğrencilerin normlar, değerler ve inançlar hususunda olumlu olumsuz tüm kazanımlarını ifade eden program türüdür. Örtük program kapsamında çalışılan bir etmen fiziksel ortamdır. Fiziksel ortam, toplum düzeni, öğrenme sürecinin doğası, öğretmen-öğrenci rolleri ve otorite, riayet, disiplin gibi konularda öğrencilere mesaj iletmektedir. Bu bağlamda, bu çalışmanın ana amacı üniversite eğitiminde fiziksel ortamın örtük programını araştırmaktır. Gömülü kuram oluşturma çalışması olan bu çalışmayla fiziksel ortamın örtük programının teorisini oluşturmak ve bu teorinin kapsam, derinlik ve ilişki boyutlarını açıklamaktır. Veriler dolaşarak görüşme ve fotoğrafla tanımlama yöntemleri ile toplanmıştır. Bu doğrultuda 93 üniversite öğrencisi ile

görülmüştür. Veriyi analiz etmek için, gömülü kuram geliştirme çalışması analiz aşamalarından olan açık, aksiyal ve seçici kodlama türleri kullanılmıştır. Sonuç olarak, fiziksel ortamın örtük programı 3 ana boyutta irdelenmiştir. İlk boyutta, öğrencilerin açıkça belirtmiş oldukları fiziksel ortamın öğrencilerin sosyalleşmelerine, duygularına ve binanın alana özgü olup olmadığına dair fikirlerine olan etkileri tartışılmıştır. İkinci boyutta, kampüs fiziksel ortamının üniversiteyi nasıl sembolize ettiği betimlenmiştir. Son olarak, araştırmacının çalışma alanına ve ideolojisine bağlı olarak değişen fiziksel ortamın gizli etkisi tartışılmıştır. Bu çalışma yükseköğretimde fiziksel ortamın örtük programı hakkında kavramsal, uygulamalı ve teorik bir çerçeve sunduğu için önem arz etmektedir.

Anahtar Kelimeler: örtük program, fiziksel ortam, yükseköğretim, gömülü kuram oluşturma çalışması

To my mom
my husband Hakan
my daughter Tilsim

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LIST OF ABBREVIATION

ADM	Department of Political Science and Public Administration
ARCH	Faculty of Architecture
BA	Department of Business Administration
CCC	Culture and Convention Center
CEIT	Department of Computer Education and Instructional Technology
CP	Department of City and Regional Planning
DARCH	Department of Architecture
DU	Dynamic University
EAS	Faculty of Economic and Administrative Sciences
ECON	Department of Economics
EDU	Faculty of Education
EEE	Department of Electrical and Electronics Engineering
ELE	Elementary Education
ELT	Department of Foreign Language Education
GEOE	Department Geological Engineering
GT	Grounded Theory
HSEC	Human Subjects and Ethics Committee
ID	Department of Industrial Design
IE	Department of Industrial Engineering
IR	Department of International Relations
METU	Middle East Technical University
PE	Photo-Elicitation
PHYS	Department of Physics
SSME	Department of Secondary Science and Mathematics Education
TNGA	Turkey's National Grand Assembly
WI	Walking Interview

CHAPTER I

INTRODUCTION

1.1 Background to the Problem

The relationship between physical space and learning process has been recognized by architects and educationalists since the end of the 19th century. Designers working in these fields have drawn considerably on the emerging discipline of environmental psychology since the late 1960s. Environmental psychology is the study of transactions between individuals and their physical settings. The main basis in this transaction is that while individuals change the environment, their behavior and experience are changed by the environment (Gifford, 1997).

In school environment, students are in the designed environment also surrounded by physical stimuli. In this physical viewpoint, the researchers are interested in the effects on activity of light, temperature, and physical closeness. Initial studies were conducted about the effects of ambient environment, class and school size, and building conditions on educational outcomes. In its simplest form, ambient environment includes noise, lighting, and thermal conditions. Many scholars' studies and reviews showed that good acoustics are recognized to have a strong influence on successful learning in school (Cash, 1993; Earthman, 2004; Fisher, 2001; Hines, 1996; Lanham, 1999; Schneider, 2002). Classroom lighting is the other critical factor for student performance (Phillips, 1997). Appropriate lighting improves test scores, reduces off-task behavior, and plays a significant role in students' achievement (Jago & Tanner, 1999). Additionally, other important features of buildings influencing the students in general are heating, temperature and air quality (Buckley, Schneider, & Shang, 2004; Earthman, 2004). Controlling climate in the classroom has an impact on student learning outcomes (Cash, 1993; Earthman, 2004; Hines, 1996; Lanham, 1999). Related to class and school size, high density conditions have been found to

lead to increased aggression, decreased social interaction, and non-involvement, while small class size results in better scores on learning achievement tests. On the other hand, Barker and Gump (1964) found that small schools provided students with greater opportunities to join in extracurricular activities and to exercise leadership roles. About building condition, McGuffey (1982) and Earthman and Lemasters (1998) reviewed plentiful researches and they concluded that there are significant links between the school building condition and student achievement.

The research have been conducted not only in primary and secondary school environment, but also in university environment. There is growing interest in the relationship between learning spaces and pedagogy in higher education (Graetz & Goliber, 2002; Jameison, 2003; Jessop, Gubby, & Smith, 2011; Joint Information Systems Committee, 2006; Oblinger, 2006b, Popenici & Brew, 2013; Temple, 2007, 2008, 2009). Focus of the physical environment research in higher education is on more informal spaces than formal spaces in contrast with the school sector. Furthermore, authors' focuses have also moved towards on campus environment rather than classroom environment.

The context of teaching and learning become important in the 21st century, while pedagogy was associated with operations of teaching and learning in the past. Learning spaces do not limit the activities used by the educators, anymore; they influence the social interactions not only between educators and students but also among students. Therefore, researchers' focus changed direction. Questions emerged to grasp the relationship between existing teaching spaces and new pedagogies. The creation and renovation of learning is currently a priority for educators working in higher education. The emphasis in learning is on active construction of knowledge by the learner. So, environments should provide experience, stimulate the senses, encourage exchange of information, and offer opportunities for rehearsal, feedback, application, and transfer in order to support learning (Van Note Chism, 2006).

According to Joint Information Systems Committee (JISC), students' motivation and their ability to learn increase in well-designed social spaces (2006). The Joint Information Systems Committee has contributed to discussion about the design of

university spaces and technology. The design of the educational buildings needs to be: “flexible (suitable for current and evolving pedagogies), future-proofed (changeable for different uses), bold (able to foresee what has already been tested in terms of technologies and pedagogies, durability), creative (energizing and inspiring), supportive and enterprising (capable of multi-purposes)” (p. 3).

21st century students prefer the learning experiences which are digital, connected, experiential, immediate, and social (Hunley & Schaller, 2006). Cox (2011) concluded that students like the newly designed, technologically-enhanced teaching spaces. The basic comfort, audibility, and visibility are the main critical features in the room. Therefore, in the 21st century, a single space should have multiple roles. It should allow students to gather, to study, to collaborate, to socialize, to connect to the Internet, to chat, even to eat and drink (Oblinger, 2006a).

Learning is also the central activity of universities. Learning occurs in classrooms via formal learning; while sometimes it results from serendipitous interactions among individuals which is called informal learning (Oblinger, 2006a). So, the buildings should provide a place for casual conversations because students have the capacity to learn through their experiences and reflections. If the environment prevents random encounters, discourages conversations, furnishes with uncomfortable furniture, learning opportunities do not emerge (Oblinger, 2006a).

Moreover, the physical environment can be considered as the second teacher since space has the power to organize and promote pleasant relationship between people of different ages, to provide changes, to promote choices and activities, and for its potential for sparking different types of social, cognitive, and affective learning. The space within the school mirrors the ideas, values, and attitudes, and cultures of the people within it (Sanoff, Pasalar, & Hashas, 2001). It is common to see the sentences and/or phrases “physical environment can help or hinder learning”, “second teacher”, and “silent teacher”. This aspect of the physical environment is entitled hidden curriculum.

The hidden curriculum has long been of interest to educators, sociologists, and psychologists. It has been argued that the hidden curriculum is more effective than

the manifest curriculum (Gordon, 1983). Frame of the hidden curriculum is larger than the curriculum which is written and overt. The concept “hidden curriculum” has been used in describing the informal system of schools (Ballantine & Hammack, 2012). Definition of the term hidden curriculum was first paid attention to especially in the late 1960s and 1970s. There are several definitions of the hidden curriculum in the literature. The term ‘hidden curriculum’ began to be used in the literature since Jackson (1968) indicated the key feature of the concept; its hiddenness (Seddon, 1983). It was originally presented in the book called “Life in Classrooms” in 1968 to draw attention to the idea that schools do more than simply aid the transmission of knowledge between one generation and the next. According to Jackson, the hidden curriculum refers to unofficial expectations, implicit values and norms (Portelli, 1993). As also stated by Portelli (1993), the hidden curriculum is the sum of unofficial institutional expectations, values and norms aimed at by educational administrators, perhaps teachers and to a lesser extent parents, and which are initially completely unknown to the students. The hidden curriculum is hidden because it is not public.

One of the domains discussed within hidden curriculum is about how space influences learning. What is learned in school including disciplines, habits, and implicit values are conveyed by rules about behavior, role models, and the design of the physical space (Cox, 2011). Space can carry an unspoken message of silence and disconnectedness (Oblinger, 2006b). Because the learning spaces are adjustments of governance system of institutions, they carry written or unwritten messages and the conceptualization of learning for students (Popenici & Brew, 2013). Moreover, Strange and Banning (2001) emphasize the nonverbal messages conveyed by the physical aspects of the campus. The campus can be welcoming or discouraging, valuing or disrespecting. Physical attractiveness and lighting of a space are linked to the motivation and task performance of students in the space. There is a comprehensive book showing the effects of the hidden curriculum in higher education. The book “The Hidden Curriculum in Higher Education” was edited by Eric Margolis in 2001 and this book includes eleven case studies which explores a different aspect of the hidden curriculum and illustrates how much of what is taught

this way helps to produce and reproduce class, gender, and race hierarchies. The first article entitled “Hiding in Plain Sight” was written by Gair and Mullins. Gair and Mullins (2001) conducted a project that utilizes methods of visual ethnography and they carried many implications to explore ways in which the concept hidden curricula can be explicitly applied to higher education. While conducting this project, they elaborated on the topic via interviewing with the academicians, many of whom paved the way for literature on socialization and hidden curriculum in primary and secondary school. After the analysis of the transcribed interviews, one of four themes related to hidden curricula is the role of the physical environment. Analysis of these interviews showed that the buildings, use of physical space, the physical arrangement in the classroom, other architectural features “honor certain histories and convey political agendas” (Gair & Mullins, 2001, p. 27). Additionally, in the third chapter, Costello elaborates on the importance of the physical environment by examining two professional schools: a school of social work and a law school in an article entitled “Schooled by the Classroom”. Costello (2001) conducted a participant observation and she demonstrated how the messages conveyed to students by the physical environments of the schools are part of the hidden curriculum that helps to reproduce patterns of social stratification.

Although hidden curriculum as a topic has been of interest to many curriculum professionals, sociologists (and so on) since 1970, there is no hidden curriculum theory drawn from research and literature. This is also true for the role of the physical environment which is one dimension of the hidden curriculum. According to Strange and Banning (2001), the role of the campus as a learning space appears from time to time in the literature, but is under-conceptualized: the use of the physical environment as a tool for students development and learning is “the least understood and the most neglected” (p. 30). Thus, this study focused on the analysis of the functions of the physical environment as hidden curriculum in higher education in Dynamic University. Dynamic University (DU) is pseudonym used for the real university context.

1.2 Purpose of the Study

The main purpose of this study is to investigate the functions of the physical environment as one dimension of hidden curriculum in higher education in DU. From the perceptions of the undergraduate students, distinctive and common features of physical environment in the educational building and campus environment were obtained in order to elaborate on the physical environment. Moreover, another purpose of this grounded theory study is to develop theory which conceptualize and explain the physical environment as hidden curriculum to understand its scope, depth, and relevance.

The initial and general question was “What is the hidden curriculum of the physical settings throughout university education of the undergraduate students?” Other attendant questions that guided this study are:

1. What are the primary agents of socialization within the institution? What are the contexts and processes through which they work? What norms do they express?
 - 1.1. How do physical spaces become social?
 - 1.2. How do the faculty building and campus environment affect university students’ socialization process?
 - 1.3. What are the factors that hinder or support students’ engagement in social and academic activities?
2. What are the most important formal and informal normative contexts experienced by students? What norms do they express?
3. How do spaces create positive and/or negative feelings?
4. What are the hidden aspects of a particular place?
 - 4.1. What are the hidden aspects of the corridors and hallways? What are the functions of corridors in various departments?
 - 4.2. What are the hidden aspects of faculty member areas? What are the functions of these places in various departments?
5. Which spaces are more important for which reasons?
6. What are the roles of the physical environment for university education?

7. Which physical characteristics that a campus environment including buildings should have from the perspectives of students?

1.3 Significance of the Study

In this grounded theory study (GT), a conceptual framework to understand physical environment as hidden curriculum is developed. The most valuable significance of this study is the theoretical contribution, which may be especially useful for curriculum specialists. This research may be one of the first attempts to discover the physical environment as one of the domains of hidden curriculum in the literature. There are several studies on the hidden curriculum which address the concept of physical environment to a certain extent, but only very few put the physical environment at the center of the investigation.

Because this study contributes to the conceptualization of the physical environment as hidden curriculum, it provides a deeper understanding of this phenomenon within the framework of curriculum theory. This research can provide different variables of physical environment as part of hidden curriculum for other studies. The other issue is that physical environment in hidden curriculum has been studied by architects, sociologists, environmental psychologists, and anthropologists. Investigation of the physical environment from educational perspective can be worthwhile in order to enrich ideas on it.

As well as theoretical value, this study also has methodological significance. This study does not only provide definitions, guidelines of grounded theory from the large literature but also illustrates the use of grounded theory in the genuine context in education, and then this study provides implications and suggestions for further studies done by grounded theory. Methodological implications of this study might facilitate conducting a study about not only physical environment but also hidden curriculum in general. As well as presenting the application of the grounded theory, two different research methods were utilized in this study; therefore, benefits, drawbacks and limitations of using these methods were shown, which may be beneficial in giving insight to researchers in the field of education.

As well as the contribution to theory and method, this study is also significant to understand the functions of the physical environment in the university education. It is important to see what the function of the physical environment is, what kind of culture, norms the physical environment reflects to undergraduate students.

There are many departments at Dynamic University (DU). This study was conducted in both Social and Natural sciences. Social sciences and Natural sciences are two subjects that differ from each other. While Natural sciences deal with everything else in nature like the earth, animals, and study how these things work, social sciences deal with humans, both as individuals and as society and the interaction between them. Because of such differences, use and role of the physical environment is diverse. For example, a student at Faculty of Architecture can spend a lot of time in the studio, or a student at Department of Geological Engineering can spend some time in the field as well as in the laboratory. Therefore, definition of the learning spaces, components of them change from one context to another. In this sense, this study is important in investigating how the physical environment has a role in these diverse disciplines, and reflect distinctions and similarities in these context.

Furthermore, DU is a campus university. Students' ideas and perceptions about campus environment were obtained. Therefore, this study highlights implications about being a university student in campus environment.

In this study, five different faculties were included. All undergraduate programs under these faculties have their own aims, missions, body of knowledge unique to that program, sets of values and attitudes toward that subject, and different emphasis (like research, practice, teaching, and ethic). Moreover, faculty buildings included in this study were different from each other. There were many different physical and architectural characteristics including physical structure, physical layout, number of buildings for each faculty, and location of the faculty. Furthermore, some faculties included both natural and social sciences. All these mentioned differences yielded a plentiful variety in terms of the usage of space, the functions of the particular place, and the role of the place on students' extra-curricular activities. In light of these, the purpose of this study was to illustrate the constant elements of hidden side of the

physical environment; hence, this study was significant to grasp the general picture about how the physical environment shapes undergraduate students and their university education.

In order to clarify the significance of this study for any stakeholders, it can be useful to explain the process of building faculties in Turkey. Faculty buildings are established mainly according to the following process. Firstly, the unit that needs the building demands need of a faculty building from the presidency of a university. The unit (the deanship in education faculty case) provides some criteria such as how many classrooms they need, how many students will use the building and so on. Then, the presidency of the university evaluates this demand and assigns the responsibility to a specific unit that deals with construction and technical works. After that, related units and experts work until they establish the building. In this process, many professionals are involved but their contributions are independent from each other. It can easily be concluded that this process is based on the basic design considerations, financial support, and emergency of the needed faculty. Educational considerations are ignored most of the time. On the contrary, the recent emphasis is the physical environment as a second teacher, understanding the hidden effects of the building on training of the undergraduate students was necessary while constructing and designing the building. Therefore, this study offers such understanding to all professional people involved in the construction of a faculty building. Although administrators and instructors are not responsible for designing a building, they have a responsibility to make decision about use of the spaces, cleanliness and orderliness of the spaces, selection of the materials and their use. When these issues are considered, implications of this study might also be useful for administrators. On the other hand, when the architect asks the question “how should the faculty building be?” administrators and instructors should have a word to say in designing process of the faculty building for effective university education.

As well as all these contributions of this study, undergraduate students as main users of the faculty building indicated their own experiences, ideas, opinions, attitudes toward the faculty building and any physical structures within it. Via this study, all

professionals might realize these; therefore students' viewpoints may be reflected when any kind of decision about the faculty building will be taken.

Although the aim of this study was not to present design principles of a faculty building or which physical characteristics are needed for undergraduate students, it might be a good guideline in providing such clues indirectly. New universities are being opened each passing day, therefore this study provides valuable guide before these faculties are built in order to maintain effective teaching and learning environment.

All in all, this research attempted to comprehend messages transmitted to undergraduate students by faculty buildings. The study might be beneficial for many stakeholders including curriculum specialists, architects and designers, administrators, and university students. Buildings where education takes place would create impact in relation to developing professional and/or occupational features of an undergraduate. If the physical environment is second teacher, students are the learners from it, educators and administrator are the controller mechanism. Therefore students' understanding about the physical environment is meaningful. Lastly, this study contributes to our understanding of notions, functions and impact of physical environment in higher education.

1.4 Definition of Terms

Hidden curriculum:

Although the detailed explanation of this term was given in the literature part, the following definition of the hidden curriculum which generally composes the theoretical framework of this study is as follows;

One particular area of confusion seems to exist over whether the hidden curriculum refers to a process or to an outcome of learning, or in fact, whether it refers both. Given this, the definitions suggest in essence that the hidden curriculum refers to the outcomes, which are not explicitly intended by educators. These outcomes are generally not explicitly intended because they are not stated by teachers in their oral or written lists of objectives, nor are they included in educational statements of intent such as syllabuses, school policy documents of curriculum projects (Seddon, 1983).

Environment:

The environment is the total of the circumstances surrounding an organism or group of organisms and that affect and influence the development of organisms. Common definitions also include the complex of social and cultural conditions affecting the nature of an individual or community (Moore, 1987).

Physical environment:

The physical environment is defined to include all those aspects of the inanimate world that surround and may influence individuals and communities (Moore, 1987). It includes both the natural and constructed environment, and both physical environments preserved and those planned and designed as new.

Built environment:

[Built environment] is defined as the part of the physical environment that is constructed by human activity (Saalens & Handy, 2008, p. 2). There are many built environments such as bridges, bike paths, the transportation system and the buildings. In this study, this term was used for only the buildings (e.g. academic buildings and library).

Academic building:

Academic building in this research refers to a building belonging to a particular faculty or department.

Campus environment:

Campus is defined as the buildings of a university or college and the land around them (Oxford learners' dictionary). Campus environment includes both buildings and outdoor places. In this study, the term campus environment was used only for outdoor places; the buildings were not included. Outdoor places are settings including walkways, natural settings (e.g. tree covered park and lakes) (Muñoz, 2009).

Place:

Place has multiple meanings which are defined by environment psychologists, geographers and architects. Place is defined in this study as a building or an area of land used for a particular purpose. This can be classroom, library, and canteen.

Ambient environment:

Ambient means something that surround. The ambient environment consists of the factors such as air circulation and quality, heating conditions, lighting and acoustic quality (Lackney, 1999).

CHAPTER II

LITERATURE REVIEW

This chapter includes six sections. First, the history of Dynamic University (DU) is presented. Then, the perspectives on the hidden curriculum are presented. Third, the definition of the hidden curriculum and research on it are provided. Fourth, the role of physical environment in learning is described. Then, the role and importance of the physical environment in higher education are discussed. Finally, related research on the physical environment as hidden curriculum is reviewed by an overall summary of the literature review.

2.1 The History of Dynamic University

In this section, the foundation of DU and information about the DU campus design is provided.

2.1.1 Foundation of Dynamic University

Dynamic University is a state university in Ankara, capital city of Turkey. To explain the foundation of DU, it is helpful to describe the position of Turkey in the world. Sargin and Savaş (2012), in their article entitled “A university is a society”: an environmental history of DU ‘campus’”, made good summary about the political, economic and social conditions of Turkey before the foundation of Dynamic University. They showed the factors influencing Turkey’s transformation period by the end of the Second World War. Firstly, the multi-party period of the Republic of Turkey started and there was growing political divergence between the modernists and the conservatives. Secondly, liberalism became the sole successor of all economic formulation instead of statist economy in the new conservative government period. Finally, there was a massive population migration from the poorer areas to the relatively metropolitan areas, including Ankara as the capital city,

which changed Turkey's demographic maps. All of these factors carried with them their own problems, such as housing shortages, spreading unemployment, and spatial and cultural fragmentation and segregation. At the same time, Turkey established close relationships with the Western powers, especially the USA , and became a full NATO (North Atlantic Treaty Organization) member in 1952 (Woolrich 1960; Sargın & Savaş, 2012). As a result of the close relationships, the US became involved in the educational and cultural policies of Turkey, from which the DU Project emerged" (Sargın & Savaş, 2012). The first collaboration related to DU Project was began with Charles Abrams' visit to Turkey to conduct research on housing and city planning problems in Turkey and to find solutions to these problems in transition period. After his observations, in 1953, Charles Abrams, United Nations Consultant, wrote a report suggesting the establishment of a Graduate School for Architecture and City Planning in Ankara (Sargın & Savaş, 2012) in order to educate the professionals competent in responding to the problems caused by rapid industrial expansion and urbanization (Yorgancıoğlu, 2010). This suggestion was the spark to found DU. Then, in 1954, Mr. Abrams and Mr. Vecdi Diker, Director of Progressive Highway Department of Turkey, signed a Charter to initiate the establishment of an institute of high academic and environmental standards, similar to the best American and British technical universities' (Woolrich, 1960; Sargın & Savaş, 2012).

This educational institution was planned to provide architecture, engineering, physical sciences, and administrative education for a large number of gifted students not only from Turkey but also from the Middle East. Students would receive advanced education in scientific, technical and professional fields in English language. Another plan was to make DU the center for significant fundamental and applied research to contribute to the economic and social necessities of Turkey and other developing countries (Woolrich, 1960). Basic research would be carried out in order to increase the knowledge of mankind about the facts of life and nature in light of the research findings (From University Catalogue No: 4, 1961 as cited in Sargın and Savaş, 2012). With these purposes, DU is founded under the name of "Dynamic Institute" on October 25, 1956. "Arrangements and Procedures as for the Foundation

of DU, Law No 6887" was enacted on January 29, 1957. Finally, "Foundation Act No 7307", which sets forth the particular standing of DU and describes the conditions rendering DU as a juridical entity, was enacted on May 27, 1959 (History, nd). The Department of Architecture was the first academic program to start education in 1956. It was followed by the Department of Mechanical Engineering in 1957. At the onset of 1957-1958 academic years, the Faculty of Architecture, Faculty of Engineering and Faculty of Administrative Sciences were established. In 1959, the initiatives undertaken to establish Faculty of Arts and Sciences were completed. Faculty of Education launched its academic program in 1982. Today, there are a total of 40 undergraduate programs in five faculties of the DU.

2.1.2 Campus design of Dynamic University

As was the case with Turkey's higher education, political emphasis was on the campus architecture. Turkey's National Grand Assembly (TNGA) passed a Provisional Law authorizing the establishment of a modern campus of DU. A tract of land near Lake Eymir was chosen from four alternative locations. Lake Eymir was chosen in order to support recreation and sport activities for healthy physical and social environment. DU architecture and landscape can be seen in parallel with the environmental transformation in the overall construction of Ankara (Sargın & Savaş, 2012).

After the establishment of the university (1956), education took place in the small building that belonged to Social Office of Retires at Kızılay's Müdafaa Street and in the barracks behind the TNGA. However, after seven years (in 1963) the University moved to its current campus location (History, nd).

In those years, although campus site was chosen and hold, any building construction couldn't begin. As stated by the consultants at the time, the planning principles upon which the campus design was based would provide 'order with variety and continuity of growth for many decades to come'. The principles of this Master Plan were listed in the report as:

- (1) Concentration of the academic core within an area in which it is possible to walk from one end to the other in the 10-minute interval between classes.
- (2) Exclusion of automobiles from the central green and from the courts of each of the schools.
- (3) Reservation for all time of a system of open spaces which will provide convenient and pleasant walks throughout the campus, and which will be located so as to offer a variety of views of the panoramas of Ankara and the surrounding hills and valleys— these greenways can give coherent form to the plan, and by so doing, permit the greatest freedom and diversity in the development of the adjacent buildings, even in places where the future needs cannot be predicted at this time.
- (4) Creation of a system of courts to provide protection against the weather between the many Schools and Institutes which make up the university; around these should be grouped activities that would benefit from close contact with one another.
- (5) Development from the center outwards.
- (6) An immediate start to be made on the dormitories and provisions to be made for their maintenance, providing accommodation for 2/3 to 3/4 of the students at all times.
- (7) Enhancement of the character of the site and preservation of views of the Citadel, Ankara and the hills.
- (8) The use of local materials of a limited range of color, which will weather well, such as the local stone for retaining walls. Avoidance of excessive mechanical equipment; and protection of the buildings against the hot sun and cold winter winds (Sargın & Savaş, 2012, pp. 14-15).

After the main principles for campus design were determined, an architectural competition was organized by The Board of Trustees to design University and University City in 1961 (Niebrzdowski & Zelef, 2012). Behruz and Altuğ Çinici were the winners. In the same year, Kemal Kurdaş was appointed as rector of DU on 21st January. Kemal Kurdaş was the first to take on task of campus planning and construction of campus buildings. Kemal Kurdaş said “my first job is to deal with building the university campus”. The priority and importance that Kurdaş gave to construction of the campus is clearly understood by the following words:

For modern university to adequately fulfill the demands, it should first to have adequate physical facilities. In order to make courses, seminars, academic meetings and studies in the university possible, there should be abundant classrooms, laboratories suitable for experience and education, a modern and rich library, as well as social facilities and natural environment that's worth living in (p. 30).

We would like to build modern, contemporary, architecturally harmonious, and beautiful university...Additionally; campus project should have

architectural value and beauty. We couldn't use the projects produced by many different minds and wills. Therefore we need a distinguished architect who is disciplined, skilled and who can manage the project in short time. That is our problem (Kurdaş, 2004, p. 59).

Then Kemal Kurdaş talked with the architect who already won of campus project competition. Campus buildings began to be built in 1961 with Behruz and Altuğ Çinici's campus project. After 7-8 years, DU finally had the biggest, the most beautiful and harmonious campus in the world according to Kurdaş. The success behind such a campus depends on the decision that campus planning should be under one person's authority; namely Behruz Çinici, a skilled architect with working discipline (Kurdaş, 2004).

In the same years, plans for development of DU students and academicians were prepared. In the plan of 1961-1969 periods, there were three items among main principles related to physical structure and capacity.

- (1) The constant aim of DU in education, research and publication is to reach the quality of modern and developed universities in the West. Therefore, it is not acceptable to compromise on quality. Therefore, physical structure and operation of library and laboratory will be of top quality. So, this structure should be revised and renewed continuously.
- (2) Lessons will be done in small classes (max. 30 persons).
- (3) When new departments and/or faculties are needed, all the above principles will be considered. No new department and/or faculty will be opened without first considering such as the location of the building, laboratory, number of academicians, foreign instructors.

As well as the master plan, university academic development plan and Kurdaş's ideas, the post-war educational paradigm was influential on shaping of the DU Project. Like the universities in the United Kingdom, such as York and East Anglia, DU campus project underlines the belief in Modernist architectural theory that "good planning and architecture are essential for an academically mature and socially responsible staff and student base" (Sargın & Savaş, 2012). Besides, if the university was to become an international environment for higher education in which applied

research was practiced, the campus architecture and landscaping should be parallel to this purpose; it should become modern, hygienic and rational (Sargın & Savaş, 2012).

To sum up, the master plan, the university academic development plan, and the ideas of Kurdaş show that holistic and supplementary approach was pursued in the campus design. Finally, the first university campus of Turkey emerged with the following features:

- (1) The 4500 hectares building site was secured by the Dynamic University as the location for the instruction, research and extension program and accommodation for the university students, faculty and other related essential business establishments (Woolrich, 1960).
- (2) Brutalism is the architectural style of the DU campus, which also spread all over the world after Second World War. This architectural style was considered suitable for school, university and college buildings in especially between 1960 and 1970 because it emphasized durability, power and dignity and its attributes are connected with knowledge and science (Niebrzdowski & Zelef, 2012).
- (3) Raw materials such as exposed concrete and brick were utilized as building materials in campus building (Niebrzdowski & Zelef, 2012).
- (4) As in the initial report, the focus especially was given to ‘Central Core-Walks’ and ‘Arcades’. Pedestrian pathways, arcades and terraces surrounding the heart of the campus would not only separate the schools but also be symbol of the new university community (Sargın & Savaş, 2012).
- (5) The plan shows that there is a ring road for cars around buildings belonging to academic and administrative units. For pedestrian movement, there is a linear alley between academic buildings which is closed to vehicular traffic. Dormitories and sport facilities are next to this academic part (Niebrzdowski & Zelef, 2012).
- (6) The campus was planned for a maximum student body of 12.000 (Kurdaş, 2004).

2.1.3 Important physical characteristics of DU campus

This section illustrates main physical characteristics on campus. Alley, physical artifacts, and afforestation are explained.

2.1.3.1 Alley

Alley was the prime instrument of the Master Plan. One of the functions of modern concept in architecture is to promote social utility and urban community, therefore the pedestrian alley was considered as the core of an emerging communal life. Besides, the alley regulates the entire barren land in an orderly fashion, so it indicates where the teaching and social areas are. Behruz Çinici described the Alley in the different sources. The Alley, which constitutes the backbone of this project, runs along the pedestrian circulation axis. Along this alley, there are academic buildings on one side, and administrative and social buildings on the other side. Roads for automobile and car parks were outside of the alley. 1.5-2 km alley created in the academic area is reminiscent of the social complexes (Küllüye in Turkish) in the Ottoman Architecture. There is variety of art elements, plastics and waterworks, and small parks along the alley. There are also prominent architectural elements including water in front of the structures, colonnades and yards (Çinici, 2001). Plane-trees in front of the buildings were the part of the campus project. These trees are now the great plane-trees (Tiryaki, 2012, p. 25).

The Architect of the Campus attached importance on alley and he says:

I imagined this alley representing our contemporary history with sculptures, varied plastic elements, and water. This was initially 1,5 km long, but now it is doubled. It is original backbone. These grades are natural grades. There is no damage. I was inspired from İstanbul's traditional streets while doing this path/alley. This is where I receive my real training. This is like traditional squares and streets where people exchange views (Çinici, 2003, p. 11).

2.1.3.2 Physical artifacts in the campus

After campus construction, to make campus beautiful with paintings in the halls, small sculptures and monuments in various places were placed. The first work

considered was to construct a Atatürk memorial which will be a representative of Atatürk's principles. Kurdaş mentioned the Atatürk memorial's history and meaning:

We decided to have Atatürk memorial in the campus. The competition was organized and Şadi Çalık's creation was selected as the winner design. This memorial symbolizes the Republic of Turkey, its new understanding it brought and all civilizations in the Anatolian territories (A monument's story, 1998, p. 28).

As well as the winner of the competition, the second winner's work gained appreciation and therefore, it was also built in the campus. Although the monument which was selected as the second winning design also represented the Atatürk's principles, different meaning was attributed to this monument. Kurdaş mentioned feelings about this monument like

[DU] made a move in science, technology, and modernity in the Republic of Turkey founded by Atatürk. We aimed to bring in new understanding to Turkey. [DU] was like a science tree. With this understanding, we named the second monument 'science tree' which led to science, technology and new mentality: the rising science tree, the rising campus and the rising community (A monument's story, 1998, p. 28).

The second winner, Prof. Dr Tamer Başoğlu, mentioned these days:

This monument was the first abstract Atatürk and his principles monument in Turkey. 30 years ago, [DU] campus was a prairie...In that time, "science seeds" were planted which is very essential. At the same time, afforestation was begun and saplings were planted. Novice academicians were developing. They were like a sapling. Therefore Kemal Kurdaş wanted to symbolize this with 'Science Tree' (A monument's story, 1998, p. 29).

In the following years, in order to increase students' interest toward art, to increase the number of arts in the campus, to make campus colorful, the famous scientists' eikons (i.e. Einstein, Madam Curie, Otto Hahn, Newton, Dalton, Darwin, Faraday, Edison, Ohm, Maxwell) were placed along the alley in 1996. While Architect Sinan's eikon is in front of the Faculty of Architecture building, Edison's eikon is in front of the Department of Electrical and Electronics Engineering building (The scientist eikon, 1996).

2.1.3.3 Afforestation

The site for campus was considered ‘ground zero’ and the other initial job of Kemal Kurdaş was to afforest campus site. The planting works began 3 December, 1961, it continued intensely until late 1969s. As a result of each DU member’s high interest to tree planting ceremonies, the ground zero transformed a forest with 12.000.000 trees. Taming this barren land and campus landscaping brought in an award from the Aga Khan Foundation of Architecture (Sargin & Savaş, 2012). One of the purposes of afforestation was clearly stated by Kemal Kurdaş:

This forest was created intentionally as we see the future. In order to protect the field entirely, we afforested. There was forest on one side of the road; slums on the other side. Afforestation was to give message: Do whatever you want on the other side, but don’t mess with our side (Tan, 2006, p. 80).

2.2 Perspectives on the Hidden Curriculum

The concept of the hidden curriculum has received many different definitions and analyses since it was explicitly used by Jackson in 1968. Researchers’ individual interpretations of hidden curriculum depend on their political leanings, disciplines, and paradigmatic perspectives. Generally, the term was given different meanings relying on the functionalist, liberal, Marxist, or critical postmodernist paradigms of the researchers.

Consequently, before clarification of the concept of the hidden curriculum, it is important to understand the ideological assumptions embedded in the perspectives under hidden curriculum.

The researcher has distinguished four basic approaches that characterize the work directly with the hidden curriculum: functionalism, liberal, Marxist, and conflict. These are ideal typical categories derived for the sake of clarity. This elucidation will represent a better of understanding theoretical and practical insights the hidden curriculum offer.

2.2.1 Functionalist theory

A sociologist using functionalist approach starts with the assumption that society and institutions, such as education, are made up of interdependent parts all working together, each contributing some necessary activity to the functioning of the whole society to maintain order and consensus among individuals in the group (Ballantine & Hammack, 2009). According to functionalists, educational reform is supposed to create structures, programs, and curricula that are technically advanced and rational and that encourage social unity. Functionalism is concerned with the functions of schooling in the maintenance of social order.

Philip Jackson and Robert Dreeben, being in the first groups of researchers who studied the hidden curriculum, were drawing heavily on the work of Emile Durkheim, who observed that public schools have a specific and central role in students' socialization more than other institutions (Margolis, E., Soldatenko, M., Acker, S. & Gair, M., 2001, p. 5). Philip Jackson is a significant name for hidden curriculum literature because the term 'hidden curriculum' first coined by Jackson (Apple, 1977; Ballantine & Hammack, 2012; Cornbleth, 1984; Gordon, 1982; Kohlberg, 1983; Konidari & Abernot, 2008; Portelli, 1993; Seddon, 1983) was indicated explicitly in his book entitled 'Life in Classroom'. In this book, Jackson (1968) emphasized the idea that schools' function is more than the transmission of knowledge between one generation and the next. As well as the three Rs, schools' function as an indicators of hidden curriculum is to transmit unofficial expectations, implicit values, norms and specific skills like "learning to wait quietly, exercising restraint, trying, completing work, keeping busy, cooperating, showing allegiance to both teachers and peers, being neat and punctual, and conducting oneself courteously (pp. 10-13). Jackson summarized the fact of classroom life into three key words: crowds, praise, and power. Firstly, classroom is equal with a crowd situation because students learn to live with others, or at least in the presence of others. He describes that there "are four unpublicised features of school life: delay, denial, interruption and social distraction" produced by the crowded conditions of the classroom (1968, p. 17). This fact has profound implications for determining the quality of a student's life. Second fact is that schools are basically evaluative settings, so students are used

to living under the constant conditions of having their words and deeds evaluated by others. The last fact is that school is also a place showing the division between the weak and the powerful (Jackson, 1968, 1990, 1994). For example, he discovered that teacher-student relations in the classroom are hierarchical; while the teacher is at the top of the hierarchy, the students are at the bottom (Massialas, 2001).

Another functionalist in hidden curriculum research is Robert Dreeben. He highlighted that schools have different structural features than the structural features of the family, and it provides students proper preparation of adult public life. Like Jackson, Dreeben is not concerned with learning and technical skills in the classroom, rather he focused the schools' function on normative norms. Dreeben (1968), for example, identified four specific norms which are transmitted through schooling, namely: independence, achievement, universalism and specificity.

Related to the norm 'independence', students learn the tasks they must do alone and do them that way. For example, independence have several referents: "doing things on one's own, being self-reliant, accepting personal responsibility for one's behavior, acting self-sufficiently, and handling tasks under different circumstances (p. 66)". The second norm 'achievement' implies that students accept the premise that they should perform their tasks the best they can, and act accordingly. The norm universalism and specificity refer to the treatment of a person in terms of some standardized bases of comparison (Feinberg & Soltis, 2004). The norm of universalism means that children come to accept being treated by others as members of categories (Dreeben, 1968, p. 76). Feinberg and Soltis (2004) provide good examples to clarify these norms: When a student requests for being excused for a late assignment, if the teacher says, "If I make an exception for you, I will have to make one for everyone else," the norm of universalism is being expressed. If the teacher says, "John is a member of the basketball team, and so, is excused from tonight's assignment because of the game," the norm of specificity is being invoked (p.20).

2.2.2 Liberal perspective

The liberal perspective views the hidden curriculum in a very different way from functionalists. While functionalists shortly present how certain necessary societal values get tacitly transmitted via the hidden curriculum, the liberal perspective on the hidden curriculum examines taken-for granted assumptions and practices of school life which are created by various actors within the school (Skelton, 1997) and take on the relationship between power and social order in the classroom (Giroux, 2001).

The liberal perspective rejects the role of students as passive role bearers and recipients of knowledge. According to this view, knowledge was considered as social construction. The main focus of liberal perspective is to look at how meanings are produced in the classroom. Researches in liberal perspective are around the following concerns: (1) the actual and hidden content of schooling; (2) the principles that direct teacher-student interaction; (3) the importance of knowledge created by people's interactions in society (Giroux, 2001).

In liberal perspective, there were classroom studies by Hargreaves (1967) and Lacey (1970) that used ethnographic approach to differentiate the processes in the school. Hargreaves (1967) conducted a participant observation, as a teacher, in a boys' secondary modern school to investigate the social effects of streaming. In this school, the boys were divided into four streams starting from the first year upward according to boys' academic ability. He observed at the end of year, only one boy could change his stream from D to A. Hargreaves concluded that there is a close correlation between social class and stream, and this streaming system creates sub-cultures among students which causes a conflict between them. Because the boys placed in the lower stream are labeled by the school as failures, they had created an anti-school and anti-democratic culture, therefore teachers accept these boys as undisciplined (Chapman, 2002). As in Hargreaves' study, Lacey (1970) investigated a similar phenomenon in Hightown Grammar School. Streaming began from the second year onwards in this school. He observed that while first year boys were committed to the school and well-behaved, streaming demolished this desirable attitude. He interprets this as a group response to failure. The school utilizes this streaming system as a

stratification device. While some students were being streamed towards success, others, generally from working backgrounds, were prepared for failure. This affected what the students would choose as a profession in the future (Chapman, 2002). Thus, Hargreaves (1967) and Lacey (1970) concluded that streaming tended to reproduce social class division.

Like Hargreaves and Lacey studies, Keddie (1971) examined the processes involved in the production of academic 'failures'. The school Keddie observed was a large, socially mixed and comprehensive school, and the classes in this school were unstreamed. After Keddie conducted a careful observation of teachers, Keddie found that they categorized the students in the classroom according to their social background. Teachers' perceptions of students affect what type of knowledge they present in the classroom. For example, while questions from working-class students were being regarded as disruptive or attention-seeking, questions from middle-class students were more complex and abstract. In this way, despite the absence of streaming, teachers labeled and treated students according to what they have constructed about them (Chapman, 2002; Giroux, 2001; Skelton, 1997).

2.2.3 Marxist perspectives

Father of this perspective is Karl Marx (1818-1883) who asserted that ability of dominant groups to impose their will on subordinate groups through force, cooptation, and manipulation. In Marxist perspective, the hidden curriculum is handled in a very different way from functionalist and liberal perspective.

One of the best known studies in critical Marxist account of schooling is Bowles and Gintis' (1976) work, *Schooling in Capitalist America* (Margolis et al, 2001; Skelton, 1997). Bowles and Gintis (1976) asserted that school conveys the attitudes and values of the capitalist society by means of hidden curriculum (Chapman, 2002), therefore the function of the schools is to provide appropriately trained and stratified manpower for the capitalist labor force (Seddon, 1983).

Through hidden curriculum, the schools operate to train children as the workers of future, and so teaches them to acknowledge to hierarchical divisions of labor, comply

to bureaucratic authority, accept the fragmented and alienated nature of work, and regard inequality as natural (Chapman, 2002; Margolis et al., 2001). According to Bowles and Gintis (1976), the hidden curriculum operates to ‘create and reinforce patterns of social class, racial and gender identification among students, and allocate them to differential positions in the occupational hierarchy of authority and status in the production process. This message is transferred by the form, content, organization of the classroom, and the evaluation system (Margolis, 2001).

Thus, Bowles and Gintis claimed that there is a correspondence between the social relationships of education and work place. With regards to the hidden curriculum, Bowles and Gintis stated:

The structure of social relations in education not only inures the student to the discipline of the work place but develops the types of personal demeanor, modes of self-presentation, self-image, and social-class identifications which are the crucial ingredients of job adequacy (p. 131).

Pierre Bourdieu and Basil Bernstein moved away from positing a direct structural correspondence between schools and the economy which is defended by Bowles and Gintis. They developed structuralist cultural reproduction theories and they focused on how cultural factors may play their part in reproducing social relations (Margolis et al., 2001; Skelton, 1997).

According to Bourdieu (1973), a student comes to school with his own “characteristic class “habitus” and a system of social meanings and understandings” (p.40).

Bourdieu & Passeron (1977) asserted that teaching and learning is affected by the particular system of thought, perception, appreciation and action, which mirrors the material and symbolic interests of dominant groups and classes within society (Skelton, 1997). For example, working-class habitus does not carry the same status or ‘cultural capital’ as middle-class habitus. Students from higher social classes have more cultural capital such as proper language; knowledge of music, art, theater, and the literature; and important knowledge in the world (Ballantine & Hammack, 2012).

Bourdieu (1973) does not assert that one culture is superior to another, but that the power of one class, the ruling class, imposes its culture on others.

Like Bourdieu, Basil Bernstein examined the formal and informal processes in classrooms, the rules that direct interaction, power relationship between teachers and students, and what the relationship among these is and the students' social class (as cited in Ballantine & Hammack, 2012, p. 219).

Bernstein began his studies in examining the relationship between social class and communication in the late 1950s, and his examination, 'theory of language', was influential within the sociology of education especially in the late 1970s. He (1977) asserted that each social class breeds a system of communication which is specific to the member of that class. Bernstein named these systems as 'codes' consisting of meaning, symbols, and relationships expressed through language. These codes can be ranked in continuum from the restricted code to the elaborated code. These codes affect one's position in the society, for example, the working class children (using the restricted code) have a poorer academic performance in the school. He argues the reason of this failure in following quotation:

The school is necessarily concerned with the transmission and development of universalistic orders of meaning...educational transmissions...are based on performance rules which the middle class child embryonically possesses. Class regulates the elaborated codes of education and the family (Bernstein, 1973 as cited in Chapman, 2002, p. 32).

Kathleen Weiler (1988, pp. 11-12) provides a good summary showing commonalities between the ideas of Bourdieu and Bernstein:

In both their approaches, schools reproduce class structure in a relatively unproblematic way, although Bernstein's elaborate linguistic scheme can hardly be called simple. Neither Bernstein's nor Bourdieu addresses the actual experience of schooling and teaching; in both accounts [that] students and teachers are presented as passive parts of the process of reproduction.

2.2.4 The critical perspective

In this perspective, discussion on hidden curriculum has been extended in a much wider framework of the political and the social factors in education. For critical

sociologists such as Giroux and Apple, the relationship among ideology, instruction, and curriculum should be explored because, “the hidden curriculum of political socialization is much more effective, particularly as an instrument of social control, than the official curriculum is as an instrument of liberation” (as cited in Sockett, 1982, p. 561). According to Giroux, there are two principles of the critical pedagogy:

- (1) Education must be seen as the vehicle of the political subjects.
- (2) Pedagogic practice is seen as a political activity. Instead of a technocratic exercises (i.e. goals and objectives), knowledge rooted in a pluralistic and democratic visions of society is provided to students (as cited in Sadovnik, 2001).

One of the famous critical theorists is Michael Apple. Apple has provided abundant literature on hidden curriculum; namely, articles titled “The Hidden Curriculum and the Nature of Conflict”, “The Other Side of The Hidden Curriculum: Correspondence Theories and The Labor Process”, “The Text and Cultural Politics”, “What do Schools Teach?”, books titled “Ideology and Curriculum”, “Education and Power”. Apple (1982) is interested in how the educational system preserved a social order stratified by class, gender, and race. He focused on how systems of domination and exploitation are received unconsciously by students (as cited in Margolis, 2001). He analyzed how the basic day to day regularities of schools contribute to students learning ideologies. This is related to hidden curriculum, and students meet norms, values, and beliefs in schools’ daily routines and social relationships in the classroom and school (as cited in Margolis, 2001).

In this school process, according to Apple and King (1977), early years are more important for ideological saturation. The social definitions learned in early years provide the constitutive rules for later life, thus serve economic interests in following years. For example, meanings of objects and events become clear to children as they participate in the social setting. The use of materials, the nature of authority, the quality of personal relationship, the spontaneous remarks, as well as other aspects of daily classroom life contribute to the child’s awareness of his or her role in the classroom and to his or her understanding of the social setting (Apple & King, 1977).

Schools are mirrors of society, and a "society" needs docile workers; therefore, the hidden curriculum reinforces norms of work, obedience, punctuality via social relations and covert teaching, and roughly promises the production of desired docility (Apple, 1980). Apple, Au and Gandin (2009) stated how school manages this purpose in his book entitled "International Handbook of Critical Education":

In the 1970s this was dubbed the "hidden curriculum": students learn to be docile workers from teachers who emulate the boss; tests and grades prepare students for understanding compartmentalized, often meaningless, tasks and numerically quantifiable rewards that are extrinsic; earning grades prepares kids to work for money; school bells segment time in ways conducive to shift work while desks are arrayed with the teacher/boss at the big desk and the student/workers at the little desks . . . All of this suggests that the space of school is hardly free of capitalist ideology from the outset (p. 56).

Other focus of Apple is on the textbooks. The standardized textbooks are tools of hidden curriculum which are regulated by and aimed at widespread state adoption (Apple, 2003). Selection and organization of textbooks for courses are result of an ideological process, -political, economic, and cultural activities, battles, and compromises -, so they represent the interests of particular classes and social groups (Apple, 1992). They give messages about what a society has recognized as legitimate and truthful (Apple, 1992).

On the other side, this perspective also asserted that teacher and student do not comply with the oppressive features of schooling; they do not simply receive information, they can also produce and mediate it. Some researchers questioned whether students might persist in social forces which they experience in the school environment (Skelton, 1997). Willis (1977), for example, demonstrates the relationship between working-class student culture and student failure in his study titled "Learning to Labour: How Working Class Kids Get Working Class Jobs". In his study on working -class boys in a comprehensive school, he observed that the 'lads', a title given by him for boys in this school, are tough and against authority and value in the school. The 'lads' identify themselves as superior to teachers, students who are bright, girls, and students from other cultures. Additionally, their endeavors in school were the avoidance of work; staying away from school without permission, sleeping in the classroom, and roaming in the corridors during lesson

time. Willis (1977) claims that this culture among the boys was a contributory factor in preparing them for manual work when they left school. Workers in the factory have similar culture determinants; developing strategies to block opportunities, to alienate from work and to lack control. In other respects, school tends to maintain the working class students' position in society (Chapman, 2002; Margolis et al., 2001; Skelton, 1997).

Another critical theorist is Jean Anyon (1980), who explicitly mentioned hidden curriculum in her article, "Social Class and Hidden Curriculum of Work", and used ethnographic research methods such as participant observation and interview. She examined fifth grade classrooms in five schools differentiated by social class. She observed variations in the physical, curricular, evaluator, pedagogical and interpersonal characteristics in these schools, respectively. These five schools include two working class schools, one middle-class schools, one affluent professional school (upper-middle class and parents are predominantly professional), and one executive elite school (the majority of the families are belong to the capitalist class). The results showed that while working class school stressed appropriate preparation for labor force which is mechanical and routine, in the middle class school, school work consists of figuring, choice, and decision making to be able to find the right answer. On the other hand, students in the affluent professional school are trained to become successful artists, intellectuals, technical experts and other professionals in the society. The executive elite school' emphasis is to give knowledge of and practice in manipulating the socially legitimate tools of analysis of systems. Thus, different cognitive and behavioral skills stressed by curricular, evaluator and pedagogical systems specific to each school may not only contribute to training students in appropriate certain types of economically significant relationships but also help to reproduce this system of relations in society. Jean Anyon (1980) concluded that "fifth-graders of different economic backgrounds are already being prepared to occupy particular rungs on the social ladder" (np). Finally, she concluded that the "hidden curriculum" of school work is a tacit preparation for relating to the process of production in a particular way.

2.2.5 The summary of theories

The studies and ideas of Durkheim, Parsons, Jackson, and Dreeben, who are the advocator of functionalism, provide the basis of the hidden curriculum as the elements of socialization that take place in school. Via hidden curriculum, the norms, values and belief systems are conveyed to students which are embedded in the curriculum, the school and classroom life, and school daily routines (Margolis et al., 2001). Shortly, functionalists see education as a beneficial contribution to an ordered society. According to liberal perspective, the hidden curriculum is related to practices of school life which are created by various actors including students, teachers and administrators. In this sense, unlike the functionalist perspective, students are not passive receivers of knowledge; rather, they gain the knowledge which is a product of social construction. Marxist perspective, like Functionalist perspective, is not interested in looking at the individual behavior. Besides school conveys the attitudes and values by means of hidden curriculum but the values gained are not for social order, these are to perpetuate the capitalist society. The function of the schools is to provide appropriately trained and stratified manpower for the capitalist labor force. According to critical theory, each individual and their self development are important in social and political life, and they are educated as paying attention to democratic values. Parallel to this, critical pedagogy stresses the classroom as a site for political action and teachers as agents of change. Besides, Ornstein and Hunkins (1998) stated that curricular experiences should promote in students an awareness of themselves as social beings. With such recognition, students will realize that their political views, religious beliefs, and understandings of gender role, even their views of the nature of meaning, are shaped by dominant perspectives. Functionalist theorists consider that universities focus to solve societal problems through development and use of new knowledge while conflict theorists argue that universities maintain the status quo and that more basic societal change is needed if there is a demand to alter the current state of inequality (Ballantine & Hammack, 2009).

As a conclusion, each theory defined the hidden curriculum differently since the basis and aims of the education are different. For functional perspective, hidden curriculum supports the social cohesion; for liberal perspective, the socially

constructed knowledge is emphasized; for conflict theory, hidden curriculum shows the struggle between all parties of schools (especially between low, middle and upper class students); and finally for critical perspective, pedagogic practice is considered a political activity.

2.3 The Term ‘Hidden Curriculum’

The great deal of attention was given to the term ‘hidden curriculum’ especially in the late of 1960s to 1970s to establish legitimacy of the concept and identify its elements. Hidden curriculum is named under "unstudied curriculum," the "covert" or "latent" curriculum, the "non- academic outcomes of schooling," the "by-products of schooling," the "residue of schooling," or simply "what schooling does to people" (Overly, 1970; Seddon, 1983; Vallance, 1974). Most of the researchers whose interest in hidden curriculum stresses that one of the most problematic features of the hidden curriculum is in the name itself (Gair & Mullins, 2001). Each of these labels has a set of connotations and emphasis in order to describe the basic phenomenon of hidden curriculum (Seddon, 1983; Vallance, 1974). Some of them stress the outcomes of the hidden curriculum; others are interested in visible side of it.

In general, the hidden curriculum is the unstated but influential messages on students gaining knowledge, attitudes, norms, rituals, values and beliefs and it is conveyed to students via cultural, social, physical and organizational environment of an institution.

In order to explore the hidden curriculum openly, many questions should be clarified first: (1) does hidden curriculum refer to process or an outcome of learning? (2) is the hidden curriculum presented in an unintentional or intentional way?, (3) what are students actually learning from hidden curriculum?, (4) how is it learned?, and (5) are the effects of hidden curriculum effects positive or negative?.

2.3.1 Does hidden curriculum refer to process or an outcome of learning?

Seddon (1983) is one of the authors who tried to illustrate the common features of the hidden curriculum. In addition to confusion in naming hidden curriculum, he points out; the other confusion is whether the hidden curriculum refers to a process or to an outcome of learning or both. The definition in the literature specifies that the

hidden curriculum refers to both that it is a process leading to outcomes (Seddon, 1983). For example, Jackson (1968), creator of the term, and Portelli (1993) focused on the outcomes of the schooling. According to Philip Jackson (1968), hidden curriculum facilitates students' learning associated with socialization; namely, students learn to live in a crowd, to acquire continuous evaluation and adapt to living under conditions of power. As also stated by Portelli (1993), the hidden curriculum is the sum total of unofficial institutional expectations, values and norms aimed at by educational administrators, perhaps teacher. On the other hand, while Dreben (1968), Bowles and Gintis (1976), and Giroux (1988) focused on hidden curriculum on school environment, they also highlighted the outcomes of hidden curriculum. Dreeben (1968) defines the hidden curriculum as unwritten curriculum which is concerned with prevailing social arrangement in school. Bowles and Gintis (1976) argue that "the structure of social relations in education not only inures the student to the discipline of the work place but also develops the types of personal demeanor, modes of self-presentation, self-image and social class identifications which are the crucial ingredients of job adequacy" (p. 131). Moreover, Giroux and Penna (1979) defined the hidden curriculum as unstated norms values and beliefs that are transmitted to students through the underlying structure of meaning in both the formal content as well as the social relations of school and classroom life. Given the hidden curriculum that promotes beliefs and supporting the status quo, it follows teachers should reward students who conform to such attitudes regardless of their academic success". As also stated by Vallance (1974), hidden curriculum can influence a number of processes operating in or through schools, including values acquisition, socialization, and maintenance of class structure.

2.3.2 Is the hidden curriculum presented in an unintentional or intentional way?

The most explicit feature of the hidden curriculum separating it from official curriculum is that messages transmitted by hidden curriculum are not explicitly intended because they are not stated by teachers in the classroom environment, and they are neither written in teachers' plan nor in school policy documents or

curriculum projects (Seddon, 1983). In Gordon's analysis of hidden curriculum (1982), a curriculum is divided into two modes of influences. A conscious and deliberate influence is associated with manifest/official curriculum, while an unconscious and unplanned influence is associated with hidden curriculum. Additionally, according to Vallance (1974), hidden curriculum consists of different degrees of intentionality, and the depth of "hiddenness" as perceived by the investigator. By-product of curricular arrangements ranging from incidental and quite unintended can be deeply embedded in the historical social function of education.

2.3.3 What are students actually learning from hidden curriculum?

Vallance (1974) interpreted this feature of the hidden curriculum. In her view, investigator's discipline, and his or her political orientation are critical in conceptualizing hidden curriculum. Therefore, students' learning from hidden curriculum can alter from one investigator to another. For example, Gordon (1982) suggests that the hidden curriculum might lead to improved attitudes, values, dispositions and certain social skills associated with good learning and succeeding in school, and, in a more cynical vein, how to "beat the system". Jackson (1968) suggests the hidden curriculum can lead to how to live in an environment of praise and power. Illich (1971) suggests that schools, and therefore implicitly the 'hidden curriculum' may lead to understanding certain "dominant myths of modern culture" (quoted in Gordon, 1982, p. 188). Other claimed outcomes of hidden curriculum include the development of certain types of personal demeanor, modes of self-presentation, self image and social class identification (Bowles & Gintis, 1976), "who the child is supposed to be ... and how he [or she] is supposed to learn (Getzels, 1974; quoted in Gordon, 1982, p. 188) and the learning of norms (Dreeben, 1967). Jane Martin (1976) states "a hidden curriculum consists of some of the outcomes or by products of learning (...) particularly those states which are learned but not openly intended" (quoted in Gordon, 1982, p. 188). It is clear, nevertheless, that all of the claims for the impacts of the hidden curriculum suggest the hidden curriculum influences non-academic or educational outcomes related to formal and academic learning, not necessarily directly.

2.3.4 How is it learned?

There seems to be general agreement that the hidden curriculum involves the learning of attitudes, norms, beliefs, values and assumptions often expressed as rules, rituals and regulations. These acquisitions are seen as the common-sense knowledge and always acceptable within society and so, they are rarely questioned and often remain unarticulated (Seddon, 1983). We have little control over this knowledge transmission, so this is hidden. Any behavior, body language, inflexion of voice or choice of word transmit common-sense knowledge or, using Apple's (1979, p. 86) terminology, the basic rules (Seddon, 1983).

As Dewey stated, moral education is not direct, values are given by teachers even when they are not aware of them. Teachers have main role to teach values. Their actions, words, gestures, and the topics, films, speakers, movies and plays they choose are more important than others according to students (as cited in Jachim & Posner, 1987). Additionally, as stated by Chapman, hidden curriculum is transmitted to students in a variety of ways: through the rules, routines, and regulations of the school, through the atmosphere, the buildings, and room lay-outs, and through the hierarchical staffing structure (2002). Moreover, hidden curriculum can refer to any of the contexts of schooling, including the student-teacher interaction unit, classroom structure, the whole organizational pattern of the educational establishment as a microcosm of the social value system (Vallance, 1974).

Assessing the students can be another way showing hidden curriculum. Cornbleth (1984) show the contradiction between curriculum and context. In school environment, for example, while teachers and textbooks show the importance of cultural diversity, students' are evaluated for conforming to their teacher's notion of the good student or citizen (Cornbleth, 1984). Moreover, although the school curriculum gives the values of compliance with authority, in home environment, television and films create heroes who are against established authorities. Moreover, Seddon (1983) highlighted that television advertise the products via symbols, words and messages and this information is absorbed by the brain.

Finally, textbooks are another vehicle transmitting hidden curriculum messages to students. For example, Vandenbroeck and Peter (2008) discovered that the Flemish textbooks support gender segregation and sexist construction of care work and show that the care work are considered a female occupation.

2.3.5 Are the effects of hidden curriculum positive or negative?

The effects of the hidden curriculum can be beneficial or detrimental. Dreeben (1968) suggests that each person is affected differently in a given situation. Evaluating whether effects are positive and negative relied on the value given by the person. Moreover, the effects of hidden curriculum change from person to person, case to case, time to time, and setting to setting. For example, the hidden curriculum in a class may deemphasize close interaction between students and teachers. Teachers can perceive this to be a negative effect on their authority. The student, on the other hand, may receive this to be a positive effect.

In sum, hidden curriculum refers to not only a process of schooling but also an outcome of learning. The common acceptance is that this curriculum is hidden because it is not public. The main outcomes of the hidden curriculum are values, dispositions, attitudes toward a particular thing such as school, teacher, society, and labor force. These messages of implicit curriculum can complement, contradict or abide by the formal curriculum. Moreover, there are many elements in the school environment transmitting of the messages; school atmosphere, school culture, school architecture, organization of classroom, routines in the school, teacher-student relationships, priorities of school, teachers' expectations, teaching strategies used, and textbook.

2.4 Environment and Behavior

The influence of physical space on human and human activity has been studied from psychological and physical perspectives. The field of environmental psychology explores such topics as place attachment, environmental perception and cognition, environmental attitudes, psychological comfort with space, and the motivational and inspirational effects of space. The main assumption of environmental psychology in

the transactions between individuals and their physical settings, “individuals change the environment and their behavior and experiences are changed by the environment” (Gifford, 1997, p. 1).

Graetz (2006) stressed on the three fundamental ideas from the environmental psychology of teaching and learning. First of all, learning occurs in a physical environment with quantifiable and perceptible physical characteristics. For example, while sitting in a classroom and/or in front of the computer screen, students are encompassed by environmental information. Not only setting (i.e. classroom or canteen) but also equipment (i.e. armchairs, scarves, and teacups) draw the students’ attention. Besides, they observe the ambient properties that are the light of the room, the smell of the coffee, and the warmth of the radiator. In any learning environment, students are captured by environmental information. Secondly, students are not passive while they are touching, seeing, or hearing; but they feel, look and listen actively. However, they cannot catch and understand all environmental information at any given time; they select some information for consideration. They try to connect a current bit of information with their existing thoughts and preconceptions. For example, because of previous experience, they regard the classroom with circular tables and comfortable armchairs as strange. Moreover, students may lead their attention to what interesting, important, or unfamiliar is. Third, there is emotional effect of the physical characteristics on learners, with significant cognitive and behavioral consequences. Learning appears to be affected adversely by inadequate light, extreme temperatures, and loud noises. Conversely, environment with suitable environmental stimuli can elicit positive emotional responses, so that it enhances learning and provides a powerful emotional attachment to that space. “It may become a place where students love to learn, a place they seek out when they wish to learn, and a place they remember fondly when they reflect on their learning experience...In any learning environment, physical characteristics that cause discomfort can be expected to interfere with learning; environments that produce positive emotional states can be expected to facilitate learning and the development of place attachment” (p. 75).

As well as Graetz (2006), Renatta Caine (2005) articulated 12 brain/mind learning principles to understand how humans function and learn. Among these, three are related to physical spaces.

- (1) The brain/mind is social. Engagement with others changes us. For the quantity and quality engagement, there is a need of space and it has a potential for effective learning environment.
- (2) Learning includes full attention and peripheral perception. If there is no distraction which decreases attention, environment stimulates sensory, so that it influences the experience and learning. Therefore, there is need for good space design which is visually stimulating.
- (3) Each brain is unique. Each person perceives the world differently and acts accordingly. The best way for success in education comes from variety. Considering this fundamental, variety of spaces should be provided to students' use.

Shortly, it is clear that spaces influence the students and learning, therefore it can essential to examine the effects of main physical characteristics on students' learning. Therefore, the following section presents research about the effects of the physical characteristics, respectively: 1) class size and density, 2) school size, 3) building condition, 4) acoustics and noise, 5) lighting, and 6) temperature and air quality.

2.4.1 Class size and density

Many studies have searched the classroom size and classroom density and their impacts on educational outcomes. High density conditions have been found to lead to increased aggression, decreased social interaction, and non-involvement, while small class size results in better scores on learning achievement tests. Glass, Cahen, Smith, and Filby (1982) made a meta-analysis of previous studies on the effects of class size. They concluded that small class size can be expected to increase academic achievement. Reducing class size from 30 to 20 provided a gain of 6 percentage points on reading and mathematics achievement tests, whereas this percentage increased to 13 percentage in case a reduction from 20 to 10. Similarly, Bourke

(1986) found that small sized classes can lead to greater mathematics achievement. About the math achievement, Wenglinsky's analysis using data from the fourth graders in more than 200 districts and the eighth graders in 812 districts showed that smaller class size yields positive outcomes in math score among the fourth graders (1997). Moreover, small sized classroom provides an improved social environment for the eighth graders, in this way, this produces higher achievement.

As well as math and reading achievement of students, the class size has on positive effect on general academic achievement. Ferguson (1991) found that there is a relationship between teacher quality, class size and achievement. When student/teacher ratio increased, student achievement fell. Furthermore, Fowler (1995), in his synthesis report, concluded that smaller classes increase voluntary participation and achievement. Because there is less students, teachers have more opportunity to interact more with each student and to use different teaching methods such as group study, peer tutoring. In this way, students' educational performance increases.

Project STAR (Student/Teacher Achievement Ratio Project) was conducted in Tennessee involving 79 different schools from 42 state-wide school districts with a consortium of four universities. This study was a four-year, randomized and longitudinal experiment. After the schools were chosen, students and teachers were randomly assigned to class type and the Stanford Achievement Test was applied. The results were as follows:

- (1) Children in smaller classes (13-17 per classroom) outperformed the students in regular-sized classrooms (22-25 per classroom).
- (2) In early years, children outperformed in all subjects, but especially in reading and mathematics.
- (3) Kindergarten students in small classes did better in math and reading tests.
- (4) Students from smaller classes behaved better and gained more achievement than students from larger classes, and these differences continued the following years.

- (5) The effects were stronger for students of lower socio-economic status and the effects were stronger for African-American students.

Many researchers conducted a research using the same schools, students and tests, which is called the Lasting Benefits study (a part of the STAR experiment). Nye, Hedges, and Konstantopoulos (1992) explored the positive effects of small classes in test scores for math, reading, and science. They also found that, spending more time students in small classes increases students' achievement. Besides, Finn, Gerber, Archilles, and Boyd-Zaharias (2001) looked at whether there are any long-term effects of small sized classes. Even after two years, students in small sized classrooms demonstrated statistically significant advantages relative to the students in regular size classrooms previously and even those with an extra teacher's aid. These results were consistent in all rural, urban, suburban, and inner city schools. The greatest achievement was observed especially in inner city and suburban classes and for minority students.

2.4.2 School size

There are many articles published pertaining to the effects of school size on academic achievement and other achievement-related variables. Barker and Gump (1964), in the now classic "Big School, Small School", is one of the first studies about school size. They studied a sample of very big (over 2000 students) and very small (100-150 students) high schools in Kansas. They found that small schools provided students with greater opportunities to join in extracurricular activities and to exercise leadership roles. In particular, participation in school activities, student satisfaction, number of classes taken, community employment, and participation in social organizations were higher in small schools than in large schools. The other results were indicated as following:

The large school has authority: its grand exterior dimensions, its long halls and myriad rooms, and its tides of students all carry an implication of power and rightness. The small school lacks such certainty: its modest building, its short halls and few rooms, and its students, who move more in trickles than in tides, give an impression of casual or not quite decisive educational environment (p. 195).

Following Barker and Gump (1964), many studies were conducted and were reviewed, and all showed the benefits of the small school. There is a growing body of research linking smaller school size to higher student achievement. Smaller elementary schools benefit African-American students' achievement in Philadelphia (Summers & Wolfe, 1977). Friedkin and Necochea (1988) provided empirical evidence linking smaller schools with stronger academic performance in impoverished communities. Friedkin's and Necochea's study was replicated in Arkansas, Georgia, Ohio, Montana, Texas, and West Virginia, and in districts in California. This study presented that smaller school size results in higher performance in poor communities (see Howley & Bickel 1999); school size is the best predictor of higher test scores in 293 New Jersey secondary schools (Fowler & Walberg, 1991). There is negative relationship between math and verbal ability tests and elementary school size, even controlling for socioeconomic differences (Kiesling, 1967). There is a relation between school size and higher student performance (Lee & Smith, 1997). Study with 13,000 schools in Georgia, Montana, Ohio, and Texas showed that performance is higher in small schools than in larger ones (Keller, 2000).

As well as student achievement, there are findings related to other variables such as lower incidence of crime levels, less student misconduct, greater participation in extra-curricular activities. In order to differentiate them, Weinstein termed these and other variables "nonachievement behaviors." One of the studies related to nonachievement behaviors was conducted by Garbarino in 1980. Garbarino found that in small schools, there is a lower incidence of crime levels and less serious student misconduct. Similarly, Gregory (1992), Stockard and Mayberry (1992), and Kershaw and Blank (1993) concluded that students in small schools show less violence and disruptive behavior, especially among students of low socio-economic status. Moreover, Fowler and Walberg (1991) showed that large school size was associated with reductions in participation in school activities, satisfaction, attendance, feelings of belonging. Other positive effects were argued by Wasley et al. that small schools have many positive effects: (a) intimate learning community emerged, so students are known better, cared and encouraged by teachers, (b)

isolation was reduced, (c) teacher efforts increased to use their own intelligence and skills (2000). Raywid (1999) also emphasized the value of small schools with following desirable outcomes: (a) more rapid progress toward graduation, (b) higher satisfaction, (c) fewer drop-out from school, and (d) higher desirable student behavior. Like Raywid, Nathan and Febey (2001), in their study entitled “Smaller, Safer, Saner, Successful Schools,” argued that smaller schools can offer: (a) a safer place for students, (b) a positive environment, (c) higher graduation rates, (d) lower discipline problems, (e) higher satisfaction of students, families and teachers.

2.4.3 Building condition

Several extensive studies found significant links between of school building condition and student achievement in the literature. Carroll McGuffey (1982) made a review consisting of 88 published studies which showed a relationship between students’ achievement and building quality such as newer buildings, improved lighting, thermal comfort and indoor air quality, as well as specific building features such as science laboratories and libraries. Another review was done by Earthman and Lemasters (1998), and they reported similar relations between quality and higher test scores.

Public schools in District of Columbia were analyzed by engineers, architects, and maintenance staff in the following building conditions: roofs, ceilings and walls, heating and electrical systems, and bathroom facilities. These were rated poor, fair, or excellent according to their overall physical condition. It was found that the physical conditions of the school were predictors of student achievement (Berner, 1993). A similar study was conducted in the Virginia state. It was concluded that the students in schools which were well cleaned, and where graffiti was removed properly had higher achievement scores. Besides, achievement improved in the schools where lockers and classroom furniture were in good repair (Cash, 1993; Earthman, 2004; Hines, 1996; Lanham, 1999).

The building condition has also an effect on students’ reading achievement. A study conducted by Lewis (2000) in 139 Milwaukee schools in the USA showed that good facilities had a significant impact on students’ reading achievement when he

variables such as student motivation, socio-economic status and race/ethnicity are controlled (Lewis, 2000). Similarly, there is a positive effect of facility condition on student achievement (O'Neill & Oates, 2001), math achievement Maxwell (1999) and educational performance (Berry, 2002). In another study conducted in the Los Angeles Unified School District (LAUSD), Buckley et al. (2004) concluded that poor shape and poorly maintained school building cause poor achievement when composition of student body and the school size are controlled.

The other factor influencing building condition is the building age. A review of the literature shows that many studies have been conducted examining student's learning in old versus new school buildings. There is a consensus that modernized, newer and/or better school buildings contribute to student's achievement on standardized tests (Cash, 1993; Chan, 1979; Earthman & Lemasters, 1998; Edwards, 1992; Hines 1996; Jago & Tanner, 1999; Plumley, 1978; O'Neill, 2000; Phillips, 1997; Thomas, 1962).

As well as student's general achievement, there is a positive effect on reading ability (Burkhead, Fox & Holland; 1967; Claus & Gurrbach 1985; Guthrie, Kleindorfer, Levin, & Stout, 1971) math scores (Claus & Gurrbach 1985; Guthrie, Kleindorfer, Levin & Stout, 1971; Maxwell, 1999; Phillips, 1997), and score in social sciences (Edwards, 1992).

Besides these studies, Bowers and Burkett (1988) examined groups of students studying at the newest and the oldest buildings in Tennessee elementary schools and they concluded that students' attendance in the newest one is more than in the oldest one. Finally, Chan (1979) compared students' attitudes toward new and old school buildings and he concluded that students in modern school building have a significantly more positive attitude toward their school building than do students in an old building.

2.4.4 Acoustics and noise

Speaking and hearing are the main activities in the learning environment. Good communication is a key factor for an effective instruction. Quality acoustics is a

factor supporting verbal communication. Many scholars' studies and reviews showed that good acoustics are recognized to have a strong influence on successful learning in school (Cash, 1993; Earthman, 2004; Fisher, 2001; Hines, 1996; Lanham, 1999; Schneider, 2002).

Acoustics and noise have an impact on students' performance, achievement, reading ability, health. Fisher comments that in general reviews are consistent and convincing: noise levels affect verbal interaction, reading comprehension, blood pressure, and cognitive process, and may activate feelings of helplessness and lack of concentrate on task. Scheinder (2002), in his review, concluded that good acoustics are paramount for desirable academic performance. Literature reviews that impact of acoustic level and noise concentrates on students' achievement, reading performance, and physiological effects.

Stansfel and Matheson (2003), in their review, showed health and psychological problems due to excessive noise level emerged like annoyance, lack of sleep and low cognitive performance in adults and children. Cohen, Evans, Krantz, and Stokols (1980) found that noise raised the blood pressure and resulted in learned helplessness, while Lundquist, Kjellberg, and Holmberg (2002) found the relationship between noise and mood.

Earthman and Lemasters (1998) reached three conclusions related to noise effect; (1) the less external noise in classroom, the more achievement students have, (2) outside noise result in students' dissatisfaction with their classroom, (3) excessive noise results in stress among students.

The other impact of noise is on the reading performance. Crandell, Smaldino, and Flexer (1995) reviewed literature and they concuded that there is link between acoustic environment and students' reading and spelling ability, behavior, attention, and concentration. Haines, Stansfeld, Brentnall, Berry, Jiggins, and Hygge (2001) and Evans & Maxwell (1997) discovered noise related reading problems, while Maxwell and Evan (2000) found deficiencies in prereading skills. Bronzaft and McCarthy (1975) examined the reading score of students enrolled in a school near an elevated train and they compared these scores on the near and far sides of school

building. They found that students' score in the noisy side are lower than students in the other side. Similar research was done by Evans and Maxwell in 1997, they conducted a study with 100 students enrolled in two New York City schools, one of which is close to flight path. They concluded that there was a twenty-percent lower reading score among students exposed to the air-traffic noise.

2.4.5 Lighting

Classroom lighting is the other critical factor for student performance (Phillips, 1997). There is a considerable amount of literature relating to lighting in the classroom. Many researches are related to negative effect of poor lighting. Poor lighting has a negative effect on students' neuron functions, hyperactivity, health and task behavior (Fisher, 2001). The other negative effect of inadequate lighting is related to health issues. It results in headaches, eyestrain and fatigue (Higgins, Hall, Woolner, & McCaughey, 2005). Moreover, Hathaway (1990) argued that there is a correlation between absenteeism and lighting. Appropriate lighting prevents these negative effects of lighting. According to Jago and Tanner (1999), appropriate lighting improves test scores, reduces off-task behavior, and plays a significant role in students' achievement. They argued that the visual environment influences a learner's ability to perceive visual stimuli and affects his/her mental attitude, and thus, performance (1999). Fisher (2001) examined the fluorescent lighting effect; he found that fluorescent lighting decreases bright light although it may increase student hyper-activity. Moreover, ultra-violet enhanced broad-spectrum fluorescent lighting can produce better attendance, growth and development (Fisher, 2001). On the other hand, daylight is preferred due to its biological effects on the human body (Wurtman, 1975). In their examination of 2000 classrooms, they concluded that its effect on student outcomes is higher than other light sources. Likewise, Lemasters' (1997) review of fifty-three studies showed that daylight increases student achievement. Besides, the study indicated that students with the most classroom daylight progressed twenty percent faster on reading tests than those students who learned in environments that received the least amount of natural light (Plympton, Conway, & Epstein, 2000).

2.4.6 Temperature and air quality

Other important features of buildings influencing the students in general are heating, temperature and air quality (Buckley et al, 2004; Earthman, 2004). Controlling climate in the classroom has an impact on student learning outcomes (Cash, 1993; Earthman, 2004; Hines, 1996; Lanham, 1999). For example, Lanham (1999) found that air conditioning accounted for 1.6 percent of the total variance in 3rd Grade English, 2.8 percent for 5th Grade English, and 4.8 percent for 5th Grade Technology.

The U.S General Accounting Office has found that poor indoor air quality affects fifteen thousand schools; that is, eight million children in American's schools. The inadequacies of indoor air in schools continue to be linked to ill health. The symptoms including irritated eyes, nose and throat, upper respiratory infections, nausea, dizziness, headaches and fatigue, or sleepiness have collectively been referred to as "sick building syndrome" (EPA, 2000). The sick students couldn't perform as healthy students (EPA, 2000; Kennedy, 2001; Leach, 1997), couldn't attend the lessons (EPA, 2000; Smedje & Norback, 1999; Rosen & Richardson, 1999).

Rosen and Richardson (1999) searched the impact of electrostatic air cleaning technology on absenteeism in two Swedish care centers, one old and the other modern, through three years. They concluded that absenteeism fell in these schools. There is statistical significance in the older school (absenteeism dropped from 8.31 percent in year one to 3.75 percent in year two, but upon removing the air cleaners, the rate increased to 7.94 percent in year three).

At this point, to know what the suitable temperature is for better learning is critical. Harner (1974) found that the best temperature range for learning reading and math is sixty-eight to seventy-four degrees Fahrenheit (20 -23 C°). In cases where the environment is above seventy-four degrees Fahrenheit (23 C°), students' ability to learn reading and math is adversely affected. Students report that higher temperature and humidity results in more discomfort and in less attention spans (King & Marans, 1979).

2.5 Physical Environment in Higher Education

A student relaxing on the grass with a laptop...Several hundred students listening in a lecture hall...Students working together at an outdoor table...A student studying in his residence hall lounge...A student reading a book in a window well... A group of students mixing solutions in a laboratory (Van Note Chism, 2006, p. 16).

All these scenarios and more than these occur in a university environment. Learning takes place everywhere on the campus. As Oblinger (2006b) emphasized, there are four main elements we see in the universities. First and foremost, we see people, students and faculty members. The second one is learning – active, experiential, reflective and collaborative. As in our scenarios, searching, doing experiments, discussing and working together are examples. Then, you see places – lecture halls, laboratories, outdoor spaces, cafeterias, and virtual spaces. Lastly, you see the technology; computers, wireless networks, and digital learning resources.

These learning scenarios occur whether we arrange the spaces or not. We can facilitate deeper and richer learning when we design spaces with learning in mind. (Van Note Chism, 2006).

According to Milne (2006), realizing what the students experience in the university environment is an important starting point for realistic design processes. Milne (2006) identified a few trends after his 20 years of observation as a former director of Open University in Scotland: (1) classrooms are not only form of learning space, (2) social interaction is a growing part of learning, (3) technology is natural, (4) internet resources can bypass peer review, (5) learning can occur out of sequence, and (6) students construct content rather than just consuming it (pp. 142-143). As well as Milne, Oblinger (2006b) defined the learning space patterns which are common in the 21st century: (1) space shaped by learning rather than by instruction, (2) socially catalytic space, (3) a shift from classrooms to learning complexes, (4) service philosophy, (5) technology integration, (6) experimentation and innovation, and (7) user involvement.

In this sense, three common themes emerge for training and socialization of university students: social and informal spaces different from classroom, technologically- enhanced places and necessary design principles.

2.5.1 Social and informal spaces different from classroom

Emphasizing only classroom as learning space is not valid for the 21st century. Although classroom is seen as primary location of learning, data show that the most of students' learning activities occur outside of the classroom (Milne, 2006) because learning is a continuous process without time and space limitation. It is common acceptance that learning is a social activity. Social interaction is a growing part of learning. Students learn from their friends. Students increasingly gain the motivation by social interaction with their peers. Therefore, pedagogy is shifting to emphasize team activities and collaborative learning (Milne, 2006). Students' sharing time with peer discussion on academic work is valuable to contribute to personal and professional growth (Oblinger, 2006a).

University students spend a large proportion of their time in campus environment (Lomas & Oblinger, 2006). Places can connect individuals with other people and other activities. Therefore, learning places should fulfill the students' need for community and offer large spectrum of areas for and students' socialization (Van Note Chism, 2006). Moreover, each individual has different ways of learning. Generally, learning styles is divided into three categorizations: doing, conversing, and reflecting. Different types of spaces (for example, learning commons and designed outdoor spaces) are suitable for different types of learning (Lomas & Oblinger, 2006).

In the literature, the learning spaces is divided in two main areas; formal and informal spaces. Formal learning occurs in an organized context which is explicitly designated for learning with objectives, time and resources. On the other hand, informal learning is serendipitous and unintentional which takes place in students' daily activities, discussions, various encounters and activities (Cedefop & European Commission, 2009). The primary formal settings include lecture halls, seminar rooms, practical laboratories, IT spaces and libraries. More informal settings include

cafes, learning commons and areas of serendipitous contact such as corridors. Informal learning spaces are recognized as an important part of overall learning environments because of widespread wireless access, increasing students' own technological devices and reality about learning occurring out of classroom environment (Milne, 2006).

Advantageous of informal spaces are as follows;

- (1) Informal settings (i.e. library) facilitate group and individual academic activities and computer-assisted learning (Hunley & Schaller, 2006).
- (2) Informal learning spaces enable students work spontaneously and deliberately in small or medium-sized groups (Brown & Long, 2006)
- (3) Informal learning spaces allow students to gather, study, collaborate and socialize, even also drink and eat (Lomas & Oblinger, 2006)
- (4) The informal space combines food services and wireless access, so they become a place for casual activities of students (Lomas & Oblinger, 2006).

For university education, there are multiple spaces centered on informal learning: information commons, living-learning spaces, corridor niches and the studio classroom (Van Note Chism, 2006)

Information Commons/Collaboratory: Information commons are one type of library which includes furniture, computer displays, and space arrangements for group work (Van Note Chism, 2006). A concept of the information commons emerged in the USA in the late 1990s (Cox, 2011). Generally, these are located in the center of campus as showpieces with technologically advanced appearance. One of the best examples is the Saltire Center at Glasgow Caledonian University which opened in 2006. It has spaces for group and individual work, social spaces, and coffee shops and provides multiple services such as books, computers and support services. Flexibility is the other key feature for future reuse. The Saltire Centre as a large dramatic building with these functions is considered "a hub of activity" (Cox, 2011).

Learning commons make out-of-class time valuable for learning opportunities (Lomas & Oblinger, 2006). Moreover, information commons provide spaces for peer

interaction and exchange ideas; silence is not required (Lomas & Oblinger, 2006). Brown and Long (2006), stated the importance of learning common as follows:

The learning commons is human-centered. The term learning signals a significant change: the focus is not just finding information but applying that information in productive ways to deepen and strengthen learning as well as to construct knowledge. Learning, not information, is increasingly the focus. The move away from transmission to constructivist learning and developments in technology has enabled this redefinition of the commons. If the constructivist model reflects how people learn, a more human-centered design of learning space is a positive change (pp. 119-120).

Living-learning spaces: “With no single learning time, style, or space to guide planning, many institutions are shifting their focus from classrooms to learning complexes where learning ebbs and flows depending on the need and circumstance” (Oblinger, 2006b, p. 182). Living-learning spaces integrate studios, classrooms, a café, living facilities, and galleries in one complex. New campus residences include meeting rooms for lessons right in the living facilities (Van Note Chism, 2006). Group spaces are interspersed with areas for individual reflection. Faculty offices and support desks are often nearby. Technology is integrated in the operation of the learning complexes as well (Oblinger, 2006a).

Corridor niches: No longer have passageways, corridors served as a study and an informal meeting area (Van Note Chism, 2006). Creating spaces for spontaneous meetings is particularly important. “Think stops” are places for individuals to stop, relax, and meet others (Lomas & Oblinger, 2006). Hallways equipped with tables, chairs, and wireless can become informal learning spaces used by individuals or groups. Besides, a residence hall enables frequent contact and interaction among students and faculty members (Lomas & Oblinger, 2006).

The studio classroom: The studio classroom has become more common because it includes flexible furniture, decenters the room from teacher to student activity, and enables collaboration (Van Note Chism, 2006).

These trends emphasize that learning is now becoming more social and informal. Instead of formal learning spaces (classrooms and lecture halls), modern learning spaces which provide freedom to students to access and socialize (cafes and library)

are preferable. Finally, successful integration of technology of each learning space is necessary (Milne, 2006). These new understandings showed that learning implies is going beyond library concepts of information literacy. Bennett (2005) claimed the following needs are:

- (1) Supporting a distinction between studying and socializing that does not deny the social dimension of study
- (2) Favoring learning functions in the space's mix of academic and social functions
- (3) Providing choices of place, ranging from personal seclusion to group study, that variously reinforce the discipline needed for study
- (4) Permitting territorial claims for study that enable students to govern the social dimension of their study space
- (5) Fostering a sense of community among students (as quoted in Cox, 2011, p. 199)

Correspondingly, to fulfill these needs, by coordinating architecture and technology, informal spaces should be created based on floor plans, furniture, and technology (i.e wireless networks and plasma screen) (Brown and Long, 2006). The place should encourage serendipitous connections among students and faculty through the space design, the use of technology, and food services (Lomas & Oblinger, 2006).

2.5.2 Technology-enhanced places

Technology use is an indispensable activity in our life and is a part of the higher education. "Digital native" students see technologies in the faculty as a natural component of their lives (Milne, 2006).

Historically, the place where faculty and students came together for formal learning was the classroom. Information can be displayed in various ways now, not only on chalkboards and whiteboards but also online (Gee, 2006). Space is no longer just physical, it is also virtual (Oblinger, 2006b). Classrooms have technologies from projectors to audio and video capture.

You might also see the impact of technology. The Internet has changed notions of place, time, and space (Oblinger, 2006b). According to Hunley and Schaller (2006), technology has redefined the meaning of learning space by changing our notions of place and time: (1) place is defined by both physical and virtual settings, (2) learning

time is flexible and a learner can schedule it individually, (3) the formally structured and content of learning can be self-directed.

There are many advantages of technology in learning process;

- (1) In the classroom environment, as well as instructors, students can use these devices to be active participants. Students construct content rather than just consuming it. Students are active author of content using a range of digital devices and software tools. They can create and shape the content instead of being passive absorber of information (Milne, 2006; Oblinger, 2006b).
- (2) Ubiquitous wireless access is increasingly common—and expected. Wireless networks make spaces other than classrooms a learning space; students can use any space, sit with their laptops, study and socialize (Oblinger, 2006a).
- (3) Technologically designed space allows the users pace and style of information delivery, in this way; it supports multiple learning/teaching styles (Gee, 2006).
- (4) Through computer displays, a small group can share their work with a larger group. Internet resources can bypass peer review. Internet provides near-instantaneous distribution of information. Analysis and critique by means of online resources become an important activity for students to interact with one another and with faculty (Milne, 2006).
- (5) Instead of deliberate and sequential manner of teaching, students are more comfortable with group discussion and parallel activities that may expand media, devices, and communities (Milne, 2006).

Because of all these advantages, students use devices (i.e. iPods, smart phones) more and these devices become a part of their daily life. Therefore, learning spaces will require more flexible plug and play capabilities (Van Note Chism, 2006). According to Gee, the places should be enhanced with technology tools, but they should not become the centerpiece of the space.

2.5.3 Necessary design principles

University environment is for people and for any type of activity such as learning, meeting, exploring, thinking, or relaxing. To maximize all these experiences, the university spaces should be harmonious with learning theory and the needs of students, therefore the university should have an environment which is flexible, stimulating, and healthy.

2.5.3.1 Flexible environment

The space should be adaptable in order to support people, activities and change. The Joint Information Systems Committee (2006) explored the design principles for twenty-first century learning, and the concept of flexibility was considered as a lodestar (p. 3). Spaces should be flexible in order to adapt to constantly changing needs, and different styles of pedagogy. Ideal learning spaces provides an environment where students could contact with others and construct meaning in these dialogues. Flexible seating arrangements create a social setting, and so give opportunities for peer-to-peer exchanges (Van Note Chism, 2006). The study in the USA, done by Kuh, Kinzie, Schuh, and Whitt (2005), showed that one of the most important effects on student success is interaction with faculty, staff, and peers in educationally meaningful ways, all of which are facilitated by non-hierarchical room configurations. Therefore, learning spaces should be adequate for activities and socialization among students, which leads to effective learning (Kuh et al. 2005).

Flexibility will enable different groups to undertake different activities simultaneously (Gee, 2006; Temple, 2008). For example, a group of learners are able to work in groups, while others are able to work independently. It is better to design spaces capable of quick reconfiguration, for example with moveable tables and chairs (Von Note Chism, 2006).

Besides, diversity abounds in the learning environment; each individual learns in different ways and each brain is uniquely organized (Gee, 2006). Therefore flexible learning environment helps keep pace with a variety of learning and teaching styles.

2.5.3.2 Stimulating environment

Human beings wish for color, natural and appropriate lighting, and interesting room shapes. One of the studies showed many students constantly rearranged their living spaces to make them more attractive (Van Note Chism, 2006). Especially, the paint color, carpeting, and lighting are important for them. The functions of the stimulating spaces are to attract people, to motivate them to be active, and thus to increase creative thinking.

Gee (2006) asserts 6 ways to create more stimulating spaces;

- (1) Sensory cues. The places should be designed to appeal to senses. Visual, tactile, auditory, and kinesthetic experiences engage and stimulate people, influence their memory, and raise mental awareness.
- (2) Elements of surprise. Mystery and surprise stimulate the human and senses and invite discovery. For example using hallways and pathways differently can enable students experience different and unplanned activities; group work, casual conversation, and critical discussion.
- (3) Transparency, visual access. To see others lets people feel that they are a part of bigger society. For example, instead of being long, stark, linear, corridors should become part of the learning experiences which invite people and energize them.
- (4) Connection to nature. Nature makes people relax and stimulates them because it has changing elements. Generally, human response is positive toward to natural elements. For these reasons, some natural patterns, flower photos, and plants in the halls and corridors can be better to increase students' well-being.
- (5) Color and texture. Colors and textures can increase the time students spend in the school.
- (6) Diverse shapes. Various shapes and forms offer a variety of activities and interactions among students. For example, round tables inherently create a collaborative environment for learning.

2.5.3.3 *Healthy environment*

The other priority is to create a place fulfilling the basic human needs. First of all, ambient environment is an important factor influencing human body. Learning is most effective in spaces that have suitable temperature, good lighting, and a quiet and comfortable environment (Mitchell, 2003). For example, lighting has positive psychological effects on stress and mood (Gee, 2006). Elevating the mood and stimulating students can be achieved through a variety of lighting, especially through natural light.

Comfort is the other factor which should be provided in the learning environment. Otherwise, discomfort results in a compelling distraction to learning. For example, the small standard arm chairs are inadequate for writing, and using a computer and the other materials (Van Note Chism, 2006). The space should be comfortable in a variety of arrangement for different people. Besides, good maintenance and cleanliness (Temple, 2007) as well as comfort also feature as considerations for learning in the literature.

Moreover, healthy spaces incorporate ergonomic and environmental principles and sustain physical well-being (Gee, 2006). Ergonomic environment is related to how the entire environment supports and interacts with individuals. Comfortable and adjustable furniture, flexible environment, well-planned pathways, and open access to equipment are all ergonomic considerations. In this sense, there are two principles of ergonomic thinking: not only it should not hurt, but also it should prevent injury (Gee, 2006).

There is growing interest in the relationship learning spaces and pedagogy in higher education (Graetz & Goliber, 2002; Jameison, 2003; Jessop, Gubby, & Smith, 2011; Joint Information Systems Committee, 2006; Oblinger, 2006a, 2006b; Popenici & Brew, 2013; Temple, 2007, 2008, 2009). Questions emerged to look the relationship between existing teaching spaces and new pedagogies. New pedagogy is linked to globalization, technology, the changing demography of students, and critical pedagogy. Aim of higher education is to foster specific kinds of learning: higher-order thinking abilities, communication skills, and knowledge of the ways of

disciplinary experts, to name a few (Van Note Chism, 2006). ‘New’ pedagogies are based on learners constructing knowledge and meaning through dialogue, and tend to be more participatory and democratic. Therefore, the creation and renovation of learning is currently a priority for educators working in higher education. A central theme of design is to think of how to make learning spaces to facilitate active, social, and experiential learning. Absence of these design principles (mentioned above) cause “a lost potential and a possible source of disenchantment for students about their campus” and “limiting learning landscapes [which] impact on the sense of belonging, student engagement and institutional identity” (Popenici & Brew, 2013, p.154). Therefore it is critical to design spaces with a wider focus; for example, even corridors and outdoor passageways should be considered how learning occurs in these areas. Moreover, user perspective should be taken into consideration. University students’ perspectives are different from the architects and experts, therefore their opinions are critical to design user-friendly places. Besides, their involvement can be valuable in ongoing maintenance and management (Oblinger, 2006a). It is possible to summarize what it said in the literature with the following quotation:

As we have come to understand more about learners, how people learn, and technology, our notions of effective learning spaces have changed. Increasingly, those spaces are flexible and networked, bringing together formal and informal activities in a seamless environment that acknowledges that learning can occur anyplace, at any time, in either physical or virtual spaces. We have also come to understand that design is a process, not a product. Involving all stakeholders—particularly learners—is essential (Oblinger, 2006a, p. 14).

2.6 Physical Environment as Hidden Curriculum in Higher Education

The place in which learning occurs is a component of the learning process which can help and hinder students’ learning (Weinstein, 1979) and influences undergraduate students’ social, professional and individual development. As stated by Bingler (1995), recent thinking about learning places has put more emphasis on the student as the center of the learning process and on the curricula that involve all sorts of objects and projects integral to the discovery process. Therefore, buildings should be

considered as learning tools. Buildings can serve as a form of knowledge and as an instrument of curriculum and instruction in the learning process. Regardless of the purpose the school is designed for, the environment including buildings conveys strong messages influencing students' feelings, values, attitudes, and behaviors. There has been a growing interest in examining the role of the physical environment as hidden curriculum. Physical environment as one dimension of the hidden curriculum facilitates the impact of formal, academic learning as well as outcomes like improved attitudes, values toward learning, and norms. Although hidden curriculum is hard to identify, its impact is nevertheless profound.

Among hidden curriculum writers, various authors (notably Bowles & Gintis, 1976; Dreeben, 1967; Getzels, 1974) refer to the social and the physical environment of the school as being part of the hidden curriculum. Dreeben and Bowles and Gintis are concerned with the school's social environment, while Getzels is more focused on the school's physical environment and its possible influences on learning, both formal and informal learning. Getzels differentiates between four different ways in which classroom space traditionally has been organized, and shows how each organization of classrooms implicitly embodies a different concept of the student and the nature of the learning process (Gordon, 1982). For example, the rectangular classroom where students' chairs are bolted to the floor in straight rows and the teacher's desk being in front represents students as empty organisms that learn only from the teacher. The square classroom in which the teacher's desk is at the corner and the students' chairs are movable is the image of an active organism. If there is no teacher desk in the classroom, it means the social organism learns from peer interaction. Finally, open classroom fits the image of the stimulus-seeking organism searching for novel; challenging experiences by which learning takes place (Getzel, 1974). As Getzels claims, classrooms as physical space can "teach lessons of their own; they tell the child who he [or she] is supposed to be ... and how he [or she] is supposed to learn" (quoted in Gordon, 1982, p. 188).

Meanwhile, Sommer and Becker (1974) also stressed the seating arrangement in the American classroom. A typical classroom with straight rows shows that a student should be seated in a specified location during lesson, he should look ahead and

ignore everyone except the teacher who writes important messages on the board. Sommer and Becker (1974) also emphasized that this type of seating arrangement is common not only in elementary schools but also at university environment. Moreover, the university students' passivity is due to situation that get information only one or two channels sight and sound. "Everything else is distraction and noise" (Sommer & Becker, 1974).

On the other hand, students internalize the traditional seating arrangement. For example, Becker and his colleagues' observations indicate the students' sanctity toward the typical seating arrangement (1973). They rearranged the straight rows into circular arrangements before the lesson, however, the students returned them into their original location before the instructor arrived (as cited in Sommer & Olsen, 1980).

Messages of traditional seating arrangement are abundant. According to Schein and Bennis (1965), such teaching environment is designed a "sit and learn" educational philosophy, and it mirrors the necessity to respect authority, conformity, discipline, and good behavior as meta goals (as quoted in Sommer & Becker, 1974). Similarly, in 1987, Jachim and Posner asserted that values are inherent in the seating arrangement of the students and the location of teacher desk which is in front of the classroom, so inherently students see the teacher but not each other. In such a seating arrangement, even someone doesn't sit down; the table in front of the classroom is the sign of the authority and each student conceptualizes this automatically. This authority creates the learning environment; for example, decides how to maintain control, how to select materials. Besides, there is an absence of interaction among students. Shortly, "the room supports a transmission theory whose built pedagogy says that one person will "transfer" information to others who will "take it in" at the same rate by focusing on the person at the front of the room" (Van Note Chism, 2006, p.12).

This conception of classroom (Becker, Sommer, Bee, & Oxley, 1973; Getzel, 1974; Jachim & Posner, 1987; Sommer & Becker, 1974) is still emphasized by the other scholars. For example, in 2002, Torin Monahan highlighted the role of seating

arrangement named “built pedagogy. Built pedagogy refers to architectural embodiments of educational philosophies, that is, designed space shape the learning happened in that space. For example, a classroom with rows of table arms and instructors’ desk in front of the class convey a message ‘while a teacher talk or demonstrate; students listen or observe’. On the other hand, a table with a chair on sides in the classroom conveys the importance of teamwork and interaction (Monahan, 2002).

In other respects, Oblinger (2006a) emphasized the incongruity between today’s educational philosophy and the seating arrangement. Although current educational philosophy favors active, participatory, and experiential learning, a large lecture hall with chairs bolted to the floor are not parallel to this philosophy. A lecture hall sends a strong signal how learning will occur. Similarly, Strange and Banning (2001) asserted that “although features of the physical environment lend themselves theoretically to all possibilities, the layout, location, and arrangement of space and facilities render some behaviors much more likely, and thus more probable, than others.” Similar analogy is made by William Goldstein (np) for science laboratory; if a classroom contains sinks, black counters, gas, air and water fixtures, the setting clearly represent a biology classroom. More importantly, classroom setting shows something about how our society views education called hidden cultural perspective (as cited in Stolp & Smith, 1995). For example, in the straight rows of desk facing the front of the room, students’ attention is toward the teacher. Hidden side of classroom interior design illustrates the value given to disciplined learning (Stolp & Smith, 1995). Besides, the clock on the wall signifies a value on time for the purpose of learning. Therefore, “we sense a school’s culture both in the visible signs that establish an immediate perception and in the norms, values, and beliefs that are implicit in those signs (Stolp & Smith, 1995, p. 3)”.

Furthermore, Strange and Banning (2001) noted that the arrangement of a classical lecture theatre communicates a non-verbal message of formalism to students: “If a student walks into a classroom and the teaching podium is 20 feet away from the first row of chairs, then a distinct message regarding the formal nature of the upcoming classroom experience is communicated very clearly (p. 21)”.

As well as the image of the seating arrangement on educational philosophy, research in the USA (Oblinger, 2006a) and the Joint Information Systems Committee report showed a strong causal correlation between classroom design and the pedagogy. According to Oblinger (2006a) “Spaces are themselves agents for change. Changed spaces will change practice (p. 30)’. For example, “it can bring people together; it can encourage exploration, collaboration, and discussion (p. 12)”.

Jessop and Smith (2008) did a research in order to investigate the relationship the built environment and approaches to teaching and learning. One of his interviewees (Business lecturer) stated the following quotation about the designed computer suite:

An informal approach is inhibited by the furniture...the technology makes the room feel regimented...the narrow gangways make observing group work difficult – come to think of it, I’ve stopped doing much group work since teaching mainly in here... The social dynamics are encouraged by the furniture – you saw how international students were sitting together, as were British students (p. 7).

Besides, absence and existence of a particular space influence the educational process in the university environment. One of postgraduate students in New Zealand institution mentioned the effect of the lack of spaces for students for change: “There is no sense of student voice or community... there is no place where we can be together and talk [...] We wanna have pride in the organisation that we study in (Popenici & Brew, 2013)”.

Moreover, Becker (1989) classroom layouts support traditional transmission model pedagogy, rather than student centered or social-constructivist approaches (as cited in Jessop & Smith, 2008). According to social constructivists, social setting is one of the factors affecting learning. Standard classrooms and carrel, sterile and unstimulating décor, blocked peer-to-peer communication by the seating arrangement, and lack of technological devices show the limitation in learning. If a computer lab does not support a multiple viewers of a monitor or if a library does not allow talking among students, this shows a built pedagogy contrary to the ideas of social constructivism (Van Note Chism, 2006).

Hiller and Hanson (1984) made an interpretation about the buildings in the Winchester University. If one reads iconic buildings as a 'text', these buildings can be considered a representation of contemporary theories of learning. For example, high tech spaces and layouts emphasize social learning, while glass facades suggest openness and transparency. The most prominent public buildings show the value given to students, who are the central, and convey the idea of a modern, creative, and inspiring university experience.

As clearly seen in the above literature, more focus is on the classroom physical environment and Van Note Chism (2006) criticized the conception that learning occurs only in the classroom. He stated that students always pass through the corridor, but, they used it for only to go courses and sit on benches and they think "students do not learn until they are in the "learning space" where a teacher presents information". What is more, restrictions imposed by the building design and general arrangement of transitional areas and corridors enhanced or limited in students' mind (Popenici & Brew, 2013). Actually, as Mitchell (2003) stated "If you get [a] wireless reception under a tree, there really isn't any need to be in a classroom" (as quoted in Van Note Chism, 2006, p. 26). Therefore, new buildings are not necessarily essential in order to create effective learning environments (Popenici & Brew, 2013). Smaller places for project work, discussion and debriefing are necessary. Besides, outdoor spaces, lobby spaces, cafes are paramount to support learning (Chism, 2006).

In addition to pedagogical result of the learning spaces, it determines the nature of interaction between students and students, students and instructors and so it determines educational results (Chism, 2006). According to Edward and Usher (2000), space is relational. That is, it is a product of social relations and at the same time, it produces social relations. Similarly, Massey (1994, p. 265) highlighted that space is "a moment in the intersection of configured social relation". Whisnant (1971) made a critical analysis of American campus design and he concluded that the spatial organization of campus affects learning and provokes 'division, tension, alienation and strife', which is especially related to interdepartmental rivalries (Temple, 2008). In parallel with this idea, Hiller and Hanson (1984, pp. 1-2) stated;

Buildings may be comparable to other artefacts in that they assemble elements into a physical object with a certain form; but they are incomparable in that they also create and order empty volumes of space resulting from that object into a pattern. It is this ordering of space that is the purpose of building, not the physical space itself ... the ordering of space in buildings is really about the ordering of relations between people.

On the other hand, separate areas for faculty offices increase the distance between student and instructors and decrease agency on the part of students, so they reinforce the transmitter image of the faculty member. The faculty member is set apart rather than be a co-learner (Van Note Chism, 2006). Even the distance between students and instructors in the classroom influences the learning environment. In other words, Strange and Banning (2001) stated that ‘the proxemics associated with seating arrangements in a lounge area ... can either promote or inhibit social interaction ... physical artifact messages of support or unsupport can take many forms, signalling a sense of belonging ... and a sense of role, worth and value ... such messages enhance or detract from students’ ability to cope with college stress’ (p. 31).

The other effect of physical environment is on emotions. Strange and Banning (2001) recommended that campus spaces convey symbolic messages to increase student motivation and morale and/or ‘hinder or promote learning’ (p. 31). According to Oblinger (2006b), spaces have an unspoken message of silence and disconnectedness. Strange and Banning (2001) identified how space gives these messages; for example, space with way-finding, accessibility, design and aesthetics can contribute to students feeling either welcome or alienated. Similarly, after observation of their universities, Uline, Tschannen-Moran, and Wolsey (2009) concluded “the personality of a specific school building may or may not encourage a sense of belonging. The personality of the school environment can be thought of as a combination of various attributes, including events that have taken place within the school, affect of the people who inhabit and transform various spaces, the organization of the space as it was designed and so forth” (as quoted in Uline & Wolsey, 2011, p. 25) .

One lecturer emphasized the effect of a negative environment on emotions: “The room just doesn’t engender enthusiasm. It has poor IT equipment, broken furniture,

there's the curtain thing coming off the hooks, a glare problem when it's sunny – it can't be good. The students feel unconsidered. It's a depressing environment (Jessop, Gubby, & Smith, 2011)". Similarly, Van Note Chism (2006) mentioned his memory that students dropped classes because of uncomfortable chairs.

The other message of the university design is about the missions of the university. Campus buildings are seen as a text which tells stories about the university's ideals and educational messages (Temple, 2008). Campus master planning or the design of university individual buildings can "express the mission of [the] university in built form" Edwards (2000, p. 3), and 'communicate an institution's purpose, presence and domain' (Dober, 1992, p. 3). For example, the sense of scientific rationalism, intellectual inquiry, and scientific experiment is embodied in the built form in the ancient universities such as Oxford, Paris, Cambridge, Turing and Bologna. Correspondingly, democracy ideas can be found in the layout of universities from Virginia to Cape Town, so the campus couldn't become an ordinary place (Edward, 2000, p. 150 as cited in Temple, 2008). Other two examples are given by Jessop and Smith (2008). University of Winchester's campus was constructed at least 150 years ago, when most of the students were male. Now, there are about 5,500 students into two main campus sites within a mile radius of the cathedral. Campus buildings mirror the changing fashion, styles and constraints of different areas. The other example is defined as follows;

There are some rambling Victorian buildings with obstinate maintenance problems and beautiful decorative features, some sixties and seventies crinkly tin buildings with harsh, functional exteriors and bland teaching rooms, and some avant-garde, award winning new buildings of the cool Britannia era, reflecting social learning styles and a focus on student-centredness (p. 1).

In outlining a political theory of space, the French sociologist Lefebvre stated that "the producers of space have always acted in accordance with representation, while the users passively experienced whatever was imposed upon them inasmuch as it was more or less thoroughly inserted into, or justified by, their representational space." (Lefebvre, 1991, pp. 43-44). He questioned the role of space on ideology like the following quotation: "What is an ideology without a space to which it refers, a space

which it describes, whose vocabulary and links it makes use of, and whose code it embodies? (Lefebvre, 1991, p. 44).

There are also public messages of the university campus in a competitive market, if there is an embodiment of church and supermarket (Barnett, 2000). For example, because the University Winchester has a new university center, which is a funky and functional space for students, contains social learning cafes with serpentine sofas, Starbucks style coffee bar, bookshops, shops, bars, restaurants, and entertainment venues, it conveys a psychological message that ‘this is really a university’.

On the other hand, according to Jessop and Smith (2008), spatial arrangement of campus, for example, edge and heart of the campus, mirrors an implicit hierarchy. Buildings in the heart of the campus belong to more powerful mainstream disciplines such as Education and English, and key university functions like administration, finance, conferences, marketing and Vice Chancellor’s office. Conversely, buildings on the edge of the campus are some subjects and departments are perceived to be eccentric or faddish. Therefore, where a space is and its proximity to other buildings symbolizes status. Similarly, according to Cox (2011) space layout can itself reproduce specific power relations or categories, and priority are given to certain types of space. On the other hand, it is also seen from a different perspective: “For some departments, lurking on the periphery is strength as it allows for a strong research culture and a degree of independence from management fiat. “[But generally] [f]or others it may signal neglect and decline” (Jessop & Smith, 2008, p. 9).

The other indicators of ‘symbolic of status’ are the amount of space given to an individual, the quality and order of the furnishing (for example regular ordering shows control), the degree of control of the ambient environment (i.e. temperature, light) (Baldry, 1999).

The other vehicle conveying institutional purposes, ideas and pedagogical emphasis is the building’s wall. The walls of the schools are considered as the symbol of school culture. Whether they are painted in institutional green or decorated with a mural is the symbolic message of school life (Stolp & Smith, 1995). Furtwengle and

Micich (1991) conducted a study to identify cultural agreement by use of pictures taken by faculty, students, and parents from five schools (as cited in Stolp & Smith, 1995). They gathered data on the feeling of participants about their school culture. As a result, school artifacts showing the routines, ceremonies, rituals, traditions can provide clues for how cultural change occurs.

According to Lefebvre (1991), the university walls present the ideological systems of the institution, and the walls are controlled and designed by an institutional authority. The unmissable manifestation of the ideological system (ie. institutional belief and practices) includes this signs and messages on the wall hung by an institutional authority (Castells, 1977 as quoted in Popenici and Brew, 2013, p. 154).

Popenici and Brew (2013) considered that the hierarchical message written all over our institutional walls and their arrangements are symbol which create a cultural shift and adopt the view that the whole campus is a place of independent learning and collaboration (Popenici & Brew, 2013). Learning does not occur in a controlled process limited to classrooms, forums and amphitheatres anymore. The acceptable assumption is that learning is happening in the transitional spaces with students' random encounters. Therefore informal messages are received by the signs on the walls and the architectural landscape (Popenici & Brew, 2013). If there is a lack of commercial posting and institutional concern for visibility of academic life and possibilities, this could not enhance students' aspirations toward academic interest (Popenici & Brew, 2013).

The article entitled "Schooled by the Classroom" written by Costello showed the importance of transitional places. Costello (2001) did research to describe how the physical setting function to convey socialization messages, with a view to toward understanding how schools (re)produce race, class, gender, and other hierarchies. She made a participant observation in the setting of graduate schools' setting and students' reaction to these settings. She examined two faculties; one is the School of Law and the second is the School of Social Welfare. While she compared and contrasted these two faculties, she divided space into three groups; (1) entryways and

hallways, (2) artwork, and (3) classrooms. Implications related to these three groups are as follows;

- (1) One of the graduate school halls was designed by the university architect to convey the authority and the prestige of the field of education. As assumed by Costello, before students recognize their professors and peers, they got many clues related to their new professional roles from architecture, décor, and the level of the maintenance of the facilities they entered.
- (2) Luxury design in the entryways and hallways conveys the idea that students' status is high, warranting every convenience.
- (3) Wall, any material on the wall, structure of the wall, posted material on a bulletin board, grades on the boards, and rich materials can give impressions of wealth, privilege, and historical continuity. For example donation list can give message that being willing and able to give money is desirable.
- (4) If there is a portrait of woman, this could display appreciation for woman in all her diversity.
- (5) While the corridors of the School of Social Welfare encourage students to socialize their valuable self-expression and political engagement, the other corridors of the School of Law students are encouraged socialize respect order, formality, wealth, and self-restraint.
- (6) The display of the students' posters conveys to students the ideal that professional learning and work are communal processes.
- (7) The presence of fine artwork or craftwork, the pictures of individuals, and the presence of sculpture reflect the faculty ideology. For example, if the individuals pictured are generally white man, these portraits convey messages that the white male authority is dominant.
- (8) In the classroom environment, the display of artwork, the seating arrangement, the use of seminar rooms, and the maintenance of the chairs and tables are important factors for hidden curriculum.

In brief, a rich building of law school with donation plaques, art works and lecture theatre layouts socialize students to “adopt role expectations of power and authority, wealth, comfort and an appreciation of upper class culture” (p. 58), while a school of

welfare with more personal decoration, students work displays, and seminar room layout socialize students to “limited resources and class aspirations, and about the values of empathy, modesty, tolerance, public service and communal responsibility” (Costello, 2001, pp. 58-59).

To sum up, giving the results of the study entitled “Hiding in Plain Sight” and written by Gair and Mullins can be meaningful. Gair and Mullins (2001) conducted a project that utilizes methods of visual ethnography and they provided many implications to explore the concept of hidden curricula which is applied to higher education. While conducting this project, they elaborated the topic via interviewing with the academicians, many of whom paved the way for literature on socialization and hidden curriculum in primary and secondary school. After the analysis of the transcribed interviews, one of four themes is ‘the role of the physical environment’ (Gair & Mullins, 2001, p. 22). Their results can be considered a brief summary for physical environment as hidden curriculum;

- (1) Interviewees stated that buildings, the physical arrangement of classrooms, the utilization of physical space, and other architectural structures “honor certain histories and convey political agendas” (p. 27).
- (2) The building influences a certain attitude towards education and towards institutions that are placed in that building.
- (3) “The consensus is that even in the physical environment the hidden curriculum implicitly orders and qualifies particular kinds of knowledge, meanwhile marginalizing “other” disciplines as “low status” and as providing less marketable knowledge (pp. 28-29)”.
- (4) The link between the physical environment and the curriculum notes social stratification.
- (5) The walls with graffiti and posters give specific messages of exclusion and inclusion.
- (6) Location of the classroom and academicians’ offices can show the level of interaction between faculty and students.
- (7) Limited physical environment for teaching and learning restricts educators’ choices of pedagogy.

2.7 Summary of Literature Review

In this chapter, the relevant literature concerning the studies on the physical environment, hidden curriculum, the physical environment in higher education, and the physical environment as hidden curriculum was reviewed. This chapter was divided into 6 headings.

The chapter began with explanation of the history of the Dynamic University (DU). Because this study was related to the campus physical environment including academic buildings, firstly the brief literature about the foundation of DU, information concerning campus design, and important physical characteristics on the campus were provided.

Because aim of this study is to examine the physical environment as one dimension of the hidden curriculum, the chapter continued with literature about the perspectives on the hidden curriculum. Interpretations of hidden curriculum rely on researchers' perspectives, political leanings, and discipline; the perspectives on hidden curriculum were briefly reviewed in order to understand the concept hidden curriculum. In this context, functionalist, liberal, Marxist and critical perspectives on hidden curriculum were summarized.

In the third part of this section, the term hidden curriculum was defined. In order to conceptualize hidden curriculum better, the following questions were answered: (1) does hidden curriculum refer to process or an outcome of learning?, (2) is the hidden curriculum presented in an unintentional or intentional way?, (3) what are students actually learning from hidden curriculum?, (4) how is it learned?, and (5) are its effects positive or negative?.

In the fourth part of this chapter, the relationship between behavior and environment was examined. This part tried to establish a comprehensive and empirical research on the effects of physical characteristics on students' learning. Therefore, the research about class and school size, building condition, acoustics and noise, lighting, temperature and air quality and their influence on students' learning, satisfaction, and well-being were provided.

Then, the chapter was followed by the role and importance of the physical environment in higher education because this study was conducted in the university environment. In this part, which spaces are more important for 21st century, and what design principles are essential in order to develop higher education was explained.

This chapter finalized with providing research on physical environment as hidden curriculum in higher education. This part provided literature about which physical characteristics were taken into consideration under the topic of hidden curriculum.

CHAPTER III

METHOD

This chapter consists of the basic structure and the steps of the study to guide the reader in following the path. The chapter begins with the overall design of the study. Then, it proceeds with descriptions of the context, cases and participants. Next, data sources, data collection procedure and data analysis are presented step by step. Then, validity and reliability issues are explained in relation to the qualitative nature of the study. Finally, the chapter ends with the delimitations and limitations of the study.

3.1 Overall Design of the Study

This thesis is based on the qualitative paradigm. The qualitative paradigm is receiving greater attention in recent years and is sometimes described as the naturalistic inquiry, post-positive, constructivist or interpretative approaches (Creswell, 2003). Schwandt (2000) stated that constructivism or qualitative research emerged as an alternative to the positivist form of inquiry as researchers sought to examine the context of human experience. Besides, as stated by Morse (1991), characteristics of a qualitative research problem are (1) the concept is “immature due to conspicuous lack of theory and previous research, (2) a notion that the available theory may be inaccurate, inappropriate, incorrect, or biased; (3) a need exists to explore and describe the phenomena and to develop theory; or (4) the nature of the phenomenon may not be suited to quantitative measures (p. 120). In parallel with reasons to conduct a qualitative study, because there are several studies which investigate the hidden curriculum and mention physical environment to a certain extent but there is not adequate study which puts the physical environment at the center of the investigation, the qualitative paradigm was utilized.

While Morse (1991) described when the qualitative research should be conducted, Bogdan and Biklen (1998) defined five features of qualitative research. First feature is “naturalistic setting”. Qualitative researchers are concerned with context, and they search where, how, and under what circumstances the data produced by subjects. The assumption is that “human behavior is significantly influenced by the setting in which it occurs” (p. 5), they need to go to that location. Second, the data should be “descriptive”. The data includes words and pictures rather than numbers. Quotations from the data enrich the results. Qualitative researcher put richness of the data on the paper. Third, qualitative researchers’ concern is about “process” rather than outcomes and products, therefore “how” definitions are formed in the study. Fourth, the data are analyzed “inductively” rather than deductively. Rather than testing a theory, researcher develops a theory; the theory is grounded in the data. Finally, “meaning” is an indispensable interest in the qualitative approach. How people make sense of a particular phenomenon in their lives are important to be elaborated.

As this study aimed at developing a conceptual framework to understand the physical environment as hidden curriculum, I followed all these main features of the qualitative research defined by Morse (1991). My concern was also contexts, and to show relationship between contexts and subjects. To provide more information, photographs as well as words were utilized. I defined outcomes by concerning process. Then, the data were analyzed inductively because this study aimed at theory development. Finally, finding out environmental meaning was the main concern of this study.

3.1.1 Use of qualitative inquiry in examining hidden curriculum

Vallance (1980) contributed to the literature of hidden curriculum. One of her articles is related to the hidden curriculum and the use of qualitative inquiry for it. She promoted the use of qualitative inquiry in order to study hidden curriculum by giving its rationale. Because qualitative inquiry provides “means” of inquiry which is detached from traditional constraints, and because the hidden curriculum is a “subject” which is far from the traditional definition of the schooling, the qualitative inquiry can be a powerful tool for understanding the nature of the hidden curriculum

and some of the basic processes of schooling. Both concepts do not require in studying regularly observable educational events. “The hidden curriculum gives the opportunity to start a new, developing research technique and theories to complement the one already available from the realm of the explicit curriculum” (Vallance, 1980, p. 141).

Traditional inquiry focuses on the common patterns, discounting the particular and the unique in order to generalize and replicate. Qualitative research attempts to overcome such limitation as searching the hidden curriculum. Qualitative inquiry provides us to understand the peculiarly nongeneralizable qualities of the specific events (Vallance, 1980).

Vallance (1980) summarizes four things that the researcher should explore:

1. an understanding of the kinds of learnings provided by the school environment outside its formal curriculum;
2. an understanding of how these learnings are communicated to students, and by whom (and maybe when);
3. an assessment of the educational significance of these covert learnings;
4. a judgment about what we want to do about them, if anything, if we can (pp. 144-145).

Because of the strengths of the qualitative research for education, and also because there is lack of studies about the physical environment as hidden curriculum, this study was conducted with qualitative methods in order to explore the phenomena (the physical environment as hidden curriculum) in depth.

3.1.2 The grounded theory

This study was designed as grounded theory study (GT) with specific features that fits well with the purpose of this research. The study aimed at developing data driven- propositions through shedding light on how the physical environment influence the undergraduate students and their education and what the hidden aspects of physical environment are. Moreover, the use of the grounded theory was consistent with the purpose of the study to elaborate data that would not be dependent on the researcher’s own hypotheses or preconceptions. Glaser and Strauss

(1967) developed GT “as a reaction against the extreme positivism that had permeated most social research” (Suddaby, 2006, p. 633). GT is defined as follows:

...the intent of a grounded theory study is to generate or discover a theory, an abstract analytical schema of a phenomenon that relates to a particular situation. This situation is one in which individuals interact, take actions, or engage in a process in response to a phenomenon. To study how people act and react to this phenomenon, the researcher collects primarily interview data, makes multiple visits to the field, develops and interrelates categories of information, and writes theoretical propositions or hypotheses or presents a visual picture of the theory (Creswell, 1998, p. 56).

For Glaser and Strauss (1967), the defining components of GT practice include:

1. Data collection and analysis is done simultaneously.
2. Focus is to construct analytic codes and categories from data, not from predetermined hypotheses.
3. Constant comparative method is necessary during each stage of the analysis.
4. After each step of data collection and analysis, theory is advanced and/or developed.
5. In each phase of the grounded theory, memo-writing is utilized to elaborate categories, specify their properties, define relationships between categories, and identify gaps.
6. Aim of the sampling is toward theory construction rather than representativeness of population.
7. Each analysis is followed by a literature review.

Among these characteristics, there are two primary characteristics of GT; “the constant comparison of the data with emerging categories and theoretical sampling of different groups to raise the similarities and the differences of information” (Creswell, 2003, p. 14). “The constant comparison” was explained in the data analysis part, while the term “theoretical sampling” was explained in the research context part.

Moreover, according to Charmaz (2006), GT offers a set of principles and practice, not strict prescriptions and packages. Charmaz's model puts emphasis on "flexible guidelines, not methodological rules, recipes, and requirements" (2006, p. 9). In the qualitative research, the researcher can bring innovation to the study even though this occurs late in the analysis. Flexibility in GT, like qualitative methods, increases the focus on the research than methods (Charmaz, 2006). One of the opportunities of GT is that "[g]rounded theory methods foster seeing your data in fresh ways and exploring your ideas about the data through early analytic writing" (Charmaz, 2006, p. 14).

3.2 Research Questions

Determining the research questions definitely at the beginning of the research is difficult in GT studies because observation, conversations, and document analysis regarding the problem pave the way for GT studies (Charmaz, 2006). In this point, Blumer's (1969) notion of sensitizing concepts is useful. These concepts construct the initial ideas in order to begin the study by asking particular kinds of questions about the topic. Consistent with Brumer's notion, Charmaz (2006) mentioned "guiding interest" which provides a sparkle to the researcher in order to develop his ideas. These sensitizing concepts, disciplinary perspectives, guiding interests as tentative tools offer a place to start, not to end (Charmaz, 2006). Additionally, the first determined research question should be open and broad, which gives the opportunity to see the entire spectrum of the phenomena (Charmaz, 2006).

The initial and general question in this study was "what is the hidden curriculum of the physical settings throughout university education of the undergraduate students?". The present study began with this general question, however, each interview added new questions to be explored. Some of them were as illustrated below:

1. What are the primary agents of socialization within Dynamic University as institution? What are the contexts and processes through which they work? What norms do they express?
 - 1.1. How do physical spaces become social?

- 1.2. How do the faculty building and campus environment affect university students' socialization process?
- 1.3. What are the factors that hinder or support students' engagement in social and academic activities?
2. What are the most important formal and informal normative contexts experienced by students? What norms do they express?
3. How do spaces create positive and/or negative feelings?
4. What are the hidden aspects of particular places?
 - 4.1. What are the hidden aspects of the corridors and hallways? What are the functions of corridors in various departments?
 - 4.2. What are the hidden aspects of faculty member areas? What are the functions of these places in various departments?
5. Which spaces are more important for which reasons?
6. What are the roles of the physical environment for university education?
7. Which physical characteristics that a campus environment including buildings should have from the perspectives of students?

3.3 Research Contexts and Participants

This study was conducted with undergraduate students studying in the Dynamic University (DU). In-depth interviews were conducted with undergraduate students who actively use the university buildings and who spent time in the campus environment in order to understand “the lived experience of other people and the meaning they make of that experience” (Seidman, 2006, p. 9). Undergraduate students were selected through qualitative purposeful sampling which depends on the purpose of the study or described criterion. Purposeful sampling focuses on selecting rich cases and key informants (Miles & Huberman, 1994; Patton, 2002). DU was selected to conduct the research because DU is one of the campus universities in Turkey. Moreover, it holds all faculties and department inside as well as many social, recreational, and residential facilities. Therefore, it provided variation in choosing the contexts and informants. In this study, maximum variation sampling method was applied in order to select contexts and informants. The reason behind the use of maximum variation sampling method in present study lies in the nature of the

concept ‘hidden curriculum’ and ‘grounded theory’. In the hidden curriculum research, there are many criterion influencing the results of the study. Building age, building location on campus, and spatial arrangement of buildings are some of the possible factors enhancing the variation in data. Moreover, individual differences and people’ training and education are the other factors yielding the rich data. Therefore, finally, seven contexts (buildings) were chosen with the following criteria; location of the building (center vs. far from the center), age of the buildings (new vs. old), the designs of the building which are different from each other, different fields (natural vs. social sciences), and number of buildings.

The process of maximum variation sampling to reach undergraduate students began with communicating with the faculty members in the selected departments. I took permission from the faculty members to introduce the research to undergraduate student and to ask them whether they would like to participate in the study or not. Then, I began individual contact each person in the composed prospective participant list. After the communication process, 93 undergraduate students were participated in the study. Walking interviews were conducted with 62 students, while photo-elicitation interviews were conducted with 31 students. The number of participants from each department are illustrated on Table 3.3.1.

Table 3.3.1

Research Participants

	Freshman		Sophomore		Junior		Senior		
	WI	PE	WI	PE	WI	PE	WI	PE	
ARCH	4	3	1		2	3	3		16
EDU Block A	1	1		1	4*		3	1	11
EDU Block B	2	1	1	2		1	2		9
EDU Block C	1	1					2		4
EEE	1		2		2	1	3	1	10
EAS Block A	1		5	1	2		1		10
EAS Block B			2	1			1	2	6
GEOE	1	1	2	1	3		2	2	12
IE			2		2	2	2	2	10
PHYS				2	2*		1	1	6
Total	11	7	15	8	17	7	20	9	94

*One of the students from EDU joined walked interview in PHYS building too.
WI: Walking Interview, PE: Photo Elicitation

In GT, theoretical sampling is important. Theoretical sampling is that

Data gathering driven by concepts derived from the evolving theory and based on the concept of “making comparisons,” whose purpose is to go to places, people, or events that will maximize opportunities to discover variations among concepts and to densify categories in terms of their properties and dimensions (Strauss and Corbin, 1998, p.201).

The aim of the theoretical sampling by sampling to develop properties of categories until no new properties emerge (Charmaz, 2006). According to Glaser and Strauss (1967) and Strauss and Corbin (1998), for qualitative research an important sample size issue involves saturation of information. Krueger and Casey (2000) describe “saturation” that “it is a term used to describe the point when you have heard the range of ideas and aren’t getting new information (as cited in Teddlie & Yuu, 2007, p. 26); therefore, new categories, themes or explanations stop emerging from the data (Marshall, 1996). In order to provide theoretical sampling, my focus was on the variation. This was provided as not only choosing the different contexts but also selecting participants from different departments in the faculty. Moreover, undergraduate students from each grade participated in the study. The detailed information about the participants and each context are provided below.

One of the contexts is the Architecture (ARCH) building. The main reason of choosing it is its history. The ARCH building is the first established building on the campus. The other reason is the design of the building; the architect won an award for designing the ARCH building. The ARCH building is nominated amongst the best 20 buildings in the country (Niebrzdowski & Zelef, 2012). Faculty of Architecture with huge complex includes three departments; Department of Architecture (DARCH), Department of City and Regional Planning (CP) and Department of Industrial Design (ID). Five students from DARCH, 5 students from CP and 2 students from ID participated in this study. The number of participants from each department and grade level are shown on Table 3.3.2.

Table 3.3.2

Sample from Faculty of Architecture

	DARCH		CP		ID	
	WI	PE	WI	PE	WI	PE
Freshman	3		1	3		
Sophomore					1	
Junior	1	2	1			1
Senior	1		2			
		7		7		2
Total				16		

WI: Walking Interview, PE: Photo Elicitation

The other context is Faculty of Education (EDU). While other samples are single departments, EDU was analyzed as a single unit, not on the departmental level, but at the faculty level. Reasons for this are that EDU includes six departments and three buildings serve these departments. Administration of the four departments including Elementary Education (ELE), Secondary Science and Mathematics Education (SSME), Educational Sciences, and Physical Education and Sports are located in the main building (block A). Department of Foreign Language Education (ELT) and Computer Education and Instructional Technology (CEIT) have their own building (block B and block C, respectively), however students in these departments utilize both their own building and block A for courses. Last but not least, another reason is the location of three EDU buildings which are quite far from the campus center.

Eleven students from block A, 9 students from block B and 4 students from block C joined in this study. From EDU, a total of 24 undergraduate students participated in the study. The number of participants from each department and grade level are presented on Table 3.3.3.

Table 3.3.3

Sample from Faculty of Education

	Main Building (Block A)				Block B		Block C	
	ELE		SSME		ELT		CEIT	
	WI	PE	WI	PE	WI	PE	WI	PE
Freshman	1	1			2	1	1	1
Sophomor		1			1	2		
Junior	3		1			1		
Senior	2		1	1	2		2	
			11		9		4	
Total					24			

WI: Walking Interview, PE: Photo Elicitation

The other context is Faculty of Economic and Administrative Sciences (EAS). The main reason for choosing this context is the age of the faculty buildings. EAS has two buildings. Block A in EAS is one of the oldest buildings on the campus, while block B in EAS is the newest educational building on the campus. Because block B was in EAS designed to fulfill the requirements of passing years, the facilities in this building are much more than block A in EAS. Moreover, the interior design of the building is different than the other educational buildings on the campus.

Department of Economics (ECON) and Department of Political Science and Public Administration (ADM) use block A while Department of Business Administration (BA) and Department of International Relations (IR) use block B. The number of participants from each building and department and grade level are illustrated on Table 3.3.4.

Table 3.3.4

Sample from Faculty of Economic and Administrative Sciences

	Block A				Block B				
	ECON		ADM		BA		IR		
	WI	PE	WI	PE	WI	PE	WI	PE	
Freshman	1								
Sophomore	2		3	1	1		1	1	
Junior	1		1						
Senior	1				1	2			
		5		5		4		2	
Total	16								

WI: Walking Interview, PE: Photo Elicitation

Department of Industrial Engineering (IE), Electrical and Electronics Engineering (EEE), Geological Engineering (GEOE) and Physics (PHYS) are the other contexts in which data were collected. The details were given via Table 3.3.5. The main reason of choosing EEE is the number of the buildings belonging to this department. This department has six buildings; half of them constitute research centers. About the GEOE building, the main reason is the location of the building, which is far from the campus center. There are three reasons of choosing IE building as a context. The first is its age: it is one of the newest buildings on the campus, which is built in 1996. The second reason is its design. The results of the first part data collection process showed that most of the students mentioned this building and its design with pleasure. The third reason is its location which is in the campus center. Because of these reasons, the IE building is selected as a context. Finally, regarding to Physic building, the main reason is the location of the building which is at the campus center. Moreover, one criterion for sampling was to choose department(s) under each Faculty, and Physics is one of the departments under the Faculty of Art and Sciences. Among all departments under the Faculty of Art and Science, the PHYS building is the most frequently used building by students. Because of all these reasons, the PHYS building was chosen as a context.

Ten students from IE, 9 students from EEE, 12 students from GEOE and 6 students from Physics joined in this study. The number of participants from each department and grade level are shown on Table 3.3.5.

Table 3.3.5

Sample from Department of Industrial Engineering, Electrical and Electronics Engineering, Geological Engineering and Physics

	EEE		GEOE		IE		Physics	
	WI	PE	WI	PE	WI	PE	WI	PE
Freshman	1		1	1				
Sophomore	2		2	1	2			2
Junior	2	1	3		2	2	2*	
Senior	3	1	2	2	2	2	1	1
	8	2	8	4	6	4	3	3
Total	10		12		10		6	

*One of them is from Faculty of Education.

WI: Walking Interview, PE: Photo Elicitation

3.4 Data Collection

In the qualitative research, the researcher can bring innovation to the study even this occurs late in the analysis. Flexibility in GT, like qualitative methods, increases the focus on the research than methods (Charmaz, 2006). With GT, according to Charmaz (2006), the researcher designs and redesigns data collection procedures and refines his/her collected data.

To explore the research questions, semi-structured interviews were conducted by means of walking interview and photo elicitation methods. These methods were explained in detail below.

3.4.1 Semi-structured interviews

Collecting data from interviews is unremarkable to the most social scientists (Jones, Bunce, Evans, Gibbs, & Ricketts Hein, 2008). Parallel to this idea, interview is also one of the prior research methods in GT. Therefore, interviews were primary methods of data collection in this study. Two types of semi-structured interviews were utilized to collect data; walking interview and interview with photo-elicitation.

The design of the interview schedule began with an extensive literature review, yet limited number of similar studies previously conducted made this process challenging. As I conducted some research about the evaluation of the physical environment in teacher education institution and important physical features for quality teacher education, I had a question pool which is based on the conceptual framework taken from the literature review and brain-storming with my colleagues and friends. Then, I conducted preview interview with three undergraduate students to understand whether the questions were clear or not. This interview form was provided as an appendix (see Appendix A for Turkish version and see Appendix B for English version). As questions were clear for participants, I used same interview form in initial part of the study. After I conducted interviews with students in summer school, new questions emerged and these are added to interview form. Finally, the interview schedule for walking interview and photo-elicitation was adapted (see Appendix C and D and Appendix E and F). It was examined by a researcher who is interested in hidden curriculum topic. When the final agreement was achieved, the expert opinions from two academicians in the Department of the Educational Sciences were obtained. Because the interviews were semi-structured, some additional questions emerged to be asked to each participant (see Appendix G and H).

3.4.1.1 Walking interview

Walking interview is one of the architectural research methods. Attention to walking interview as method has been increased in recent years in the social sciences. This is an appropriate method when the interviewee lives close to the places with a crucial significance for the study. Walking interview, which is also titled “go-along” or “walk and talk”, is one of the variations of the interview techniques. As stated by Carpiano (2009), walking interview is the method conducted by researchers accompanying informants on outings in their familiar environment. While walking, the researcher asks questions and obtains the informants’ experiences, interpretations, and practices within the walked environment.

Sociologist Kusenbach' (2003) discussion about the go-along method is summarized by Carpiano (2009, pp. 264-265). Kusenbach identifies five themes for which the go-along is well suited for exploring and illuminating the subject: "(1) perception (i.e. informants' knowledge and values that guide their experiences of their everyday social and physical environments); (2) spatial practices (i.e. the ways in which people engage their environment); (3) linkages between biography and place; (4) the social architecture of natural settings (i.e. the various types or forms of relationships between people and how informants situate themselves within this social setting; and (5) social realms (i.e. interaction patterns and how place shapes the nature of interaction)". Kusenbach (2011) stated that

[t]he go-along method also brings greater phenomenological sensibility to ethnography by allowing researchers to focus on aspects of human experience that tend to remain hidden to observers and participants alike. They make visible and intelligible how everyday experience transcends the here and now, as people weave previous knowledge and biography into immediate situated action. Because they can help blur the seemingly static boundaries between individuals and environments, and between subjects and objects of perception (Merleau Ponty, 1968), go-alongs ultimately point to the fundamental reflexivity of human engagement with the world (p. 200).

In line with this idea of Kusenbach, because go-along might capture the sometimes hidden relations between place and the environment, the walking interview was utilized in this study. Besides, walking interview is an ideal technique in order to explore issues around people's relationship with space (Jones, Bunce, Evans, Gibbs, & Ricketts Hein, 2008). Because the aim of this study was to obtain opinions of undergraduate students in terms of their faculty/department building and its environment, using walking interview was functional in order to increase the credibility of the data.

The most important decision while conducting a walking interview is whether the route is determined by the interviewer or the interviewee. Kusenbach (2003) stated the disadvantages of the predetermined route by researcher which "might produce appealing data, but not of the kind that would greatly enhance our understanding of the subjects' authentic practices and interpretations" (p. 464). Ingold and Lee (2008) support walking interview because it provides researchers to see how places are

created by the routes people take. Because of these advantages, the participants determined the route.

This technique provided many advantages to this study. Because the interviews were about the actual physical environment, seeing these places was crucial as environment acted as an impetus to discussions. Walking interview reveals multiple aspects of the relationship between the physical space and the undergraduate students because it shows what undergraduate students' everyday behavior in the built environment is, how they interact with the built environment, and how they use, perceive, and evaluate it. Moreover, walks determined by the participants had the distinct advantage because it was essential to know which areas were discussed by the interviewees while which areas were not walked and commented. It also showed that the places that were not used by them. For example, many participants of this study did not visit the areas used by faculty members.

3.4.1.2 Photo-elicitation

Stimson (1986) stressed the importance of the place and space which have been virtually ignored in the qualitative study (as cited in Emmison and Smith, 2000, p. 6). In this study because the core subject is the space and place, photography as one of the visual research methods was utilized. Using photography in the research is aligned with qualitative research, which yields remarkably descriptive data. Photography use has been linked to social science for a long time (Edwards, 1992 as cited in Bogdan and Biklen, 1998). According to Bogdan and Biklen (1998), “[p]hotos can represent the photographer’s own view what was important, the orders he or she was given from a superior, or the demands of people who were the subjects. We ascertain clues about what people value and the images they prefer” (p. 145).

When photography is used in the study, the purpose and the frame of mind of the photographer should be known by the researcher in so as to utilize them effectively. Because of this reason, I asked the students to take a photo and discussed why they took those photos.

In this research, photography was not primary data source because as stated by Bogdan (1988) “while photos may not be able to prove anything conclusively, when used in conjunction with other data, they can add to a growing pile of evidence” (p. 145). I obtained information about the photographs via face-to-face interview and after talking about the photographs, the predetermined questions were asked to participants.

In the present study, although academic buildings were walked around, so the places were visual to both the participants and me, the campus was not walked around. Therefore, this technique gave opportunity during interview that the campus environment is visual. Like the actual environment in the walking interview, using photographs was used as an impetus for discussion. By means of the photographs, detailed information regarding the campus environment was obtained rather than the questions asked after the walking interview. That is, walking interview participants made general evaluation about the campus environment, the participating students taking campus photos provided more detailed information about it and compared the features in the campus environment. It allowed for a more open and creative analysis of student perceptions. These photographs showed that how students see environments, how they feel about them, whether they like or dislike them, and what their focuses are on. For example, participants explored how outdoor campus places contribute to their university life by utilizing photographs.

Finally, these two methods were fundamental because by means of walking interview and photo elicitation techniques, the participants could emphasize meanings which ascribe to symbols and things as a function of their university life.

3.5 Data Collection Procedures

GT studies are not conducted with structured interview forms. There is a possibility of change in the interview form after each interview. I carried out preliminary interviews using the initial interview form in order to understand whether the questions are clear or not. Conversational interviews with three students were conducted at the end of the June, 2012. Then, based on analysis of initial interviews, the final interview form was developed.

Interviews for main study were carried out in the summer school in 2012. All departments did not deliver summer school courses; therefore, I reached a limited number of students in some departments. Fifteen interviews were conducted between 26th July and 3rd August, 2012; however two of them were not conducted by walking interview; therefore, those were not included in the analysis. Rests of interviews were carried out as planned. These 13 interviews constituted the first part of the study. New questions emerged as a need to understand the phenomena better. Therefore, new questions were added to the interview form (see Appendix G and H). After the development of final version of interview form, I applied the Human Subjects and Ethics Committee (HSEC) at METU to receive approval for the study. On 16th October, 2012 HSEC approval was received (See Appendix I) and then the permissions from the faculties and departments were obtained to be able to conduct the interviews. The ways to reach the students in the summer school and further time were as follows. I contacted with instructors for each grade in each department first and took permission to go to their classes in order to announce my study to main participants. After receiving permissions, I visited the classes, described the purpose and significance of the study to undergraduate students, and distributed a sheet in order to obtain contact information of students who accept to join the study. Voluntary students wrote their contact information on the sheet. Moreover, student indicated which interview they wanted to join. At the end of these visits, I had a name list including approximately 140 students. Then, I contacted possible candidates via phone and arranged an appointment. Almost all participants I contacted agreed to participate in the study. I gave more information to students who accept to join the interview via using photography. Moreover, I sent the information sheet about photography interview to these students.

The day before the date of appointment, I sent a message to students to remind them of the interview. Meeting place was each student's own department with few exceptions (exception was valid for photo-elicitation interview). All of the participants were given a consent form, and the signed copy was left with me (see Appendix J and K for WI and Appendix L and M for PE).

For walking interview, the information sheet about the walking interview was given to students, and then their questions were answered when necessary. A tape recorder was given to student to record the walking interview. The student determined the route of walking interview. After that, I and participating student found a silence area for interview location. Meeting place and interview location change from one building to the other. The detailed information was provided below.

I met students from ARCH in front of the Yellow Ceramic Wall which is a very distinctive element so that it helped me to find a participant. Before the interview, I looked at the course schedule on the classroom door and choose the suitable one for face-to-face interview location. If there was not a suitable classroom in the interview time, students, who are more knowledgeable about the building, selected the interview location. The building provided many silence areas to users; therefore, the interviews took place not only in classroom but also in yard, in atrium, or in Göbek Taşı area.

In the GEOE building, I met students in the canteen. I was in collaboration with the academic and administrative staff; therefore, a key of classroom and/or library in the department were provided to me. Therefore, after walking, I and interviewee sat either in a classroom or library in the department immediately.

Like GEOE, administrative staffs in IE were helpful to allocate a place to conduct interview. If I wanted, I could have a key of classroom and/or meeting room in the administrative area. Furthermore, the building had the silent areas, so interviews took place in classrooms, meeting rooms, and corridors.

In EEE, I met students in the canteen. After walking, I and interviewee found a suitable area, which is sometimes a classroom or a corridor. Only one student took me to a research center to continue face-to-face interview.

In EDU, the meeting places were canteens for each building (block B has no canteen; students use the canteen in block C). Students using block B and C also utilize block A for courses, therefore they also walked around block A. Therefore, each face-to-face interview took place in my office in block A.

In Block A in EAS, the entrance hall was the meeting location. After walking, classrooms were utilized as interview location. In block B in EAS, the hall including colorful chair was the meeting location. These buildings are huge and complex with large corridors; therefore the corridors as well as the lecture halls were used as an interview location.

In PHYS, I and participating students met in the canteen, and then the classrooms and corridors were utilized for face-to-face interview.

For photo-elicitation interviews, I provided participants with a disposable camera if necessary. However, because this age is technology age, almost all students (except only one) use their own camera or smart phone to take a photo. Therefore, I brought my personal computer along in the interview location. Firstly, I took students' flash disk to upload photographs. Then, the face-to-face interview began.

All of the participants signed the consent form. They were also verbally assured before the interview began that they could withdraw at any time they want to and that anonymity and confidentiality would be maintained at all stages of the study. The participants bringing photography also signed the form to allow the presentation of photography in the thesis. Only one student allowed the presentation of her photographs in case her name is written. Interviews were audio taped, only one participant did not allow the use of voice recorder, therefore I took notes. After the interviews, participants were asked to complete a demographic questionnaire (see Appendix N and O). All interviews occurred in a positive atmosphere; participants were welcoming and helpful.

At the end of data collection process, 93 semi-structured interviews were carried out with undergraduates between July 2012 and January 2013. Interviews ranged in duration from 20 and 75 minutes, with most lasting approximately 60 minutes.

3.6 Data Analysis

Data analysis in grounded theory (GT) has similarities and differences when compared with analysis in the qualitative research methods. Content analysis is one of the main steps in the analysis in the qualitative research. It is essential to stress

that GT is not content analysis and word counting (Suddaby, 2006). The significant difference between them is that “grounded theory describes an overall method for systematically gathering and analyzing data, but content analysis describes a specific context within which a distinct type of data can be gathered and analyzed” (Suddaby, 2006, p. 636). Similarly, in contrast with other qualitative research methods like phenomenology, “researchers using grounded theory are less focused on subjective experiences of individual actors per se and are instead more attentive to how such subjective experiences can be abstracted into theoretical statements about causal relations between actors” (Suddaby, 2006, p. 635). In short, the aim of a grounded theorist is to work on conceptualization of the data, not to the actual data.

Like any qualitative method, coding is important in the grounded theory. Charmaz (2006) defines coding as categorization of data segments where a short name is given to summarize and explain each piece of data. Coding is not just a beginning; “it shapes an analytic frame from which you build the analysis” (Charmaz, 2006, p. 45). With the help of coding, what is happening in the data is defined, and then meaning of the data is grappled.

Data collection and analysis are undertaken concurrently in GT study. According to Corbin and Strauss (1990), the researchers should begin analysis after the first bit of data is collected. This analysis is very important that it leads the next interviews or observations. Data collection procedure was in short period in this study, I used the reflective journal in order to eliminate lack of analysis after each interview. Taking reflective journal is widely accepted in qualitative research. Via reflective journal, researchers can keep their “presuppositions, choices, experiences, and actions during the research process” (Mruck & Breuer, 2003 as cited in Ortlipp, 2008, p. 695). The reflective journal helped me to think about each interview, to determine newly emerged topics, to revise or add the questions and to make possible changes.

The analysis of the data began with the transcription of the data. I applied to the Scientific Research Project Coordinator at METU to get a financial support for the transcription expenses of the study; therefore half of interviews were transcribed by a private writing center. The rest of interviews were transcribed verbatim by me.

Transcription was done between March, 2013 and June, 2013. At the end of the transcription process, I had huge data which is approximately 90 hours and 1600 pages. Before starting the coding process, the transcripts were read in entirety several times. This helped me to get sense of each case and to see whole picture before breaking it into codes and categories. Because of this voluminous data, I took advantage of a type of computer-assisted qualitative data analysis software (CAQDAS). Then, the interviews were imported into the QSR Nvivo software. According to Spenser, Ritchie and O'Connor (2003), CAQDAS methods provides the analyst "for handling large amounts of (textual) data; the improvements in rigor or consistency of approach; the facilitation of team research; the ability of computer software to assist with conceptualisation of data and theory building; and the relative ease of navigation and linking of data (p. 207). Because this study was GT, these benefits were very important to organize the data during the coding and categorizing process and establish relationships between codes. Although Nvivo was used in data analysis process, I began analysis June, 2013 by hand in order to make data familiar and to begin using Nvivo more precisely. Half of them were coded by hand, and each code was listed. Then, I began to read literature related to emerged codes. Throughout reading, I added possible codes in the coding lists. After that, the real analysis process via Nvivo was begun October, 2013 and finished December, 2013.

GT coding includes three main phases: (1) open, (2) axial, and (3) selective coding. Open coding involves naming each word, line or segment of data, therefore larger paragraphs or even whole text may be coded (Böhm, 2004). In this analytic process, the researcher defines the concepts and discovers their properties and dimensions (Holt and Dunn, 2010). Axial coding is to refine and differentiate concepts which are available and extends them the status of categories. One category is enriched with a network of relationships (Böhm, 2004). As stated by Corbin and Hold (2004), "something in the data that indicates how these concepts might come together" (p. 50). These codes are more directed, selective, and conceptual than open codes. In the last phases, selective coding is utilized to integrate and clarify categories to form a larger theoretical scheme (Strauss & Corbin, 1998).

As well as words, the photographs were obtained in this study. Rose (2007) determined the question while analysing the images. The following questions were answered during the analysis of photographs;

- (1) Why, when, where, by whom, for whom, how is/was the image made?
- (2) What is the image about; what/whom does the image show?
- (3) What are features of the image (e.g. compositional, genre, style, colour, elements, structure, format, arrangement, symmetry, etc.)?
- (4) What are the striking features of the image?
- (5) What interpretations can be made of the image (as cited in Cohen, Manion, & Morrison, 2011, pp. 591-592)?.

While analyzing photographs, the first decision was to present the results of the interview via photo-elicitation apart from the results of the walking interview. However, the results of both methods were similar with little differences; therefore, all results were provided together.

Because this study was conducted in seven different contexts, I began to analyze each context separately to examine a particular case for unique patterns before attempts to generalize patterns across cases. This process helped to be familiar with each case and to manage the data. Open coding of first case was finished; the other case was into the analysis as well. This is not a process that one case data forced into the existing conceptual framework. In this thesis, because the physical environment is evaluated, the open coding analysis was done for each place in built and campus environment. Each place was analyzed and the following codes emerged.

1. Description

- 1.1. Ambient Environment (light, noise level, and heat)
- 1.2. Color
- 1.3. Size (large, narrow, spacious, and huge)
- 1.4. Appearance of a place
- 1.5. Location
- 1.6. Materials, objects (e.g. bulletin boards)
- 1.7. Remarking features
- 1.8. Arrangement

2. Users of the place (students, faculty members, administrators, or mutual place)
3. Usage of place
 - 3.1. Activities (group study, individual study, for leisure time, relaxing)
 - 3.2. Use for extracurricular activities
 - 3.3. Use for orientation program
 - 3.4. Use for non-departmental course
 - 3.5. In class
 - 3.6. Locked, forbidden and/or limited time for use
4. Furniture (tables, chairs, armchairs, outdoor seating)
5. Functions of a place
6. Facilities in a place
7. Problems about the place
8. Type of place (meeting place, peace place, escaping spots, relaxing place, personal spaces, indoor/outdoor socialization areas, recreation areas, smoking areas, seating areas, amenity areas, group study area, and individual study area)
9. Importance of the place
 - 9.1. Historic significance
 - 9.2. Symbolic significance
10. Students' feelings about/in the place (good, bad, relax, and bored)
11. First impression about it
12. Meaning of the place

The following Figure 3.6.1 is from Nvivo and it shows open coding of a particular place 'the research center'. Nvivo was very helpful to see all codes in one screen whenever I want to examine.

Name	Sources	References
The Research Center	8	36
descriptions	5	14
effects of having such research center	1	1
feelings	5	15
history of the research center	3	4
importance of the research center	3	3
problems	4	7
users and usage of the research centers	7	23

Figure 3.6.1 Example of open coding

Then, the constant comparison was utilized to explore the similarities and differences in the data. Therefore, I came back to the first case after the second case. For example, as shown in the Figure 3.6.2., codes of two canteens were provided. While analyzing data, I scrutinized codes of same place in two buildings in order to determine similarities and differences. If there are many distinct differences, I examined the data more. From this example, the students mentioned furniture for the canteen B while this was not commented for the canteen A. Therefore, I screened the data for canteen A whether information about that feature emerged or not.

Name	Sources	References
Canteen A	13	41
canteen garden	1	3
communication with staff	3	4
good communication	3	4
descriptions	5	7
color	3	3
location	1	1
size	3	3
problems	9	21
heat	2	2
light	1	1
neglected	1	1
noise	4	5
price	3	4
size	6	8
ventilation	3	4
products of the canteen	7	8
students' feelings	5	5
dissatisfied	3	3
satisfied	2	2
usage of the canteen	9	11
eating and drinking	3	3
group study	4	4
individual study	1	1
meeting with friends	2	2
waiting	1	1
users of the canteen	3	3
Education students	2	2
faculty members	2	2
workers	1	1

Name	Sources	References
Canten B	21	124
canteen garden	3	3
communication with staff	3	3
good communication	3	3
descriptions	3	5
attractive	1	1
beautiful	2	2
lively	1	1
furniture in the canteen	5	6
importance of the canteen	1	2
other students' comments	9	14
problems	2	3
size	1	2
uncomfortable furnitur	1	1
products of canteen	3	5
students' feelings	5	7
satisfied	5	7
usage of the canteen	9	11
eating and drinking	5	6
leisure time	6	6
meeting before exam	1	1
relaxing	2	2
users of the canteen	10	15
faculty members	2	3
faculty students	4	5
students from other de	9	10

Figure 3.6.2 Example of constant comparison method

In this process, Nvivo provided tree map which is showing codes of canteens which are shown in Figure 3.6.3. and 3.6.4. The size of each box represents the proportion of sub-codes under codes. Big boxes mean that more comments on that sub-codes were done.

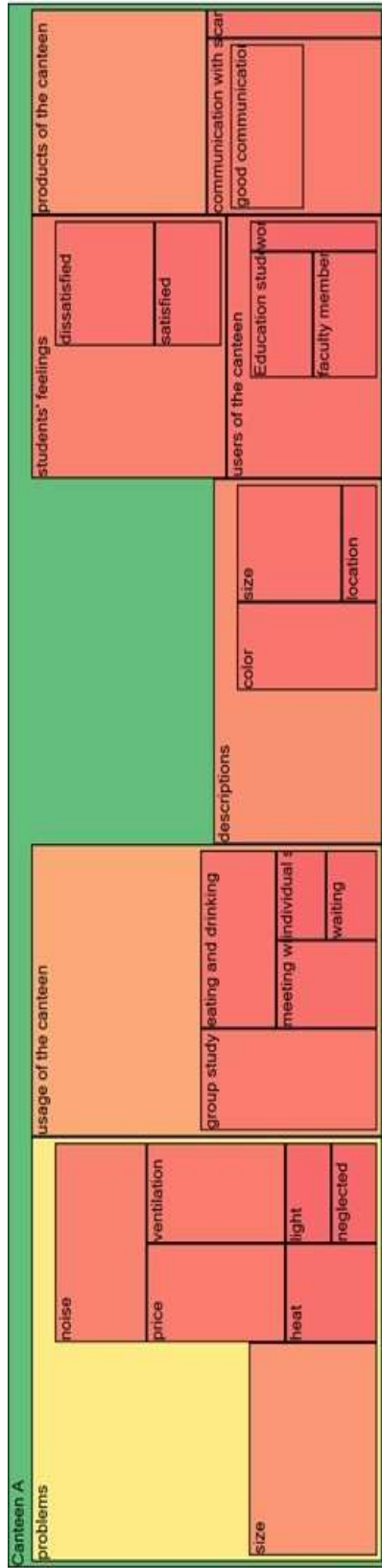


Figure 3.6.3 Tree map of canteen A

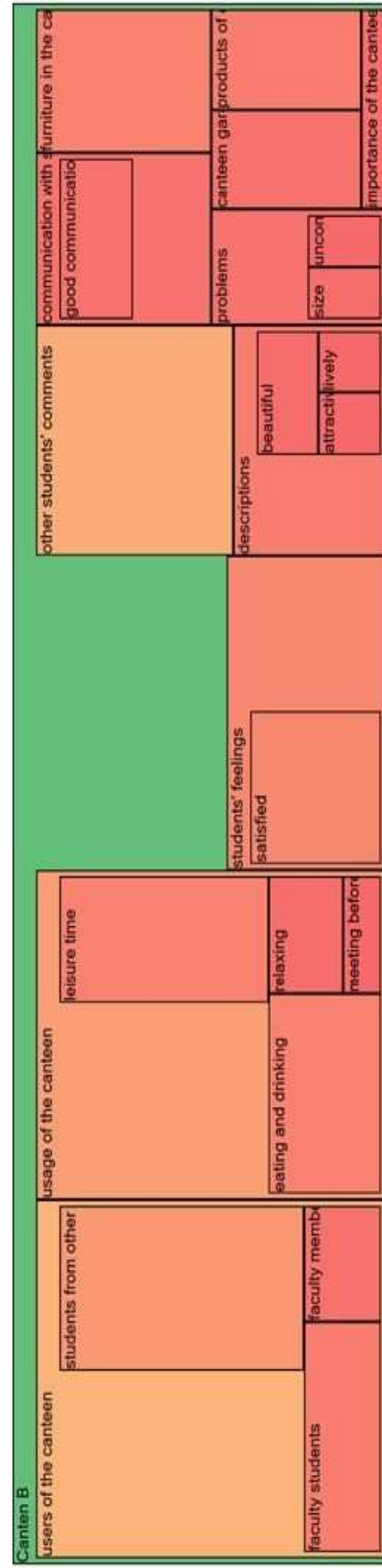


Figure 3.6.4 Tree map of canteen B

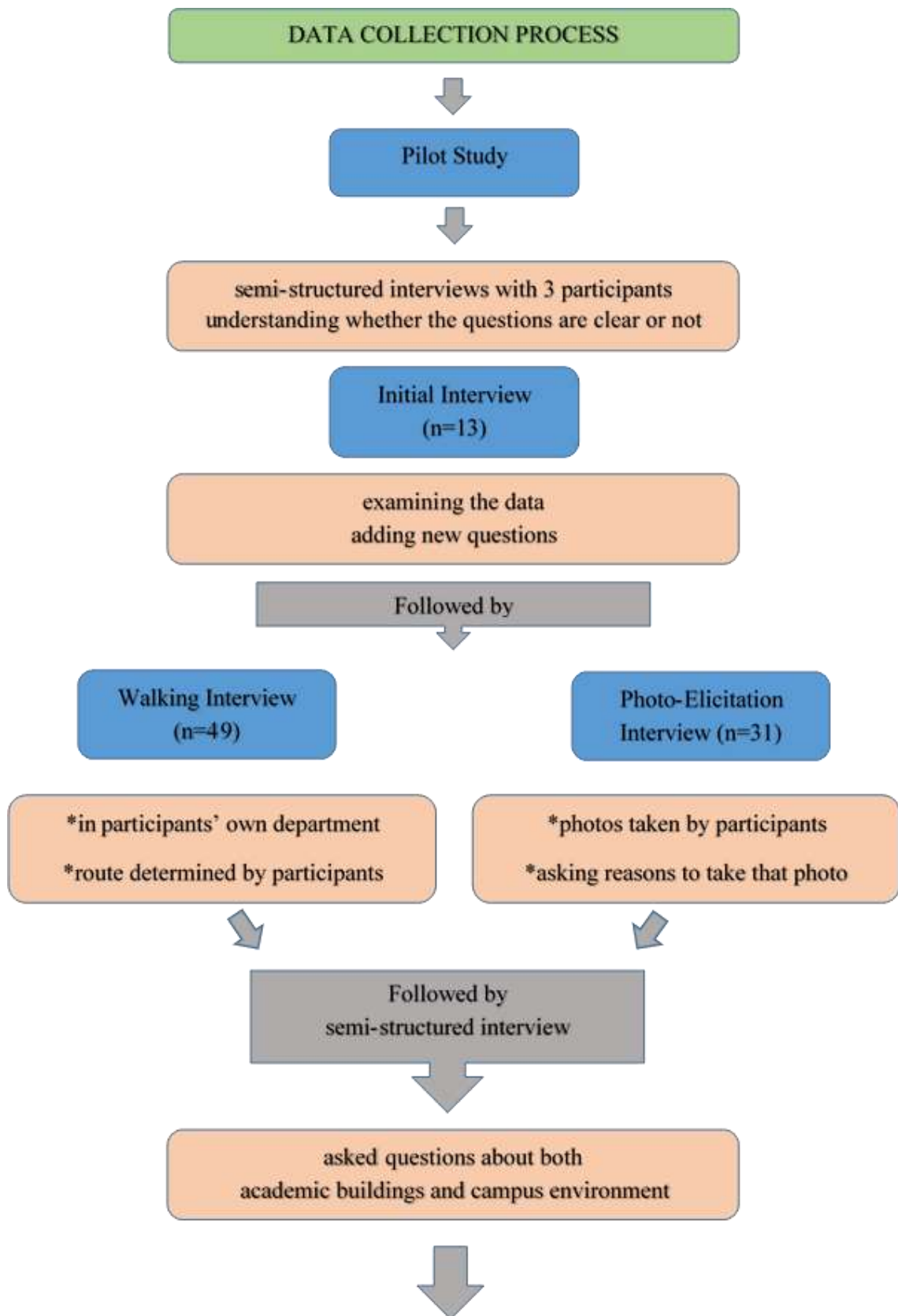
This constant comparison was repeated until the final case was analyzed and codes were compared with previous seven cases. The number of codes and categories in the list increased, tentative codes, concepts, overall impressions and relationships between the codes emerged. Then, axial coding was employed by examining the relationship between the codes and relating the categories to subcategories. In the end of axial coding process for seven cases, one data fitting the existing concepts gave a depth of those concepts.

The final phase was selective coding; therefore the categories were connected under the themes. “Theorizing is based on developing explanations between categories and placing findings into an explanatory theoretical framework” (Holt & Dunn, 2010, p. 204), so I passed the writing process via explanatory way. In order to make meaningful categorization of the data, the literature review section was completed in advance of writing the results of the study. Finally, the selective coding were finalized with the determination of the following codes.

1. Impact of the physical environment
 - 1.1. Impact of physical environment on students’ feelings
 - 1.2. Impact of the physical environment on students’ socialization
 - 1.3. Impact of physical environment on students’ ideas concerning field specificity.
2. Meaning of the environment
3. Invisible side of the physical environment

While analyzing the data, I used “memos” which is essential to keep track of all the categories, properties, conceptual relationships, hypotheses, and generative questions that evolve from the analytical process. It helped the formulation of theory and its revision during the research process. Memoing continued in all stages of the data collection and analysis.

In order to see each step of the data collection and analysis process visually, the Figure 3.6.5 is presented.



(Continued)

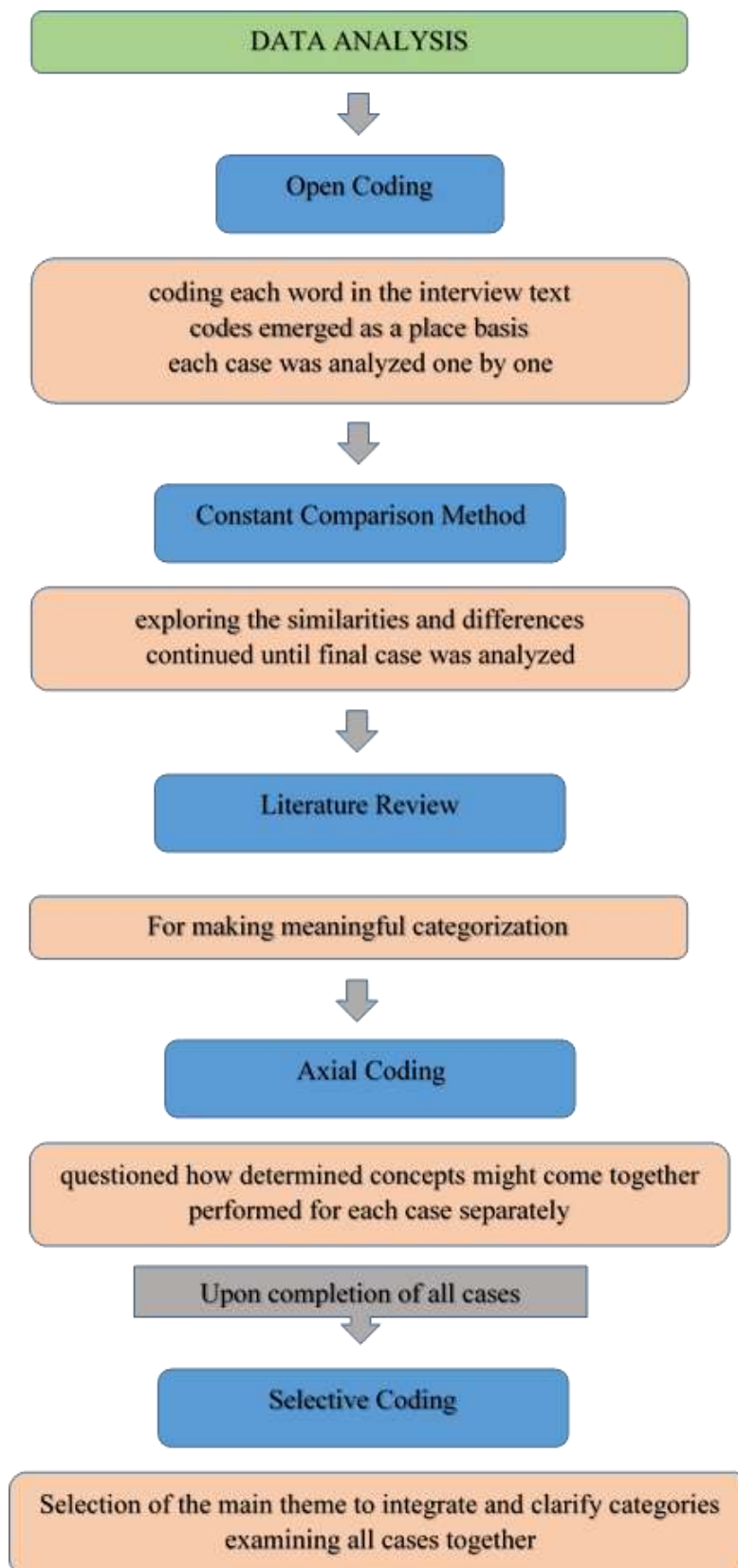


Figure 3.6.5 Data collection and analysis process

3.7 Credibility/Transferability/Dependability

Reliability and validity is a necessity for all type of research. Reliability is the extent to which a study can be replicated. Internal validity is the extent to which researchers are observing/measuring what they think they are observing/measuring, while external validity is the extent to which the findings are applicable to other groups (LeCompte & Preissle, 1993 as cited in O'Donoghue & Punch, 2003). For qualitative research, Miles and Huberman (1994) paired reliability with dependability and audibility; internal validity with credibility and authenticity; and external validity with transferability and fittingness. Guba and Lincoln (1980) define trustworthiness which encompasses reliability and validity in qualitative research. According to them, trustworthiness includes four aspects: dependability, transferability, credibility, and confirmability (as cited in Golafshani, 2003).

Firstly, the term “dependability” is used for examination of the process and product of the research in order to increase consistency (Hoepfl, 1997). It is related to how interpretation of data should be stable over time. In order to enhance dependability, in-depth information about all the phases of the research was presented. I tried to provide rich and thick description of the contexts and the participants as well as the development of the interview form and data collection procedures. In this study, in order to ensure dependability, reflexive journal and memos were also utilized. While reflective journal showed explicitly and in detail how data has been collected, which concerns were emerged in the data collection process, memos helped to see how thematic categories are created and how findings are presented. Moreover, interviews were audio recorded to prevent losing any information.

Secondly, transferability refers to the explanatory power of the research. It is related to the applicability of the findings to other situations. Because I gave thick descriptions about all phases of the study, other researchers could apply those findings to other situations; therefore I tried to provide transferability.

Thirdly, credibility is also important in qualitative research. To ensure the credibility, the literature provides a number of strategies: triangulation, prolonged engagement and persistent observation, thick description, member checks, and peer debriefing

(Creswell, 2007; Merriam, 1988; Miles & Huberman, 1994; Patton, 2002). Therefore, data triangulation was used; interviews were conducted in two ways: walking interview and photo-elicitation interview. Moreover, I gave importance to reach a wide range of purposefully selected participants. Furthermore, after the completion of transcribing, the peer review was checked. The peer review includes discussion with not only a “peer who are familiar with the research” but also a “disinterested peer”. Peers’ interpretations and conclusions provide useful challenges and insights (Johnson, 1997). With this aim, the most informative interview was selected from each context, so seven interviews were sent to 10 different researchers. These researchers were from different programs (Curriculum and Instruction, Psychological Counseling and Guidance and Educational Administration and Planning) under Department of Educational Sciences. One of them was Assistant Professor in the program of Educational Administration and Planning. Two of them were PhD whose program is Curriculum and Instruction. Others were PhD students in those programs. They were asked to create codes and themes from the given transcriptions. At the end of peer review, five interviews were reviewed by two researchers; one was reviewed by one researcher while another was reviewed by three researchers. After all coded interviews were collected; these codes and the codes determined by me were compared and contrasted to check their consistency. Although my existing codes were more than the codes determined by the peer; these codes showed high parallelism and similarity across my existing codes. Then, I discussed all codes with my advisor to continue data analysis more precisely. Moreover, Patton (2002) gives the most important role to researcher by saying “the researcher is the instrument” (p. 14). It means that ability and effort of the researchers have a crucial role while collecting and analyzing the data. Therefore, I tried to follow all necessary steps in the qualitative study, consulted with experts when I needed. Furthermore, I described my background and experience as well as beliefs and assumptions in detail in the sections ‘the role of the researcher in qualitative study’ and ‘researcher’s reflections about the all steps of the study’.

Finally, confirmability deals with evaluation of the research results whether they are really produced through the inquiry or not. One of the techniques to provide

confirmability is the audit trail. For audit trail, decisions during the study, the rationale behind those decisions, and the quality of those decisions after application were explained.

When all aspects are considered, in short, I explained all the process in detail to enhance trustworthiness. In order to provide trustworthiness, I was also careful while collecting the data; therefore I used the following strategies in the data gathering process: (1) made clear the purpose of the study before initiating the interviews; (2) created comfortable and flexible atmosphere; (3) avoided inferences and personal reflections during interviews; and (4) gave enough time to participants to answer the questions.

3.8 Ethical Consideration

Special care was shown to follow the ethical principles in the current study. Precautions taken in the study are illustrated in this part. Firstly, the approval from Ethics Committee was an important assurance for protection of human subjects (see Appendix O). Secondly, all of the participants were given a consent form in order to describe their right and inform them about the study. Moreover, the pseudonym 'Dynamic University (DU)' was used because the purposes of this study were not to evaluate a specific university environment, criticize the problems emerged in the context, or condemn any personnel working in this institution. Pseudonym was used for the university in order to attract readers' attention to the results rather than the institution itself. Finally, I honored assurances of privacy and confidentiality of the participants. A pseudonym was used for each participant while presenting their quotes and photographs. The pseudonym was specified according to students' department, grade level, term, and academic building. The grade level was ordered from the freshman to senior students. For example, the 1st year student from the Department of Architecture was labeled DARCH1, while the 4rd year student was labeled as DARCH6. If there were two first year students, they were labeled as DARCH1 and DARCH2. Moreover, the 1st year student from block A in EDU was labeled as EDU-A1, while the 2nd year student from block C in EDU was labeled EDU-C2.

3.9 The Role of the Researcher in Qualitative Inquiry

According to Lincoln and Guba (1985), there are three main things the qualitative researcher must do

- (1) The researcher should adopt the stance suggested by the characteristic of the naturalist paradigm.
- (2) The researcher must develop the level of the skill appropriate for a human instrument, or the vehicle through which data will be collected and interpreted.
- (3) The researcher must prepare a research design utilized accepted strategies for naturalistic inquiry.

As well as the role for qualitative research, the characteristics of a grounded theorist are pointed out by Strauss and Corbin (1998); “(1) the ability to step back and critically analyze situations, (2) the ability to recognize the tendency toward bias, (3) the ability to think abstractly, (4) the ability to be flexible and open to helpful criticism, (5) sensitivity to the words and actions of respondents, (6) a sense of absorption and devotion to the work process” (p. 7).

Besides these characteristics, more important concept “theoretical sensitivity” developed by Glaser and Strauss (1967) expresses the role of a grounded theorist. This refers to the evaluation of the researchers’ skill and readiness to attempt a qualitative inquiry. According to Strauss and Corbin (1990), it also refers to the attribute of having insight, the ability to give meaning to data, the capacity to understand, and the capability to separate data the pertinent from that which isn’t (as cited in Hoepfl, 1997). Besides, they indicated that it comes from a number of sources including professional literature, professional experiences, and personal experiences.

As stated above, the personal experiences and professional experiences are significant in providing “theoretical sensitivity”. I held many interviews to use in qualitative research which sets an adequate background to start such a study. From the beginning of this study, literature related to hidden curriculum and physical

environment reviewed carefully and I followed the literature continuously during the data collection and data analysis. If it was necessary in order to understand the emerging categories, I consulted her advisor and also continued reading literature. According to Locke, Spirduso and Silverman (1987), the role of the qualitative researcher as primary data collection instrument requires the identification of personal values, assumptions and biases at the outset of the study. Furthermore as a necessity of GT study, I did not launch the study with determined concepts and/or expected results. Besides, I took reflective journal by adding own understanding during the data collection and analysis phases.

I conducted the whole study from beginning to end. I was the data collector, the data analyzer, and the instrument developer. I obtained environmental cues, interact with the situation, collect the data, and interview the samples.

To sum up, expression of Charmaz and Mitchell (1996) concerning the role of the researcher for the grounded theory can set a good finale “Methods wield no magic.....A keen eye, open mind, discerning ear, and steady hand can bring you close to what you study and are more important than developing tools” (as quoted in Charmaz, 2006, p. 15)”. Therefore, I tried to show a maximum effort in all phases in the study.

3.10 Researcher’s Reflections about the All Steps of the Study

In qualitative studies, the researcher is the instrument. The introspection and acknowledgement of the researcher’s biases, values, and interests typifies qualitative research. Researcher stance toward the topic at the beginning was very important for the credibility of the study. Therefore, providing my reflections represents honesty and transparency to research. This section is divided into four dimensions: (1) researcher’s reflections about beginning of the study, (2) researcher’s reflections about the data collection procedure, (3) researcher’s reflections about the data collection procedure, and finally (4) researcher’s reflections about the thesis writing process.

3.10.1 Researcher's reflections about beginning of the study

My research interest had begun three years before the beginning of this study. As an assistant, I participated in a project related to the school environment. Then, the topic 'school environment' aroused more of my attention and I continued to study more concerning the evaluation of the school environment. I developed 'attitude scale' for primary and secondary school environment, I conducted a Delphi study with teacher candidates in order to evaluate their university buildings. Moreover, in order to develop myself in this area, I went to Sydney University as a visiting scholar and I studied in Environment-Behavior Society research group supervised by Gary T. Moore. Because this group including many scholars from many different research focuses and Prof. Moore collaboration with her, I gained more understanding about the environment-behavior research. In those years, my reading and attention on this topic increased, and I met the topic hidden curriculum and I realized that the physical environment is one dimension of the hidden curriculum which is the least researched one under hidden curriculum research. I increased my focus on this topic, however the concept 'hidden curriculum' itself is very challenging and sample research was limited. Therefore, I hesitated to study exploring the physical environment as hidden curriculum for my PhD dissertation. However, because there is a lack of study which explores the role of the physical environment as hidden curriculum in education, I started to design my thesis study although I had many concerns. The first and main concern was to form interview questions. Which questions should be asked to obtain more meaningful and valid answers? How should these questions be asked? Will the questions make sense to the students? These were my concerns. Therefore, I focused more on generating the interview form. My previous experience, literature review, brain storming with colleagues and friends, and discussion with my supervisor helped me to generate interview questions.

As well as generating the interview questions, I made several preparatory visits to the context of the study in order to familiarize with them. Before the study, I had seen the ARCH, EDU, and GEOE buildings and block B in EAS and I spent time in those buildings. However, I had not seen EEE buildings, therefore I visited these buildings.

Moreover, because IE building was added as context after initial interviews of this study, I identified this building with the participants.

3.10.2 Researcher's reflections about the data collection procedure

Data collection brought in very intensive and busy days for me because sometimes I conducted four interviews per day. However, I enjoyed all interviews. One of the reasons is that I was very curious about the students' ideas. Moreover, students' comments on the physical environment were more comprehensive than I expected. Students' critiques were very well-rounded. Their evaluations and comments expanded my horizon and change her point of view toward the role of the environment. Although I had many concerns about whether I can obtain rich data from the students or not, I was satisfied with the data obtained. Research participants were willing to join the study, and express their ideas and they were very helpful. This process was really busy yet enjoyable for me. Some students praised this research; they stated that they liked to join this study, the research topic was very interesting, and they would like to read the final report. These comments increased my motivation and I continued my study with more satisfaction.

Moreover, I often went to the site of the participants to conduct the research. This enabled me to develop a level of detail about the life in that site and to be involved in actual experience of the participants.

3.10.3 Researchers' reflections about the data analysis process

The data analysis was challenging for me because I obtained more and rich data than I expected. I had approximately 1600 interview pages. At the same time, the results were satisfying and interesting for me because I interpreted the physical environment differently than the participants and put different emphasis on the data depending upon their professional backgrounds and underlying ideologies. For example, when I visited the EEE building, I thought that it had very interesting design something similar 'electrical grid', however only one student who was from Department of Business Administration made this comment. Moreover, I focused on the academicians' door which only the academicians' names were written, but their title

(such an Assist Prof. Dr or Prof. Dr.) were not indicated. I thought this showed that the title was not important and this could be factor affecting students' interaction with academicians positively. Yet, any student not only in EEE building but also in all other contexts did not make any comment on academicians' names or affiliation on their office door. Moreover, the stadium means graduation and festival for me, while the stadium refers to a social activity area for the undergraduate students.

Furthermore, some contexts such as EDU, ARCH, and block A and B in EAS were familiar to me therefore the results of the data from these contexts were somewhat similar what I expected.

Furthermore, more time spent while I analyzed the data which were elicited from the students studying social sciences. Their interviews were highly meaning loaded while the data elicited from the students of engineering departments were easily analyzed.

This study was not analyzed with knowledge from only one discipline 'education'. Interdisciplinary approach was necessary in order to understand data. Therefore, I conducted review of literature related to environmental psychology, psychology, and sociology and data analysis related to these fields as well.

3.10.4 Researcher's reflections about the thesis writing process

From the beginning to the end, the most of the time (approximately one year) was spent in the thesis writing process. This process was also challenging for me because there were eight cases (seven built environments and a campus environment) and results of each case had different dimensions and categorizations; that is, writing one case was not helpful to write another case easily. Because I had huge data, results in a meaningful way needed great efforts.

More difficult issue was the language of the study. I am not a native speaker of English and interviews were not conducted in English. Hence, writing PhD thesis was very complicated job for me. In order to eliminate this lack and improve my English skills, I went to Academic Writing Center during three years. Academic Writing Center is a unit which includes many experts in English and which they

provided face-to-face consulting service to the researchers to improve their writing process of thesis and/or academic paper. Moreover, I took assistance of my colleagues whose background is ELT and who are experienced in writing academic paper/thesis.

As the last remarks, this study was very helpful for my academic career. It taught many things to her. I felt that I am developed. The scientific approach direct this study; at the same time, the detailed and relational thinking process bring in acquisition of scientific approach meaningfully. Therefore, this research experience has strengthened my intellectual ability, my analytical and critical thinking. Especially in thesis writing process, I learned to be more focused on the aims of the research. It is more significant to understand deeply what you need to focus on than to know a lot. Moreover, writing any piece of idea was helpful to develop big ideas. I understood again that small is the seed of every greatness.

3.11 Delimitations and Limitations

3.11.1 Delimitations

This study is delimited in the one university campus environment. This university is a state university and has only one campus. Conducting a study in the universities which is private or has multiple campuses would yield different results. Secondly, the seven contexts were selected in this study. There are many departments and faculty buildings in the campus. These contexts were determined as criterion depending on the literature review, anyway it can produce delimitation. For example, the GEOE building were chosen because it is far from the campus center, however there are many engineering departments which are far from the campus center. Preferring one was skipping others, therefore there were no differences at the beginning. Third, it is delimited to undergraduate students who are the active users of the buildings. Lastly, this study is delimited to two types of semi-structured interviews (WI and PE).

3.11.2 Limitations

Despite the contribution of the findings to the literature, this study was subjected to certain limitations. First of all, data collection procedure was in short time in this study, I could not make analysis after each of the interview which is necessary for GT study. Therefore, I used the reflective journal in order to eliminate this deficiency. Secondly, although the sample size was highly adequate for walking interviews, intended sample size for photography interview was not reached. Some students who accepted to take photos did not take and prepare the photos for interview; therefore, I continued the study with these participants via walking interview. So, the number of students in walking interview increased. Thirdly, some students had limited time for the interview especially in EEE. Therefore, I could not ask some of the intended questions, but preferred to ask more important questions to them. Fourthly, the end of data collection procedure, DU encountered some political events, and police attacks to students occurred, therefore some interviews were carried out in this sensitive atmosphere. In order to eliminate disadvantage of this environment, I firstly talked about the events, listened to students' feelings calmly, then waited for the students until they are ready for the interview.

CHAPTER IV

RESULTS

The purpose of this study is to examine the functions of physical environment as hidden curriculum in higher education settings. For this purpose of this grounded study, qualitative data were collected through semi-structured interviews in two ways: walking interview and photo-elicitation. Undergraduate students from seven contexts were participants of this study.

In this chapter, the results of the qualitative data analysis are presented under 8 major headings. First of all, the results of each context are presented separately and alphabetically: (1) Faculty of Architecture (ARCH), (2) Faculty of Economic and Administrative Sciences (EAS), (3) Faculty of Education (EDU), (4) Department of Electrical and Electronics Engineering (EEE), (5) Department of Geological Engineering (GEOE), (6) Department of Industrial Engineering (IE), and finally (7) Department of Physics (PHYS). In these seven parts, the results of data gathered from walking interview and photo-elicitation were presented.

As a final part, the results of qualitative data concerning campus environment are illustrated. In order to gather data about campus environment, walking interview as a method was not used; therefore, the results of data collected via semi-structured interviews and photo-elicitation method are provided.

4.1 Faculty of Architecture

4.1.1 Description of the Faculty of Architecture by the researcher

Location of the building: The ARCH building is close to the campus center. It is on the alley. The closest educational buildings are Human Sciences building (purple

building as seen in the Figure 4.1.1) and block A in EAS (yellow building as seen in the Figure 4.1.1).

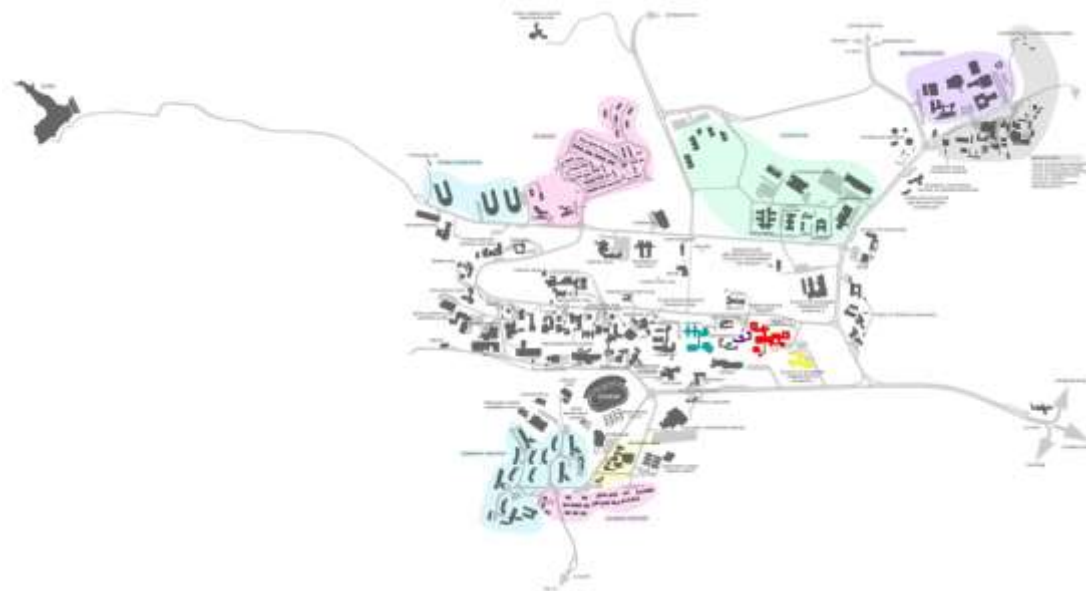


Figure 4.1.1 Location of the Faculty of Architecture
Source: University website.



Figure 4.1.2 Faculty of Architecture Building
Source: Google Earth

Number of the buildings: There are two buildings at ARCH. The new building includes academican offices mostly and atelier is the only place for student use. Since few students mentioned the presence of this building with less articulation, the building is not included in this section. The ARCH students use the main building called Architecture building.

The reasons for choosing the Faculty of Architecture: The main reason of choosing the ARCH building is the age of the faculty building. The ARCH building is the first building established at campus. The other reason is the design of the building. The designer of campus (2003) mentioned it:

After one of my works is finished, suffering stage begins; I pull down it and I construct it again in mind. Up to today, the only building which I could not pull down is the ARCH building. It is the first sample which the exposed concrete was used in the construction (p. 11).

Besides the ARCH building nominated amongst the best 20 buildings in the country (Niebrzdowski & Zelef, 2012), and the designers won an award. Because of these reasons, it was chosen as a context.

The short history: Construction of the building was finished in September 1963. In the first years, the ARCH building served as the total university where different administrative units, other departments, and the university library were assigned to different parts of the building (Niebrzdowski & Zelef, 2012).

Facilities in the building: The ARCH building consists of a deanship area, administration offices, faculty members' offices, an Architecture lecture hall, studios for each department, classrooms, computer lab, archive, seminar rooms, museum, inner yards, garden, and canteen with a garden.

The main users of the building: The ARCH building is used by students studying at Department of Architecture (DARCH), Department of City Planning (CP), and Department of Industrial Design (ID).

Users of the building: According to participants, the ARCH building is the most favorite building at the campus. Especially the canteen is utilized by many students

in the campus. Moreover, the academic and social events are held in the Architecture Lecture Hall, which are open to all people.

Population: 841 undergraduate students were registered in ARCH in 2013-2014 fall semester.

Sampling: Sixteen students from ARCH participated in this study. The walking interview method was conducted with 10 students. Moreover, 6 students participated in photo-elicitation interview. Furthermore, the most frequently mentioned building was the ARCH building, among 77 students, 55 students from other departments made a comment about this building.

4.1.2 Results: Faculty of Architecture

The interviews revealed how certain physical features of the ARCH building were critical in creating and maintaining the meaning of places. Students described how these attributes influence their feelings over their academic lives. Three key dimensions were frequently described by interviewees: (1) impact of the physical environment on students' socialization, (2) impact of the physical environment on students' ideas on field specificity, (3) impact of the physical environment on students' feelings, and (4) meaning of the building.

4.1.2.1 Impact of the physical environment on students' socialization

The ARCH building creates spaces and places in which students can carry on many different activities optimally. The building includes not only teaching spaces (like classrooms and studios) but also social and recreational areas. This building including both public and private places provide collective use and individual use. These spaces and places are studios, atrium, a big Architecture lecture hall, the Architecture canteen, and backyard. This section includes the descriptions of these places, how the students use them, and how a place can embody many social activities.

4.1.2.1.1 Studios

The students of ARCH intensively use their studios and the faculty building. In Architecture Education, studio is a place where the courses are taken, most of design projects go on, and the jury defenses take place. Students spend most of their time in the building even outside course time in weekdays and weekends. They stay in the studio during day and sometimes until morning and work with friends. As well as these functions, according to the ARCH students, studio is also a place to read books, to surf on the internet, to watch movies, to play games, to listen to music, to chat with friends who are invited from other departments, to have pyjamas and even New Year party. In this case, such formal spaces turn into silent and social learning spaces. Furthermore, some students described the studio as their second home and living space. Some students' opinions about the use of studio are as follows:

These people think that we really have to study here but I don't think so. We are here because we like spending time here. We can also study at home but we prefer studying here. The dormitories have their own study halls. Don't we know study there? Here is different, it encourages me to be here. It may result from the building (ID1).

Lots of friends of mine used to come here to only enjoy, not to study (CP7).

There are two separate lives here. Till 5.30 pm, you can see students and instructors rushing around. After that, life changes; people bring their own meals and drinks, wear pajamas, and tea and coffee machines come out. That is, studio turns out to be a home (DARCH6).

It give you incredible comfortable. It is yours and under your control. Whenever you want, you can use. Drawer is very useful. We carry many things between home and school. Leaving stuffs is very big comfort (DARCH1).

One student took photographs to show the life in the studios as follows:



Figure 4.1.3 Photographed by CP2



Figure 4.1.4 Photographed by CP2

All students have a table and there are several belongings on their tables including stationery supplies (drawing papers, pen and pencils etc.) and eating and drinking stuff (water, coffee and snacks).

These studios are assigned to students and they have a key of the studio, that is, they can use it whenever they want. They defined the studios as their second home. Having a studio as a classroom and using it actively increase communication and relationship among the ARCH students. How the relations are established during their education was defined by two students:

Suddenly we become a part of classroom in a huge studio, and then we are very close in the group projects. It is such a nice environment that you realize in three hours you will become good friends (CP5).

We are really sincere with each other. Since we spend hours together; we get to know each other well. That is to say, in times of sickness, in times of illness, we are all together (DARCH7).

Twelve students from other departments identified the life in the ARCH building. According to these students, the life is connected to having a studio; students in this building live in the studio, use their own studio in 7/24 hours, and they need these studios.

4.1.2.1.2 Atrium and circulation areas

The building includes an atrium which is frequently used by students. According to students, the atrium is light, spacious, calm, large, high ceiled and open to inner yards. One of the most important features of the atrium is that it is open to

communication. One of the students mentioned these features and their effects on her mood as follows:

It is beautiful because it is bright and spacious. For example, if there was not such an environment [that is large atrium], this place would be only one corridor. Here, after class, chatting, looking down people who get through, seeing different faces, seeing trees make me relaxed. Also, such atrium arouse a sense of big area, instead of a high, storied and narrow place, having a large hole and classes surrounding it provides a relieving atmosphere (CP6).

Because of all these features, like studios, many different activities occur in the atrium. The atrium becomes a recreational area, which students use for relaxing, sitting, eating, and chatting. Besides, the atrium is open study area that is functional to read a book, work on a project and make a model. Moreover, students stated another function of the atrium. It is performing area, which is used for juggler work, playing hopscotch and skateboarding. The quotation of one student summarizes the life in this atrium: “Everything can be done, there is no limitation” (DARCH6).

Most of the photographs related to atrium and circulation spaces are taken; respectively, corridors, halls (areas in front of the studios) and atrium. The circulation spaces, although quite large, represent a wide range of activities because many extra-curricular activities, parties, exhibitions take place in these areas. The photographs show that these places are actively used areas. As presented in the photographs below, students are using the circulation spaces for curricular activities; students are making a model and working on the project in group.



Figure 4.1.5 Photographed by DARCH6

One student's comment about the area below (photo on the left) is as follow: "This area is very functional in my life. Either in or out of class, either night or day, the place holds many individuals doing something". The photo of another student on the right affirms this comment; students are working on their models.



Figure 4.1.6 Photographed by DARCH* *Figure 4.1.7* Photographed by DARCH6

DARCH*: This student is Burcu Tuncel and she accept that her photos can be shared in the thesis in case her name is given.

The circulation areas serve not only as an activity center but also as a privacy area. One of the students' utterances about use of corridors are as follows:



There are no people at nights in this area. Therefore, I go there to be relaxed. Sometimes I need silence because there is sometimes panic in the studio; students' concern is about completing their project on time, what will happen and things like that. So, in order to escape from this rush, I can find an escaping spot in the building (DARCH6).

Figure 4.1.8 Photographed by DARCH6

Although students have close relations in a class, there is less interaction between three departments of Architecture: ID students and CP students and ID students and ARCH students. One of the reasons behind this is that the distance is large between their studios. In the building layout, all ID studios are side by side and far from the

CP and ARCH studios. However, CP and ARCH studios are either in the same area or one over the other. According to one student, the reason of this layout is to increase communication among students in the same department. Another student utterance affirms this: “It is good to be close to the upper class studios to ask for help” (DARCH2). Being close to upper class students is fundamental; students can ask for help about projects, get information about their instructors, and benefit from their experiences. One student interpreted this layout differently:

Because our studios are placed one over the other, there is hierarchy between upper class and lower class, that is, upper class is senior. However in the ID studios area, there is no such hierarchy because they all are located in the same floor, therefore I think their relations are closer than that of ours. Juniors approach us timidly (CP6).

As the social life mentioned above, there is a lively atmosphere in the building. Not only domestic students but also students from other departments use actively Architecture building. This is due to utility function of the building. One of the students’ ideas on it are as follows;

When I enter in this building, what I see is this; there is a place which is open to communication. I see many parts of building. Architectural elements are clear. I see everywhere and I understand how these places connect to each other. It is an easily perceivable building. I can make a contact with it easily. It provides high visual communication, and high communication among individuals (DARCH7).

While students from other departments were describing the building, they particularly focused on the size of the building. The building is big, spacious with high ceilings. One of the mostly emphasized features of the building is that it has many open spaces. Students especially mentioned the atrium in the building. Two students’ utterances about the spaciousness of the building are as follows:

When you enter the ARCH building, you enter a large spacious area. Absolutely, you feel better in such a place. When you are in a big building, you can look around, observe and you feel comfortable (EEE7).

It is a beautiful building. It is not an ordinary school which consists of only classrooms and corridors. There are areas that students can spend time with pleasure except course time. For example, the space in the middle makes the environment spacious and you can see someone easily. Seeing people is very

important. For example, if I am in this building, I want to see what people do. In the ARCH building, you can also see canteen. That space is very good to see everywhere (EDU-C4).

4.1.2.1.3 A big Architecture lecture hall

The building has social potential and it is important as an activity center. The big Architecture lecture hall is used in the university. Not only academic activities like seminars and meetings but also cultural activities including concerts, theater performance, and memorial days take place in this lecture hall. Additionally, some student clubs (i.e. theatre club) utilize it as working area. Therefore, many students from other departments are familiar about the ARCH building.

Parallel to these results, some students from other departments indicated that they use the big lecture halls in order to watch musicals and theatres and use it as working area. One student' ideas about the big lecture hall are as follows:

In the ARCH building, I am happy when I join in the art activities. When the ARCH building is said, I remember musicals, theatres which I go there. Therefore that building makes me satisfied (EAS-B3).

4.1.2.1.4 Canteen

As well as big the Architecture lecture hall, the canteen in the Architecture has social potential and it is famous in the university. The most articulated feature of canteen is that the canteen is used by other students. Two students' utterances and a photograph are that;



The canteen is very lively because students from many different departments come to here. Students from engineering, business, and economy come to this canteen to see their friends and/or to watch a play in the lecture hall (CP6).

Everybody in the campus uses this canteen...It brings everybody together, so I like the canteen (DARCH6)

Figure 4.1.9 Photographed by DARCH6

Although Architecture canteen is mentioned by almost all students, its features were not clarified in deeply. The other mostly mentioned feature of the canteen is that it has a garden. The garden is used especially in sunny and/or rainless days. The other salient feature of the canteen is its seating. One student described them:

When we look at the elements in the canteen, you see two types of seating. One of them is bistro for quick eating; others are tables with seats for groups (DARCH7).

Especially the bistro type seating is not functional and does not provide easy and comfortable sitting for some students. However, these seats are interesting, which creates a visually beautiful space. Each student touched upon a particular feature of the canteen. One of the students mentioned the layout of canteen:

One side of the building is allocated to the canteen. There are classrooms on the other side but there is some sort of an invisible division between classrooms and the canteen. This design is interesting and beautiful. Our canteen is beautiful, not only prices but also meal alternatives are good. We have a comfortable canteen (DARCH1).

Another student mentioned the ritual of using canteen:

Everybody comes and passes by the canteen, and you meet everybody there which is nice. You see people who you do not have a chance to see in the classroom because at 12.30 everybody is there. Moreover, if you have an exam, everybody comes here before the exam, everybody finds each other. We meet there at weekends. If there is lesson in the studio, everybody goes to the studio however if there is a lesson in any other places, everybody meets in the canteen first (DARCH5).

As well as the ARCH students, the canteen and its features were stated by some students from other departments. They are satisfied with this canteen which is large and beautiful and serves delicious meals. The most articulated feature is the furniture in the canteen, which is interesting and different. One of the students' utterances about the furniture are as follows:

Do you remember the canteen in the ARCH building? Like Bistro. For example, this provides the freedom to express yourself in every way... There are a lot of options there. There are tables which are close to the ground and also bistro type, and by doing this, they provide students the freedom of expressing themselves (EAS-B3).

4.1.2.1.5 Backyard

There is a backyard in the ARCH building. It is close to the ID studios and between two buildings of Architecture. Therefore, it seems as secluded area with beautiful landscaping, design elements made by ID students and natural elements. Besides, this area is not mostly used by people from other departments in campus. Because of these features, almost all students like this area. According to them, the backyard is a relaxing and an escaping area. Students' activities in this area includes sitting, chatting, eating, reading a book and liking cats. More importantly, the backyard is used for relaxation during the intense project work and jury time. One student explained the users of the backyard as follows:



This is the backyard near our studios. It is used by students from each department, but we use much more than others (ID2).

Figure 4.1.10 Photographed by ID2

To parallel to these results, only one student from other departments mentioned this back yard.

In sum, because the building provides optimum support for the activities desired, many areas for diverse use, and freedom of movement and comfort, the building has social functionality according to students. All activities are socially determined in the building, and so, this gives the building a social meaning. Therefore, students explicitly mentioned the meaning of the building “sociably”. The students’ commented on this issue as:

I can describe the building as inviting because even students from other departments choose this building to meet and enjoy with friends. It is really a comfortable building (DARCH1).

The message of this building is definitely sociability. There are places in the building that help us leave the idea of a classroom. In other buildings, this is

not like that. They give the message: “study, study and study”. For example, there is only the canteen for socialization in the other buildings. However, we have the canteen, backyard and inner yards. If we need to take breath, we do this in the building (CP5).

Because this building provides large areas to us, we spend our time here. Firstly, they [architects and administrators] foresaw this reality. They wanted students to spend time here, so that we can produce something while learning (ID1).

The other buildings in the campus are classic, there are corridors and classrooms, which represent the formality. However, our building breaks this formality. There is a warm environment, everybody has close relationships. In our department, the student, who even if does not think to join class, come to faculty. This building represents the social atmosphere, while other buildings focus only on academy (CP6).

4.1.2.2 Field specificity

Field specificity describes how the ARCH building represents the discipline which is taught in that building. One of the important features of the Architecture building is that there is no conflict between program and the building design. This is conceptualized around the architectural quality, the visual architectural elements and materials and building used as an educational tool.

4.1.2.2.1 The architectural quality

According to students, this building is not only well thought out professionally, but also a piece of architecture. The building as realized fulfills its intended function. One of the salient features of the building is its aesthetic quality, that is, the building has its own identity and it is perceived as beautiful and original, which is expressed by students as pleasant, comfortable, cozy, and spacious. The following comments focused on the identity of the building were described by students as;

For me, this building is different by having own identity. The designer's genuine care is obvious. The design of this building is different from the others. Like other buildings, the building is constructed according to brutalism which is trend of 1950s. But, this building is different with its plan, places, an atrium in the middle, and high corridors. Even the textures on the ceilings change when you pass from one corridor to an atrium. For me, these are very sensitive responses. Parallel to these, these sculptures are continuity of this response. These are not placed by architects but by students who make

a contribution while they live here. And they have a role in the identity of the building (DARCH4).

The Faculty of Architecture has its own identity; the spaces are designed in this way. You see the small nicks, stained glasses and small paintings and these are small identities, yet the building has more than these (DARCH7).

You feel that one has to realize that this building is the Faculty of Architecture building (CP7).

I think that our building represents nobility, aesthetic and power (DARCH3).

Like the ARCH students, the most frequently mentioned feature of the ARCH building is its beauty by the students from other departments. They stressed that the ARCH building is beautiful which is coherent with their department. One of the students expressed why she finds the building beautiful as follows:

Why don't they [who use ARCH building] follow the same sequence? These are the things that make people deepen unconsciously. In other words, the things that broaden your horizon and that avoid you being monotonous. You go upstairs and go another without slowing down and you get used to it. You have a system of thought in that way but you have to find the stairs to go up in that building. You have to find the stairs for canteen or for studios. So it has been. It is not obvious what goes where in that building. I think there is such a beauty. It enables you to act consciously. These kinds of things makes you act in consideration of the results. I find them precious in the human life. I mean to take something out of monotony (EDU-A10).

Not only the building as a whole has its own identity, but also the form of each place and space express what it is; each place and space has its own function. There is no space without function. For example, the canteen is the place for feeding and relaxing, while atrium is for collective use.

One of the places showing its own identity in the building is the building entrance. This entrance is a long walkway supported by columns and there is a pool along the walkway and two sides of it are surrounded by natural elements. This entry gives students the feeling of being a student in the Faculty of Architecture. It is described with very positive feelings by students as “ceremonial”, “monumental”, “magnificent”, “aesthetic” and “one embraces everybody”. Students’ articulation of the importance, the meaning and the role of this entry is plenty; some of them and photo of the entrance are as follows;



I like this entrance. I like its structure, texture and perspective (DARCH4)

This shows that there cannot be such building. I think it is very stylish (CP3).

Figure 4.1.11 Photographed by CP3

In this entrance, there are lots of things coming together in relation with the functions of architecture that represent the department (DARCH7).

I say to myself while entering such a gorgeous building that I study architecture and I enter this building (saying boastfully) (DARCH1).

I feel better when using this entry. The entry has its own aura, but I do not know how it provides. I like using this entry. Coming to school may not be very pleasant but these 15 minutes spent in this path make me feel good and prepared most of the time (DARCH6).

This path is monumental which is used by all students as a maidan and also as a circulation. There is a beginning and an end to this path. This path is used by all of us. We all experience it and it belongs to each of us (DARCH4).

As it is seen by the above quotations, the concept of aesthetic and an architectural understanding of these students was largely tangible via this pedestrian colonnade to the main entrance, so this is very significant element in their education life. Students spoke with pride, pleasure and even love about their building. Their descriptions were saturated with aesthetic experiences and emotionally laden.

Many students from other departments also stressed the building entrance which adds beauty to the building. Some of their ideas about the entrance are as follows:

Outside of the building seems beautiful. There is a pool and there is a small garden in front of the building, which is enjoyable. It is a really beautiful entrance (EDU-B5).

For me, the Architecture building affects me from the beginning. It seems aesthetic; its entrance is very beautiful. After you walk on the long path, you enter in the building (EDU-C4).



Figure 4.1.12 Photographed by DARCH*



Figure 4.1.13 Photographed by DARCH*

DARCH*: This student is Burcu Tuncel and she accept that her photos can be shared in the thesis in case her name is given.

As well as the building entrance, the deanship area is the other place representing its own identity in the building. Students identified this area with following descriptions: independent area, like forest in the building, beautifully designed, beautiful area, aesthetic, having wooden stairs, and pleasurable. Almost all students mentioned their favor of it however, this area is not suitable for student use; it is bureaucratic area, so students are quiet here, they don't use the door opening this area. Students stated their opinions about the deanship area as:

The dean office section is not used much by students but I think this place is the most beautiful place which is like a miniature of this building representing the all architectural features with more care. There is a fountain in the middle, water flows, and there is a continuous sound of water. This is nice and quieter. This place relieves the person (DARCH4).

"I like this area; when you enter, you will see natural elements. It seems like an independent area from the ARCH building. You feel different here; like in the forest but the forest is in the building. It is aesthetic, it gives me aesthetic pleasure" (DARCH3).

4.1.2.2.2 *Visuality in the building*

The composition of the building is easily perceived, comprehensible and recognizable. At the same time, the composition of the building with all elements is different than the other faculty and department buildings at the campus, which is stimulating and appealing. This is provided by the visual elements in the building. Visual materials including fine arts, bulletin boards, and maps are other factors

influencing students to gain knowledge about their profession. The Architecture building gives students an idea about their profession because it includes many fine arts, exhibition of works and bulletin boards. Firstly, about fine arts, *Yellow Ceramic Wall*, Symbolic wooden entrance door “*Han Kapısı*” (door of travelers’ lodges) and *Göbek Taşı** with Torus make the building beautiful, which gives students a notion at first that it is the Faculty of Architecture, which is an aesthetic profession. (*the spaces have nicknames emanating from historical bath structures (hammams)).

Göbek Taşı is located in one part of the building, which is surrounded by the studios and the classrooms. This place is very large and *Göbek Taşı* is located in the middle. Right above *Göbek Taşı* at the ceiling, there is a three dimensional art created by students.



Figure 4.1.14 Photographed by
DARCH6



Figure 4.1.15 Photographed by
DARCH6

Students like this area because it is aesthetic, beautiful and colorful. The following comments are related to *Göbek Taşı*:

When you come to the ARCH building and when you see these [Göbek taşı with Torus], you understand that this profession is actually related to aesthetic not money. I saw some other Architecture buildings in Turkey, there were not such aesthetic elements; they were just classic buildings. However, in DU, when you enter the ARCH building, you feel different (DARCH3).

Common and beautiful area was created with this colorful design (DARCH6).

The other sparking element is *the Han Door*. It is placed in the ground floor and it opens to park area. It does not have any function; however, it is an interesting element and it makes the building beautiful, and it has value among students.



Figure 4.1.16 Photographed by CP2

Two students expressed their ideas about a door of travelers' lodges as follows:

There is a door which has its own identity. This door is an authentic one taken from an actual travelers' lodge (DARCH4).

This is a unique "signature" (DARCH7).

The other visual element is the *Yellow Ceramic Wall* (see Figure 4.1.17), which is in the entrance hall. Students' utterances about it are as follows:



It is really nice thing. There is image on the wall, which does not strain the eyes. It is beautiful for me (DARCH 6).

This yellow ceramic wall is beautiful. You could not find such thing in the other faculties. Such small details create a different perspective (CP5).

Figure 4.1.17 Photographed by DARCH6

One of the distinctive sculptures is 'untitled sculpture'. This monument is located in front of the building which shows the building. Student count this as a part of

building. The sculpture is famous among students because of its legendary story. The legendary story is the following:

On each 10th of November, at five past nine three bars' shadow creates ATA writing on the ground via sunlight (ATA is the abbreviation of Ataturk, the founder of Turkish Republic and he died on 10th November, 1938, at 09.05 am).



Figure 4.1.18 Photographed by CP3

Therefore, although its name is 'untitled sculpture', it is called the ATA sculpture. Like other sculptures and architectural elements, this is a topic of a lesson and assignments. A few students mentioned that this sculpture is thought-provoking element and, one of them clarified this:

When I came to the department, I questioned meaning of this sculpture a lot because of its color and its position. There are three bars in the balance but each has a different color and each direction is different. How is that possible? I asked myself why such a sculpture was constructed. Besides, it seems to point our Faculty building; therefore, I regard it as part of my faculty building (DARCH4).

As well as these visual elements, large circulation spaces display sample homework assignment such as models and design posters. Students starting freshmen begin to understand what their profession deals with, and what they will do in Architecture Education. These fine arts and exhibited works may enhance students' creativity and their way of thinking. Finally, a number of bulletin boards throughout the building provide the opportunity to follow the projects.

Wall hangings are the other indicators showing the life in the building. Posters and announcements of social and educational activities are hung on the wall in any part

of the building and the windows of the studios. The photos and comments about them are as follows;



It is a poster showing the forum which we discuss about our problems and daily architectural events. I wanted to take its photo (DARCH6).

Figure 4.1.19 Photographed by DARCH6



There are lots of things hung on the studio window. Sometimes, I go out from studio only to read these (CP2).

Figure 4.1.20 Photographed by CP2

One student explained the function of visual materials in the building:

This means the protection of vividness of the faculty. If there were not such things [student made materials], this faculty would not show its own identity to users. With the help of such things, outsiders can say 'I am in the Faculty of Architecture' (DARCH4).

Regarding visibility in the building, some students from other department stressed on the visual and architectural elements including the *Yellow Ceramic Wall*, *Han Door*, and students' products elements, which all shows the field specificity.

4.1.2.2.3 Building as an educational tool

This study reveals how buildings with its physical elements can be used as educational tools. Students' experiences with building start at the beginning of the first entry and then increase throughout their Architecture Education. At first, the building seems large, big, and spacious and also it has a welcoming entry, large studios, a courtyard and a beautiful canteen. On the other hand, because raw building materials such as exposed concrete and brick were utilized in the building, students especially in their freshman years cannot make sense of the building and its design. After that, the building with all of its elements becomes the topics of the courses and students' assignment. As mentioned by the students, this building becomes a meaningful place after they take an architecture education. Some students consider that each detail of interior design (from floor paving to use of stained glass) was carefully designed by the architect.

The students of ARCH use places and the architectural elements of the building while they do assignment and design any kind of project. Students are assigned to make an orthographic drawing and collage, and abstract the architectural elements in the building. For example, inner backyard is given as a case for the cube project and abstraction. As well as the particular place is chosen by instructor to give assignment, sometimes students are free to choose the case (i.e. wall, areas, or a part of building). In addition to this, while students design something, they imagine scales by using "grid structure of the two way ribs system" and they use the Architecture building model placed in the deanship area. Two students' ideas about the grid system are as:

The structure of these grids is definite; I have internalized these because we continuously talk about them in the class. The building architecture fits this system, therefore it attracts my attention (CP2).

This building as a visual thing inspires me to develop ideas because building has an effect on human psychology and creativity. For example, as we look at the above cap, we do our project according to them. These are scales for us. Walls and interfenestration are scales (CP6).

Moreover, instructors use the building to provide examples for the topic "type of space". For example, as stated by the students studio is a private space, the

intersections of two studios are semi-private spaces and atrium is a public space. In other respects, the building including many architectural elements leads students to think about them whether these are not given as a case in assignment.

Architectural curriculum includes the knowledge of materials including wood, stone, brick, steel, concrete, and plastics. According to some students, one of the best ways to present these materials is the use of these materials in the actual building. The students should be introduced to these materials via the building, so they mentioned these including wood, grid, stained-glass, and glass. One of the students' remarks showed the impact of different material use on students' preference.

It is the first time to see how the quality of material changes the space, what its contribution is on the space. The thing [material] which you found odd before becomes what you prefer (DARCH7).

In addition to these materials, students mentioned multi-storey volumes in the building. The following quotations are the comments of two students about the multi-storey volume:

We move up three steps when coming here. There are three steps in one side of the building, while there are five steps in the other side. Even this is a nice detail in this building. In other buildings, there are 10 steps to go up the other floor. Our building is not commonplace like others (CP1).

Our job is to observe the places in and out of the school and to be able to solve the problems we observe. This building is our basic living area. I spend time here more than home. Therefore, naturally when I walk in the building, I realize elevation differences in the design. I must realize it as an architect student (DARCH6).

One of the most important features of the building is that its architecture is parallel to what students are taught in the lesson. For example, instructors' emphasis is on design understanding which includes cubic drawings and straight lines. In this sense students make sense of what they learn.

Moreover, as it is written above, students' understanding of their profession begins with the first entry because the building entrance provides clues about what architecture is. In this regard, one student stated that "A highly distinctive entrance... I feel that I enter the department of architecture. You can obviously realize that the

architectural planning starts from the entrance when you enter” (CP7). Supporting this, another student said “I see in this entrance that lots of things come together in relation with the functions that represent the Faculty of Architecture” (DARCH7).

Briefly, the building including a variety use of materials as well as their combination and many architectural elements gain knowledge about their discipline:

1. Students scrutinize each architectural element.
2. Students’ awareness toward the building structure is increased.
3. Students develop an idea for their projects and future design.
4. Students easily recognize materials.
5. Students understand how the materials are used (i.e exposed concrete) in the building and what these create and which feeling these arouse.
6. Students understand space perception and space formation/creation.
7. Students understand perspective drawing.
8. Students see how spaces are organized.
9. Students understand scale and proportion.
10. Students understand how masses give a sense of depth to each other.
11. Students see how the building provides visual communication.

Finally, as it is obvious the building is architecturally a very good model. The opinion of a student as a last remark which explains this very well: “When every student at faculty of architecture is graduated, s/he wants to make something like this building. It has lots of effects varying from the materials used to the places produced” (DARCH5).

4.1.2.3 Impact of the physical environment on students’ feelings

All participants from ARCH like their building a lot; even few of them express their love to the building. They considered that the best architecturally beautiful and the most distinguished building in the campus is the Faculty of Architecture building. However, their definition is not limited to these. It is well-planned, extraordinary, unique, modern, and distinguished. Then, it has different design with many architectural elements and it highlights artistic values. Moreover, it is humanistic

although it was made by exposed concrete. Furthermore, it is practical for use and it provides students with many opportunities; for example, it has multiple centers and it is intertwined with nature.

Students' affinity toward building with its all elements is definite. Their affection is not due to one particular feature of the building. The building as a whole influences their affections. "Beautiful" and "nice" are mostly stated adjectives describing each elements of the building. Students expressed their positive feelings toward the building as it includes visual elements, social and recreational places as well as teaching places. Among these, one of the important factors providing the commitment to place is having the studio. In Architecture Education, each class has its own studio. That is, there are totally twelve studios for three departments. Each student in each studio has own table, and drawer and/or locker. One of the students' comments about having a studio are as follows:

Absolutely having a studio gives a sense of belonging because when we look at the other departments, the students go to different classes for different courses. They do not have their own places. This is not the case for us. In our studio, we even decide what to hang on walls. I can hang the poster whichever I want and nobody says anything. For example, last week, my friends and I decided to make personal this place because we spend many hours there, we did a collage with our photos. This gives a sense of belonging; the studio is ours, we are affiliated with this building, and we have a purpose to do something in this building (CP6).

Besides, students' commitment to place is understood in their answers of the question "how would they design this building, if they were an architect?". Almost all do not want dramatic changes in their building. Conversely, they defined their building as "well-thought" and "greatly adequate". They also said that they could "internalize it" and it is "one of the best 10 designs" in the entire country. They want to make a few changes about light and color (for two first year students).

Moreover, most of the photos photographed by students is related to natural elements. These photos are divided into three groups; gardens (in and out of the building), natural elements in the building, and windows. Gardens are students' relaxing places. The building has both inner and outer gardens as well as the small

open areas close to the building. These are the backyard of the building, the canteen garden, the inner yard (which is close to atrium) and the back side of “*Han Door*”. Because these places are silent, calm, open and nice, they were chosen in order to be relax. Therefore, these areas can be defined as relaxing and escaping areas. Students use these areas especially to escape from heavy academic works (lessons, project time, and jury time). The main activities are drinking tea and coffee with friends and chatting.

The mostly used two gardens are the canteen’s garden and the backyard (see Figure 4.1.21 and 4.1.22).



Figure 4.1.21 Photographed by ID2



Figure 4.1.22 Photographed by ID2

As it is seen in these two photographs, although these features are not mentioned by students, these places include natural elements (trees and flowers) and seating. Besides, these areas are not completely open areas; the buildings surround them.

The area (see Figure 4.1.23) is photographed by only one student. He said that “this is not used by other students; I haven’t seen anybody except my close friends”. This shows us that students can find a place for having some privacy and using, whether this place is publicly known or not.



Figure 4.1.23 Photography by CP2

About the natural elements in the buildings, many ornamental plants are seen in the building. Because they give positive feelings to students, students like them and took their photos. As to students, plants make the place beautiful and colorful. This is important because the building was made of exposed concrete which creates the cold environment, such flower make the building humane and relaxing.



Figure 4.1.24 Photographed by ID2



Figure 4.1.25 Photographed by DARCH6

As well as gardens and natural elements in the building, the other photographed elements are windows.



Figure 4.1.26 Photographed by DARCH6 Figure 4.1.27 Photographed by DARCH6

Because the windows provide lights and nice view, they give a feeling of spaciousness, and they help students to get rid of stuffy environment. This becomes more important when the students spend many hours in the building without going out. Besides, these windows make the place lively because the students can see the events in the canteen, and who are there, and then they join the activity; so they maintain this lively environment. One of the students indicates her own ideas as follows:

“Beautiful, I like the design of my faculty building because there is a nice connection between the outer and inner places (DARCH6)”.

The building includes the natural elements, it has gardens, and there is connection to outer places via windows, it influences the students’ well-being positively.

4.1.2.4 Meaning of the building

The meanings of the ARCH building are multiple: (1) it is a university building, (2) it is a good model for profession, and (3) it is a building arousing positive feelings.

First of all, the ARCH building is one of the biggest buildings on campus. The circulation spaces, which are quite large, display the concept of ‘university building’ because it holds many academic, social, and extra-curricular activities. Moreover, it has popular canteen that many students use and like the design of. Students from other departments also shared these views. Furthermore, ARCH students have their

own studios, photocopy center, stationery and inner and back yards, therefore they actively utilize the building during their education. Consequently, it is a social and living building that enables students to use it for any purpose.

The building consists of all elements of design and techniques which contribute to students' professional improvement. Moreover, there are different places where students might learn about design and many opportunities through which they might experience design. Furthermore, the students are exposed to the basic concepts of form, color, and various relations between elements. Therefore, the building is a good tool which increases students' ability to understand and integrate technical factors according to human needs. More importantly, they can see a straight link with the theoretical issues introduced in the courses.

The feelings derived from the place were satisfactory. It is an architecturally and aesthetically beautiful building that attracts many students. Students expressed their satisfaction and gratitude for the architect's successful intervention in their lives. To sum up, the ARCH building is a means of expressing status, evoking a sense of beauty and sense of belonging, and representing the kind of experiential values that are described in terms such as pleasant, pleasing, and attractive.

4.2 Faculty of Economic and Administrative Sciences

4.2.1 Description of the Faculty of Economic and Administrative Sciences by the researcher

Location of the buildings: Block A in EAS is placed on the alley. The closest academic building to block A in EAS is the ARCH building (purple building as it is seen in the Figure 4.2.1.). Block B in EAS is not placed on the alley. The closest academic buildings to it are block A in EDU and the English Preparatory School buildings (green and yellow building seen in Figure 4.2.1., respectively).

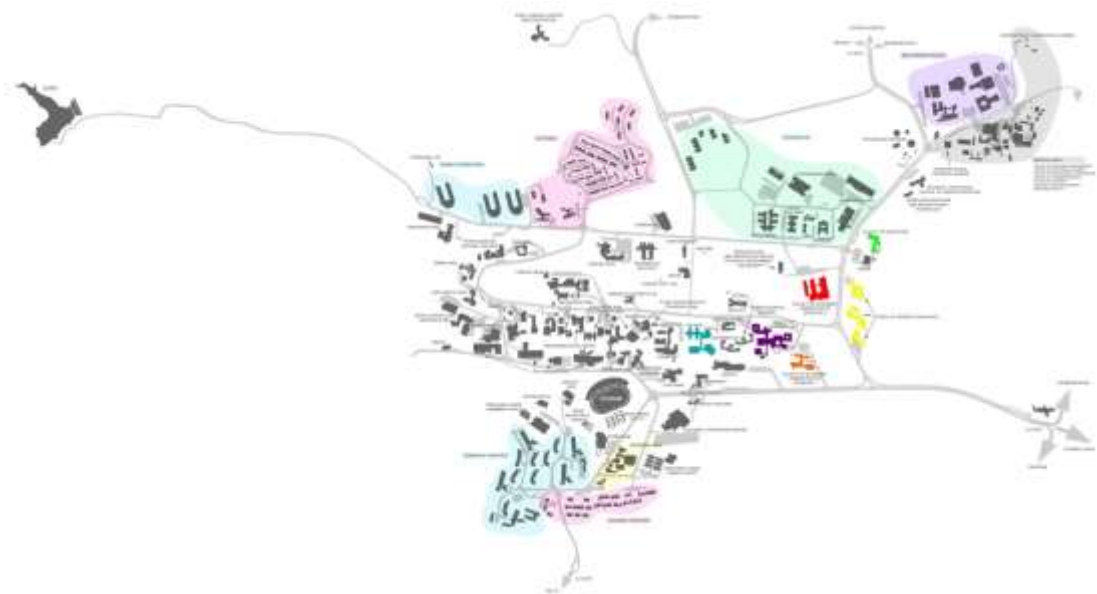


Figure 4.2.1 Location of EAS
Source: University website.



Figure 4.2.2 The Faculty of Economic and Administrative Sciences
(1- Block A, and 2-Block B)
Source: Google Earth

Number of the buildings: There are two buildings of EAS. One of them is block A in EAS (see in Figure X and Y), which Department of Economics (ECON) and Department of Political Science and Public Administration (ADM) use. The other is

block B (see in Figure X and Y), which the Department of International Relations (IR) and Department of Business Administration (BA) utilize.



Figure 4.2.3 EAS Block A
Source: Personal Archive



Figure 4.2.4 EAS Block B
Source: Faculty website

The reasons for choosing the Faculty Economic and Administrative Sciences:

The main reason is the age of the faculty buildings. Block A in EAS is one of the oldest buildings on the campus. However, block B in EAS is one of the newest academic buildings on the campus. Because block B was designed to fulfill the requirements of passed years, the facilities in this building are different and more than block B. Moreover, the interior design of the building is different than the other

educational buildings on the campus. In order to represent the effects of all these varieties, these two buildings were chosen as contexts.

The short history: Construction of block A was finished in 1967. Four departments under EAS shared this building until 2000. Because the construction of block B was completed in 2000, BA and IR started to use block B.

Facilities in the buildings: Block A consists of a deanship area, administration offices, academicians' offices, classrooms, a lecture hall, computer labs, an open study area, reading room, seminar rooms, club rooms (Economics Society and Political Science Club share the room together.), and canteen with its garden. Block B includes academician offices, administration offices, research centers' offices (Management and Administration Research Center, Center for Area Studies), lecture halls, computer labs, open study areas, a reading room, a library (a part of central library), club rooms (Debate Club, Professional and Business Ethics Club, International Trade and Logistics Society, and Young Entrepreneurs Club) and a canteen with its garden.

The main users of the buildings: While the main users of block A are students studying at ECON and ADM, the main users of block B are students studying at IR and BA.

Users of the buildings: Because the canteen of block A is used by university students in general, it is a famous one; therefore especially the canteen is used in university general. About block B, it is used by all students from other departments to take courses. The academic meetings are held in the big lecture halls; therefore block B is used in university general. The canteen of block B is used by workers in the technopolis as well as all students in the campus.

Population: 243 undergraduate students utilize block A, while 174 undergraduate students use block B in the process of conducting research.

Sampling: Sixteen students from EAS participated in this study. The walking interview method was conducted with 12 students. Moreover, 4 students participated in the photo-elicitation interview. Furthermore, students from other departments

mentioned about block A and block B. Eighteen students from various departments made comments about block A, 54 students made comments about block B. Therefore, their utterances were included in the section below.

4.2.2 Results: The Faculty of Economic and Administrative Sciences

The interviews revealed how certain physical features of the EAS buildings were critical in creating and maintaining the meanings of the places. Students described how these attributes influence their feelings over their academic lives. Five key dimensions were frequently described by interviewees: (1) facilities in the buildings, (2) impact of the physical environment on students' socialization, (3) historicity of the block A, (4) impact of the physical environment on the students' feelings, and (5) meaning of the buildings.

4.2.2.1 Facilities in the buildings

This section presents how a place can facilitate students' educational and daily life. Block A and B includes spaces and places in which students can carry on many diverse activities optimally. These buildings include not only teaching spaces (like classrooms and lecture halls) but also social and recreational spaces. Moreover, the buildings provide many options for studying. These buildings including both public and private places provide collective use and individual use. These spaces and places are lecture halls, open study areas, reading rooms, canteen, club rooms and inner yards. In this section teaching spaces and study spaces are presented.

4.2.2.1.1 Teaching spaces

Block A includes two types of teaching spaces. One of them are the classrooms furnished by the unmovable tables and technological devices (see Figure 4.2.5). The others are the lecture halls with fixed seating and writing furniture on a tiered or sloping floor surface (see Figure 4.2.6). These lecture halls are also equipped with data show-projector systems.



Figure 4.2.5 Photographed by EAS-A3



Figure 4.2.6 Photographed by EAS-A3

One of the students mentioned the advantages of these classrooms as:



Figure 4.2.7 Photographed by EAS-A3

I took this photo to show the importance of technologically-enhanced classrooms. Projector is an efficient tool for education (EAS-A3).

Block B provides only lecture halls in different sizes. There are two big lecture halls which have a pitched floor, so that students in the rear sit higher than those at the front, allowing them to see the lecturer. These lecture halls are effective to hold the service courses at university in general; hundreds of students from different departments take courses in this building. These lecture halls with audio-visual equipment are modern and light and seating row spacing permits comfortable access and egress. The photographs and one students' utterances are as follows:



Figure 4.2.8 Photographed by EAS-B2



Figure 4.2.9 Photographed by EAS-B4

I like these lecture halls because these are the newest teaching spaces with tables and seats at DU. I spend most of time in these halls. If I am bored in the reading room, I look for an empty lecture hall. These are attractive due to comfortable armchairs (EAS-B4).

Lecture halls in block B are the most frequently mentioned facilities by the students from other departments. Most of the students describe the lecture halls with positive opinions such as large, comfortable, beautiful, light, new, modern, and technologically enhanced. Among the students who do not like lecture halls, a few criticized the stable chairs which people do not move front and back or next to friends. A few students complained of the size and heating system of lecture halls.

4.2.2.1.2 Study spaces

Block A and B provide many opportunities for studying to its students. Both blocks consist of a reading room and open study areas, which are satisfactory according to many students. Students have a reading room because their fields are verbal and require reading, being silent is an important rule to be obeyed by students in it. Therefore, they are suitable for individual work. The photos of these reading halls and the ideas of the students are as follows:



This is the reading room for silent studying. I prefer it more than dormitory in order to study for exams. It is very attractive, silent and generally uncrowded (EAS-B4).

Figure 4.2.10 Photographed by EAS-B4



This is the reading room which creates environment like a library. Nobody talks here, however it is small; sometimes I could not find a place. This is good alternative but not adequate for our discipline (EAS-A3).

Figure 4.2.11 Photographed by EAS-A3

On the other hand, open study areas are available for their group-work and peer-tutoring. Block A designed one corridor as open study area.



This area is the upstairs of our building. Students generally study here. This area is very useful to talk with friends about the topics (EAS-A3).

Figure 4.2.12 Photographed by EAS-A3

One student from GEOE commented on this study area as:

There is study area, which allows for studying silent or in group. I use there with my friends from my department, because we don't have such opportunity (GEOE12).

Unlike block A, block B provides many open spaces in the building. Even the niches in the corridor are furnished with tables and chairs (see Figure 4.2.13). Some photographs of these areas and students' opinions about the functions of them are as follows:



These are the tables in the upstairs. I took this photo because these movable boards are newly placed there. Small tables are changed with the big ones. As I understand, these changes are to provide interactive environment (EAS-B2).

Figure 4.2.13 Photographed by EAS-B2



These tables and chairs are newly placed. These boards are very useful because we teach each other. Heating in this area is appropriate. Armchairs are comfortable. It is a very nice alternative study area because you should not speak in the reading room (EAS-B5).

Figure 4.2.14 Photographed by EAS-B5



I study here. We spend our spare times here; we can do our homework. It is very helpful for us (EAS-B2).

Figure 4.2.15 Photographed by EAS-B2

One student indicated the role of these open spaces: “such open places are for to increase students’ motivation to work together and enhance the group work skills” (EAS-A4).

4.2.2.2 Impact of the physical environment on students’ socialization

Block A and B consist of spaces and places in which students can carry on many different activities optimally. Both block A and B have canteens which have social potential and famous in the university.

The canteen in block B is the mostly used area by students; therefore it is generally crowded and noisy. One of the mostly mentioned features of the canteen is that it has a garden. This garden faces a part of DU forest, so students like to sit and spend time in this pleasant environment. Additionally, students mentioned that this canteen creates a warm environment. One student explained this as:

“You sit, nobody says to you ‘get up’, you study, you write a paper, then you sit next to other people, you meet these people easily. Moreover, there is one umbrella, everybody tries to cover under this umbrella from the sun, you fight with others, which is quite entertaining” (EAS-A7).

Another student described this canteen as:



This is our canteen. The salient features of this canteen are that it is crowded every time and noisy. Thus, I don’t use it very in noisy times (EAS-A3).

Figure 4.2.16 Photographed by EAS-A3

One of the most articulated facility in block A by the students from other departments is the canteen. Six students defined the canteen as a “lively”, “warm”, and “sincere” environment. One of them took photos and made the following comments:



Figure 4.2.17 Photographed by GEOE11



Figure 4.2.18 Photographed by GEOE11

This canteen is crowded. I took these photos to show that it is a favorite canteen among students at the university. I like it, because you are as if in nature area. You feel that you sit in the forest. After courses, going out for fresh air, chatting with friends and eating and drinking at the same time make you relax (GEOE11).

The canteen in block B is different from the canteen in block A. The most articulated feature of the canteen is that this is not like a canteen but like a restaurant and/or cafe. There are many reasons for this. The business of this canteen is different from the other canteens in the campus; it offers not only fast foods but also cooked foods. Moreover, it appeals to both students and workers (i.e. in technopolis). The prices are high, which is not suitable for students' budget. The main activities are sitting, chatting and eating and drinking rather than studying, that is why some students mentioned that they feel they should leave immediately after eating. Because of all these reasons, this area is not called as "student area". Some students at block B use this canteen fondly, while some of them do not prefer to it because of café environment. The students in block A criticize the canteen in block B the most. Also, almost all students complain about the price policy. One of the students' photo and ideas are provided below:



We spend more time with my friends here. Although we are not satisfied with the price of the products, it is a beautiful canteen in terms of atmosphere and its meals (EAS-B2).

Figure 4.2.19 Photographed by EAS-B2

About block B, canteen is another facility which is frequently mentioned area by the students from other departments. It is big and beautiful and it has a green garden. Additionally it serves delicious foods. Because of these reasons, students like that canteen. The other feature mentioned by the students that the canteen resembles a restaurant.

The other socialization area is the halls in the corridor. As it is mentioned in the section ‘study areas’, the halls and corridors are furnished with tables and chairs. For example, one hall in the corridor includes colorful armchairs and coffee tables. This area is used for quick talk, waiting for courses, and meeting friends. The photo and one students’ utterance are as follows:



These are the colorful armchairs in front of the lecture halls. These are not suitable for studying, but we can discuss something here. Also we can use this area as a meeting area (EAS-B2).

Figure 4.2.20 Photographed by EAS-B2

As well as the furniture, there is a ping pong table block B halls. Each large hall is used effectively in support of students’ life. Like block B, block A also offers a ping pong table in the room and if students want to use it, they get the key easily. The function of the ping pong tables was explained as:



This is our ping pong table. We play table tennis in our spare time. This is the only facility for socialization. It makes us relaxed (EAS-B4).

Figure 4.2.21 Photographed by EAS-B4

The other area in block B offered to students is the inner yard. There are two inner yards side by side. One of them is for the faculty members, and the other is for students. This inner yard is the relaxation space for the students who are the main users of block B. Students like the garden swing and the benches there. Students' ideas about it are as follows:



Figure 4.2.22 Photographed by EAS-B4



Figure 4.2.23 Photographed by EAS-B4

This inner yard is frequently used area. There is a garden swing (EAS-B4).

This creates a different atmosphere, it is interesting that even buildings surround you, this green makes you happy. It is a little thing about nature, and of course smoking and drinking coffee and chatting here are enjoyable for me, I like this place (environment/atmosphere). Even, some lecture halls overlook see this atrium, sometimes I open the window and look around, and this is such a pleasant thing (EAS-B3).

Both buildings have club rooms. These club rooms are very useful facilities which students use actively; they gather, organize activities, and discuss any topics related to their discipline.

Because of all these opportunities and facilities, block B is used for several purposes: (1) students use the building for educational activities (i.e. taking a course, and studying a lesson), (2) students use the building extra-curricular activities (i.e. organizing debate tournament and conversation with CEOs), (3) the department use the building for academic meetings (i.e. seminars and congresses), (4) the university use the building for promotion of the university (i.e. university candidates who visit the university are presented around in block B), (5) the students from other departments take a course in the building, and (6) employees from different departments at the university and technopolis in the campus use the canteen in block B.

All these opportunities and facilities were emphasized by the students of the other departments including canteen with garden, open and large corridors, gardens and club rooms, respectively. According to these students, these facilities can increase the use of building which students spend spare time with friends, chat, and enjoy.

4.2.2.3 Impact of the physical environment on students' feelings.

This section presents how the students are committed to a place, and how a place affects students' feelings.

4.2.2.3.1 Impact of block A in EAS and its physical environment on students feelings

Most of the students defined their building as large, practical, and comfortable. It has many opportunities for students. They think the building is gloomy, but this is not a negative aspect according to most of the students. Generally they believe the building creates a warm and sincere environment. Moreover, some students from block B agree with students in block A. One student stated that there is no bureaucracy in the building and explained the reasons as:

As I said, the belief that one can create a place for oneself. There are many areas, for example, if you want crowd, you can find it in the canteen. If you need calm, there are many options. Certainly you find a place for yourself.

Therefore, the bureaucracy is eliminated, it cannot direct you, but you create your area (EAS-A8).

The students from other departments made different comment compared to main users of the buildings. Among 19 students who shared opinions about block A in EAS, 9 students described the building negatively including “ordinary, dark, gloomy, cold, complex, neglected, and strange”.

4.2.2.3.2 Impact of block B in EAS and its physical environment on students feelings

Main users of block B are satisfied with their building. They define the building as new, big, spacious, light, organized, different from other buildings, and they believed that it consists of many opportunities including comfortable lecture halls and open study areas. Because of all these satisfactory features, students have positive feelings about the building; they are comfortable in the building, so they felt they were lucky and pleased. Some students explained their feelings as follows:

I like the self-confidence when I give an answer the question ‘which department do you study?’. When I say that I am a student at the Department of Business, the person immediately says to me ‘your building is very beautiful; your lecture halls are very comfortable; you are so lucky that you take courses in such lecture halls’, which make me proud (EAS-B5).

Because our building is one of the newest buildings on campus, others say that our building is charismatic. Therefore, we boast that our building is very beautiful (EAS-B2).

The building is nice; many physical facilities are a chance and advantage for me so I am pleased to study in this department. As I mentioned before, Engineering buildings are gloomy, and this building is different from those buildings. The fact that this building is different from others is a factor which makes me happy (EAS-B3).

On the other hand, some students (block B) indicate the size of the building as a problem, which they believed, is impractical. Few of them emphasize that for their department, there is no need such a huge building. Some of them evaluated that the building is empty, and they added that this building does not have a soul, there is solidity there. One student expressed this as:

I think nobody internalizes this building. For example, PHYS and Architecture buildings have a meaning among students. However, our building is not like the PHYS and ARCH buildings; there is no soul in this building. As time goes on, this building could have a specific identity, which students will remember (EAS-B6).

Students' ideas and feelings in block A toward block B are different from the student of block B. Almost all students from block A do not like block B; they do not prefer to use that block. They stressed that the building creates a cold and an artificial environment. The reasons behind their dislike are as follows: (1) the building is not like the other buildings in the campus, (2) the building is huge and empty, (3) it resembles a private university with a luxury design, and (4) the canteen is like a restaurant which is not suitable students' life.

The students from other departments made comment differently than the main users of block B. Among 26 students who shared their feelings toward block B, while 15 students stated feel negative feelings, 11 of them had positive feelings toward to the building. Twelve students stated that they do not like and they regard with disfavor. The most articulated reasons behind dislike were (1) the building is too new, (2) it is contrarian to DU buildings, and (3) it is a complex building. Some students stated that although they considered the building is beautiful and large, they have negative feelings toward it. On the other hand, half of the students liked block B because of plentiful opportunities and facilities. Among these, some students studying at EDU emphasized that they wish they would be a student using block B.

4.2.2.4 Historicity of block A:

This section illustrates how a place shows the history of the faculty. Students mentioned age of the building in the interviews. There are elements representing the historicity of the academic life in building: (1) the Foucault lecture hall, (2) the photos on the walls and (3) the exhibition of the first published articles.

Firstly, there is a big lecture hall called 'Foucault' lecture hall which is furnished with wooden seats and which is not renovated. Almost all students like this lecture hall; some of them emphasized that the lecture hall shows the historicity of the

school. A second element is the photos on the walls. The photos taken in foundation years of the faculty are hung, which make students pleased. One student expressed his ideas as

These photos are very beautiful; these were newly hung on the walls. These photos show that there is history of the faculty, which is nice (EAS-A4).

Thirdly, a few students mentioned the articles presented in the entrance hall. These articles are the first published articles of the faculty. One student expressed his feelings below:

There are articles which are first published articles of this faculty. Presenting these to students is very nice because these give depth and historicity. These show academicians' effort and the academic studies have been going on for a long time (EAS-A6).

One student's general interpretation about the building is as:

This is an old building, thus there is a nice environment here. For example a new house, although it seems elegant, doesn't appeal to individual. In such a historical construction, people feel good and comfortable with the life of experience reflected by the building (EAS-A8).

As well as EAS A students, one student from EDU shared her feelings about the historicity of the building as follows:

Block A is nice because there are old photographs showing past graduates and old documents. Looking these is very nice. Reason of choosing this university is its historicity. It is not a new one without any culture. Seeing roots of this university is good (EDU-C4).

4.2.2.5 Meaning of the buildings

Both buildings are the good models for socializing. Students mentioned that the buildings have social potential and finding a place in the buildings for different purposes is easy. As well as the social functionality of the buildings, the buildings as a construction and the life in these building give messages to the students. In this sense, presenting the photos is meaningful and necessary to see the differences between two buildings. The ideas of the student taken these photos are below:



Figure 4.2.24 Photographed by EAS-A3 Figure 4.2.25 Photographed by EAS-A3

The purpose of this photo is to show the wall which is a product of architectural trend at DU in which exposed concrete is used. I think the art is important but it results in cold environment physically. This area is like a fridge. It can be restored. I consider this is important factor influencing education. Moreover, it creates a gloomy environment, which affects me psychologically EAS-A3.

This is the corridor of block B. I took this photo to compare this building with our building [block A]. While there are concrete walls there [block A], there is a spacious atmosphere in this building. Walls are painted and floors are clean, which create a pleasant appearance. More importantly than appearance, this does not constitute a cold environment neither psychologically nor physically. Therefore, it is a successful model (EAS-A3).

As it is seen in the pictures and mentioned before, block A with exposed concrete creates a gloomy environment, while block B with painted walls and new appearance creates a luxury environment. However, their representations are quite different. While block A represents the academic solemnity, block B symbolizes the business logic. The students' ideas about block A, block B and the comparison between two blocks are presented respectively:

The exposed concrete was utilized in the construction; walls are not painted, which creates an academic atmosphere. If the walls were painted, it would resemble a hospital (EAS-A9).

Our building infuses us the capitalist ideology and imperialism. When we compare our building with other buildings in the campus, it is easy to see the difference in terms of financial issues. Mostly the people coming from other departments feel this rather than us. I think the arrangement in the lecture halls, the modernity of the building give this feeling to them (EAS-B6).

This is logical... here economy and politics are studied. Our department is planned for the study of mathematics and science. Although it is economy, we don't deal with money. Rather, we are dealing with math; science is the essential orientation of our department. About politics, it is related to thinking and philosophy. Gloom in the building creates a mental image of a scholar studying in a candle light, a scholar who is detached from materials and modern things. Because this building is somber, it envelopes insiders and guides them into the paths of own their field. However, the building of Department of Business Administration reflects the people inside who are clad in suits, costumes, and high-heeled shoes and who seem constantly to be organizing something I don't know what. Building is like a company building, it opens its door outside (EAS-A5).

About the meaning of the building, many participants from other departments provided clue concerning the meaning of the buildings. Many students mentioned about block B because it is a new and large building with high opportunities including big lecture halls, courtyards, and canteen like a restaurant. Moreover it has painted walls unlike the other buildings on the campus. Because of these features of the building, many students indicated that block B is different than other buildings in the campus; this is not like a part of DU campus. According to some students, this differentiation represents what their field is. Students described environment in the building as "luxury, aristocrat, autarchic, bureaucratic, and capitalist". Some of the students indicated the building where money talks, while some of them considered that the building resembles private school.

4.3 The Faculty of Education

4.3.1 Description of the Faculty of Education by the researcher

Location of the buildings: Faculty of Education (EDU) buildings are located far from the campus center, relatively at periphery (red, orange and pink buildings in the Figure 4.3.1). There are technopolis buildings across the EDU buildings (green area seen in Figure 4.3.1). The closest educational buildings are block B in EAS and the English Preparatory School buildings (purple and yellow buildings seen in Figure 4.3.1, respectively).

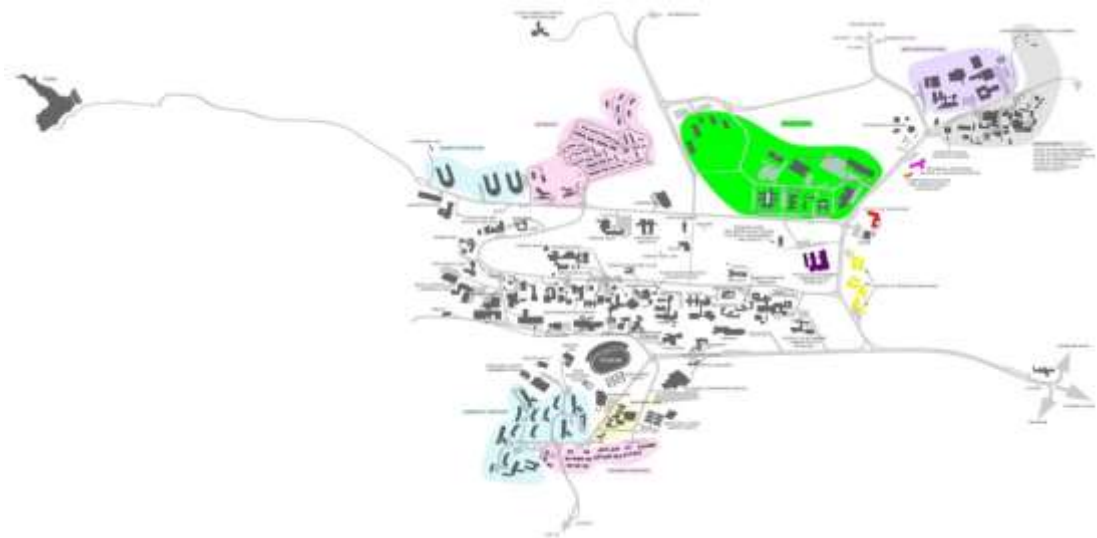


Figure 4.3.1 Location of EDU
Source: University website.

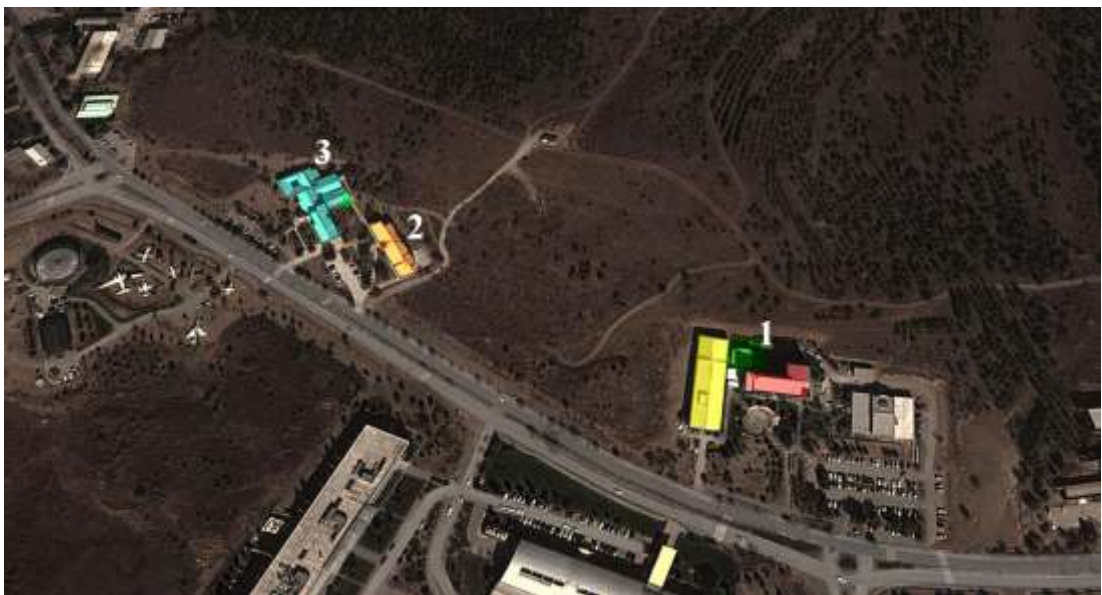


Figure 4.3.2 Faculty of Education Buildings
(1- EDU Block A, 2- EDU Block C, 3- EDU Block B)
Source: Google Earth

Number of the buildings: There are three buildings allocated to EDU. The main building is block A (yellow area in the Figure 4.3.2). The second building is block B, which is used by the Department of Foreign Language Education (ELT) (green area in the Figure 4.3.2). The third building is block C, which Department of Computer Education and Instructional Technology (CEIT) students utilize (red area in the Figure 4.3.2).



Figure 4.3.3 Faculty of Education Main Building (EDU Block A)



Figure 4.3.4 EDU Block B



Figure 4.3.5 EDU Block C

Facilities in the buildings: Block A consists of the deanship area, administration offices of each department, canteen with its garden, classrooms, smart classrooms, science laboratories, Mathematics laboratory, academicians' offices, three computer labs, Education Club room, photocopy center, and a study hall. Block B includes the classrooms, academician offices, administration offices, a computer lab, and a canteen. Block C includes classrooms, smart classroom, academician offices, administration offices, computer labs, and a study hall.

Population: There are 838 undergraduate students using block A, while 479 students utilize block B. Finally, 228 students use block C in the process of conducting research.

The reasons for choosing the Faculty of Education: There are three reasons for choosing EDU as a context. First of all, while other samples are single departments, EDU is analyzed as a single unit, not on the departmental level, but as the faculty

level. Secondly, EDU includes six departments, and three buildings serve these departments. Main building (block A) includes administration of the four departments (Department of Elementary Education, Department of Secondary Science and Mathematics Education, Department of Educational Sciences, Department of Physical Education and Sports), and students of these departments take their courses in block A. Block B consists of only ELT, while block C hosts only CEIT. Students in these departments utilize their own building mainly, but they also take courses in block A. Finally, because the locations of the buildings are far from the campus center, the EDU buildings were chosen as research context.

The short history: EDU was founded in 1982. Block A was began to be used in 1992-1993 academic year. CEIT has used block C since 1999-2000 academic year. Finally, ELT utilized block B since 2003-2004 academic year.

Users of the buildings: The main users of the buildings are the EDU students. Like all the other canteens in the campus, the canteen is open to all people, however in addition to main users of the buildings, workers in the technopolis also use it.

Sampling: All in all, 24 students from EDU participated in this study, while 8 of them participated in the interview with photo-elicitation. The walking interview method was conducted with 16 students. As well as the main users of the buildings, 7 students from other departments made comments on EDU buildings, therefore these students' opinions are provided in the section below.

4.3.2 Results: The Faculty of Education

The interviews revealed how certain physical features of EDU buildings were critical in creating and maintaining the meanings of places. Students described how these attributes influence their feelings over their academic lives. Five key dimensions that suggest how place meanings are formed were frequently mentioned by interviewees: (1) problems related to physical environment, (2) impact of the physical environment on students' socialization, (3) impact of the physical environment on students ideas concerning field specificity, (4) impact of physical environment on the students' feeling, and (5) meaning of the environment.

4.3.2.1 Problems related to physical environment

This section presents how a place influences students' feelings and their experiences at the university. Problems of the students are divided into six dimensions: problems related to classrooms' physical environment, lack of study area, lack of socialization area, lack of architectural quality, location of the building, and ineffective use of bulletin boards.

4.3.2.1.1 Problems regarding the classrooms' physical environment

Classrooms are the main teaching spaces in the discipline of Education. There are three types of classrooms in block A. One of them is equipped with data show-projector systems, and computers; however they are furnished with old blue chairs with armrest. Other classrooms' furniture was renewed in the previous years, so the chairs are larger than the blue ones (see Figure 4.3.7) and the last group of classrooms is equipped with smart boards and more comfortable seats.

Similarly, block B and block C include classrooms also furnished with blue armchairs. Additionally, block B includes a big classroom with a smart board. The most problematic classrooms are the classrooms with blue armchairs because this type of chair is small and uncomfortable with small writing area. This furniture was photographed as a problem by some students. Their complaints about it are as follows:



These blue chairs are bad and uncomfortable. Lighting and heating also are not good in this classroom. There is no balance about heating; it is either very hot or cold. I don't like this classroom type. It is not attractive to take a lesson in here (EDU-A3).

Figure 4.3.6 Photographed by EDU-A3



These types of chairs are better than the blue ones which I couldn't fit anything on, which my stuff falls off every time, which I hate (EDU-A2).

Figure 4.3.7 Photographed by EDU-A2

Another student mentioned having troubles with blue type of chairs:

We take Literature course in the classroom with blue chairs. This three-hour course makes us tired intellectually. On the other hand, sitting on these chairs makes us exhausted physically. Besides, these are very small to place our books. They are small, hard and not comfortable (EDU-B1).

As well as the uncomfortable chairs, students complained of the ambient environment of the classrooms including heating, lighting, and ventilation. Especially, heating is one of the biggest issues as students are exposed to either too hot or too cold.

Furthermore, according to students, class size is not suitable for number of students taking the courses. This disturbs teaching process, decreases the motivation in the courses and results in a stuffy environment. One student explained how the class size disturbs the course: "The course in the classroom with blue armchairs continues with students' complaints like 'it is very narrow, there aren't any chairs, we feel suffocated, we feel tight', which is the problem" (EDU-A10).

4.3.2.1.2 *Lack of study areas*

This problem is stated for block A and B. Block C includes the study hall with large tables and computers, therefore students in this building did not identify any problem related to inadequacy of the study hall.

Like block C, block A has also a study hall allocated to students' use. However, some of interviewee did not realize the existence of this study hall. Moreover, a few

stated that they don't use the study hall. One of the reasons behind nonuse is that it is a silent study hall. Most of the time, students need to work in groups as it is a common task or method of teaching in their education. Because the study hall is suitable for individual work, students are looking for available classrooms in order to study in groups; however, finding a free classroom that they can work is not highly probably. Because of these reasons, students use the canteen for group studies. However, as the canteen does not have adequate plugs for computers, as it is used for other purposes and as it is not ventilated well, it does not provide a suitable environment for any kind of study. One of the students' photos indicates this problem.



This is the canteen. Using this canteen for studying is an obligation for me. Because computer labs are very crowded, we could not use them. Moreover, there isn't any study area for group work (EDU-A3).

Figure 4.3.8 Photographed by EDU-A3

Unlike block A and C, block B does not include a study hall, thus some of the students mentioned this problem; however, they did not elaborate the nature of the problem.

Some of the students suggested the use of corridor as an open study area. One student expressed her ideas as follows:

I think the students don't need really a study hall. It can be enough to have small tables and chairs in the hall. A study environment may be created there. There are similar things at the building of the Department of Business. If it were so, it would be good (EDU-B4).

4.3.2.1.3 Lack of socialization areas

Another problem mentioned by the students is the lack of the socialization areas. There are two areas allocated to students' use in the three buildings: the canteen in

block B, and the canteen in block A. The most problematic building is block C, because it does not have any socialization area, the CEIT students use the canteen in block B. They state that they use that canteen to buy tea and snacks, but not to sit in the canteen. That canteen is small, airless, and noisy, and food alternatives are neither desirable nor cheap. The ELT students' perceptions towards this canteen are different than the CEIT students. While the first grade ELT students did not state any problems related to the canteen, the upper grade students are aware of the problems related to the canteen. These problems are also shared by the CEIT students. However, almost all students utilize the canteen during the breaks, and in between the courses. Their main activities in canteens are eating, drinking, using the internet, studying in group, and spending time with their friends. Furthermore, some students mentioned that due to the distant location of the building, and lack of alternative eating areas, the prices are high.

Even though the ELT and CEIT students have generally positive opinions regarding the canteen in block A, the users of block A canteen stated some problems such as: the lack of air ventilation and the small size in regard the population of students. Some students also stressed high prices due to lack of alternative places in the area. Despite these problems stated by the students, the canteen holds a great social potential and it is the most used place by students. The canteen is for meeting and chatting with friends, eating, drinking, studying in group, and discussing some topics. However, students are in need of a larger canteen and more socialization areas. Moreover, the corridors are seen as socialization areas by the students. But because the corridors are narrow, the door open to corridor (which can cause an accident) and there are not any seats in large halls, the students are not satisfied with the corridor usage.

4.3.2.1.4 Location and transportation

Location is the biggest problem for students. Because the EDU buildings are located far from the campus center, the location emerged as an important aspect for many of the processes which supposedly shape the students' life and a sense of belonging.

Students defined the location of their buildings with very negative annotations: “country side”, “back of beyond”, “invisible area”, “dumped” and “thrown on the scrap heap. One of the comments related to the locations is: “There is a garage and the exit door. How worse could it be?” (EDU-C2).

One reason intensifying these ideas is that there are not any other educational buildings surrounding the EDU buildings.

The location brings along the transportation problem. Almost all students mentioned the problems resulting from the transportation. One of the students tried to show this problem via his photographs.



Figure 4.3.9 Photographed by EDU-C1



Figure 4.3.10 Photographed by EDU-C1



Figure 4.3.11 Photographed by EDU-C1

I took these photos in order to show the transportation and problems related to it. These areas are in front of block A. There are three types of transportation. One is via rings (shuttle buses), but the frequency of the ring buses is problematic. Some students prefer to walk instead of waiting the ring buses

because the rings come very late. And the last option is to hitchhiking, which my friend is thumbing (EDU-C1).

As it is stated by this student, there are three types of transportation. One is by the ring buses which is the blue bus seen in the Figure 4.3.9. Students stated that the transportation is more difficult and problematic especially in the morning and evening. The courses begin 8.40 am at the DU, but the first ring starts at 8.30, and only one ring is not adequate for the whole campus. Moreover, there is no direct ring route from one dormitory area to EDU. The only chance is walking for students staying in this dormitory in which more than half of the students stay. Because of all these reasons, being on time for courses in the morning is very difficult. It is also the same in the evening as there are no ring services after 5.30 pm. Moreover, there is public transportation in the campus, but some of them do not pass by EDU. Due to these problems, hitchhiking is a common way to travel in the campus for the EDU students.

Location and transportation caused/created negative effects on students' daily life, socialization and feelings.

Students' daily life: Students are far from the campus center, therefore they are far from main eating areas including cafes and the dining hall (cafeteria). The dining hall in the campus provides cheaper homemade food to students. However, reaching this cafeteria is very difficult and time consuming. If they choose to eat in the campus center; they should hurry after the meal so they are generally in rush to be on time for the next course. If not, they have to use canteen. Moreover, it is troublesome to catch a course held in the other buildings in the campus. Other than that some students stated that coming to faculty and going back home is tiring. Thus, all these make their life difficult.

Socialization Problems: One of the most important effects is related to socialization. Because of the location of the buildings, students are far from the central library, the sport center, the shopping center and other commonly used places by students. Location and transportation problems decrease the use of facilities in the campus. Moreover, students can not invite their friends to their faculty building, which also

decreases communication with students from other departments. Furthermore, the students from other faculties don't realize whether there is a faculty of education in the campus or not, therefore other students have little knowledge actually about education as a discipline. Furthermore location prevents to the socialization among the education students as they use the building only for the courses. Thus students even in the same department have troubles in socializing. Some students (all 3rd and 4th grade students) stated that they cannot share their experiences that they gain in the practice school, they cannot discuss how they can solve any problem that they may face in the classroom environment, and they couldn't discuss current educational news. One student commented on this:

University means coming together and sharing knowledge. We need to do a group work, for example designing a project. I think, if there were places where people could talk, discuss during the breaks, there would be more socialization and communication between students (EDU-C4).

The location and problem caused by the location influence students' emotions negatively. This is presented in detail in the section "feelings".

In addition to the EDU students, students from other departments also stated that the Education buildings are far from campus center. During interviews, seven students commented on EDU buildings, and six of them stressed the location. Some of them considered the EDU students as a disadvantageous group. Location results in lack of meeting with education students and lack of recognition of EDU. One student made a critic about the location as:

For whatever reason, the EDU buildings are placed more in distant locations, I don't understand why (PHYS3).

4.3.2.1.5 Appearance

The other problem frequently stated by students is the appearance of the building. Students defined three buildings as "the building including only classroom and laboratories" and "only two-story building"; that is, they do not ascribe any other functions to buildings. Their perceptions begin with the appearance of the buildings. They stated that the appearance of the buildings is "unaffecteding, unattractive,

unpleasant, and moderate”. As well as these negative attributions, half of the students see their buildings like a primary and/or high school building. One of the students emphasized this by her photo.



This is the front appearance; which is only concrete. It seems like a high school, we are annoyed (EDU-A2).

Figure 4.3.12 Photographed by EDU-A2

Some students’ opinions are as follows:

The building which you take courses should be attractive, so that you understand that you are coming to a good place. When the EDU students compare themselves with students from other departments, they feel like they are thrown aside. This is the impact of the building. Ultimately, it is not a good and quality building in terms of students’ needs. Therefore, it gives feeling of being placed secondary importance. Seriously, I heard this from many students. Location and the facilities in the building make us say that (EDU-A10).

Another student mentioned the surroundings of the buildings which show the lack of maintenance:



Figure 4.3.13 Photographed by
EDU-B3



Figure 4.3.14 Photographed by
EDU-B3

You see the landscaping of the technopolis, which is beautiful with grass [right photo]. This shows that it is a livable place. However, our side is like a neglected forest. This gives a message “we live in the rural area” and “we are out of campus”. Our side should also be like the technopolis (EDU-B3).

4.3.2.1.6 *Ineffective use of the bulletin boards*

Another factor influencing the meaning of the faculty building is the usage of the bulletin boards. More than half of students stressed the ineffective use of the bulletin boards in the EDU buildings. They stressed that bulletin boards include posters related to their discipline “Education”, administrative announcement, Erasmus project announcements and sometimes job advertisements. However, students indicate that this is not sufficient; they would like to see the more announcements related to activities of students’ clubs, social responsibility projects, news about Education, current issues, social agenda, activities in the university (i.e. theater, concert and seminar) and students’ products on these boards. Some students described the bulletin boards as quite empty, which are ineffectively used, and which include unattractive notices and which lack informative posters. They also stated that the bulletin boards are important tools in order to get knowledge and socialize. It is also an indicator of the social life and importance given to students. According to students, the emptiness of the bulletin boards gives the message “nothing is being taken care” (EDU-C2), “there is nothing informative and attention is not paid to bulletin” (EDU-A4)), “only academically oriented department (EDU-B9)”. On the other hand, if these bulletin boards are full, “this means there is a campus life which

university students organize and join many activities. Besides there are lots of things going on in the faculty, and will be” (EDU-A8).

One student shared her feelings as a result of the usage of the bulletin boards:

There is nothing to talk about in the building of English Teacher Education, only courses, and then you leave. You must have seen the bulletin boards. For example you hang something on it; it stay there for four months as if everything is dead. Besides, there are preventions, you are not allowed to hang any posters, and if you do, they are immediately removed. I mean, I feel our school is isolated. This is nonsense. We are like far from the university, there is nothing (EDU-B9).

4.3.2.2 Impact of the physical environment on students’ socialization

The interviews revealed how the physical features of the buildings belonging to EDU influence the communication and relations in the buildings. This part is conceptualized into two sections: the communication and relations among students, and the communication and relations between the students and the faculty members.

4.3.2.2.1 Communication and relations among students

Almost all students mentioned that they have the chance to communicate and contact with their class mates, while they have limited chance to communicate and contact with the students from other departments in EDU.

According to the students, there are two aspects of the building; encouraging the communications and relations, and prohibiting communications and relations. The encouraging aspects of the building are related being small-sized and belonging to single department. These features of the building are seen as an advantage since it makes communication easier among students who are in the same.

On the other hand, each student provided information about the factors decreasing the communication and relations. For example, two students mentioned the narrowness of the corridors in block A, which decreases spontaneous talking. One student’s interpretations of corridors’ ineffectiveness are included next to her photography below:



The corridors are very narrow; that is, there isn't any area for having a quick word with other students. I think that communication is very important. I don't understand the rationale behind such narrow corridors. The corridors are just like the ones in the primary school, which gives the idea "go out and without spending time with your friends, come to class again" (EDU-A2).

Figure 4.3.15 Photographed by EDU-A2

As well as the narrowness of the corridors, some of the students stressed the lack of furniture in the corridors which does not support the communication in the corridor.

Two students from block C mentioned the lack of areas for socialization in the buildings; they could not meet with friends and chat in the building. Even one student stressed that "We could not go to any place in the campus together because there is not any area to talk about where to go after class; we all leave the building immediately. Therefore, we can't socialize as a class" (EDU-C4).

Moreover, one of the second grade students from FLE mentioned that he sees only the students from the third grade, because the classrooms are inadequate in the building, the second and third grade students' use the building at the same time for taking courses, while the first and fourth grade students use building in different period of time.

In other respects, one of the most frequently mentioned problems of students is lack of communication with students from other departments except from EDU. According to the students, this problem is due to the location of the building, the lack of other educational buildings close to EDU, the lack of socialization areas in the buildings, and unattractiveness of the buildings. The most important factor among these is the location eliminating communication. The faculty is not a meeting place, even some of the students mentioned that they could not invite their friends from other buildings because of this reason. Some of the students estimate that a more attractive building with beautiful landscaping could pull students from other departments as well.

Moreover, students imagine, prefer, and want to be a student in a building which is located close to the campus center. One of the students summarized the advantages of being in the center:

I would feel more attached to the university if I use a building in the center of the campus. The center means more people, more social environment, and more social interaction with my friends, not only from my department but also from different departments. Now, I can easily meet with my friends from my department. If I want to see my friends from other departments, I can only see them either in the shopping center or *Café 1* located in the center of the campus (EDU-C3).

4.3.2.2.2 Communication and relations between the students and the faculty members

Most of the students stated that they are in good communication with faculty members; they can communicate with them whenever they need; the faculty members' doors are always open and they are welcoming. According to students, the most important factor influencing this relationship is the characters of the faculty members. However, there are some physical factors facilitating and inhibiting to reach them.

One of the physical factors is the spatial arrangement in the building. In block C, most of the faculty members' offices are next to the classrooms. Similarly, some of them are close to classroom in block A. Therefore, it is easy to contact with them even in short break times. On the other hand, if the faculty member shares the room with others, this decreases communication. One student stressed this problem in the following ideas:

There is not any suitable area for talking with our instructors. We could not talk our confidential problems with our instructors because they share their offices with others. I hesitate to say my problems, because the other person hears us, who is also my instructor (EDU-A5).

The other aspect related to faculty areas eliminating the communication is the appearance of the deanship entrance. Two students mentioned the deanship entrance as one of the obstacle. One student's comments about it are as follows:



One of the areas that I disliked is the deanship area. It evokes the primary school. This deanship entrance means that it is not for students but for important persons. Golden leaf, writing of deanship, luxury interior design, flashy environment, and red carpet. These all make me irritated (EDU-A11).

Figure 4.3.16 Photographed by EDU-A11

The common characteristic of these two students is that they began to take courses in the other buildings, which means that they compare this building with the others. Because they have not seen such designs in other buildings, they criticize this aspect of the building.

Moreover, some of the students mentioned that they get tense when they are going to faculty members' offices. During the walking interview, few students walked me around in the faculty areas. They said only that "this block is theirs". One student told her stress as follows:

Yes, I don't go there. I cannot even speak like that. For example, I go there and put the phone on silent. I walk there slowly. I walk towards the lecturer's office. I take a deep breath and then enter the room after knocking the door (EDU-A6).

On the other hand, one student mentioned about her observation that ELT students do not use the campus environment. Her utterances are as follows:

I have not seen my classmates in the central library. Because I stay in a flat, I use the library for studying; however my classmates prefer the study areas in

their dormitories. They go in the ring and go to dormitory, without seeing any place in the campus; they go directly to dormitory (EDU-B9).

4.3.2.3 Impact of the physical environment on students' ideas concerning field specificity

Field specificity means how a place represents the discipline which is taught in the building. When the students asked whether their building has the physical elements special to their field (or variation of this question), majority of students answered that the buildings do not include something special to field of education. One student's idea is below:

We will be teachers; however they [architects, designers or administrators] do not consider and install anything about the teacher education, which can develop our skills about teaching profession. It is only a faculty building; it is not specific to particular discipline (EDU-A2).

However, students' answers during the interview provide the important physical aspects for their discipline. One of the important aspect is the technologically-enhanced classrooms. The teaching spaces in all three buildings include the technological device including computer, data-show projector and smart boards. Since classrooms are equipped with technological devices, students are pleased to use them. Many students' indicated the importance and the role of these devices for their education. Some of them emphasize that having these devices is a good chance to learn their use because they will be a teacher who should be able to use them effectively in their lessons.

The other factor is the bulletin boards. Some of the students from ELT indicated there are the bulletin boards including some writings in English and pictures of the famous painters which are the representation of their department. Some of them indicated that there should be more writings related to their discipline on the bulletin boards. Similarly, some students emphasized the role of the bulletin boards in their education. Some students' ideas are as follows:

I follow the bulletin boards. I think that the bulletin boards shouldn't only include party announcements. It is always possible to see the announcements

like party but they are everywhere. I would like to see more announcements related to social responsibility projects or to school agenda on these board (EDU-A8).

Seeing my poster on the bulletin board makes me motivated. It was worth making an effort for it. Besides it allows others to see it and to have an opinion about it (EDU-A3).

Additionally, results revealed the differences between fields. For example, classrooms for Early Childhood Education (ECE) should be suitable for their education. Two students participated in this study and they complaint about this issue:

When one thinks of our department, one expects some more colorful, attractive, and social things on the walls (EDU-A3).

When I think my department [Early Childhood Education (ECE)], I would have designed our classrooms cheerfully which would be acceptable for ECE courses. This is because of creativity. (Because) we are surrounded by academic solemnity. It is as if we are not in such a department, but we are all academicians. An ECE teacher should deal with joyful things like toys (EDU-A6).

Moreover, some students from the Science Teaching Program emphasized the importance of the science laboratories, and students from Mathematics Teaching Program indicated the usefulness of the Math laboratory in the building.

4.3.2.4 Impact of physical environment on students' feelings

This section presents how a place affects students' feelings, which construct the meaning of the place. The students at EDU confront many problems which all together shape their feelings. These problems that constitute their feelings were extensive, including the location of the building and transportation, the lack of facilities (i.e. study and socialization areas, and lecture hall) in the building (monotonous students' life in the building and the usefulness of the building), the architecture of the building (interior and exterior design, and different from the other educational building in the campus), the appearance of the building (unattractive building, dull building), separate life from campus and the lack of other academic buildings nearby EDU buildings. These problems influence students' feelings in

daily life and constitute their ideas and feelings about importance given to them and to their disciplines.

First of all, these affect their attendance to courses. Students' utterances about coming to school are as follows: "I do not come willingly", "I say myself that again we are here?", "being here is not enjoyable", "I drag my heels while coming here", "I am dissatisfied while entering the building"

Secondly, they feel in the building like "I don't feel comfortable", "I feel I am like in the high school", "It demoralizes me, I feel disappointed, I feel alienated, I don't like the building, I don't feel that I belong here, I don't feel good, "we are discarded", "we are out of the way". Some of the students' feelings as created by the building and its features are as following:

I am alienated from my department because of the physical environment. I want to study in a different field and I improve myself in that field. Order is very important for me. Ok, there are benches in there and in the canteen. However they are not in order. I am not obsessed with symmetry but disordered benches, having soil and mud instead of grass affect me negatively and then gradually I start to dislike this place. While students in other departments can do different activities, we cannot do anything here, some ideas like "I wish I would be a student in another department" come to my mind, which is a serious thing (EDU-B6).

While I'm coming to my department, I pass through building of Business Administration. I see the auditorium and I say "This place is the "university". However, when I come to my department, I see there are disordered desks, cold building [psychologically]. Besides, there is problem of heating. This place is cold psychologically; this is not like the buildings of Architecture or Business Administration (EDU-B4).

I find it formal. For example, serious things go around (not clear) there when you enter an office. It is the same here. There is an atmosphere here as if only serious academic things go around (EDU-A6).

Thirdly, the reality that students are prevented from participating in the social life in the campus because of limited accessibility to opportunities, the lack of communication and social networks, influence the sense of belonging to campus; they have low level of place attachment to campus. They indicated that "I don't feel I belong to campus", "I don't feel that I am a student in the DU campus", "We are

isolated”, “I feel I am separated from the other students in the campus”. One students’ suggestion affirms this reality.

Actually, our department is beautiful. People and workers are nice. We get along. If architecture of the building and its environment is paid more attention, it will be more beautiful, and then our department can really be a part of DU (EDU-A2).

Finally, students consider that the lack of opportunities and the location of the buildings are indicators of importance given to them and to their discipline. Some students stated that “I am not worth”, “all these are humiliating and injurious”. Regarding their discipline, they indicated that “our department is not important”, “secondary importance is given to my field of study”. Some students indicated as

The buildings of other academic departments, which they are with many opportunities, show that there is more need to that department, they work more, they are more important. EDU is not important (EDU-C3).

This building does not suit the divineness of the profession of a teacher. Others can get biases due to the appearance of the building. It should be more beautiful. Its current stand gives the message that the importance is not given to the profession of teaching (EDU-A1).

4.3.2.5 Meaning of the buildings

All these problems create the meaning of EDU buildings. Because the buildings do not provide optimum support for activities desired by students, the interior climate among student does not develop. Therefore many students of EDU described their building (it is valid for three buildings) that this building is a place telling to students “come, take course, and go”.

4.4 The Department of Electrical and Electronics Engineering

4.4.1 Description of the department by the researcher

Location of the buildings: The Department of Electrical and Electronics Engineering (EEE) is close to campus center. It is about a 3- minutes’ walk to *Café I* and 5-minutes’ walk to Presidency building (green and yellow building seen in the

Figure 4.4.1., respectively). One of the closest educational buildings belongs to Department of Industrial Engineering (purple building seen in the Figure 4.4.1).

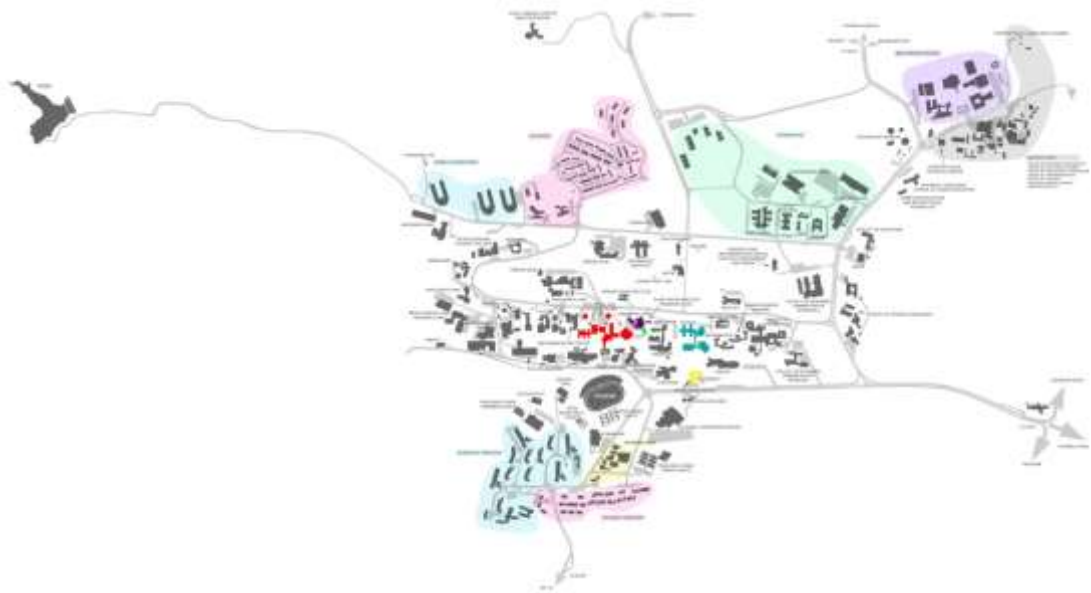


Figure 4.4.1 Location of the EEE
Source: University website

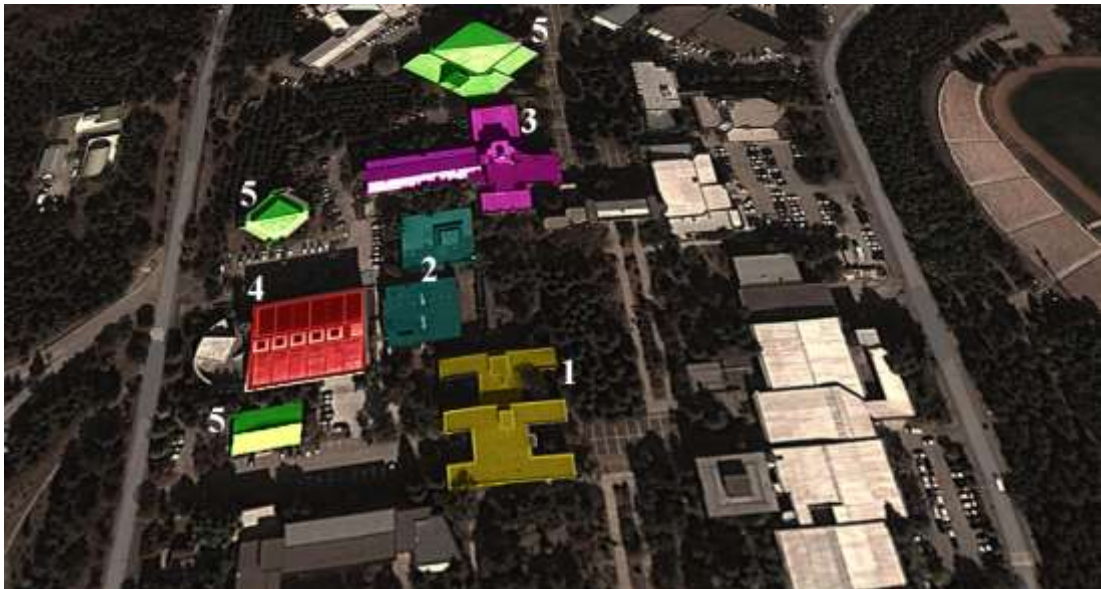


Figure 4.4.2 The Department of Electrical and Electronics Engineering Building
(1-Block A, 2-Block C, 3-Block D, 4-Newest Research Center, and 5-Research Centers)
Source: Google Earth

Number of the buildings: EEE has six buildings. Students use block A, C and D in general. Other buildings are research centers.

The reasons for choosing the Department of Electrical and Electronics Engineering: The main reason is the number of the buildings belonging to this department. This department has six buildings; half of them are research centers.

The main users of the buildings: Students studying at EEE are the main users of the buildings.

Users of the buildings: Generally the main users of the buildings utilize the buildings. The canteen is open to university in general.

Facilities in the buildings: Block A includes classrooms, science laboratories, computer labs, and a club room. Block C consists of science laboratories and faculty members' offices. Block D has administrative units, faculty members' offices, science labs classrooms, a lecture hall, a study hall, and canteen.

Population: 1089 undergraduate students enrolled in 2013-2014 academic year.

The short history: The program started its education in 1958. The construction of block A, B, and C was finished in 1964.

Sampling: Ten students from EEE joined in this study. Eight students joined in the walking interview method, while 2 students participated in the interview with photo-elicitation.

4.4.2 Results: The Department of Electrical and Electronics Engineering (EEE)

The interviews revealed how certain physical features of the EEE buildings were critical in creating and maintaining the meanings of places. Students described how these attributes influenced their feelings over their academic lives. Four key themes were frequently described by interviewees that suggest how place meanings are formed: 1) problems related to physical environment, 2) impact of the physical

environment on students' ideas on field specificity, 3) impact of the physical environment on students feelings, and 4) meaning of the building.

4.4.2.1 Problems related to physical environment

This section presents the problems which students encounter in their educational buildings. This section begins with short description of the students' life in the EEE buildings which is useful to make sense of the problems that students encounter during their education. One student stated about their life:

When I see my department buildings, I remember complex things which are far from life. Things are far from normal life. The only thing done here is competition, rush and doing nothing except studying (EEE7).

This student's ideas are a good summary depicting the life in the EEE buildings. Most of the students mentioned a competitive environment among students. Their course load in the department is quite heavy and their responsibilities are tremendous especially in third and fourth years. In order to emphasize their burden, some of the upper students stated that they sleep 3 or 4 hours in a day if they want to be successful. Some of them indicated joining a social activity is luxury and can cause low grade. Therefore, they spend most of their time studying on assignment, exams, and projects. Some students prefer individual study; some of them stress the importance of group study. For group studies, the students choose the study hall, available classrooms and the canteen. In sum, each place in the buildings is used for studying and their problems are gathered around whether they can reach these spaces or not.

Students' mentioned problems are plentiful. For example, some students are not satisfied with the classroom furnished with armrest. Some of them mentioned that because the chairs with armrest are placed in the same places, the students sitting at the back could not see the lecturer. Although these are problems stressed by a few students, almost all students are satisfied with classroom environment in general. However, there are other problems emphasized by many students. These problems are divided into three dimensions: the problems about the lack of study area, the lack of socialization area and the lack of maintenance.

4.4.2.1.1 The lack of study areas

The biggest problem of students is the lack of the study areas. The building has a study hall which is actively used by students. It is located in block D. According to students, having study hall is a good opportunity, and it creates a cooperative environment. One student expressed his ideas as follows:

Having a study room is good opportunity. I like it because otherwise you could not study in group. You can use the study hall for hours. It contributes to our learning (EEE7).

However, the size of the study hall is not adequate for students. Although the number of students in the department is approximately 1000 students, and the study hall capacity is approximately for 50 students. In addition to this, the study hall is closed after 8.30 pm. Because of these problems, the unoccupied classrooms become alternative study areas for students. In this regard, problems still continue as indicated by a student below;

The number of classrooms with projection and computer equipments is increasing but unfortunately the classrooms with projections are locked (saying angrily), in other words they are closed for the usage of students. We already cannot find anywhere to study and we use these empty classes in the evenings. Now there are 2 or 3 classrooms left without projections. If they are also equipped with projections, they will be locked all and we can use none of them. This is something I am not pleased with (EEE8).

These problems are stressed by especially the upper class students (3rd and 4th grades) because their needs are more urgent than others.

Because students could not find a place for studying after 8.30 pm, as stated by three students, they put something in doorway to prevent to closure of the door. Moreover, they can stay all night in the study hall although the door is locked. These experiences show the need of the students.

Because the study hall is inadequate for students, the canteen is another alternative to study like available classrooms. The canteen functions as a studying hall rather than catering. One of the students described the life in the canteen as:

There are friends setting in groups, who know each other from preparatory school. Each groups gather around the table and study. This is the socialization. If you want, you can join them. In reality there is not even chat. As I am speaking now, I become angry. One says “catalyzer”, the other say another term related to our discipline. Everybody talks about course; there is no time to talk about a different topic (EEE7).

4.4.2.1.2 Lack of socialization and relaxation areas

The other problem of students is related to socialization and relaxation areas. The only place available for students’ use is the canteen which is located in block D. Most of the students do not use this canteen, or do not prefer to use it. The most important reason is the lack of food alternatives in the canteen. Moreover, the canteen is small and uncomfortable. The following quotation of one student summarizes the life in the canteen and the problems related to it.

Students do not prefer to have lunch in the canteen. It is a meeting place and used to do something related to course. Prices are high. Moreover, it is small and there is not adequate number of tables. Additionally, canteen balcony is not comfortable to sit (EEE5).

Therefore, the students desire a larger and comfortable canteen with wide range of food and meal alternatives. Additionally, they are in need of relaxation places. Two students’ opinions and desire are as follows:

EEE buildings are less used places by students. There is not any place in order to get relaxed (EEE9).

Facilities for sport activity are not enough. We have only a canteen; there are no places for enjoyable activities besides canteen. No place for socialization. There is only canteen (EEE7).

As it is indicated in the latter quotations, some students want to have sport facilities. These students give the other buildings in the campus as an example, because some of them include ping –pong table and volleyball court. One of the students’ ideas about having ping pong table are as follows:

Ping pong table would give happiness. It could be a nice opportunity. It would remind that the sport is necessary. One way thinking [thinking only courses] makes person exhausted. It would relax us in break time (EEE5).

4.4.2.1.3 Lack of the maintenance

The other problem is related to the maintenance of the buildings. Most of the students say that their buildings are old and not well-kept. Some walls are ruinous, and some glasses are broken. According to them, the appearances of the buildings are not satisfactory. Especially, block D is an undesirable building because it is dark, gloomy and stuffy. Therefore, some students resemble block D a prison and a dungeon.

Moreover, half of the students complained about the toilets which are filthy and stinky.

I would like to say something about the toilets. The thing that disturbs me is the difference between students' toilets and academicians' toilets. There can be difference however we are not in the high school; this is a university environment; at least there should be tissue and soap (EEE9).

4.4.2.2 Impact of the physical environment on students' ideas on field specificity.

Field specificity means how a place represents the discipline which is taught in the building. Science laboratories are essential for EEE department. There are various laboratories in the EEE buildings; even some buildings include only laboratories and the offices of academicians' who use those laboratories. All students mentioned the importance of the laboratories for their education. During the walking interview, although they did not describe the function of the laboratories, all showed the laboratories which they use in the course.

Almost all students particularly showed the newest research center (NRC) and they mentioned importance of this research center in their field of study. Because NRC has high technology labs and it is an example of energy sensitive building in the country, they stated that NRC is a good model for their department. One student's opinions about NRC are below:

It is a building that provides its own energy, so it is constructed with high technology and electrics-electronics knowledge. We are here to be an

electrical electronics engineer at the same time. It makes me happy to have such a building which was built based on this knowledge (EEE2).

They are happy to have many laboratories for varied purpose although some of them have old equipments. However, they complain about the usage of the laboratory because they use laboratories in course and additionally extra time is given to control their projects. Yet this allowed time is not adequate to control projects. One student's utterances about this problem are as:

I don't have extra time to study in laboratory. However, we, as students of our discipline should make an experiment and study in lab. But, there is no time for experiment. Even for our projects, we have limited time. There are no extra lab hours (EEE7).

Some students stressed the importance of the lab use for their education. According to them, the students should be allowed to use labs in not only project time but also during their education. One of the students' ideas about it are as follows:

There is no allocated time to investigate what we are curious about, to try circuit, and/or to use equipment in the laboratory. We don't have such service (EEE2).

In addition to laboratories, the other element indicating field specificity is the sculptures. There are scientist eikons in the transition area between block C and block A. Many students emphasized the importance of having these eikons; they identified these with science. Some students' utterances about these eikons are as follows:



Figure 4.4.3 Photographed by EEE10

This is the sculpture in front of the EEE building. These scientist eikons are common all through the campus, which I appreciate. These are very simple but very beautiful. I don't mean aesthetic beauty. This university is a cradle of science and engineering is a science. Graduates should generate solutions in the future work like scientists, they take works one step further. Because science is important for me, these sculptures show that science is vital, science is privileged, and science in the past is admired. Moreover, while I am walking on the campus, I see one of them in front of the Math building, and I acknowledge who s/he is, which make it functional as well which is good. Additionally, these eikons connect the buildings because there is one in front of each building. Science is common and science is unique as it is seen by the sculptures (EEE10).

You feel that you are at university. The unity of the scholarly environment is provided somehow. Besides, the science is not only the knowledge of known things. It also means to understand the things in the past step by step. In this sense, the education system at DU is good (EEE5).

Because their field of study is about the science, some students stated that these scientist eikons are reminder of the importance of history in their field.

4.4.2.3 Impact of the physical environment on students' feelings

This section presents how a place affects students' feelings, which construct the meaning of the place. The students studying at EEE confronted many problems which all together shape their feelings. These problems that constitute their feelings were extensive, including the lack of study areas, limited time for use of the science labs, dark environment and the lack of socialization areas.

First of all, these problems constitute their ideas and feelings about importance given to them. Students indicated their feelings as follows:

Because there is a small study hall which is not adequate for 800-students, I feel that no importance is given to students (EEE4).

That some places are not open-air makes me feel worthless in comparison with the students at private universities, which should not be like that (EEE5).

The building makes us think that they do not appreciate us (EEE5).

Secondly, because the classrooms are locked after course, this gives a feeling of “lack of trust” to them.

These classrooms are locked because there are computers there. This is an indicator of the lack of trust. They [who are responsible] think we abuse it, which is not nice (EEE5).

Thirdly, as stated by some students, lack of facilities in the building can influence their choice. One of the students whose career plan is to be academician stated the following two quotations:

I think that the department is a reputable place in Turkey where the idealistic and graded students come to study. DU is like that but this department is exactly different. I mean that all students here are bright and they especially want to go abroad because there is nothing appealing in this building. As I mentioned before, the first time I entered here, I thought whether we are this worthless (EEE9).

Most of them do not take the physical environment into consideration but it affects them without noticing. As a result, they don't want to stay here. In other words, nobody wants to do something in a concrete jungle, which is sensible (EEE9).

Similarly, second grade students indicated that such neglected building can influence the university choice of students after high-school education. His ideas are as follows:

The appearance of the buildings affects people, actually when you see that, you can say: what kind of a place is here? Some parts of the wall paint are ruined, the windows are broken and the furniture is old. Even these are the factors that can change the choices of people (EEE3).

As well as these negative feelings, there is a particular place toward which students have both negative and positive feelings. This is newest research center building (NRC). NRC includes scientific research areas, seminar and meeting rooms and reading areas. All the participant students mentioned some negative and positive aspects of the NRC. Positive aspects are described as: (1) it is a donation of the graduates, (2) it has high technology labs, (3) it is an example of energy sensitive building in the country, and (4) it is beautiful. These aspects give a good feeling and pride to students.

Moreover, a few students stated that this building is a motivational factor to be an academician in DU. One student, who has a chance to use NRC as a member of a research group, expressed her feelings as follows:

I am not accustomed to such buildings because when I enter this building, I asked myself that “Am I important?” and “Do I deserve using this building?” because it is a very beautiful (EEE9).

Other aspects which are interpreted negatively are as: (1) users of the building are the academicians and researchers, but not students, (2) students are not allowed to enter the building, (3) it was constructed on the student car park, (4) its facilities are better than the other buildings which are used by students, and (4) it does not resemble the other buildings in the campus, therefore it is contrarian to the architectural philosophy. These aspects are interpreted as “not good” and “upsetting” and give the feelings of “inequality”, “unworthiness”, and “distrust”.

Because this building is better than the other EEE buildings, and also opportunities are not the same as those in other buildings, students are angry. The quotation showing this feeling is below.

It is needless to say that assistants should have also a place. For example, sending all assistants to the Newest Research Center, and giving us a tiny study hall at our department where the population of students is 800 is unjust. I feel like this (EEE4).

The other architectural element which gains students’ positive feelings is the entrance of block A. EEE students use block A in order to take courses, therefore the

mostly used building among EEE buildings is block A. This building has an entrance which is a long walkway supported by columns and two sides of it are surrounded by natural elements. This entry gives positive feelings to students. It was described with very positive feelings by students as “beautiful”, “the only beautiful side”, and “aesthetic”. Two students’ ideas are as follows:

This entrance is my most favorite side of the department building; it may be the only beautiful side. While you are approaching the building, you walk through a covert corridor. Moreover, both sides of this corridor are open. There are two such entrances in the campus; one belongs to Faculty of Architecture, the other is ours (EEE2).

While I am walking on this path, I feel good. Nature is beautiful and green, and also the architecture of the entrance is nice (EEE4).

Students’ articulation of the feelings they get are as follows:

I like this entrance, it gives the feeling that I am cool (EEE9)

While I am passing, I say ‘yes this is my department (saying boastfully)’, I think I have a stylish department (EEE5).

4.4.2.4 Meaning of the building

The EEE students did not explicitly mention the meaning of the buildings. They indicated especially the problems which they confronted throughout their educational and daily life. Almost all students complained about the facilities provided to them. For example, the EEE buildings do not provide support for their study. Many students focused that their department anticipates that students study hard while they do not provide any facilities to them. One student expressed this as follows:

I find our department merciless. Actually, there is nothing related to visuality and nothing on behalf of students but it is one of the departments that expects too much from its students (EEE9).

Because there is lack of socialization areas, one student identified the message of the building as:

Language of this building makes pressure and it says “don’t spend your time here”. EE building and its environment is not a place where students come together and chat. It was not constructed for this purpose. This building is 50

years old; essentially its architecture is good and beautiful. However, old and unpainted walls, and low ceilings make people feel bad. When one thinks there is no seat, this place says go and study or don't be here at least (EEE2).

4.5 The Department of Geological Engineering

4.5.1 Description of the department by the researcher

Location of the building: The Department of Geological Engineering (GEOE) is far from the campus center. There are many educational buildings surrounding this building. The closest educational buildings belong to the Department of Metallurgical and Materials Engineering and the Department of Mining Engineering (blue and pink buildings seen in the Figure 4.5.1, respectively).



Figure 4.5.1 Location of GEOE
Source: University website.



Figure 4.5.2 Department of Geological Engineering Building
Source: Google Earth

The reasons for choosing the Department of Geological Engineering: The main reason is the location of the building, which is far from the campus center.

The short history: In 1971-1972 academic year, GEOE was founded as a department, while it continued its education under Department of Mining Engineering since 1962-1963 academic year.

Number of the building: GEOE has only one building.

The main users of the building: Students studying at GEOE are the main users of the buildings.

Users of the building: Generally, the main users of the buildings utilize the buildings. The canteen is open to university in general.

Facilities in the building: The GEOE building consists of administrative units, academicians' offices, classrooms, science laboratories, a museum, and a canteen.

Population: There are 301 undergraduate students studying at GEOE in the process of conducting research.

Sampling: Twelve students from GEOE participated in this study. Whereas 8 students joined in the walking interview method, 4 students participated in the interview with photo-elicitation.

4.5.2 Results: The Department of Geological Engineering

The interviews revealed how certain physical features of the GEOE building were critical in creating and maintaining the meanings of places. Students described how these attributes influence their feelings over their academic lives. Three key themes or dimensions were frequently described by interviewees that suggest how place meanings are formed: 1) facilities in the building, 2) problems related to the physical environment, and 3) impact of the physical environment on students' ideas concerning field specificity.

4.5.2.1 Facilities in the building

This section presents how a place can shape the activities in the building. This section describes the places for students' study and socialization areas.

The building provides the computer lab, canteen and backyard. Firstly, the computer lab is provided for the use of undergraduate students who need computer and internet access. Students can use this lab 7 days, 24 hours with registered student ID cards. This computer lab has been renovated in recent years and has adequate number of computers. Because this computer lab was well-equipped and especially it can be used 7 days for 24 hours in a week, students are satisfied with this opportunity. Students use the computer lab with the aim of doing assignment, using the internet and studying in groups.

As well as the computer lab, the canteen is used for studying by students. Actually, the canteen has multiple roles in the department. The canteen in the GEOE building holds social potential and it is the mostly used place by students. Almost all students enter the building via canteen door whether they are in need of use the canteen or not. The canteen is for meeting with friends, greeting each other, eating, drinking, preparing for course, studying alone and in group, discussing a topic, just sitting,

waiting, and spending time, reading a book, playing games and sometimes having a party. The reason why the canteen has multiple functions is not having any other alternative area. Actually, there is no large corridor in the building and moreover, there are not any seats in the large halls. Furthermore, there are not any open and close study areas available for undergraduate students. Because of these reasons, students have to use the canteen. While half of them like the canteen, its owner and meals and they prefer using the canteen, half of them are not satisfied with the canteen. The problems related to canteen are illustrated in the section “Problems related to physical environment”.



Figure 4.5.3 Photographed by GEOE9



Figure 4.5.4 Photographed by GEOE11

Another socialization area is the backyard. It is a newly designed area. It is a silent area with many tables with an attached bench seat, beautiful landscaping, and natural elements. This area is not mostly used by individuals. Each participant stressed that “while my friends and I use, nobody is there”. Moreover, I did not see anybody during the 8 walking interviews. However, because the area is beautiful, open area with natural elements, almost all students like this area. According to them, the backyard is a relaxing and an escaping area. Students’ activities in this area are sitting, chatting, eating, and relaxing. But, this place is not associated with study. Only one student mentioned that she had to study because she did not find another study area.

One student’ utterance about the backyard is as follows:



It is not a crowded area. Especially on sunny days, I like sitting in the benches, eating something and being with my friends here (GEOE5).

Figure 4.5.5 Photographed by GEOE5

4.5.2.2 Problems related to physical environment

This section illustrates how problems related to the physical environment influence students' academic life and feelings. Problems of the students are divided into three dimensions: the lack of study area, the location of the building and ambient environment.

4.5.2.2.1 The lack of areas for students' use

There is not any study room in the GEOE building. Therefore, students have to study in the canteen; however, canteen is not a suitable area for studying. This is the most important problem which should be changed. Actually, there is a library in the building, which was open to students in the previous years; however, because the students did not obey the rules, the students' use of the library was prevented by the administrators. Although these students graduated and also administrators changed, the library is not still open to students. The upper class students' acted as a witness, they used this library and they know the values of this opportunity. This library provided a pleasant atmosphere for them; they liked the library with large tables, comfortable chairs and the books related to their discipline. It was open for 24 hours and students could access the room via the registered student ID cards. As well as upper class students, the lower class students also know that there is a library because they are in touch with the upper class students. Therefore, they are not satisfied with this situation and some of them criticize the use of this library for other purposes. Because there is possibility to have study area, students are in contact with

administrators in order to reopen the library. Nonetheless, the library has not been opened yet.

As well as the library, the building does not provide any area for studying, and suitable places are not opened to students' use. Moreover, students are looking for the empty classrooms in order to study; however, some of them are used for courses while others are locked especially after 4pm since each classroom includes technological devices. Because of locked classrooms, students confront some problems. One student mentioned her experience about the use of the classroom:

We had an exam and my friend and I began to study in the classroom. Around 4pm, the cleaning staff came and said that "we should clean the classroom because we will go out". Therefore, we collected our stuff in a hurry. This was not nice. This exam was very important for us; we paid high attention to that course. That day, we were very concentrated. We had all stuff necessary for the exam including course notes, books taken from library, drafting tools, and crayons and we scattered all these in the classroom. Anyway, we had to leave the classroom, so we lost all our concentration and motivation (GEOE7).

Moreover, students do not know when the classrooms are available. Therefore, they demand the course schedule to be hung on the classroom door from administrators. However, this demand has not also been actualized. One student suggested the use of corridor as an open study area as follows:



There are study tables in the other buildings such as Computer Engineering and Economy building. When we suggested the administration that this hall should be used as to study area like in the other buildings, this demand was not taken into consideration (GEOE9).

Figure 4.5.6 Photographed by GEOE9

Furthermore, one student as a member of Geology Club mentioned the need of a room for this student club. Like the library, The Geology Club had a room in the previous years, but since the students' did not obey the rules, this room has not been

allocated to students' use anymore. This student wants to reuse this room and he expresses the ideas and feelings as follows:

This is the distance which the academicians keep with students. We want to have a room for the Geology Club; however, they [administrators] don't give it to us. They ignore us. They are not aware of the fact that providing students and their clubs with a room will make it possible for them to get together outside classrooms, develop a love for their profession as well as encourage attachment to it. Somehow they won't give a place (GEOE10).

In summary, the students have many needs, the administrators have been notified of these needs, and therefore they expect to change something on behalf of themselves. Nonetheless, these demands are rejected, and this creates struggle between the students and the administrators. Some students think that the administrators do not trust them.

4.5.2.2.2 Location of building

The other problem is related to the location of the GEOE building, which is far from the campus center. Therefore, students are far from the central library, the dining hall, the sport center and the other commonly used places on the campus. Some of the students mentioned this problem. The followings are the negative effects of the location:

- (1) It is difficult to catch a course held in other buildings on the campus if there is a short time between two courses.
- (2) It decreases the use of campus for sport activities (i.e. fitness and swimming) and social activities.
- (3) It obligates the students to use the Geological building (especially the canteen) during 1 and 2 hour breaks, which does not provide an effective use of time.
- (4) It decreases communication with students from other departments.
- (5) Some GSM operators do not work.

This problem is also understood from their answers to the question "how would you design this building, if you were an architect?" One of the most frequently mentioned

change is related to the location. They prefer being closer to the campus center. When the lack of a study area is considered, the location as a problem is salient.

4.5.2.2.3 *Ambient environment*

In this section the problems related to ambient environment are illustrated via the help of the photographs taken by the students. According to the students, the building is cold, dark and gloomy. Some of the students complain about the temperature in the building and in the classrooms. Because the building is located on the hill and some classrooms' position is toward north, they are exposed to cold.

The other problem is related to the lighting in the building. There is inadequate light especially in the entrance hall and corridors. One student took a photo showing this.



This is the entrance of the Geological Engineering building. There is light problem here. Sometimes, lamps do not glow, which creates a dark environment. This huge yellow window prevents the daylight, it can be changed (GEOE2).

Figure 4.5.7 Photographed by GEOE2

Half of the students are not satisfied with the colors in the canteen. As it is seen in the photography below, the canteen was very colorful; green, orange, yellow are the dominant colors, therefore the canteen is visually disturbing. Because of this reason, some students do not like the canteen. One of the students took a photo and indicated her opinions about it.



I am especially troubled with the colors in the canteen. The objects are not in harmony with each other. I think that the place in which you eat should be something satisfy your feelings (GEOE2).

Figure 4.5.8 Photographed by GEOE2

4.5.2.3 Impact of the physical environment on students' ideas concerning field specificity.

Field specificity describes how the GEOE building represents the discipline which is taught in that building. One of the important features of the GEOE building provides field specificity. This is conceptualized around teaching spaces, visual materials, and the importance of the museum in the building.

4.5.2.3.1 Teaching areas

There are two types of teaching spaces in the discipline of Geological Engineering. One of them is classroom. The GEOE building provides classrooms equipped with overhead, data show-projector systems, and different maps. The other teaching spaces are laboratories. The building includes 18 laboratories; however students mentioned frequently three of them: mineralogy-petrography laboratory, photogeology laboratory and sample preparation laboratory. First, mineralogy-petrography laboratory is equipped with new microscopes, and there is adequate number of microscopes in accordance with the number of students. One student explained the importance of microscope as follows:



Microscope is one of the opportunities of the laboratory. I took this photo because it is really useful device for us. Moreover the department provides microscope for each student; which is highly important. By this way, the course continues fast and tangible. Otherwise, we could not visualize what we learn. When we see via microscope, it helps us to understand easily (GEOE5).

Figure 4.5.9 Photographed by GEOE5

Second, photogeology laboratory includes special desk with light and stereoscopes to examine aerial photographs. These laboratories are devoted to teaching but not research activities for undergraduate students. Since both classrooms and laboratories are well-equipped, students are pleased to use them.

Third laboratory is the sample preparation laboratory which is equipped with the complete range of instruments and tools required for the preparation of geological samples. If students find rock samples, cores, and unconsolidated materials (e.g. gravels or sands) in the field, they can use this laboratory to have thin section of what they find. According to them, this is a very important opportunity. Additionally, some of them added that the workman (the man who makes thinsection) in this laboratory is the best in Turkey.

4.5.2.3.2 Visual materials

Visual materials are the factors influencing students to gain knowledge about their profession. The GEOE building gives students the idea about their profession because there are several stimulating and appealing visual materials in the building. Therefore participants' focus was also on these. They mentioned various maps on the corridor and in many classrooms, bulletin boards, academicians' articles on the corridor wall, geologic time scale, tables related to their discipline, stone in the entrance hall, and photographs of the Fathers of Geology. The building with these

visual materials shows which discipline is thought in the building. This composition makes the building easily recognized and intelligible. These visual materials attract students' attention during their education.

Maps on the corridor wall are used by students before going to field to define the land and the routes, while maps on the classroom wall are used as teaching material by instructors. Besides, tables on the corridor wall reinforce the instruction as indicated by a student "this Geological Time Scale is based on the science. After courses, this became concrete for the students. This table makes us sure about each era of this theory (GEOE10)".

Furthermore, there is a quartz stone in the entrance hall, which is an eye catching product. Half of the students mentioned this quartz stone; one of them is as follows:



The most favorite area is this area for me. I like it very much. This is peculiar to our department with stone and maps (GEOE5).

Figure 4.5.10 Photographed by GEOE5

Another student indicated his ideas about the wall hangings in the corridor:



I follow them, of course (emphatically). I like it and I find it both good and beneficial and also it should be, because it is already a dead wall. Here is a university; there should be more scientific things instead of the paintings of the Turkish notables like Fatih Sultan Mehmet as at high schools. I certainly find it useful (GEOE8).

Figure 4.5.11 Photographed by GEOE5

4.5.2.3.3 *Museum*

The Geology Museum has a big role on the students' understanding toward their discipline. The Geology Museum is located at main entry and it displays many minerals, rocks, fossils, and gemstones which are collected from different parts of the world. It is presented in the webpage of the department and it is the first visited place in the orientation program. Therefore, even the first grade students begin their education with an awareness of their field and then they use this Museum throughout their education. This museum leads students to think "what they should learn" at first times, then each material becomes sources and triggers for their learning. They examine the stones in the courses and out of the courses. They have the opportunity to observe real objects instead of searching these online. One student shared his experiences about the Museum:

This museum is the point where the Geology becomes concrete to me and this museum is obviously the beginning of my interest and my admiration to Geology and it is the place where different stones can be found and where I can observe them surprisingly. In other words, I understand that quite different structures can shape; it is not a stone that you see on the way. It is quite a change to see the stones I see here in the micro scales on the rocks in the macro scales when I go to field, which makes me feel good. I can say that it is the starting point of my interest and my admiration to Geology (GEO10).

Students' articulation of the importance, the meaning and the role of the museum is plenty; some of them are as follows;

If I had not seen such a place, I would not have had an opinion and could not have made comparisons. When I saw here and started to take the department courses I thought that at the department of Geological Engineering there should be a place like this or that it is glad to have such a place (GEOE7).

It ensures the people like the department and it may increase the perception of the courses. It can sometimes be troubling to read from the text. It would be troubling if our department did not offer this opportunity (GEOE12).

"I would like to take photos of this museum because the only department having a museum is our department. However before I began to study in this department, I had not thought that it is important. After taking courses, I have realized its value for my education. There are stones and rocks within easy reach" (GEOE5).

4.6 The Department of Industrial Engineering

4.6.1 Description of the Department of Industrial Engineering by the researcher

Location of the building: The Department of Industrial Engineering (IE) is closer to the campus center. The mostly used buildings on the campus surround it. For example, *Café I* is near the building (yellow building as seen in Figure 4.6.1). One of the closest academic buildings belongs to EEE (purple buildings seen in the Figure 4.6.1).



Figure 4.6.1 Location of IE
Source: University website.

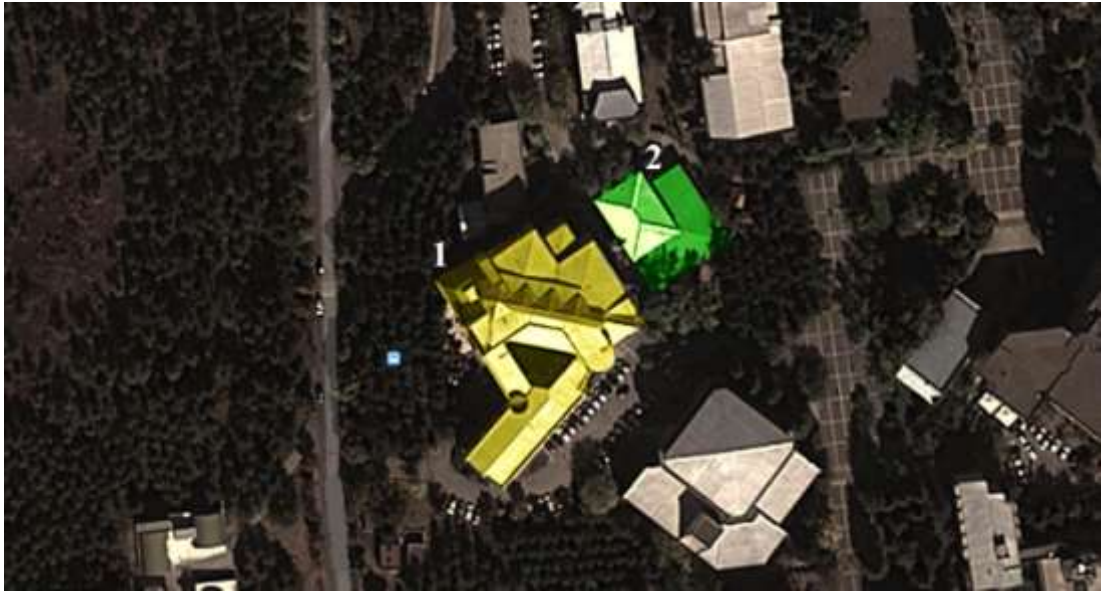


Figure 4.6.2 The Department of Industrial Engineering
(1-Industrial Engineering Building and 2- *Café I*)
Source: Google Earth

The reasons for choosing the Department of Industrial Engineering: The main reason is the age of the faculty building. It is one of the newest buildings on the campus, which is built in 1996. The other reason is the design of the building. The results of the first part data collection process showed that most of the students mentioned this building and its design with pleasure. Because of these reasons, the IE building was selected as a context.

The short history: The Industrial Engineering program was opened in 1957-58 academic year. However, whole construction of the current building was completed in 1996. This building is the first building allocated to IE in Turkey (Saatçioğlu, 2006).

Number of the building: IE has one building.

The main users of the building: Students studying at IE are the main users of the buildings.

Facilities in the building: The IE building consists of a deanship area, administration offices, academicians' offices, lecture halls, different sized

classrooms, computer labs, study hall, laboratories, inner yard, and canteen with its garden.

Population: There are 435 undergraduate students studying at IE in the process of conducting research.

Which departments use the building?: As well as the main users of the building, it has clubs rooms (for Productivity Club, and International Student Club) and famous canteen. Moreover, it is near to *Café I*, which makes this building available.

Sampling: Ten students from IE joined in this study. Six students joined in the walking interview method, while 4 students participated in the interview with photo-elicitation

4.6.2 Results: The Department of Industrial Engineering

The interviews revealed how certain physical features of the IE building were critical in creating and maintaining the meanings of places. Students described how these attributes influence their feelings during their academic lives. Five key themes were frequently described by interviewees that suggest how place meanings are formed: (1) building design and its facilities in the building, (2) impact of the physical environment on students' socialization, (3) impact of the physical environment on students' ideas on concerning field specificity, (4) impact of the physical environment on students' feelings, and (5) meaning of the building.

4.6.2.1 Description of the Industrial Engineering building

In this section, the most frequently mentioned features of the IE building are defined. This section includes three subsections: building design, location of the building and facilities in the building.

4.6.2.1.1 Building design

One of the salient features of the IE building is its building design. All IE students made comments on the structure of the building. They identified that the building has a huge space, and different steel stairs. It is an open space which enables to see

someone in any place in the building. The most articulated definition of this structure was that “it is different”. Some students stated that you could not see such design in the other academic buildings. One student took photo of this structure and stated the following words:



It is our department. Architecture of this building is nice and interesting. There is a space in the middle. I like it very much. It is interesting and beautiful. The building is spacious. If there were not such a space, I couldn't imagine how could be. I guess that there would be a stuffy environment (IE5).

Figure 4.6.3 Photographed by IE5

The other feature of the building design is the ceiling which is made by transparent material. Some of the students like such ceiling because it creates a light environment, some of them do not like it because in rainy or cloudy days, it results in a dark environment. The other student took photo of this ceiling and indicated as follows:



It is the window ceiling. It is good because it provides light but it makes building cold. It creates a light and beautiful environment (IE8).

Figure 4.6.4 Photographed by IE8

Another feature of this design is the steel stairs, student find it interesting and different. However some students mentioned negative sides of these stairs as follows:



These stairs are used mostly by students. Height of each step is different which is dangerous. There should be a standard. We should walk carefully (IE9).

Figure 4.6.5 Photographed by IE9

All students like this building design, they find it beautiful. They feel spacious in this building. Moreover, it is nice to see everywhere in the building.

As well as the IE students, students from other departments mentioned the design of the IE building. It was the most frequently mentioned feature of the building. They stated that it is different building with a space and high ceiling. It is spacious and light. Almost all students who mentioned this feature stated that they liked the building design and they found it beautiful.

4.6.2.1.2 Location of the building

Location of the building – how a location of the building influence students' daily life and their opinions toward their discipline.

The location of the IE building is very satisfactory for students, because it is placed at the campus center. It is close to Dining Hall, Faculty of Engineering building, Central Library, and *Café 1*. Therefore, the location offers practicality to students during their education. One students' photo and her utterances about the location are as follows:



I took the photo of *Café I*. The location of the building is at the center; it is close to both dormitories and shopping center. It is in the middle of dormitory and the shopping center. *Café I* is near us. We buy meals from *Café I*, and we eat in our department building without wasting time. It is a very good opportunity (IE8).

Figure 4.6.6 Photographed by IE8

Moreover, because the IE building is positioned between social sciences and natural sciences, a few students indicated that their field is seen as a bridge between them.

4.6.2.1.3 Facilities in the building

This subsection illustrates how a place can embody many social activities. The IE building creates spaces and places in which students can carry on many diverse activities optimally. As well as the teaching spaces, the building includes social/recreational spaces and study areas. This building including both public and private places provides collective an individual usage. These spaces and places are the classrooms, the study hall, the computer laboratory, the canteen, and the entrance hall.

Teaching Spaces:

The building consists of the classrooms in different sizes and two lecture halls (blue and red lecture hall). The photos of the blue lecture hall and a classroom and students' ideas about these are as follows:



Figure 4.6.7 Photographed by IE5



Figure 4.6.8 Photographed by IE5

This is the blue lecture hall. This is better than the other ‘red one’. This is longer and more circular. It is beautiful. I take joyful courses in this lecture hall. I like it (IE5).

This is one of the classroom we take courses and exams (IE5).

Most of the students are pleased to have such teaching spaces although a few of them are complained about the ambient environment. Moreover, the number of the classrooms is adequate according to department size, even the lecture halls are used by the other departments.

Study Spaces:

IE building has a study hall and a computer laboratory which are used by students especially to work in groups. IE building was considered as a living space because the majority of the students use these places all day, even for studying till morning.

Students described the study hall in detail. The study hall is not a plain study hall which includes only chair and tables. One student identified the study hall as follows:

Students’ study hall has plate glass, wide tables, and the comfortable couches. Moreover, the building has a card system for the entrances and exits to the study hall. There is separated area upstairs to read newspapers, magazines and journals. It has a ventilation system and a good lighting system. The floor and heating are good. All of these make you motivated while you are studying (IE4).

This study hall is two-storied, which is famous among university students, which has the balcony and it faces the beautiful campus and city view. One student stated that;



This is the study hall. View is very beautiful; it faces technopolis and the city. It is very noisy because students study as groups, and they sometimes chat (IE5).

The study hall has the best view in the campus (IE3).

Figure 4.6.9 Photographed by IE5

The other important point stated by the majority of the students was that their study hall is also used by students from other departments. One of the students evaluated this as:

It is good to see that the students from the other departments come to our study hall. It makes me feel that I made a correct decision. I think that I am lucky. My building is nice and I am aware of it (IE1).

This study hall was also focused by students from other departments. The most articulated feature of this study hall was that it has plate glass. Students identified the study hall as beautiful, two storied, light, and as having balcony. Moreover, students liked the view from the study hall.

The other study area in the building is the computer laboratory. In IE, computer lab is a place where the courses related to special computer programs are taken, where most of projects go on, and where the students study in groups. As well as these functions, according to students, the computer lab is also a place to study alone, and to surf on the internet. Therefore, this study area turns into a silent and social learning space. One student's photos and descriptions about the computer lab are as follows:

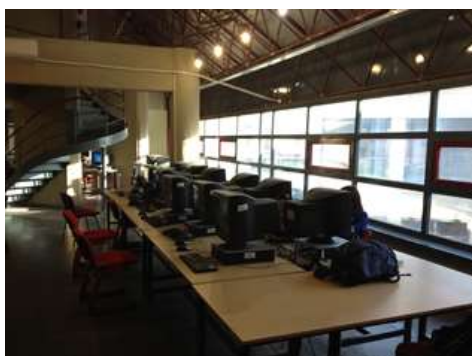


Figure 4.6.10 Photographed by IE5



Figure 4.6.11 Photographed by IE5

This is the computer lab, as you see, it has windows at the both sides; the lab is light. We spend more time in this lab (IE5).



This lab is the upstairs of the computer lab; we use to take courses to learn computer programs which must be used while doing projects (IE5).

Figure 4.6.12 Photographed by IE5



This is a part of the computer lab. We use it a lot for studying. We spend much time there (IE5).

Figure 4.6.13 Photographed by IE5

Lift:

Lift is one of the facilities giving pleasure to students. The majority of students mentioned about the lift during walking interview. All related sentences are as follows:



Having lift is a positive point. There is no lift in other buildings (IE1).

Only building where there is a lift is ours (IE2).

Figure 4.6.14 Photographed by IE8

There is a lift which we are not used to seeing in other buildings. It can be used by everybody (IE3).

The building is a rare place in DU that there is a lift used by students. Students use it whenever they want (IE4).

This lift is practical, which provides easiness to us (IE8).

There are two important points here. One of them is “to be different than others” because they think they have the only lift in the campus. Second is “their chance of using it” because there is a notion that lift is used only by academicians.

Lockers:

The other facility provided to students is the lockers. This facility is offered free. Especially the upper class students, if they want, they have a locker during whole year. The students’ feelings about having lockers are as follows:

I thought this facility is with money and when I learned that these lockers are free, I was happy (IE4).

Not carrying books make me feel good (IE3).

These lockers make their life easy as described by the students in the following quotations:

This is nice opportunity. We study in the building until nights, then go to dormitory for sleep and come back again to study; therefore we don’t have to carry heavy books (IE5).

I leave my sportswear here and because the building is in center, so locker is always available, for example after this interview, I will go to swimming pool. Nice thing (IE4).

4.6.2.2 Impact of the physical environment on students' socialization

The IE students spend their most of time in the building. Study areas mentioned above are assigned to students and they have an ID card to enter these, that is, they can use it whenever they want. Having such spaces and using them actively increase communication and relations among the IE students. One of the students mentioned the life in the computer lab as:

As for me, the students in my department like helping each other. In project time, one group helps the other and spends time for them. Therefore, the lab provides a pleasant environment. Every group works at the same time. Submitting is very exciting. Helping is always there. The lab provides such opportunity to us (IE2).

The building offers places for socialization as well as the teaching spaces and study areas. These are the entrance hall and the canteen.

4.6.2.2.1 Entrance hall

The building has a large entrance hall which is frequently used by students. According to the students, the entrance hall is light, spacious, large, and open to inner yards. One of the most important features of the entrance hall is that it is open to communication.

The entrance hall has social potential because it is used for different purposes as:

- (1) There are two big lecture halls in the entrance hall; not only the students studying at IE but also students from the other departments use these lecture halls.
- (2) There is a club room, belonging to Productivity Club, in the entrance hall; which is used by the members of the club who can be also the students of the other departments. One of the students' ideas on Club is as follows;

It is nice the room of the Productivity Club placed in the building, which creates socialization. This club has many members and it work interdisciplinary, thus I see that many students from other department

come to our building. Eventually, this function makes the building inviting (IE4).

- (3) There is a ping pong table, which is useful among students in their leisure time. The photograph of the ping pong table and student's experiences with it are as:



This is the ping pong table. I spend much time there. Even if I don't play, I sit on the benches and watch my friends' play. It is always full (IE5).

Figure 4.6.15 Photographed by IE5

- (4) There are the boards in the entrance hall, which are attractive elements for students. The photographs of the students and their interpretations are as follows:



I wanted to take the photo of the boards. I look at them regularly. These include many useful news and advertisements for us, for example, company trips and clubs' posters. This is very useful (IE8).

Figure 4.6.16 Photographed by IE8



I always follow advertisements on the boards. In my first year, one of my friends said “follow these, otherwise you may be upset” (IE9).

Figure 4.6.17 Photographed by IE9

As well as the social and cultural activity advertisements, these boards are used to display the term projects of the senior students. The final year project is conducted throughout a year and this is one obligatory requirement in their education. Most of the students mentioned this function of the boards, some of them emphasized that showing these projects is a motivational factor during their education.

- (5) There are other facilities which make the students’ life easy. One is the photocopy center whose door opens to entrance hall. The other is vending machine. Reaching these facilities is convenient and easy. The photographs and students’ ideas about these facilities are as:



This is the photocopy center. We are very lucky to have such an opportunity in the building (IE5).

Figure 4.6.18 Photographed by IE5



This vending machine is very useful for us when we stay late in the building. We rush to have the last item in it. Moreover, there is the photocopy center. I am satisfied with this; it is a need for us. We have this opportunity, but the others not (IE9).

Figure 4.6.19 Photographed by IE9

Moreover, two students mentioned the ritual of using the entrance hall. The ritual is reported by student as:

10 minutes before the exams, the lists which show who take exam and where are hung on the columns. People gather in this hall, we describe it as “the maidan of Armageddon” (IE2).

To sum up, the entrance hall holds many facilities, thus it is used for different purposes which make the entrance hall a living area. The entrance hall is used as socialization, recreational, and a meeting area.

As well as the building has a large entrance hall, there are halls in front of each classroom. Benches are placed in these halls, which are used for waiting courses in general. Moreover, these halls are also used for social and academic activities. Students present their projects and cocktails are held on. The student’s photograph and ideas are as:



We like these benches in the building. We don’t go out; we sit on these benches in break time. There can be more seats in available spaces (IE9).

Figure 4.6.20 Photographed by IE9

4.6.2.2.2 Canteen

The canteen in the IE building has social potential and it is famous in the university. The most articulated feature of the canteen is that it is used by other students. The reasons behind this popularity are as (1) the canteen is in the center of the campus, (2) the canteen is close to Café 1, and if students don't find a place in Café 1, it is an alternative for students, (3) a part of canteen is allocated for the Bridge Club, thus the bridge players use the canteen actively, (4) the canteen is large, spacious, and beautiful, and (5) it provides delicious foods to users.

The other mostly mentioned feature of the canteen is that it has a garden. The canteen garden is designed with the wooden tables and umbrellas. Moreover, the garden is among the natural elements. All these features are pleasant for students. The students' ideas about the canteen in general are presented with their photographs below:



I took the photos of our canteen. It is one of the most favored canteens in the campus. It is a very popular canteen (IE8).

Figure 4.6.21 Photographed by IE8



Figure 4.6.22 Photographed by IE5



Figure 4.6.23 Photographed by IE5

This is our canteen 'Esinti' [breeze in English]. I like it much. I see many canteens in the campus, but our canteen is more beautiful than others. Both Biology and Mathematic building has small canteens. Ours is not like them. It has large spaces inside and outside. It is not stuffy. We can see the outside and forest. It is very spacious and comfortable. I praised it much now! (IE5).

Parallel to these results, the canteen is the other articulated facility by some students from other departments. These students like the canteen environment and its meal options, therefore they use this canteen.

4.6.2.3 Impact of the physical environment on students' ideas on field specificity

Field specificity describes how the IE building represents the discipline which is taught in that building. One of the salient features of the building is its design, all students stressed that their building has different design; especially they compare the other buildings in the campus. Their building is beautiful, different and original, which is expressed by students as pleasant, comfortable, and spacious. Some students make connection between this feature and their discipline. One of the students explains this as:

This building is different from other buildings belonging to engineering departments. Others are like hospitals, stations with long and narrow corridors...Dark... But this place is much different...When one enters this building, he/she says to himself that such a building could be constructed and such a building could be building for education. At least, this building represents such a way of thinking (IE2).

This building gives the feeling of freedom. Our occupation needs a freedom. Generally, engineers' job is stereotypical, based on formulas throughout their

education. This is not same for us [Industrial Engineers]. You will be successful when you create new ideas. This building evokes this notion (IE2).

Similar comment was provided by a student studying at EAS. Her ideas are as follows:

In the IE building, you feel both the engineering seriousness and social sides. The building is a product of creative mind (EAS-A5).

Moreover, the facilities offered to students shows what their discipline focus on. Especially the study hall and computer lab as study areas is to enhance group work skills. Because their profession necessitates that students as an employee should be able to display a range of personal transferable skills such as communication skills, problem-solving skills, and team-work. One student's ideas about this are as:

In comparison with other departments, I think my department develops our communicative competence and interpersonal skills. It is hard to work as a group. Each member of the group does not have the sense of responsibility. They do not have the same skills. We should do our job according to this situation...so the building provides the areas to study in group (IE3).

One student from EAS indicated the same point as follows:

Their classrooms and study halls are like in the EAS block A. You couldn't find a lecture halls decorated by wooden materials. It is obvious to understand aims of the faculty. They provided a suitable environment for their profession (EAS-A9).

Additionally, there are boards in the entrance hall. The most important function of these boards is to show the term project of the senior students. Therefore, the freshmen students begin to understand what their profession deals with, and what they will do in their education. Checking these boards is encouraged by the instructors from the beginning years. One student explained the function of boards in the building:

In the break times, while we are walking, we notice these boards, we talked about 'what it is'. It makes our job concrete and it shows 'you will able to do such project at the end of your education'. These are the source of motivation (IE3).

On the other hand, some students indicated that their building is not good example according to their discipline because Industrial Engineering as a field deals with the optimization of systems and this building and its areas do not provide effective use. This building includes empty areas which should be used effectively regarding their discipline.

4.6.2.4 Impact of the physical environment on students' feelings

This section presents how students are committed to a place and how a place affects students' feelings in forming and maintaining place connections.

All participants from IE like their building a lot. They considered that the best architecturally beautiful and the most distinguished building in the campus is their building. Moreover, their definitions are not limited to these descriptions. There identified the building that it is different, extraordinary, distinguished, unique, and beautiful.

Students' affinity toward building with its all facilities is definite. "Beautiful" and "different" are mostly stated words describing the building. Because the building is big, large, and spacious, the building provides spaces for different purposes, and the building consists of social, recreational spaces and places as well as teaching places, they are pleasant to have a building. Besides, students' commitment to place is understood in their answers of the question "how would you design this building, if they were an architect?" Almost all do not want dramatic changes in their building.

These opportunities form students' ideas and feelings towards the importance given to them and their disciplines. For example;

When I come here, I feel myself worthy because I have never seen these facilities somewhere else. To tell the truth, I see these facilities as the return for the effort I have spent. I worked hard and I got through, so I deserved this environment. It stirs up my interest in studying and makes me motivated. It provides that I choose here while studying (IE4).

The building like this makes me feel lucky and shows the decision I made is correct. At least there are some points that I never regret (IE1).

For example it is good to see that the students from other departments come to our study hall. It makes me feel that I made a correct decision. I think that I am lucky. My building is nice and I am aware of it (IE1).

4.6.2.5 *Meaning of the building*

In sum, since the building provides optimum support for the activities desired, many areas for diverse use, and freedom of movement and comfort, the building has been regarded socially functional by the students. All activities are socially determined in the building, and so, give the building a social meaning. Therefore, students explicitly mentioned the meaning of the building “sociable”.

The other factor creating a lively atmosphere is the building design. The building provides open communication; one individual in the entrance hall can see the individual who is upstairs. The design of the building makes each place and activity visible, which creates the dynamic life in the building.

As the social life mentioned above, there is a lively atmosphere in the building. Not only domestic students but also students from other departments use actively the IE building. This is due to utility function of the building.

4.7 The Department of Physics

4.7.1 Description of the Department of Physics by the researcher

Location of the building: The Department of Physics (PHYS) building is located at the center of the campus. It is close to the Presidency, Dining Hall, and Central Library (purple, green and yellow building seen in Figure 4.7.1, respectively). It is on the alley.

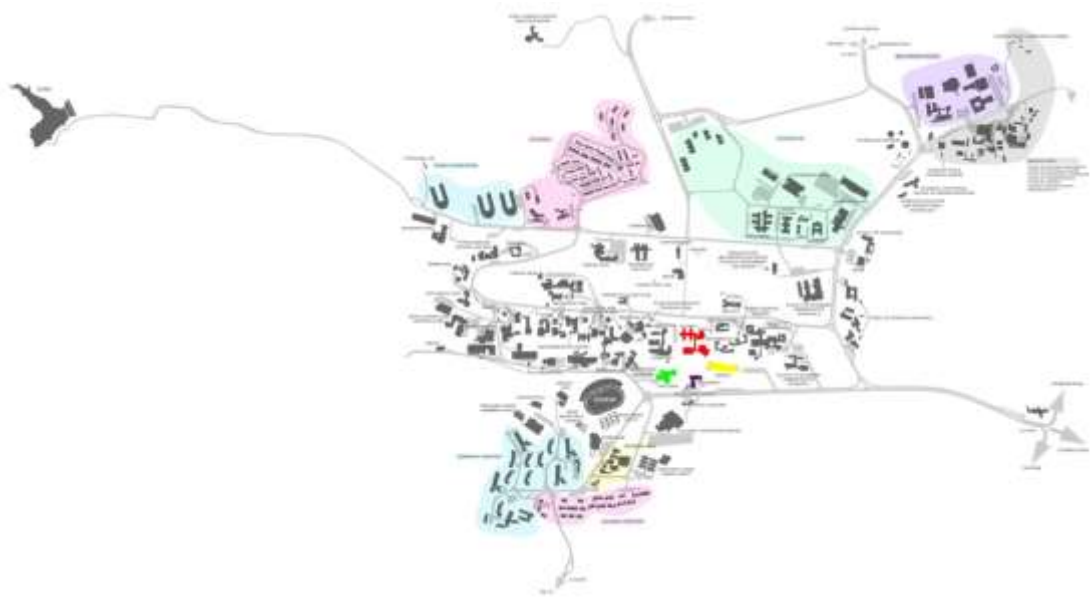


Figure 4.7.1 Location of PHYS
Source: University website

Number of the buildings: There are two buildings which are explained in this section. One is main PHYS building (blue area is P building and yellow area is S building as seen in Figure 4.7.2; these two buildings are combined). The other is called as U3 complex (the red area in Figure 4.7.2), the administration of the U3 complex belongs to Presidency, but it is near to Physics building, and it is included.

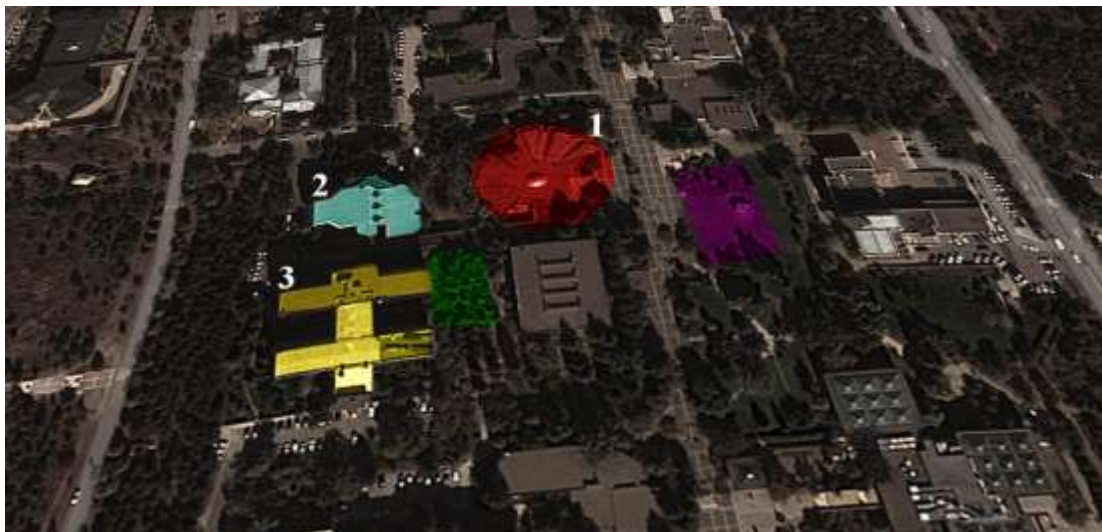


Figure 4.7.2 Department of Physics Buildings
(1-U3 complex, 2-P Lecture halls, and 3-Faculty Areas)
Source: Google Earth

The reasons for choosing the Physics building: The main reason is the location of the building which is at the campus center. Moreover, one criterion for sampling was to choose department(s) under each Faculty, and Physics is one of the departments under the Faculty of Art and Sciences. Among all department under the Faculty of Art and Science, the PHYS building is the most frequently used building by students. Because of all these reasons, the PHYS building was chosen as a context.

The short history: PHYS was established as two different departments in 1960. In 1965, the first part of the building was constructed. Whole building construction was finished in 1978.

Facilities in the buildings: The building has a canteen, a large corridor and hall, different sized lecture halls (called as P lecture halls), classrooms, science laboratories, academicians' offices, computer labs, a study hall, and a smart classroom. Additionally, the U3 complex includes three big lecture halls.

Population: 443 undergraduate students are studying at PHYS in the process of conducting research.

Which departments use the buildings?: The main users of the buildings are the PHYS students. However, U3 complex with three lecture halls is used by all students for course. Additionally the seminars, conferences, and meetings are held in the U3 complex. Moreover, PHYS assigns a computer lab for the students from the other departments. Furthermore, P lecture halls are used also by the students from other departments. The smart classroom is used for meetings, doctorate juries, and the other academic activities in university general. Like all canteens in the campus, the canteen is open to all people.

Sampling: Six students joined in this study. Three of them participated in photo-elicitation interview. The walking interview was conducted with the other three students. One of them is from the Physics Education Program in EDU. Because this participant uses the PHYS building more than the EDU buildings, he wanted to join the study in the PHYS building. Furthermore, 43 students from the other departments

commented about the PHYS building, therefore the results of these comments are presented in this section.

4.7.2 Results: The Department of Physics

The interviews revealed how certain physical features of the PHYS building were critical in creating and maintaining the meanings of places. Students described how physical attributes influence their feelings over their academic lives. Three key themes or dimensions were frequently described by interviewees that suggest how place meanings are formed: (1) impact of the physical environment on students' socialization, 2) impact of the physical environment on students' feelings, and 3) meaning of the building.

4.7.2.1 Impact of the physical environment on students' socialization

This section provides how a place can embody students' activities. The PHYS building has spaces and places in which students can carry on many activities. The building includes not only teaching spaces (like classrooms and lecture halls) but also study and social spaces. This building with public places provides collective use in general. These spaces and places are teaching spaces (U3 complex and P lecture halls), Physics canteen and its garden, corridor, Physics hall, computer labs and the study hall.

4.7.2.1.1 U3 complex

There is U3 complex which includes the three biggest lecture halls of the university. These are named as U1, U2, and U3. U3 is the biggest lecture hall in the campus. The size of these lecture halls is suitable to hold the service courses at the university in general; hundreds of students from different departments take courses in this U3 complex. This complex belongs to Rectorship, which means its allocation and use is determined by Rectorship, but not the administrator of PHYS. However, because this building is near the PHYS building, students regard it as part of their faculty building.



Figure 4.7.3 Photographed by PHYS1

Three lecture halls are used by the students in general; therefore, not only the PHYS students but also the students from other departments comment on these lecture halls. Therefore the physics buildings gather many students from other departments together.

4.7.2.1.2 Canteen

The canteen in the PHYS building has social potential and it is famous in the university. The most articulated feature of the canteen is that the canteen is used by other students. The other most frequently mentioned feature of the canteen is that it has a garden. Most of the students like the garden of the canteen, because you sit under the trees, which creates a beautiful atmosphere. One student's photos and utterances are as follows:



Figure 4.7.4 Photographed by PHYS1



Figure 4.7.5 Photographed by PHYS1

Like the Physics grass, our canteen is a place for everybody on the campus. It is a very lively canteen. You do not see a moment that the staff stops. There is always a queue. There is always excitement (PHYS1).

On the other hand, there are some problems. The cashier's area is too narrow, which the students do not like. Because the Physics canteen's users are many, this narrowness results in queue and chaos. One student shared his feelings with photograph as:



Figure 4.7.6 Photographed by PHYS5

Our canteen is quite narrow. I took photos from outside. Two people cannot pass at the same time. People are like sardines in the canteen. Because the other students use both U3 complex and P lecture halls, they use our canteen a lot. Sometimes, I tell myself that I will kill the students from other departments. It is impossible to buy tea, even in my own department (PHYS5).

4.7.2.1.3 Corridor close to canteen

When you enter the PHYS building, a long, large and light corridor (defined by students) meets peoples. This corridor includes tables and seatings. Additionally, it is near the canteen. Because of all these features, the students considered that this hall is comfortable and practical. The main activity in this hall is the studying in groups. Moreover, the area is used mostly by students from other department rather than the PHYS students. Some students' opinions about the use of this corridor are as follows:



This is our corridor. Everybody buys some tea and sits. There are our tables and seatings. It is generally crowded, especially before the exams. Generally, we can't find a place for studying. Everybody except the PHYS students use these seatings (PHYS5).

Figure 4.7.7 Photographed by PHYS5

Students can study, share knowledge and also play game. It is very comfortable area. Students use this area comfortable as students can get away from the pressure of lessons (PHYS1).

4.7.2.1.4 Hall in the building

The building includes a hall which is frequently used by students. The PHYS students' life passes generally in the hall. This hall start right after this corridor mentioned above. One student indicated that "Physics department begin after this line [door after the corridor] (PHYS3) because the number students from other department decrease after the corridor. There are places allocated to students surround this hall. These places are study hall and computer lab. The study hall is called as Akvaryum (Aquarium in English) by students, because two sides of the study hall are big windows, which is similar to aquarium, the students give this name. All PHYS students mentioned the presence of the study hall. This study hall has tables, lockers, and smart television, which are the advantages side of the building. Although the study hall is small and students complaint about this feature of it, they see the study hall as good opportunity. One student's photos and his ideas are as follows:



Figure 4.7.8 Photographed by PHYS4



Figure 4.7.9 Photographed by PHYS4

I use Akvaryum much because the corridor close to the canteen is cold in the winter. There is a smart television here, which enables using the internet. It creates a beautiful environment because we can discuss any topic by using the television (PHYS4).

This is our lockers which are newly placed (PHYS4).

The other place close to hall is the computer lab. Actually, there are two computer labs in the PHYS building. One of them can be used by all students in the campus. The other is used by only PHYS students. Because the only place where the students from other departments do not use is the computer lab, almost all PHYS students mentioned this facility. The PHYS students use this computer lab to study in group and individually, use the internet and socialize with their friends. They use willingly.



Figure 4.7.10 Photographed by PHYS4

Two students' feelings about the use of it are as follows:

I like it because when we are in need of using the internet, we can easily go there and use it (PHYS4)

I say that our computer lab resemble coffehouses [Coffeehouse in Turkey apart from cafes is that men frequently use to drink tea, to spend time, to read a newspaper, and to play table games including rummikub and backgammon (which cannot be considered gamble] (PHYS3).

Besides these places are actively used, the hall has functions according to students. The most important function is that it facilitates the socialization among students. The hall is large and it includes many seatings. Besides, there is a ping pong table and all PHYS students indicated its existence. Having a ping pong table makes students active and gives happiness. One of the students' opinions about it are as follows:

Our discipline is very boring. Whether you are smart or lazy, there is something you cannot handle, which results in stress in your body. To let off steam, the only tool is the ping pong table in the building. There are always queue to play tennis, there is always crowdedness (PHYS4).

One student shared opinions about the life in the building as:

We use the computer lab to converse with friends. If we have a great conversation, if we play music and sing, we use the hall where the ping pong table is in. We do this in evening time when there is no crowdedness (PHYS5).

4.7.2.2 Impact of the physical environment on students' feelings

The most salient factor influencing students' feelings was the building structure. The PHYS building is one of the oldest buildings on the campus. Students describe the building as old, leaden, dark, colorless, and gloomy and the walls are naked. Additionally, the building and its teaching spaces are not well-kept. Although the building has negative annotations, while some of the students identified that the building is uncomfortable, boring and repellent, a few of them do not see these negative sides as a problem.



Figure 4.7.11 Photographed by PHYS5



Figure 4.7.12 Photographed by PHYS5

One of the students who do not like wall of the building took two photographs in order to indicate the following ideas:

This is the area where the P lectures Halls are. It is an awful area which seems like a prison. I wish someone changed it. I hate this structure; I hate the P lecture halls. Architecturally, it is a very rough structure with an undesirable color, gray. These stairs are also unlikeable, which is very annoying. These walls give a message that we live in an idle ruined building (PHYS5).

As well as the building structure, U3 complex (including 3 big lecture halls) are old, and furnished with wooden chairs. Therefore, some of the students considered that these lecture halls represent the life experience and historicity that is why students find it beautiful, they like using them. One student's feelings were as follows:

How they [architects] designed such a huge lecture hall, I appreciate them. They are very beautiful lecture halls (ID1).

On the other hand, some students interpret oldness in the manner of lack of maintenance, so they do not like using these lecture halls. One student's ideas about this problem are as follows:

I like old wooden tables and seatings, which show life experience but neglected chairs annoy me (EDU-C3).

4.7.2.3 Meaning of the building

This section is conceptualized with four dimensions: the life of the building, the building structure, the political side of the campus, and the historicity.

Firstly, there is a lasting life in the building. Because the building has many different sized lecture halls, computer labs for both The PHYS students and the other students in the campus, a popular canteen and the building is located at the center of campus, it is used frequently by all university students. Some students evaluate this life crowdedness as chaos and complexity, while some students defined it as a lively and chirpy environment. The following quotations show opposite ideas about the crowd and life in the PHYS building:

I would like to say something about the PHYS building. I like crowd in the PHYS, it is a lively place. What Istanbul means for Turkey, PHYS means that for DU (GEOE3).

The PHYS building is crowded, it is impossible to find a place. If you go there now, you can't find any place (GEOE4).

Secondly, the building is made by exposed concrete and the walls are dark color, the building creates a somber environment and students describe the building as prison and dungeon. It influences feelings of the some students negatively, as they stated that they feel depressed and repressed.

Thirdly, the PHYS building is a heart of the political activity in the building and it is a representation of the politics. Some students from either the PHYS students or students from other department stressed this feature of the PHYS building. Some students' experiences and feelings are as follows:

There is a general political stance in the University, and my department is like rebellion. If there is an act, banners are prepared in my department. Each party's first poster is hung on the walls of the PHYS building. Manifestations begin from PHYS (PHYS2).

Because I am not a PHYS student, the PHYS building remind course to my mind. When I enter it, the building gives a message about rebellion; 'give out your voice and act'. You can't see in my building that someone give leaflets and pamphlets which include political messages. However in the PHYS building, you see this frequently. Someone remind you what happened in the recent time. I feel rebellion in the PHYS building (EAS-B5).

One of the factors showing this feature of the PHYS buildings are the posters hung on the walls and windows. Quotations about the wall hangings are as follows:

The PHYS building is a significant place for political events. PHYS is the general headquarters (merkez karargah). As you see, there are adequate posters about the politics (PHYS3).

When you enter the PHYS building, you realized the windows with many political posters, writings and banners. The PHYS building remind political stance of the school to my mind. PHYS is the center of politics. Their ideology come in my mind immediately when enter the PHYS building (PHYS4).

Finally, because the PHYS building is one of the oldest buildings in the campus, the architecture of the building is different according to students, and especially the U3 complex with three huge lecture halls are old and they were designed with wooden furniture, according to a few students the building represent the historicity. One freshmen student commented on this as:

I like oldness of the PHYS building. It is not like a block B in EAS. It is definite that it is new. Every furniture is new, people didn't live much, which mean that as if you begin to relive first. Therefore, the PHYS building is nicer than block B in EAS. Oldness of the desks and boards show life experience (GEOE1).

4.8 Campus Environment

This part presents the findings of students' ideas and feelings related to the campus environment. Data were gathered by semi-structured interviews followed by walking interviews conducted in academic buildings and photo-elicitation. Analysis of the data yielded five subdimensions: (1) campus characteristics; (2) important places in the campus environment; (3) impact of the campus environment; (4) campus impact on students' feelings, and (5) meaning of the campus for students. Each subdimension is dealt with exclusively below.

4.8.1 Campus physical characteristics

In this section, the most general and the most salient identificatory features of the campus are included. These commonly stated campus characteristics by the students are related to its "greatness", "natural elements", "facilities", "difference" and "beauty".

- (1) *DU Campus is huge*: Campus greatness is the first impression of the students. Students stated that they did not imagine such a huge campus before arriving. Although the familiarity of the campus increased in time and the first impression related to greatness of the campus has remained.
- (2) *DU campus is green*: Another notable feature of the campus is that it has many natural elements, which creates a green campus. Trees in the campus are the dominant features of the campus; even some students emphasized that the buildings are not visible because they are covered by trees as if they live together. Moreover, the intensity of the trees is so distinctive compared to surrounding landscape that the borders of the campus seem to be drawn by the trees naturally.
- (3) *DU campus fulfills students' needs*: The campus has many facilities which make students' life easy. These facilities fulfill students' need about nourishment, accommodation, socialization and other basic needs. Firstly, related to nourishment, the campus has many options. These are *Café 1* (one of the restaurants on campus), university cafeteria, and restaurants and cafes in the shopping center. Additionally, there is a supermarket. Secondly, about accommodation, DU provides accommodation in dormitories for the students from the different provinces of Turkey. Thirdly, the campus provides many places for students' activities some of which are open to public. Moreover, the sport facilities are enhanced and are open to students' use. Finally, students emphasized that the campus offers everything they need in their daily lives. For example, the shopping center includes stationery, pharmacy, optician, and dress shop. Furthermore, there are banks, a tailor, hairdressers, and a shoe maker in the surrounds of the shopping center. All in all, the statement which was frequently repeated by students is that "there is no need to go out of the campus".
- (4) *DU campus is not ordinary*: The campus was identified by the students to be different not only from the city of Ankara, but also from the other private and state universities in Turkey. It is like a small city, it is an autonomous area, and it is a unique campus. These differences base on the three features

mentioned above. Because the campus has a large area designed with the facilities fulfilling students' needs, because it provides a well developed and preserved natural and green surrounding; which is not usual for some students compared to their hometown, and for some students, which is similar to natural beauty of their hometown. The following quotations illustrate some of the students' comments about the campus characteristics:

This campus seems so autonomous. It is very different, it is like a foreign city as if it does not belong in Turkey. R: Which features make this campus autonomous? The biggest factor is that the campus is isolated from the city, and it is also surrounded by a forest. Moreover, it is incredibly well-ordered. Well-thought pedestrian paths, importance given to them, and low-rise buildings are all the important features (GEOE5).

The campus has a nostalgic style and it is not an ordinary one. It is authentic. In DU buildings are not so high, which I found beautiful. I don't like new and high buildings, there is a standard height of the buildings [the academic buildings], which do not exceed the height of the trees. The buildings here live together with the trees, which is nice and extraordinary. For example, I have been to the X and Y universities [one of them is private; the other is a state university in Turkey]. They are ordinary, you know, as if you enter and walk in a new apartment complex (GEOE6).

- (5) *DU campus is beautiful*: The students identified the campus as beautiful, good, and nice. There are two main reasons for these evaluations; its aesthetics and its utility. Although these two features were not explained in depth, all of the interviews showed that students' feelings toward the campus environment were affirmative. It is aesthetic that it is green and it is well-designed. With respect to its utility, it is functional that campus was designed in order to enhance the students' academic and daily life.

4.8.2 Important places in the campus environment

In this section, the most frequently mentioned places are presented. These places are the Alley, the Central Library, the Physics Lawn the Devrim Stadium, public places and sport facilities (the location of these places on the campus map seen in Figure 4.8.1). Participants' opinions about these places with their importance and role in students' life are demonstrated.

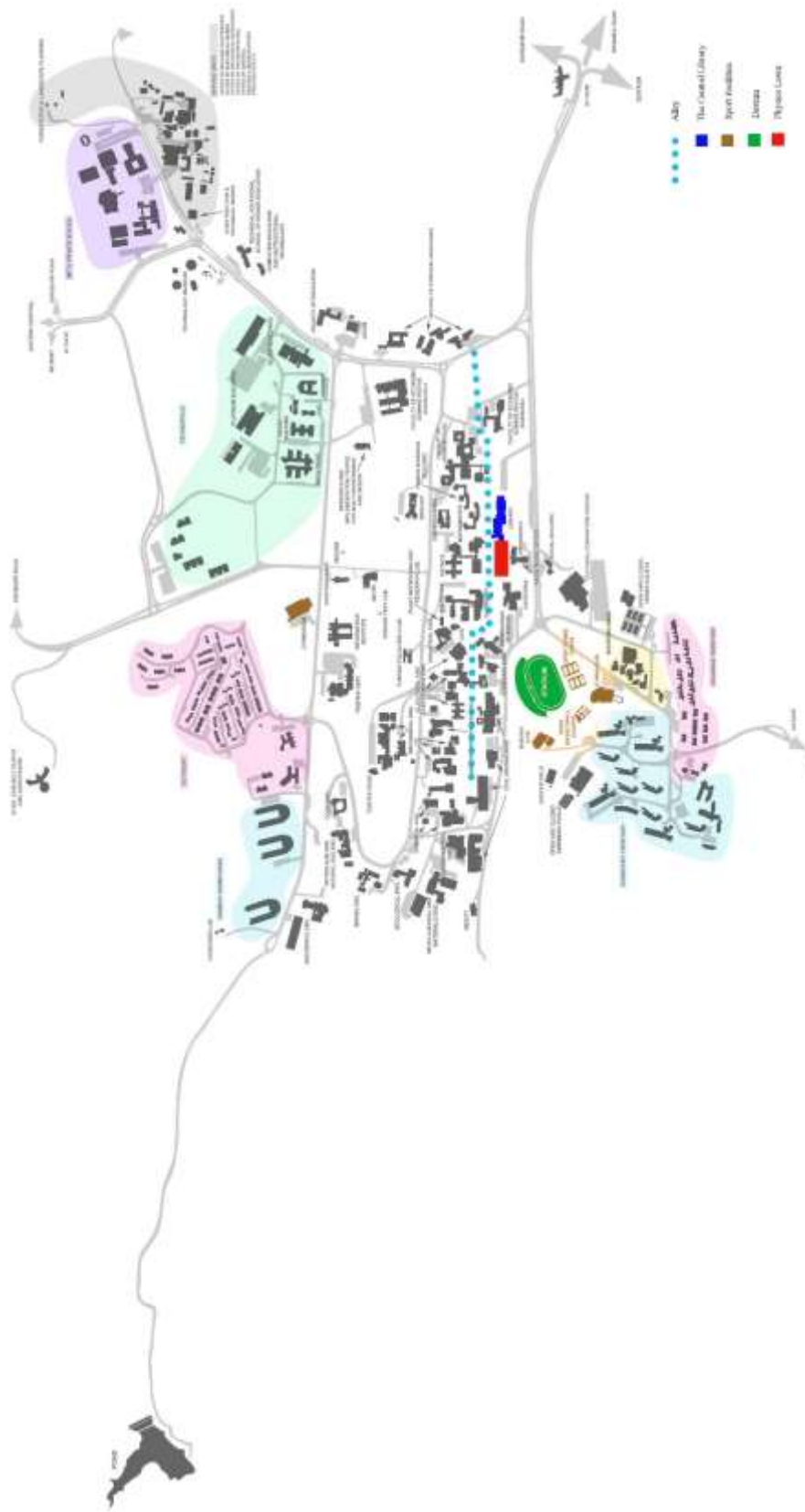


Figure 4.8.1 Map of Important Places on Campus

4.8.2.1 Alley

Roads, paths, and pathways are important component of the campus environment which was mentioned by many students. Among the roads and paths, the mostly stated path was the alley. The alley is a large and long cobblestone walking pedestrian path on the campus which begins from the Preparatory School and finishes at the Engineering buildings. The most frequently used buildings (the PHYS building, Mathematics building and Library) are in the middle of the alley. Academic buildings on at the ends of the alley are within 15 minutes of walk from the middle. During the interviews students expressed the features of this alley and its function in their life.

Students' definitions of the alley are affirmative in general. Students like the alley and they find it beautiful. Some students stated that what make the place beautiful are the trees on both sides of the alley. Moreover, students like using it and walking on it. Because the alley provides a pedestrian friendly environment, because it has natural elements, and because there is no car traffic on the alley, it makes walking easy, enjoyable, and relaxing. It gives energy to students. All the following quotations show the use of the alley and its influences on the mood of the students:

When I am too much bored, I walk towards to the Preparatory School. I like walking on the alley while listening to the music. I don't know why but it makes me feel good and relaxed. I generally prefer walking when it is not crowded (PHYS2).

When I walk on it, I do not feel that it is long. I put on my headphones and I walk until the end while listening to music. At the same I take fresh air, I don't feel tired after walking. It is beautiful, I like it. (DARCH6).

Generally during break times, I and my friend walk back and forth on the alley, then we hang around and find a place, and then we sit and chat there (EAS-A5).

As well as the positive influence of the alley on the students' mood, the alley was the only path identified as a socialization area. The main function of the alley defined by students is to connect the students by connecting the buildings. They identified the alley as the path "which every student walks on, which every student has to walk on, and which every student experiences it". Therefore, it was identified as a collective

path which enables students to see their friends. Furthermore, there are academic buildings, and the library along the alley, and some students emphasized that the alley prevents the separation of the buildings along it as it connects them to each other. Following two quotations present the social function of the alley:

It is nice, because I walk, listen to the music, and see people. I like the greenery in the school; the walking path [alley] is very nice and gives people energy naturally. If I used Ring, this would be compulsory for me. However, because I've worked a lot in students' clubs actively, there are a lot of people I know. Therefore, every day on this path, there is the possibility of seeing them and this makes me happy, I enjoy encountering them and chatting for a while. From this perspective, this path makes me more social (EAS-B3).

I think the alley is the path integrating many memories. Everybody walks on this path (EEE2).

Only a small number of students mentioned that the walking is difficult because of the stones' uneven and rough texture, however even some of those like experiencing it. Moreover, some students interpreted this rough texture metaphorically as following quotations;

Structure of the stones is different on the alley. Generally, people walk on the band because walking on the stones is hard. If you think philosophically, studying at DU is also hard. While walking there, you feel like you are visiting every building/department. You see different people from different background (EEE2).

It is a beautiful path because it is only for pedestrians. It is for people to walk on and to spend time. That's the main thing about it. Moreover, I feel like through this path, the school telling me that "study, concentrate your studies and don't overdress" (EDU-B9).

Among all students, the ARCH students make distinctive interpretations about alley compared to the other students. Because their discipline is the Architecture and the alley is one of their study topics; they defined the alley with better selected words. Some of their descriptions of the alley are that:

The most prominent identity of the university is the alley (DARCH7).

This path is monumental, it is used by all students as a maidan and also as a circulation. There is a beginning and an end to this path. This path is walked by all of us. We all experience it and it belongs to every one of us (DARCH4).

I know the purpose of designing this alley. The purpose was to connect all buildings and to enable students to continue their life and to give students a sense of belonging in the campus environment. As we [ARCH students] don't go out of the ARCH building, we are not aware of the life on the alley. However, the Barracks and the Physics Lawn are two important spots along the alley and you meet a lot of different people. That is, while you have one circle of people, if there is your friends in the other circle, two circles may be combined and two small circles become a huge circle, which is something you couldn't do in another place [out of campus] (DARCH5).

As seen in the quotations above, the ARCH students stressed the social function of the alley. It can be asserted that ARCH students' knowledge based on their courses is reflected in their ideas and opinions about the alley. On the other side, one Architecture student informed that "while new buildings are constructed, the alley is not considered" (CP6). There are many academic buildings (such as the EDU buildings, the Aerospace Engineering building) which are not on the alley, and they are located at the periphery.

In addition to the ARCH students, although many students from the PHYS, EAS, EDU, GEOE, respectively, made comments on the alley, only a few students from IE and EEE talked about the alley. There can be two reasons. First one is related to the EEE students' life. Their focus is on the courses more than the physical environment and their use of the facilities on campus is less than the students from other departments. Second reason can be the locations of the buildings. IE and EEE buildings are situated close to the campus center [on the midst of the alley] and close to many popular public places so they spend less time to going from one to another by walking on the alley. On the other hand, especially some of the EAS and EDU students experienced the alley while they are going to their faculty buildings.

4.8.2.2 Central library

Library is one of the places that students made several comments related to its role in their university life. In general, students have positive thoughts towards the library and they use it mainly for academic purposes. Library was identified by students as follows: "It is a suitable place for studying", "it is a place that should be discovered", "it provides a pleasant atmosphere", "it is an inviting place", "it is a place which they

like” and “it is the most used place by students”. In general, it was accepted that the library is a frequently used and generally crowded place. One of the students emphasized this crowdedness with two photos:



Figure 4.8.2 Photographed by IE6



Figure 4.8.3 Photographed by IE6

Library is generally full, especially during exams periods (IE6).

The data analysis showed that students choose the central library to study due to two reasons: its desirable physical environment, and its social environment.

Firstly, students are satisfied with the physical facilities in the library. It is an attractive and an orderly place. It has a large area and it comprises of two sections including a silent study section (see Figure 4.8.2) and the section where silence is not expected (see Figure 4.8.3). It has high ceilings, and large windows.

In addition to these physical attributes, the most frequently mentioned feature is its furniture, specifically “red armchairs”, which are described to be comfortable. Students remarked their feelings towards this piece of furniture as saying “I like it”, “I love it”, and “I adore it”. Even one student specified that “it is a symbol of the library”. Students use these red armchairs for reading a book or journal and also for relaxing, even for sleeping. Some students identified these as “sleeping armchairs”.

As well as the red armchairs, another attractive feature of the library was that it has a beautiful forest and city view. The following two quotations present the students’ pleasure while using the armchairs:



Figure 4.8.4 Photographed by EDU-A2



Figure 4.8.5 Photographed by EDU-A2

This is one of the famous red armchairs. In the following photo [the right], there is its view. I took this photo in the third floor. I like this view of the forest under the skyscrapers. It is a beautiful view combining city and forest. I like reading a book sitting in the red armchairs on the third floor. I also like reading journals in the “journal” section of the library which is on the first floor (EDU-A2).

Red armchairs are famous. It is enjoyable to sit in them while reading a book or journal (not important which one) and while it is raining. People sleep in them and they spend time as they wish (CP2).

It can be concluded that these armchairs are among the motivational factors leading some students to go to library just for joy, and just for reading a book or journal.

Regarding the physical environment, the interviews using with photographs yielded more detail results. As well as the armchairs, study tables were commented and showed by the students. The students shared their ideas about the physical utility of the library with the following photos:



Because there are lamps on the tables [in the silent study section of the library], this section is more comfortable than the study section where no silence is expected. Moreover, there are power outlets for every student (EAS-B5).

Figure 4.8.6 Photographed by EAS-B5



Figure 4.8.7 Photographed by EDU-C1

This photo shows the students' way of study. I like this very much. Structure of the tables, their shape, the seating arrangement, everything is well-ordered and this provides a suitable environment; studying environment is good with every aspect. Moreover, the working light is good; that is, level of light does not disturb others as it directly illuminates your study area. I think it is well-thought and arranged. I took this photo from behind the shelves not to disturb people (EDU-C1).

This section of the library shown by the photos above is a silent and comfortable place for studying. Even the student, who made the last comment, paid attention to be silent while taking the photo by hiding behind the shelves.

As aforementioned, the library provides a beautiful view by large windows and high ceiling to insiders; moreover it also provides a beautiful environment surrounded by natural elements to the outsiders. The surrounds of library building are liked and used as socialization areas, as much as the design of the library. The following quotation stressed these features of the library:



Figure 4.8.8 Photographed by EDU-A2

It is the entrance of the library, it is a very nice building (EDU-A2).



Figure 4.8.9 Photographed by CP3



Figure 4.8.10 Photographed by CP3



Because it offers a beautiful view, I took these photos (CP3).

I took this photo because people smoke, chat and spend time in this area (EDU-C1).

Figure 4.8.11 Photographed by EDU-C1

With these three photos, the front side of the library buildings is photographed. Some students indicated that they use the back side of the library to sit, chat and relax, as well as this side of the library.

Secondly, the social components are the other factor increasing students' use of the library. The library does not only provide an appropriate environment, but the students using the library create the positive atmosphere which works as an impetus to use the library. Students explained this as follows:

I prefer to study in the library, it is silent there. Studying at home is not as effective as studying in the library, because there are many students studying around, and when you lose your attention, you look around and remember why you are there and continue studying. You don't get distracted while studying at the library (IE6).

Because the library is silent, it is nice. It is easier to be motivated when I see many other people studying. Therefore I like studying in this environment that is crowded by hardworking students (EAS-B5).

Even if you study alone in the library, you are still in the social environment. Even if you do not know the other people who are using the same table, you do not study alone, you do not feel the loneliness (DARCH1).

Moreover, students identified the groups that constitute this social environment. While some students observed that students studying social sciences use the library more, some others observed that students from natural sciences use it more. However some students stressed that all different groups use the library without a significant differentiation. One of the students shared her idea about the student profile in the library and its effect on her using the library as follows:

Library is not a place that only hardworking students go because we all together are in DU and everybody needs to study. Actually I did not use to go to the library [before coming this university], I didn't prefer. I read books but simply I didn't prefer to go to the library. However, the library is very different here. For example, even the students you think or label as lazy I study in the library. Therefore, this library is for everybody here. It is nice. One day, I told to myself "everybody is here, why not I am also going, why I am studying in the dormitory". Now I think the library is international (EDU-B4).

I see my friends in the library. It is nice that it is used by everybody. Different types of people use it (EDU-B9).

4.8.2.3 Physics lawn

Physics lawn is an important open space which is known, used and commented by many students, and which have a certain meaning among them. The basis for its reputation among students lies in its location, its physical features, its social function and its meaning formed by the first three factors.

First of all, the location of the Physics lawn is strategic because it is used by each student due to following reasons. Firstly, it is in front of the PHYS building and U3 complex that are used for service courses at the university in general. Secondly, besides its closeness to other academic buildings (Chemistry and Mathematics), the Physics Lawn is in the midst of other functional buildings including library, the Rectorate and cafeteria. Thirdly, it is accepted by the students that it is in the midst of the main pedestrian road “the alley”. As mentioned above, alley has an important place for socialization, and the Physics Lawn is the biggest gathering and meeting spot determined by students on the alley. Finally, it is at the cross-section of many pedestrian paths coming from different part of the campus, therefore this area is easily accessible.

Secondly, regarding the physical features of the Physics lawn, as understood by the name of the area, it is covered with grass, however although there are many grassy areas on the campus, the Physics lawn is the first lawn area stated by the students. One of the reasons for its uniqueness is its maintenance. This area is well kept and thus it is a beautiful area. The following two quotations show the maintenance and the reason of the maintenance from the students’ point of view.



Here is the Physics lawn. I took this photo because these flowers were not there last year. Decorating with flowers adds beauty. Here is the most popular place of the university (EDU-C1).

Figure 4.8.12 Photographed by EDU-C1



This is a sitting area. Grassy areas in this campus are much more than the other universities. However such [well-kept] grassy areas on the campus is less; they are in the area of only PHYS, Mathematics and Chemistry buildings. People generally sit on these areas. When you come here [the GEOE building], you can't see such grassy areas. Because it is a visible area of the university, the university administration maintains this area better. It is a central place (GEOE9).

Figure 4.8.13 Photographed by GEOE9

As well as its maintenance, students describe that it is a hill. It is close to many buildings but at the same time it is a separate area which provides a visual openness.

Thirdly, as well as the accessible location and aesthetic beauty of the Physics lawn, the participants noted the social life created there by the university students. Students defined that it is lively, chirpy, and nice on the Physics lawn. The Physics lawn is a type of open air activity center. Students can do whatever they want: lying on the grass, relaxing, meeting with new friends, chatting, looking around, playing a guitar, listening to the music, and opening a stand to give information about any student club or political group, preparing protest posters and more. With the following quotations exemplify the life on the Physics lawn.

When I am passing by Devrim, the PHYS building, and library, I see people and I can say that they are students of the DU because there is life and vitality. For example, there are stands from different student groups and you can see the activity posters in this area. There are a lot of activities going on. People pass by this zone, and use this path [alley] generally (EDU-B5).

There can be a demonstration, a meeting or any other activity can happen on the Physics lawn. For me, the heart of the campus beats at the Physics lawn (EEE10).

The symbol of the campus can be the Physics lawn. In spring time, everybody is there; they lie down, one plays a guitar, and another one does juggling. There is a constant dynamism there. This liveliness is due to its convenience because the cafeteria and the bus stop are close to the Physics lawn (PHYS5).



Under normal conditions, the grass would be seen, but now it is snowy. The grass is covered with ice and now it is used as a ski center. The Physics lawn is the biggest socialization area because people meet, talk and socialize. In summer, while passing by, I take a glance to see at least who is there. I do not know the meaning of the sculpture but people value and like it (EDU-A2).³³

Figure 4.8.14 Photographed by EDU-A2

When the data and all quotations above are analyzed, it was concluded that its accessible location was stressed and it was accepted that it is influential to constitute a vital area for the student life. Moreover, students used the following attributes about the Physics lawn; namely, “the heart of the campus”, “the biggest socialization area”, “hosts a valuable sculpture”, and “symbol of the campus”. All these and the other participants’ evaluation of the Physics lawn show that the Physics lawn is a meaningful place. Some of the students describe their feelings about this area and its meaning as follows:

The symbol of the center can be the Physics lawn. It is a nice place and I sit on grass in summer. There is a free university atmosphere. Grass, the buildings surrounding it, the sky, ... and the sculpture of Atatürk. It is a very nice place (EEE5).

The Physics lawn is for socialization because everybody goes there, everybody sits on that grass and it is an independent hill and everybody can do whatever they want. It is large and beautiful. In terms of physical features, because it has open form and because it is a hill, it makes me feel comfortable, free, and private (EDU-A11).

Because my friends sit there, I also go there. I can prefer another grassy area but my friends prefer it there, so I go there. Although the Physics lawn is in the midst of the campus, it is a place where everybody feels comfortable. As

if like there is an an unwritten rule: when we go there, it feels like we have the luxury to be comfortable. Moreover, because it is an open field, you can do whatever you want. While some are playing with a ball one side, on the other side you can scream. There is more freedom there than here [the ARCH building inside] (DARCH5).

4.8.2.4 Devrim (*Revolution in English*)

There is a stadium titled “Devrim (Revolution in English)” on campus. The script of Devrim is written on the stairs by the students in 1968. It is located between Dormitory Zone 1 and academic buildings. Many participants stressed its importance and its role for them. It has many functions identified as follows:

- (1) It is a historical place, which represents the history of the University.
- (2) It is a student place; it is used for daily and social activities. It is one of the university’s activity centers.
- (3) It is a festival area; some of the events of University’s International Spring Festival are held at the stadium. Moreover, the graduation ceremony held in the stadium.
- (4) It is a sport area; it is used for doing sports and for sport competitions.

Although all these functions were stated by the students, the students focused more on the first two functions of the stadium. Therefore, these functions were described in detail.

First of all, the Devrim was seen as a historical place. The most important feature of the Devrim is that it is a historical icon which symbolizes the history of the Turkish political events in 1970s. Although the students did not mention these events in detail, they stated that “Devrim symbolizes the political view of the University”, “It is identified with Revolution” and “It reminds political action” and “It symbolizes the DU vision”. Since the Stadium has a historical importance, it was identified as a historical symbol of the University. The quote explains the history and the view of the students:

History...When you go there, you remember the history. After going to “Devrim” for the first time, I searched its history. Who wrote the “Devrim” and why it was written? When did these events happen? Why is not it deleted? Then, I heard that it was rewritten. When people learn the history, one realizes that this school means freedom. Eventually, the people who were considered as political convicts hid themselves in the “Devrim”. This place is important in this respect. Freedom is in the “Devrim” (IE2).

The script of “Devrim” (Revolution in English) is a very important symbol among students so that the students who were taking photos, tried to display the script of “Devrim”. One student’s feelings about this as follows:



Figure 4.8.15 Photographed by GEOE9

I like sitting here, especially on sunny days. Playing sport, drinking something and just sitting here are pleasant. Also, it is nice to look at this script, which is very special for me. It has importance. Its meaning is different, and sitting there feels different. I could take another photo of this stadium [from other perspective], but that photo would not have been meaningful like this. Not only sitting there but also looking at this [script of Devrim “Revolution in English”] is [meaningful] (GEOE9).



Figure 4.8.16 Photographed by EDU-A2

History of the Stadium reflects on the name of it. During the interviews, most of the students called it as “Devrim” instead of “Devrim Stadium” stadium. One student comment on its naming and its the current role as:

[Firstly she says “Revolution Stadium”]. It is strange to say “Revolution Stadium”; we just said “Revolution”. We gather there at any occasion. The Aikido festival took place there. When “19th of May the Commemoration of Atatürk, Youth and Sport Day” was cancelled by the government, we celebrated this Turkish National Holiday in the Devrim. These show that the important events are held in the Devrim. We [as students] wrote this word “Devrim”, which is very nice. It is very strange that such a stadium is in this university and also the word Devrim is written on the stairs. We own this unique stadium. It is special to DU, which people [outside of the campus] have trouble to perceive its meaning (EDU-A2).

As the second function, the stadium was introduced as a student place. *Devrim* was identified as students’ activity center because the stadium is used for different activities by students almost every hour of the day. Students use the stadium for reading a book, drinking tea, eating something, and/or sitting and chatting with their friends. Moreover, it is an entertainment place that student use during the evenings; they come together there, they drink something, and someone plays a guitar or saz while others listen to that person. The following quotation illustrates this role instead of its function as a sport area:



Figure 4.8.17 Photographed by EDU-B6

Devrim is not only for playing football, it is a place where we come after eating to drink tea or to eat sunflower seeds, where we chat, and where we enjoy (EDU-B6).

Students' use of Devrim is intense for any purpose. In terms of the physical environment, firstly its greatness attracts the students. Devrim occupies a large area and it can embrace every student. It is an open area surrounded by the trees and greenery. Moreover, it has a beautiful view of Ankara city. One of the students shared the following appraisals reegarding its physical environments:

It has special place in my heart. It makes me happy. It is not an artificial place, Devrim [Revolution] is not a placewith plastic seats. The script of Devrim and all things such as its great size and the nature surrounding it impress me. Every place which is green is beautiful for me (GEOE1).

In general, students are satisfied with such a place and they find it beautiful. Some students emphasized that they feel free while they are in; nobody interfere in their activities or behavior. The following quotation is the other example showing the reasons of choice to use the *Devrim*:

Devrim is a really suitable place for sitting especially in summer. It is a place where we sit comfortably with friends, where we can do whatever we want and where nobody interfere us. It seems like the Statue of Liberty (EDU-A5).

As well as the physical features of the *Devrim*, students emphasized the environment created by the student community, which is warm, chirpy and enjoyable. The main advantage of the stadium is its social potential with the following influences:

- (1) Students meet new friends, and enjoy with them
- (2) It increases the interaction between students.
- (3) It enables unity and solidarity.

One student defined the connecting factor with the following quote:

Synergy because there is a harmony in this place [Devrim]. Because there are people who understand each other and have the same characteristics, therefore this place is comfortable/friendly (IE5).

Historical significance and the role of the stadium in students' socialization were two main points described by the students. As it is mentioned at the beginning of this part, although the stadium as university's activity center and as a sport area were mentioned by the students, students did not comment in a detail way. Especially, it is an interesting result for the functions of the stadium as university activity center that a few students mentioned the festival (although it is carried out by students' initiatives) and the graduation ceremony. One reason can be the date of this study because these studies were conducted at the beginning of the first semester and two events held at the end of the second semester. Regarding the stadium as sport area, although students stated that they use the stadium for sports activities, more description of the stadium was not on this function of it.

With all functions of the stadium, it is concluded that students attribute a meaning to the stadium. This stadium is not a place for sport activities as its real function in the world. It is described that it is "a symbol of freedom", "a symbol of the Dynamic University vision", "a spiritual place", "a gathering place", "a student place", "symbol of the the Dynamic University students' life", and "a statue of liberty. The following quotes are the some feelings and ideas about the meaning of the stadium.

The Revolution Stadium is beautiful. I heard it when I was in high school and it is a place where the photography is taken. After coming to school, it gained such a meaning: everybody goes there in the Spring Festival, it is a place like where the whole school band together. There are different types of students on campus: some don't go out of mosque, some just chew the rag in the canteen,

some butter his/her instructors up however everybody unites in the Devrim [Revolution]. It seems that it is the University. The people who do not go there should not be students in this University (EDU-B9).

If we want to collect all individuals in school, certainly this place should be Devrim. Because it reflects particular history with the script of “Devrim”, which is a permanent painting, and tells about the political conflict between leftist and rightist and keeps this history alive. Besides, Devrim goes much beyond a place for sport competitions. I think we enlarge the meaning of Devrim to which mean change, transformation, development and a place symbolizing the vision of DU well and a place collecting the whole school (CP6).

There is nothing in the Devrim per se, what makes Devrim special are the students themselves. Education is the other dimension; education changes, and its quality can be better or worse from time to time. What remains permanent is the Dynamic University students. When the spring comes, Devrim is bustling with students, guitar players, drinkers, conversers, complainers, students practicing the American Football, runners; all of these tell our lives (DARCH6).

4.8.2.5 Public places

Other socialization places emerged from data are cafes, canteens and restaurants on campus. The Dynamic University campus offers many public spaces, however the most articulated socialization places are the shopping center (town of the campus), *Café 1*, University Cafeteria, *Café 2* and the canteens in the academic buildings see Figure 4.8.18.

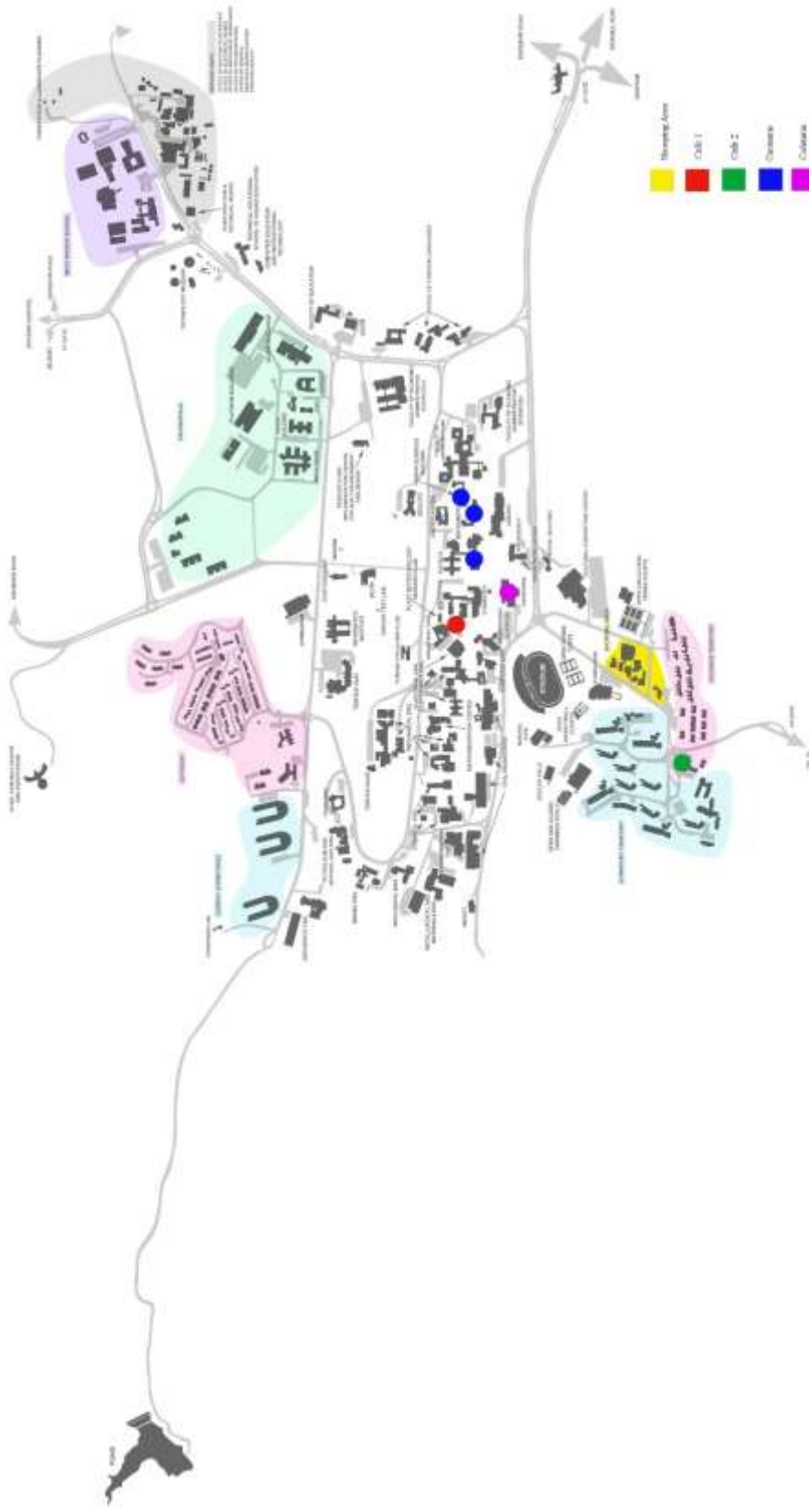


Figure 4.8.18 Map of public places

4.8.2.5.1 *The shopping center*

First of all, the shopping center is one of the public places which is used by almost all students on campus because this area gathers the student community on a daily basis for dining, entertainment, and relaxing. The shopping center offers several dining options, stationery, photo shop, entertainment alternatives such as arcade games, billiards and etc. Around Carsi, several other services are located such as post offices, banks, a tailor, a hairdresser. One student photographed the building of the shopping center to indicate stores in it:



I took the photo of the Shopping center. Although dining is expensive in the restaurants in it, we always go there. I already know some of the shops in it. Because I use the same places regularly, I did not realize it was big and I just learned that it is bigger than I thought. There are many shops including stationery, pharmacy, optician, and photo shop (EDU-B6).

Figure 4.8.19 Photographed by EDU-B6

With these facilities it offers, it is a place where students can enjoy a variety of activities or meet their needs; including dining, meeting a friend, chatting, playing games, printing/copying, using bank services, lying on the grass, going shopping (for dress, food, stationery supplies and so on). This area is the hub of the campus serving as a one-stop destination for students, therefore, according to some students, this area was accepted as the campus center. One of students' comments as follows;

It is a center because it is busy place; everybody can do whatever they wish, they can find whatever they can want not only food, or stationery materials, but also banks and many other needs (CP5).

Regarding the physical environment of the shopping center, students' evaluations were quite negative. Students described the building as old, ugly, small, complex, and antipathetic. Moreover, as the student commented that it is both eye-straining and exhaustive. One student declared the problems about the physical environment of the shopping center as follows:



Figure 4.8.20 Photographed by GEOE2



Figure 4.8.21 Photographed by GEOE2

Using this photo, I want to mention the light and the colors. There is color pollution and noise pollution. Cafes and/or restaurants use up the common areas for their own benefits at shopping mall. Because there is not any separation among these areas, it seems that everybody is sitting and eating together in one single location. This causes noise pollution. Moreover, broken glass of the entrance door was not repaired for about one week and no precaution was taken. In terms of lighting, it should be better lightened. There are far too many colors, it distracts people (GEOE2).

Although students have negative appraisals towards the physical environment, it is the most frequently used place on campus. Even some students stated that it is a crowded place, and they could not find place to sit and eat sometimes. The most important feature increasing students' use and engagements is its holding all commercial facilities together. One of the distinctive features of the shopping center is that it offers entertainment services. The only indoor game area on the campus is inside the shopping center. One of the photos from the game center taken by a student is below:



This is the entertainment area downstairs in the shopping center. I go there one or two times in a month after exams. We mostly played dart last year, but we began to play billiards this year (EEE6).

Figure 4.8.22 Photographed by EEE6

Although inner structure of the shopping center was focused on, the building also has open space areas outside and some cafes in the building has balcony. Furthermore, there is a wide and green open space that surrounds the shopping center. These open spaces are preferred and intensively used by the students. Some students expressed their appraisals and the function of these open spaces with the photographs below:



Figure 4.8.23 Photographed by EDU-B6



Figure 4.8.24 Photographed by EDU-B6



Figure 4.8.25 Photographed by EDU-B6

This place is also a social place like the Physics lawn area, however the purpose of using is not to meet and see others but to sit in a silent and calm environment. It is a beautiful place. We sometimes come here after courses or for eating something (EDU-B6).



Figure 4.8.26 Photographed by EDU-A2



Figure 4.8.27 Photographed by EDU-A2

It is the creek of this university. I took the photo of it as imaging the creek in the spring time. In spring time, it is a beautiful place where the graduates come with their children, where the students have a picnic, and where it is a [social] place like the Physics lawny areas. When we came for registration to the Dynamic University with my father, we sat there, which was nice (EDU-A2).

4.8.2.5.2 *Café 1*

Another socialization place for students is the *Café 1*. It is one of the popular cafés on campus which is used and known by most of the students. It has a garden providing a large seating area under trees. According to students, one of the important reasons for students to choose it was a buffet food service with many types of food items ranging from homemade food to fast food, from salad to appetizers, from deserts to drinks. One student took its photos of and described it as:



Figure 4.8.28 Photographed by PHYS4



Figure 4.8.29 Photographed by PHYS4

Café 1 is a beautiful place, where I have good memories. I like it. It was the only place which we continuously spent time during Preparatory school year. Moreover, it is beautiful because most of the students are coming from out of Ankara, and they miss homemade meals. It is successful for this reason; it offers many types of homemade food, the variety is large. Its garden with seats is nice (PHYS4).

Additionally, its location is close to many other most frequently used places on campus including the Cafeteria, the Physics lawns, and Main Engineering building. Even some students identified its location as campus center. Therefore, it can be said that its location increases the use of this café. One student defined its location as the connection point of all the paths in the university as:

Café 1 is a very pleasant place. It is a place connecting all paths, that is; people who come from different directions meet there. Moreover, it has a garden. And, if we want, we can change place easily, for example we can easily go to Devrim. *Café 1* is not only a place where students from one faculty get together but it is a place where whole campus comes together (DARCH6).⁵⁴

Although some students stressed the crowdedness, some other students liked the atmosphere in the *Café 1*. It provides a pleasant, warm, and cheerful environment. One participant described the reason of use it as:

In *Café 1*, although I don't get a meal, I read a book in a beautiful and cossy environment where people come and go. I don't know how I can describe that feeling. It is quite cossy because of the decoration, the lighting and constant flow of people. It provides a warm environment (EDU-A11).

4.8.2.5.3 Cafeteria

Cafeteria is the other dining location which many students use frequently. The main function is to service cheap homemade foods. Thus, comments on the Cafeteria accumulate around this function, which constitute an important place in students' daily life. One student explained this importance among students as follows:



Figure 4.8.30 Photographed by EDU-B6



Figure 4.8.31 Photographed by PHYS4

Before starting to take photos, I considered the places which are most frequently used. The first place that comes to my mind was the Cafeteria. Like many students, it is also very important for me, because dining is very expensive (e.g. in the Shopping Center) on campus in the Dynamic University. Ultimately, we are students and the Cafeteria is cheaper. Meals are quite delicious, too. The price now is even cheaper than last year. Like many students, I use the Cafeteria when I find a chance (EDU-B6).

Although the cafeteria is used for eating, it has meanings among some students as a socialization place because it collects many people at the same time. Students stated that “it gathers students”, it is a tool for gathering”, “it is a place where I see my friends from my department” and “it indicates togetherness”. One student shared his feelings created by this social function as:

I like eating in the Cafeteria because I like people coming together there. It is nice to share a common area. It shows the diversity, that is, one student from Department of Electric and Electronics Engineering or Computer and Instructional Technology or Economy or English Teaching come to the Cafeteria. All these differences disappear in the Cafeteria, which creates the beautiful and common environment (EDU-C2).

One student shared the process of social cohesion created in the Cafeteria with her own experience:

While, in the past, there was a distinction based on socio-economic level of the students; students eating in the cafeteria were mainly from low-income families, now, the cafeteria has become a place where all students from different income levels eat. This is nice. It was maybe related to the awareness created due to the student boycott [in order to decrease the price]. Although the Cafeteria is close to a place where I used frequently, I had not realized that there was such an eating place for student before this boycott. After the student boycott, the Cafeteria became an issue among students, then the prices decreased and everybody began to eat there and it became one of the most beautiful places, because everybody eats there. Now I can see other people from my department as well as my instructors (EDU-A11).

4.8.2.5.4 *Café 2*

Café 2 is one of the the socialization places is that is famous among students. Its location is close to Dormitory Zone 1. Unlike *Café 1*, the Cafeteria and cafes in the shopping center, eating is not the main activity in *Café 2*, although it offers food. One student explained the reason for using this cafe as:



Figure 4.8.32 Photographed by EDU-B6

I took this photo far from the Café 2 in order to show the view of the trees, which is beautiful. It is preferred more compared to shopping center, except in winter, because it is self-service. When you sit [on any place] in the shopping center, you cannot sit for two hours by having just a cup of tea. You must consume something. However, in this place, because it is a self-service café, a student can drink only a glass of tea and chat with friends for a long time (EDU-B6).

In addition to this quatotation above, other students' ideas showed that *Café 2* is a

place for entertainment when students have a plenty of time. Students described that “it provides a beautiful atmosphere”, “it gives happiness”, “it is hip place”, “it is a place where a student gazes to another”, “it makes you relaxed”, “it is used when you have a plenty of time”, “it is a place of entertainment”, and “it is like a tea garden”.

4.8.2.5.5 *Canteens*

Canteens have an important place during students’ campus life. Almost each academic building includes canteen. Canteens are one of the most frequently used places by students because they have two important functions in students’ life. First of all, they provide quick and cheaper eating options in morning, break times between courses, and all day. Secondly, they are vehicles to increase communication and relations among students. Thus, canteens are seen as a socialization and student place. This role of the canteen was highlighted by one student as follows:

For example, physical structure can facilitate [socialization]. Physical facilities, sport opportunities... Canteens are quite important for socialization. Students in the same department can also meet each other in the canteen. Canteen on its own facilitates communication between them. In addition to canteens, there are other gathering places, for example in our school, shopping center is such a place. People are in close contact with each other there (IE2).

In the previous parts of this chapter (while explaining the academic buildings case by case), the importance of the canteens and their role were described in detail in relation to each department and/or faculty. In addition to the canteens explained in these sections, there are the other canteens frequently mentioned by the students. These are the canteens in the Mathematic building and in the Faculty of Art and Sciences buildings. Students’ referred to these canteens more than the buildings themselves. These canteens were mentioned so frequently as they are located in the campus center, and their meal options are preferable. However, they both have well-organized open spaces. Although these two canteens have a small cashier and inside area, students prefer to use these canteens. Unlike the canteen in the Mathematic building, the canteen in Faculty of Art and Sciences (FAS) building differed with its distinctive culture created in the canteen. Canteen in the FAS building is a place

where the faculty members use more, where the student-faculty member relationship is high and where there is more sincere environment.

It can be concluded that the physical features which increase the use of the canteen of EAS are: (1) an adequate area and adequate number of chairs; (2) color harmony; and (3) garden with natural elements. Canteens' location, such as being located in the most frequently used areas close to campus center, library, and other popular eating areas, has the greatest impact on the usage frequency of canteens free from the significant features of the canteens.

Along with the features of design, social components are also influential to maintain the use of the canteen. Staff's good communication with students increases the probability the use of canteen. Additionally, if these design characteristics is provided, first of all canteen itself attracts the people and people form a community, then the community attracts the other people negatively and/or positively.

4.8.2.6 Sport facilities

Other important places mentioned in the campus environment were the sport areas. The campus includes many sport facilities and these were stated and emphasized by many students. Sports mentioned by students were tennis, football, volleyball, basketball, running, walking, swimming, sky diving, and rowing. The focus of the students was that everyone can do whatever sport they want via the sport facilities on campus. Therefore, it was stated by some students that the university administration supports the sport activities. Comments from two students on the sport facilities are as follows:

I use the sport facilities as much as possible. I like doing sports very much. Except my department building, the opportunities in the school are quiet well, especially for sports. Anyone can do the sport they want anytime (EEE3).

The campus is an invaluable place for all types of sport activities. There are two sport centers that students can use. In this respect, I compare these with the other universities and our university is well ahead. Newer sports equipments sport clubs in different areas...dressing rooms are also good and nice (EDU-C1).

Sport facilities were seen as an opportunity for socialization. There are many sport groups and teams which connect many students. Moreover, the sport areas are the vehicles to meet new friends. This is exemplified with the following quotation:



Figure 4.8.33 Photographed by EDU-B6



Figure 4.8.34 Photographed by EDU-B6

I took photo of the sport center. I like doing sports, especially playing football and basketball. I am going to sport center with my friends. We play basketball and the others seeing us playing there invite us to make match (EDU-B6).

4.8.3 Impact of the campus environment

This section underlines the impacts of the campus environment on students' university life with three sub-sections: (1) enhanced campus life, (2) increased socialization, and (3) problems related to the campus environment. Firstly, how campus life is enhanced by the campus environment, what students ideas about the campus life are, and which conditions affect the campus life are illustrated. In the second part, features of the university and the campus environment that increase students' socialization are expressed. Finally, the problems about the campus environment and impacts on these students' campus life are represented.

4.8.3.1 Enhanced campus life

Students identified the campus life is that it is lively, intense, and enjoyable. It is how it should be and this is supported by the physical environment of the campus. Campus facilities provide engaging, supporting, and empowering opportunities for

university students and lead them to take ownership of their university experience. Student engagement is facilitated through students' club and societies, the residential living, and the campus events.

The campus is comprised of one single unit; that is, the university has not any other campuses in Ankara. Therefore, all departments, all social and sport facilities, all residential dormitories are on campus. "All in one campus" structure of the university supports students' involvement in the recreational activities they like as well as studying, which is an important factor for students' living, learning and having a balanced university life. The campus provides opportunities that connect daily life and education, and two students mentioned this opportunity as follows:

I can find time for everything. Maybe I am not very successful academically; however, this campus provides the great environment for socialization, social activities, and technical work (EEE2).

When the day begins, you can do whatever you want to. I am happy to be here because of this. Courses are heavy, I study more than my friends studying in other universities and education here is compelling for me; I have become unsuccessful many times and sometimes successful however I can continue my life here. After the courses end, I meet and eat with my friends, then we play games and let ourselves go. If we are really upset much about something, we go to Devrim [the stadium]. This campus fulfills all our needs. This was an attractive point before I came, and I see now it is really true and great to live on campus by using all these facilities (GEOE3).

Most of the students stated that this campus provides opportunities for almost everything but there are some restrictions limiting the utilization of these facilities. Involvement in this campus life differs based on the departments, place of residence (in/out campus residence), dormitory district, year of study and case.

4.8.3.1.1 Campus involvement according to department

Involvement in the campus life differs from the department to department. Majority of the EDU students feel that they are excluded from the campus life. They identified the campus life positively, while they excluded themselves in some cases "except the EDU students", "not valid for the EDU students", "if you exclude us". The biggest reason of this is the locations of the EDU buildings which are situated on the

periphery on the campus. The campus centers (*Café 1*, the Shopping Area, and Physics lawn) identified by the EDU students are far from the EDU building. Moreover, almost half of the students from EDU who are living on-campus are staying in the site of the Dormitory Zone 2, therefore, those students face the same problems about the location. However when analyzing the EDU students' use of the campus, buildings, places they frequently used, their joined activities and events which they mentioned during the interview showed that they utilize the campus facilities. These are not same for all the EDU students but majority of the students join clubs, they go to any public spaces on the campus, and they use the central library and cafes. In sum, it cannot be concluded that the EDU students involve in the campus life less than the others but it is clear that the distant location and the other problems location brings affect their access to the facilities and makes it harder to reach.

EEE students, on the other hand, suffer from another problem. They stated that the campus life is good but they can benefit from campus facilities less because of the heavy work load of their study program. They stressed the heavy loaded courses and difficult exams. One student from EE explained the campus life as:

The campus life is quite hectic for me, but for many students, I think it is enjoyable. There are many students who spent time having fun, joining social activities and doing sport (EEE5).

ARCH students enjoy their faculty building quite much as their building provides several areas for studying, socialization, and relaxation, and also they turned open areas and studios to entertainment areas. Because their building has many facilities and areas, their use of the building is high. Students stated that they spent more time in the building than the campus environment.

4.8.3.1.2 Campus involvement according to place of residence

There is a slight differentiation in the involvement of the campus life between the resident students and the commuter students. Some of the commuter students stated that they come to campus even in the weekend in order to meet with friends and go to sport activities. The students, who are staying in private flats now but were staying

in the dormitory before, stated that living on the campus enables them to utilize the campus facilities and join the campus life more frequently and more intensely compared to living outside the campus. Moreover, some commuter students stated that the time spent for traveling is high, which causes fatigue and the lack of participation any club or activity.

4.8.3.1.3 Campus involvement according to dormitory districts

The University's residential facilities are located into two districts. One dormitory zone (Dormitory Zone 1) is located close to the shopping center, the sport facilities, the supermarket and cafes and other facilities. The other dormitory zone (Dormitory Zone 2) is far from the campus facilities and located on the periphery of the campus. Students staying the Dormitory Zone 2 stressed the daily life is difficult because eating, dining out of dormitory on campus, using any campus facilities and shopping take many times.

4.8.3.1.4 Campus involvement according to study year

The Dynamic University is the English medium university and in order to pursue the undergraduate studies, the students, whose level of English is low, have to join one or two semester intense program in the Department of Basic English. This program takes the first year of the students. Some students indicated that while they are going to the Department of Basic English, their involvement to campus life is higher than the years in their undergraduate studies. There are two students who are in the first semester of undergraduate studies and who repeated the courses in the Department of Basic English (who followed the intense program for two years), and their comments and the experience level in the campus environment is higher than the first year students who joined the program only for one year. Similarly, the students who did not take courses in the Department of Basic English indicated that their knowledge of campus environment and involvement to campus life can be less than the students who attended to the Department of the Basic English.

Furthermore, the level of the participation decreases as the year of study increases. The comments on being a member of the students clubs showed the same results

because, while students join clubs actively in the first years, active participation and the number of the clubs affiliated with decreases in the following years.

4.8.3.1.5 Campus involvement at the individual level

Level of the involvement in campus life changes from a student to a student and it depends on the students' own preferences, their economic status, and their leisure time. Many students in this study cannot be classified within any of the aspects discussed above as they are different than all the others. There is a senior student who is the member of three students clubs, while there is a sophomore student who is not the member of any club. While a student from low economic status uses the campus facilities less than other, a student who has a car does not benefit from campus facilities much. There is a EEE student who is joining research activities as also continuing the minor undergraduate studies and who use the campus facilities, while there is Electric and Electronic student who does not find much time for any leisure time activities. A student staying in the Dormitory Zone 2 goes to sports in the campus center while a student staying in the Dormitory Zone 1 do not prefer to go gymnasium that is close his/her dormitory. While there is a student living on campus who does not benefit from campus facilities much in the weekdays, there is a commuter student who benefit from campus facilities even in the weekend. A student goes to an expensive café once a month as balancing his/her budget while another student with high economic status does not prefer to go to that expensive café. These examples can be multiplied however, it does not matter if students benefit from the enhanced campus life or not, or if the use of campus is less or high, the students realized that the campus embraces them whenever they want.

4.8.3.2 Increased socialization

The results of the data revealed that the campus environment increases socialization among students. Four factors identifying the communication and relations among students emerged: (1) university policy, (2) student clubs, (3) single campus structure, and (4) having facilities.

4.8.3.2.1 University policy

University as an institution has influence on the maximization of students' encounter with its policies. First of all, it is obligatory for students whose level of English is low to join one or two semester intense program in the Department of Basic English. In this Preparatory school, the students are not grouped according to their departments but according to their English levels. Thus, a class includes students from different departments. For example, a student from the Department of Biology has a chance to study with a student from the Department of Statistics. The friendship formed in the Preparatory School continues in the following years, and it gives students the opportunity to visit many different academic buildings, to get familiar with the campus environment and to be aware of the events held on the campus. This, indirectly, increases the possibility to meet students from different departments. Secondly, the curriculum of each department includes some obligatory courses which are common for all departments. In the DU, these basic courses including Calculus and Physics are not offered by the departments but, for example, all compulsory calculus courses are offered by the Department of Mathematics to all students on campus. These courses are given in different classrooms and lecture halls located in different part of the campus. In these courses, the class is mixed with students from different departments. In sum, via this policy, students find a chance to experience different academic buildings and meet other students from other disciplines. During interviews, some students mentioned the advantages of these two policies driven by the same method (mixing all students).

4.8.3.2.2 Joining a student club

Involving in the club activities is seen as an important part of the student socialization. With several student clubs on campus, there's a community for every interest. Student can find clubs, organizations, and teams to enrich their university life. Students choose whichever club they want to participate in, and experience many ways of life different from their own. The following quote includes the role of the student clubs:

Student clubs are the biggest factor providing socialization, although I could not join this year [as fourth year students]. Clubs are quite active and also the University supports these. There are many clubs related to social and sport activities. For example, there are clubs for Turkish folk and classical music. These clubs are successful in collecting individuals with different characteristics (EDU-C3).

As underlined by the students, attending a campus event or joining a club or team provides the following benefits;

- (1) The clubs provides an opportunity for a strong and connected community. Students can connect with a community of like-minded and supportive people.
- (2) Although students whose interest are the same come together in the any club, because people from different faculties with various knowledge and interest areas join the clubs and because each student is different from each other, students meet new friends, experience new ideas, learn new skills and learn to harmonize with individuals with different characteristics.
- (3) Clubs given an opportunity to students' development in what they are interested in.

These impacts/contribution of joining any club were indicated by the students as follows:

This university taught many things to me. Firstly, it taught me to talk in society which I had a fear before. I handled this problem via the student clubs. Clubs are the place where many people start to change. There are many clubs and everyone can choose one of them according to their interest and then the students become the individuals that they want to be. The clubs in this campus life contribute more to this (PHYS2).

Socialization depends absolutely on your character, but if you want to socialize, I suggest that you should take a place in any club. Close relationships are formed in the teams more than the clubs (EEE2).

Especially clubs have a big impact on students' socialization. Students meet many new people from different cultures. There is so much that humankind does not know and one realizes just how much knowledge that s/he lacks when s/he experience a new environment/social group (EDU-A1).

During the walking interviews, clubs and their activities were mentioned with their posters and their club rooms. Firstly, clubs have an active role on the enhanced campus life. The student clubs organize many activities and events and the best tool disseminating these to students is their posters and advertisements hung on the walls. During the walking interviews in all departments, clubs' activities by means of posters on the walls were focused. Whether the students participate in any activities of clubs or not, seeing their poster shows that the life is going on the campus.

Secondly, although each club or each group occupies an identifiable place and they spread a large area of the campus without boundaries, some clubs, especially those that are specific to the disciplines, are located in the academic buildings. For example, while Productivity Club is located in the IE building, Entrepreneurship Club's room in block B in EAS. Mentioning the clubs' room changed from the department to department. Especially the club rooms in the IE building, the EEE buildings, block A and B in EAS were mentioned by many students whether they are a member of that club or not. Even some of the students were aware about the function of the club, and the activities conducted by the club. In terms of physical features, all club rooms are on students' way and they all are located in accessible and visible places. On the other hand, although the club room in the EDU is in a visible area which is near to block A canteen in EDU, only one student, who is the member and also the leader of that club, mentioned the club room. She stated that the club room is so small that it does not have adequate area for the meetings of the club. Moreover, the students complained about the club's location on the campus as follows:

When all the students' clubs gathered and the clubs are introduced, we [as members of the Education Club] tried to announce and introduce our club's name more because nobody knew us. They said "Is there such a club?" However, there are clubs in the Barracks [the place for the students' clubs] and their location is central which is in front of the cafeteria. Thus, everybody knows them (EDU-A8).

This student emphasized the problem lack of the visibility of the club due to location of the club room however, it is more critical that the insiders of the building did not state anything about the club room. There can be many reasons in addition to the

physical features (small size and the location of the club room) however the problems which the EDU students' encounter (explained under the section of the case) and this result showed that the students couldn't establish a student community in EDU.

4.8.3.2.3 *University with single campus*

DU has a single campus and this feature is connected with the socialization according to many students. The following quotation show the role of the single campus.

Socialization occurs in students' clubs. For example, when you join a Robotic Club, you meet a student from both EEE and Mechanical Engineering. Then, you talk about where you stay, whether we both stay in the same dormitory, then we say let's go together to the dormitory. Later, you begin to see that person in the Cafeteria or in other places due to several places on the campus that are used commonly. With high possibility of seeing that person, you don't break off the relation and then your close relations increase. This, of course, depends on individual characteristics however sometimes I consider that if we had separate campuses, I couldn't see that person. However, sharing single campus increases the probability to meet with that person (IE9).

There are many places where we can meet with friends. These are the shopping center, the places in the dormitory zone and other places. Going somewhere is easy; the campus provides convenience to meet your friends continuously. This is an advantage of the campus environment (EAS-B6).

While sitting at the shopping center and *Café I* with my friends, we can come across with a friend of my friend. In general, meeting new people happens like that. In order to continue this friendship, the short distance between buildings is very important. For example, it enables to one to say: "let's go to *Café I* after class". If the buildings are close to each other, continuing the relationships is easy (IE8).

Imagine that alley is the long line and many buildings are placed on the right and left hand side of this line. Library, the Mathematic building, the ARCH building, *Café I*, the Computer Engineering building... all is together. This togetherness makes meeting with friends easy. I go out from my building, then instantly, I can meet my friends. No waiting, no transportation, and no problem (DARCH3).

The best side of the school is to be open to spontaneous activities. For example, when I run into my friend, I have the opportunity of saying "I am

available, if you are also available, let's go for a coffee", and having facilities providing this is good. Being accessible everytime is nice (EAS-B3).

All the quotations above and the data analysis showed that the university with its single campus creates opportunities to establish social relationship and to continue these relationships. Students meet a new friend by any means in anywhere on the campus. For example, a student meet new people by joining a club; occasionally in the lesson which is opened to all students on the campus and held in lecture hall; by joining the activities of the others students in the university stadium. They can meet new people through their friends in the Cafeteria, *Café 1* or the Shopping Center. These possibilities can be increased as there are more examples given by the participants regarding meeting new people at the campus. It can be asserted that this single campus environment provides many places to gather students. More importantly, as it is understood by the students' comments, single campus strengthens continuity of friendship because the possibility of seeing a new friend in any place on the campus is quite high, meeting a new friend is easier and more convenient, and arranging spontaneous meeting is not difficult. Moreover, changing their activity (for example a student sitting on the grass and chatting with friends can easily stop this activity and go to the library or the course) is quick shift which does not require long decisions and arrangement. On the other side, there are differences among students in terms of the perception of physical environment, socializing and joining any activity which was described in the section of "enhanced campus life". All in all, it can be concluded that thanks to single campus with many social facilities and on-campus housing, the life on campus remains active around the clock.

4.8.3.2.4 University with many facilities

The most frequently mentioned and used places and facilities were reported in the second section of this part of chapter titled "Important Places in the Campus Environment". These were the alley, the central library, the Physics Lawn, the Devrim Stadium, the public places such as shopping center, *Café 1*, Cafeteria, *Café 2* and canteens) and the sport facilities. Because the thick detail of their effects on socialization was discussed in that section, no further description needed under this

section. In sum, all these places were seen as a means for socialization according to students because each has specific functions, each satisfies many students, each place location is strategic to fulfill their daily needs.

4.8.3.4 Problems about the campus environment

Three main problems about the campus environment emerged from the data; transportation problems, crowdedness, and rough roads, respectively.

4.8.3.4.1 Location of the buildings on campus and transportation problem

Although the main part of campus is a distance to walk in general, students stated that the location of the buildings causes transportation problems. The difficulty caused by the locations of the buildings change according to zones on campus. In general, students identified four zones on the campus. One of them is the academic zone which includes the alley, academic buildings and the library on the alley. Second is the zone of the shopping center and Dormitory Zone 1. The third is the area including the Dormitory Zone 2 and the Aerospace Engineering building (AE). The last zone is the area including the EDU buildings and block B in EAS (see Figure 4.8.35). Among these zones, the third and the last zone are identified by the students to be the areas where the disadvantaged students live. Therefore, residential students staying in any dormitory in the Dormitory Zone 2, the students of the Department of Aerospace Engineering, the students of EDU and students using block B in EAS are disadvantaged groups. The main reason for this disadvantage is the difficulty to access the campus center and other important facilities. These students prefer to be close to shops and facilities on campus; they need to convenience to supply the basic needs. However, the students living at the Dormitory Zone 2 had some problems to reach these basic needs. They confronted transportation problems. To complement and enrich the academic experience with an active campus life, in consonance with some students' suggestions, finding lasting solutions about the transportation is important. On the other side, a student studying in any department which is located in the center hesitates to take a course in a department building which is far from the campus center, for example, especially, the EDU building and Block B in EAS. Moreover, some students stated that they do not

go to courses in distant places willingly and they have trouble reaching there. Another reason for the problem in general is the short time in-between the courses.



Figure 4.8.35 Map of Campus

Source: Google Earth

- Academic zone 1 (including alley, academic building, library, cafeteria, and *Cafe 1*)
- Dormitory zone 1 (including also shopping center and stadium)
- Dormitory zone 2 (including also Aeroscape Engineering building)
- Academic zone 2 (including the EDU buildings and block B in EAS)

Another reason of the transportation problem is related to university and municipality services. In-campus transportation is operated by Ring Buses. According to some students, the frequency of the ring buses is not adequate, especially in the morning. Moreover, because the frequency of the ring services decreases in the weekends and after working hours in the weekdays, some students living in the Dormitory Zone 2 have more trouble in accessing to other places on the campus. One student tried to show transportation problems via photographs as follows:



Figure 4.8.36 Photographed by GEOE9



Figure 4.8.37 Photographed by GEOE9

I took this photo [the left photo] to show these: firstly the frequency of the rings is not adequate. Second issue is related to bus stop and dolmush. I also took the photo of the dolmush [the right hand photo]. For example, there is bus stop in front of the Metallurgical Engineering [the left hand photo], however the dolmush does not come, which causes brawl. Not only is the frequency of the vehicles not adequate, but also the transportation to outside of the campus is also problematic (GEOE9).

Because of the transportation problems, and the large campus environment, another transportation option is hitchhiking. Hitchhiking is a good and preferred alternative; however, a few students stressed that the proportion of the hitchhiking as comparing with the previous years is less and one student indicated this problem as:



I wanted to take the photo of hitchhiking. Hitchhiking was more before than today. Although the car traffic increases, the number of the car owners who allow the hitchhiker getting in his/her car decreases (GEOE9).

Figure 4.8.38 Photographed by GEOE9

Although the transportation problems were stressed overtly during the interviews, students' desire to be close to friends emerged from the data analysis. This was seen in an answer to the question "if you were the architect of this campus, which changes would you like to do?". Students listed their desires about the campus design: changes about campus design were attributed to the location of the buildings. Short

distances between buildings, and gathering all academic buildings together were two features of the new campus designed by the students. Long distance between buildings in actual campus design triggers this answer. Even, some students designed the oval shaped campus which has single center with academic buildings surroundings this center.

4.8.3.4.2 Crowdedness

The second problem emerged in the data analysis is the crowdedness. Students stressed the crowdedness in particular places on campus. These are not open spaces. These are the most frequently used places on the campus like the library, the shopping center, *Café 1*, and the canteens. Students mentioned that it is sometimes very difficult to find a place in the library, the shopping center, *Cafe 1* or the canteens. Regarding canteens, the most frequently used canteens are the Physics canteen, the Mathematics canteen and the Humanities canteen. All these canteens are located at the center in the cluster of academic buildings; number of students using these canteens is quite high. These three canteens have a small inner space but a larger outside area. Thus, finding a place inside is difficult. Moreover, the narrow cashier area is very uncomfortable for waiting in the queue. Similar problems are faced in the shopping center and *Café 1*. In sum, it can be concluded that especially in the winter days, students have problems to find a place in the closed areas in general. But in sunny days, students have less problem to find a place, because the campus has large open spaces and the counted public places have their own open spaces.

The central library is chosen as a study area. However, many students stressed that gradually increasing student population destroys the use of library, and not being unable to find a place makes studying there unbearable especially in exam periods. The following photograph portrays the life in the library and the problems of the students encounter.



This is the area where the silence is not obligatory. This part is always crowded and noisy and there is always a queue (EAS-B5).

Figure 4.8.39 Photographed by EAS-B5

4.8.3.4.3 Rough roads

The other problem about the campus environment is the rough roads. The comments about the rough roads were emerged with the interviews as using photography. As walking is the main means of transport, the roads' maintenance is one of the important necessities according to students who took the photographs. Photographs below show the roads from a different part of the campus environment. These are provided with students' comments on the negative impact of the rough roads as:



Figure 4.8.40 Photographed by EDU-B5



Figure 4.8.41 Photographed by EDU-B5

These stairs are in the way between the Devrim and the Dining Hall. These stairs are used frequently, even every student has to use at least once in a day

because there is not an alternative short path. However, there is a problem because when it rains, these stairs are filled with water and it causes problems while walking. In winter, they get icy and dangerous. These stairs should be well-kept, and these are situated in the important place, therefore I took these photos (EDU-B5).



After the rain, this road became problematic like this as it was filled with water. Going across is difficult for students and it is problematic also for vehicles. I wanted to take this photo in order to show the problem about the road (IE6).

Figure 4.8.42 Photographed by IE6



Here is in front of the IIBF-A building and the ARCH building. Especially the students of the Basic English school use this path while going to the campus center. Whether the holes are big or not, all bring the problems and 3000 thousand students use this path (GEOE2).

Figure 4.8.43 Photographed by GEOE2

As indicated by these student, the rough roads bring about an insecure campus environment, especially during winter, cause injuries sometimes and make students' life difficult.

4.8.4 Impact of campus on students' feeling

This section presents the way a campus environment affects students' feelings. There are two main factors influencing students' feelings: the physical characteristics of the campus and the social components of the campus. These two factors are explained in this section.

The campus has many attributes which were explained in detail until this section. Briefly, the campus has the following attributes: (1) it is huge; (2) it is green; (3) it

fulfills students' needs; (4) it is unique, and (5) It is beautiful. All these attributes evaluated by the students positively in shaping their feelings, moods and behaviors. Although a clear cut separation of all attributes is not meaningful and reasonable as in the process of gaining feelings, it can be indicated that one of the influential attributes of the campus environment is its nature. The nature in the campus environment has a prominent role and importance for the students' experience. The campus is surrounded by the trees, where forestation is not only on the boundary of the campus but also on among buildings. In addition, there are lots of large lawns and a habitat for the animals as well. One of the first impressions of students about the campus environment is its nature and the aesthetic appearance created by the dominant color green. Students who saw the campus before the university entrance exam indicated that the campus affected their choice of the university; after seeing the campus they desire to study in this university. Students who saw the campus after being a student of this university also had, positive feelings toward the campus environment because the green campus reminds them their hometowns or, most of the time it is better than their hometown. Briefly, nature and green environment on campus is one of the reasons for choosing this university. Moreover, it is also a positive factor while living, staying on campus. The following quotes illustrate the reason of the students while choosing DU:

Of course, this campus was influential on my choice of this university. This campus attracted me and I heard that this campus enabled students to live without going out of campus and it included all facilities in it (IE4).

The reason for choosing this university was that it is a place preserving the characteristics of a campus environment and providing a living area. Because my brother was student of this university, I saw these advantages. I had been to another university because my sister was a student of that university. Then, I compared two universities and I chose DU, which has sport facilities and shopping center. I thought that if I chose DU, all these would make my life easy, and I would not have traffic problems [because of the residential living]. Furthermore, because it is a quality technical university, I chose this university (GEOE10).

Although the first impressions of students towards the campus environment in general are positive, the huge campus landscape with natural elements has an impact on the students' welfare, wellbeing and happiness during their life on campus. In

general, students are happy, peaceful, comfortable, safe, and free. The students who took photographs focused on the nature on campus. The following photos demonstrate the nature in the different part of the campus and their impacts and roles on the students' feelings.



This is the path going from the PHYS building to the Math and/or Biology building. I like this path because it is totally green, and you feel l as if you are walking in the forest, not in the school (PHYS1).

Figure 4.8.44 Photographed by PHYS1



What I really like about DU is green campus and fresh air. I tried to take the photo of these features. Among many other photographs, I would like to show this photo because it shows the U3 lecture hall, green area, trees, lawn and the clean area (EDU-C1).

Figure 4.8.45 Photographed by EDU-C1



I took this photo because I use this path everyday and because I like it. This is the path to the Cafeteria from our department (GEOE9).

Figure 4.8.46 Photographed by GEOE9



This is the forest path coming from the Food Engineering building. I use this path much when I go to training [Aikido] and to the shopping center. This path is the most peaceful place in this university (EDU-A2).

Figure 4.8.47 Photographed by EDU-A2



This is the tree in front of the Aerospace Engineering building. I took this photo in the last summer. I took an exam and I passed it, then I sat on this bench with a relief. It is a very beautiful tree and view (EEE6).

Figure 4.8.48 Photographed by EEE6

These photos and the ideas on the nature refer that the natural elements are associated with well being. Especially relaxing, refreshing, and recharging were common feelings students stated related to their life at the campus. The data analysis showed that students frequently mentioned the campus environment with the facilities and open spaces that they make use of. The campus environment with all its attributes is an elusive felicity because it affects the students' daily and educational life positively and adds to the quality to university life.

Analysis of the students' comments on the nature yielded that the nature had positive impacts on the students' mood, feelings. Influence of the nature can be counted like: (1) it gives peace to students, (2) it provides to opportunity to be alone and relax, (3) it replaces the idea of school with something positive, (4) it provides walking paths

that are enjoyable and peaceful, (5) it lets students get rid of stress, and (6) it keeps the idea of city, which is harsh and exhausting away.

As well as the physical characteristics of the campus, the social components of the campus are also influential on changing students' feelings during their education. Some students even indicated that social relations at the campus were effective in their decision to choose this university. Relations among the students observed by the student candidates are one of the factors influencing their choice of this university. One student explained the first day observation is as follows:

Before being a student in this university, I came to this campus. At that time, I said myself "yes, this is a university". I came in the summer time when there were a few university students. I observed students lying on grass, they were playing the guitar, social atmosphere among the students was really nice, and there was a social and comfortable environment. I liked all. Moreover, there was a lot of green area, the shopping center, the sports centers, and there were lots of facilities, then I thought that this was a big university (IE4).

The constructed social environment is, simply, comfortable and free. Students as members of this community are described by the students, which are important factors on the construction of their feelings. This constructed social community has the following attributes: "respectful to nature", "sensitive to people", "respectful to the individual differences", "modern", "open minded", and "trusty".

The first characteristic of the student communities is that they are respectful to nature. The students are sensitive to protect the nature and animals. Some students stressed that the undesirable behavior (polluting the environment) is less than they observe outside the campus. Moreover, protecting animals as an important part of nature emerged as a common behavior pattern. The reflection of this was observed during this study. Many students focused on the nature and animals living on the campus and they gave examples of some people feeding the animals. Interviews conducted with using photographs showed that there are plenty of photographs including animals living in the buildings and on the campus. One student took the photo of the respect shown to the animals:



In this photo, you see the area in front of the PHYS building and animal love. I can say that students give importance to animals. I know some people who give their own meals to cats instead of eating themselves. In this photo, on the Physics lawn, there was a couple who was feeding the dogs with dog food which they bought (EDU-C1).

Figure 4.8.49 Photographed by EDU-C1

Some other students highlighted the campus environment as animals' habitat as follows:

This campus environment reminds us that it is not only for people but also for nature which needs to be protected. I don't mean only flowers with this but also cats and dogs. This environment is also their habitat and this university has to respect them and has to provide them a good habitat. I think they [the university] try this as far as they can (EAS-A4).

Second, the other attributes of the student community is their sensitivity and respectfulness to people. According to some participants, students are helpful to someone who is in a need of something. Some students stressed that they can communicate easily with any people when they want to ask something, or want to inform about something. Moreover, the sensibility towards the disabled people among the students emerged as a concept as they stressed the paths, and accessible lift.

Third, the campus was described to have a cultural mosaic shaped by students' differences. These differences were one of the focuses of the participants; that is, they claimed that they like to identify and realize these diversities and live in such diversity, they also stated that these diversities have an effect on their development process and make them change. In this point, respecting the differences is a very important attribute of the community which not only makes students comfortable and relaxed but also creates the idea of freedom in the community.

It was indicated that there is a respectful environment where people respect the other who are different from them. The heterogeneous and undifferentiated atmosphere in

the campus creates all variety of life styles and provides the right environment for the growth of individual character. While focusing on the differences, students also identified the common characteristics of the university students. They underlined the importance of being a homogeneous group. They defined the least common denominator. Being a university student and being a respectful individual are the common sides of the all heterogeneous group. The respectful environment in the campus enables different ways of living to develop and evolve and it decrease the intolerant ways of life different from their own. Student mentioned that there is a democratic and free environment, and people do not interfere in other people. Students' ideas related to student community and its effects on their feelings, behavior and characters can be illustrated by the following quotations:

You feel more comfortable in this university. It is accepted as weird to gawk at a girl who is wearing a short skirt and not to be tolerant. In this respect, this environment shapes people; people learn to be more tolerant and to be more modern (EAS-A10).

I think that people are respectful to each other in this school. Before coming to this university, I had many bias toward people's personal preferences and their cloths and appearances however after coming to the Dynamic University, you see the cultural differences and you learn to respect these. Then you realize the good sides of this (GEOE6).

This university is modern: this is because of the feeling of freedom that we have. Freedom means that each part of this whole can survive. Although this university does not follow all the developments in technology and informatics, I believe that it is modern in clothing and mentality too (EAS-B5).

Overall, the campus environment created by the physical features and student community encourage all significant variety, allow the possibilities for differentiation, and inspire conformity. It helps students find out themselves, instead of following the common norms, students feel free to differ in their clothing, hair design, and behavior; some students can find power to change. In line with these results on the student behavior, it is seen that the "feeling of freedom" is triggered by the student community and the campus physical environment. This freedom is underlined by the participants' comments as:

There is, in general, a freedom in life on campus. When I came here, I discovered that I am free. People do not criticize each other because of clothing; on the contrary, being human is more important. For example, putting on blue or black eyeshadow does not matter, it does not change my eye color; I realized this. Moreover, if someone wears the same clothes two days in a row, or if someone wears very extraordinary clothes, nobody perceives this as something strange. People are independent/free here, unlike out of campus, nobody finds this odd on campus (EDU-A1).

This university campus with its nature and general features has an atmosphere which makes people free and independent. . A student who has a repressive family can find her/himself, after coming to this campus, and s/he can dye his/her hair blue. This is the reflection of the freedom in the environment, the scene and in the nature (EAS-A5).

The other common notion expressed by most students was safety which is an essential element that contributed to their sense of well-being. Students do not only feel free but they also feel safe in the campus. Similar to results above, the campus' physical environment and the student community are factors contributing to feeling of safety in the campus. Following quotations emphasize the feeling safety due to the student community:

There is a beautiful harmony in this campus; that is, living in this campus is comfortable due to people understanding each other and sharing similarities more than differences. For example, when I go to Kızılay or go out of the campus, I recoil and I become more uncomfortable and careful. However, in this campus, I tell to myself "what can go wrong?", and I even do not close my bag. There is such a comfort in this campus (EDU-A6).

There are always people who protect you physically and emotionally on campus. You can hitchhike on campus. This shows that in the campus environment, there is the feeling of safety among people (EEE2).

Moreover, some students commented that an isolated campus contributed to the campus embracing students. One of the participants acknowledged that such campus is an indicator of a safe, free and comfortable environment:

An isolated campus shows that it embraces students; it embraces and emancipates the students. I feel like this when I enter the campus, I do not know if others feel the same way, "nothing dangerous will happen to me here I am safe". It protects us and lets us be free. When my parents came here, they also felt like this. This place is an autonomous place which is allocated to students. That is, the campus gives a feeling of freedom; absolute freedom, as

long as you don't harm anybody because you can do everything in this place. Nobody interferes with one another. It is a very comfortable place (IE2).

Together with freedom and safety, the campus environment is a source of gaining privilege. Because the students have campus that their appraisals are positive, they have a feeling of privilege and importance, having such a campus environment is a source of gaining privilege. Having such a campus environment is an indicator of the importance given to students' education and life. Main factor that cause these positive feelings is its uniqueness as attributed by the students. Distinctively, being privileged was discussed in relation to the city the campus is located, Ankara, as the campus is seen as totally distinctive compared to Ankara in several ways. Ankara is defined as a city that harsh city life goes on, and a city that lacks natural elements. However, on the campus is calm. The students' interpretations about these are as follows:

Such a great campus makes me feel privileged because as you know Ankara is not a favorite city among people. The reasons are its air and the lack of green. In this campus, there are not any problems which we see outside the campus. The campus is more silent and calm. Due to huge number of trees, the air is clean (IE6).

The campus overtly says: -The language of the campus says- that you are privileged. Because it is far from Ankara, it is isolated. You are privileged, you are different and you will be important (EAS-A9).

Campus, in general, is beautiful. It increases my joy of living. Without this school, I guess that I wouldn't be able to live in Ankara. I come from Bursa [one of the biggest cities in the Turkey] and it is greener than Ankara [DU is green just like Bursa]. I feel that I am being cared in the department and at the campus and it makes me feel important (IE9).

Finally, DU students have a sense of belonging to the campus. The data analysis revealed that each participant like any particular place in the campus. A sense of belonging emerged from the connection of students with certain locations and places on campus and from connection of students with the campus environment itself. Some of them use the sport facilities on the campus more, some students use the restaurants and cafes, some students like to walk on the roads, and some students define a small natural land to escape from the people around. There are meaningful places or buildings or just a small area on the campus for each student. It can be the

library, the alley, *Devrim Stadium*, the seats on the alley, academic buildings, any place where they meet their girl/boyfriend, and any place where they spend joyful time with their friends. Students describe these precious places for them as “my favorite place”, “like home”, “my place”, “a student place”, “where I have found memory”, “special for me”, and “my escaping place”. All of these indicators showed that students have a strong sense of belonging to the campus. Moreover, their level of belonging toward the student community is also quite high. Most of them considered themselves as a member of this community. Moreover, there are some places identified as a symbol of the togetherness/unity like the Physics lawn, the *Devrim stadium*, the alley and the central library. Two students explained their feelings regarding being a part of this university as follows:

I feel at the campus that I am safer than out of the campus. The biggest reasons of this trust are that we can claim ownership of this university, we can say that it belongs to us and [we can develop] our relations with others. I have friends from each department and if I go to any department, I know there is someone to help me. (GEOE9).

This campus gives comfort to us. Even walking in this campus is comfortable. For example, if I were in Kızılay [one of the crowded city centers of Ankara], if I needed to smoke when I didn't have any cigarettes, I wouldn't ask for a cigarette from anyone there. However, here, I can do this freely [in the campus]. This is the comfort of being a member of a community. During the first days here, of course, I didn't feel that I was attached to this community, but I liked the relations in this community. This is not related to the physical environment, but in order to be a community, probably it is necessary to have such a campus physical environment which is separated, isolated, surrounded by trees and the buildings are not visible (DARCH5).

To conclude, the students in DU campus environment feel comfortable, safe, privileged, and important with a high sense of belonging. The following comments from students summarize it all:

This university is a place which I can call home although my family is not here. This University, as a concept, has land and many roots forming it. I don't speak only about land but there are so many people on this great land and still you can observe the common/similar things. This is nice. There are many different perceptions, many different political ideas, and sexual choices, yet students have respect for these diversities and many other things. I like and respect this community. While I am walking on campus, I can go to the toilet

leaving my bag to one side. However, I can't do this in the Kızılay [one of the crowded city centers in Ankara] (EEE10).

4.8.5 Meaning of the campus

The Dynamic University has a big university campus, as mentioned before, therefore the campus and the places in it hold different meanings. Meaning can change from the particular place to other. Although the campus has its own meaning, particular places in the campus refer to other meanings. In this section, first of all, two main meanings of the campus environment are presented: campus as a living space and student-centeredness. Secondly, the meanings of the university by means of the physical environment were concentrated with two sub-sections titled “building itself as a physical indicator and “Campus itself as a physical indicator”. Finally, the prestige elements of the university were asserted.

4.8.5.1 Campus as a living space

The campus is a living space. The campus is identified as “it is a city”, “it is like a foreign country”, “it is a city different from another city in the Turkey”, and “it is a city intertwined with the nature”. The city concept comes from the campus facilities which fulfill each and every student's needs. This living space provides a place for each type of personality. This city has many facilities for different types of people. This campus is not only academic education-oriented but also social activity-oriented. The campus is designed to allow its students to focus on classes, activities, friendships, and to foster the academic, social, cultural, and personal growth, because with numerous public and recreational places, it creates opportunities for diverse activities and social interaction. When students live on the campus, they can follow both academic and social activities. Not only for the resident students but also for the commuter students, the convenience of having a campus with all opportunities is an indicator of the life that can be survived without going out of campus. The campus sustains a lively environment, even for the alumni; a few students gave an example of the weekend life on the campus when the graduates come to campus with their family. Two students uttered the purpose of the architect of this campus as follows:

There is an emphasis that you can live in the campus without going out of campus. The shopping center area is like a shopping mall including bookstore, stationeries, pharmacy, food court and even dress shops, and all these create a different world. There is a legend about a student who did not leave the campus during his/her 4-year education. This is a legend of course, but there are evidences proving this legend (ID1).

I think, the architect wanted to design an independent, small and happy city (EDU-B8).

4.8.5.2 Student-centered campus

The campus was described by the students as a student-centered campus; it is designed for the sake of students' needs and growth. There are examples showing the students' ideas related to the meaning of the campus:

The designers of the campus designed this campus taking us [students] into consideration. They did not do it without a purpose. In order to study in this university, we studied hard, and we didn't socialize. This campus demolishes this notion and it reminds us that we are human (EDU-A2).

We are in one of the best universities in Turkey. This university is not like X University [one of the private universities in Turkey] and money is not spent extravagantly, which is not necessary actually. I see that more logical investments are being made here. You feel the students are taken into account. This is a university where people are happy and where every student wants to study (IE9).

One of the important reasons behind these ideas is that the campus provides many spaces allocated to students' use. During interviews, many places were described as "a student place". These are *Devrim*, canteens, cafes and open areas. The common characteristics defined as a "student place" are listed below:

- (1) Free use: Students want to use places without paying a fee or spending money and they would like to feel free about the money. The best example is the canteens. Canteens are described as a place that a student can use whether s/he consumes something or not. Buying/consuming something is not obligatory. As mentioned in the case section, one of the canteens in an academic building is identified as a restaurant because students feel that they have to buy/consume something to use it. Another place which do not fit the description of "student place" the Culture and Convention Center (CCC).

CCC is not considered as a student place because the student clubs must bear the expenses of its rent if they want to use that place for any workshop or events. Moreover, if there are any events, because the prices of the tickets are high, again it is considered that those events are not for students. Furthermore, *Café 1*, the *Devrim Stadium* and open spaces are the mostly used places on campus. One of the reasons is again free use. Although the *Café 1* or *Café 2* serve food, students are not obligatory to buy expensive foods, they can spend time there by just buying a cup of tea (which is the cheapest thing) to socialize with their friends. Similarly, the *Devrim Stadium* and open spaces support free use.

- (2) Accessibility: Whenever students want to use, they can use the places and facilities. Locked doors or restricted places in terms of access means that that place is not a students' place.
- (3) Lack of factors interfering in their behavior: Students would like nobody to interfere in their behaviors. They want to sing a song freely, and lie on the lawn. Therefore, the students use the places which meet this criterion.
- (4) Comfort: Students want to feel comfortable in the places they use. For example, they should sit near someone who is not familiar to them in the canteen when there is not any table available. Moreover, students preferred to feel comfortable and safe while using any place.
- (5) Freedom. In sum, the feeling of freedom is the essence of all the factors above. Students would like to be free from all constraints and to feel freedom. Students exemplified many places (e.g. *Devrim*, *Café 1* and *2*, and open spaces) carrying all these characteristics. Moreover, there are many places that fulfill each and every students' needs. For example, the students' club rooms are scattered on the campus land. Students have a chance to choose any club that they are interested in and to use that place whenever they want to.

Furthermore, according to some students, the campus includes many sculptures which remind the "idea of student". "CC" sculpture is the best example. Although its name is "*The Youth Monument*", the students call it "CC" because the shape of

sculpture resembles the letter ‘C’ and this reminds to students grade ‘C’. Moreover, receiving C is desirable but very difficult for DU courses. Thus, CC means that “students are happy when they have a grade C”. Although the students know this is a legend produced by the students, such legends are quite fun for students to tell and deliver to their friends. The photo of the CC with a student’s comments is provided below:



It is the symbol of DU grades (CP3).

Figure 4.8.50 Photographed by CP3

As well as such a fun constructed by the students, there are some other sculptures which remind the important historical events related to students. One student’s ideas about the reminders of the notion of students are as follows:

You see something in every corner of the campus. For example, there is CC sculpture in front of the Devrim stadium or Math student sculpture in front of Math building. They remind us things related to students/which students do. Therefore, it is a student-centered campus. Other campuses [in Turkey] are not like this campus. Green areas, trees, lawns, they all is for students (GEOE4).

4.8.5.3 Meaning of university: Building itself as a physical sign

Entering a university means moving up the social ladder and the university physical environment should represent this upgrading. The most important distinctive characteristic of the university is its difference than the high school. At this point, answering the question “How should the university be different from the high school?” is critical. Based on the data gathered in this study, it is important to note that the buildings and their physical features are signs of the university. The building

size, architectural significance of the building, non course –oriented building, and having a lecture hall are the indicators pointing the meaning of the university.

4.8.5.3.1 Size of the buildings

Before entering the university, students expected to have a bigger building compared to their high school, and for some it was a disappointment, especially for the EDU students because their buildings (A, B and C) is small according to them. Block B and C are the smallest academic buildings on campus. When the students shared the first impression of buildings, the following statements were uttered: “I expected a larger university building”, “this building is like a high school”, “I thought, at first, this building should be an additional building”, and “this building is not even high school, but it is a kindergarten”. Similar statements were not commented by the other participants from the other departments as they perceived that their building is larger than their high school or their buildings have some specific features covering the negative side of the size. The following quotations are expansions of the ideas of some the EDU students on comparing their building with the other buildings:

It even doesn't look like a high school. You come here with high expectations after high school, and you expect a bigger building. I felt bad at first (EDU-B8).

[While I am entering the building], I don't feel anything because the building is not a pleasant place. For example, while going to the ARCH building, there are the Architecture lecture hall and the pool and sound of the pool creates a nice feeling. However, when I look at my building, I do not feel any different than I felt in high school. It is even smaller than my high school (EDU-C2).

At the first time, I told myself “what is this?” and “it is so small”. Even the classrooms of the Department of Basic English are more beautiful than this building. At least, its walls are made of brick and it has a style. When I first saw the EDU building I thought that it was very bad (EDU-B9).

These quotations focus on two issues: the size and the appearance of the buildings. Regarding the size, students made a comparison of the buildings in DU with the ones they used and/or saw before and they want to be educated in bigger buildings than the buildings they use before. The second focus is the appearance of the buildings which is the next discussion subtitle of this section.

4.8.5.3.2 Architectural significance of the buildings

The appearance of the university building is one of the significant features representing the university. When the quotations above are examined, the appearance of the buildings is one of the desired features for the students. One student mentioned openly the appearance of the building, while another student talked about the structure of the wall. The third student gave the ARCH building as a good example for the desired appearance. Regarding the buildings, many students stated that the best and the most stylish building is the ARCH building and it is architecturally important. Furthermore, students also commented on the IE building and it is defined by some students as a visually different and beautiful building. The essence of all these examples is the architectural significance of the buildings which is constructed by students themselves.

In terms of the campus building in general, two different groups of ideas emerged regarding the architectural importance of the academic buildings. First group stated that the DU buildings have architectural significance which has a unique identity, which is moderate, and not flashy. A few students stressed that the campus design has its own philosophy saying that focusing courses should be the first concern for students. The second group of students compared the buildings in the campus with the architecture of the buildings of universities in Turkey, and they underlined that DU buildings do not fit to their taste and expectations. They named some of these universities that has a different architectural style than DU. One of the students from the first group stated his ideas like:

Normally, in Turkey buildings are colorful, painted, and plastered. However, this is not valid for this campus, which takes attention. I wonder why these are exposed concrete. Moreover, for a student coming from high school, this building does not resemble a high school which has small windows and ordinary desks. These type of buildings make one feel that it is university. Maybe, I like it because of these reasons (CP2).

4.8.5.3.3 Non course –oriented building

According to the students, academic buildings do not represent the concept of the university building. Academic buildings are places where consist of several numbers

of classrooms and narrow corridors with no or little space for socialization. The data analysis yielded that some buildings carry these major features; therefore they are called as academic building such as high school, or as dershane [It is a non-governmental private school that gives extra lectures to students to prepare them for the national exams. These institutions are built on profit and can even serve in buildings without any educational facility except the classrooms.] These buildings are the Engineering buildings, the Basic English School building, and the EDU building. The message these buildings convey is “come to courses and then leave”. Two ARCH students resembled the Engineering buildings to a high school and provided reasons behind it:

Before going to the Basic English School, there was a campus trip. At that time, I liked my building [the ARCH building] because when I visited the campus [in high school], we walked in the Engineering buildings, where there are not many windows, and which have narrow corridors, which means that these are built only for teaching (DARCH1).

Engineering buildings are like high-school buildings. These buildings have only one canteen, several classrooms, and faculty member offices. For university education, there should be larger inner areas for students’ socialization. Those buildings are ordinary and official however here [in the ARCH building], the formality is broken. We have a totally different and warm environment. Other students come to our building out of academic purposes. Our building is a socialization place while others only fulfill the academic needs. Those buildings say “only come to the courses and leave”, while ours says “you may come for courses or not” (CP6).

As well as the socialization spaces, one of the necessities in buildings is to provide all the facilities related to disciplines. A building only with classrooms connotate in students’ mind it is either a dershane or any school which is not specific to any discipline. Following quotations focus on the facilities and recourses in the academic buildings as symbols of the university:

A university cannot be a floor on top of another; it is not a high school with two classrooms, one for Business and two for other disciplines. Such universities [with less building] seem that they have fewer materials and sources. However, this campus is well established reflecting the notion of university (GEOE7).

I liked DU in my first visit, because it had many buildings. For example, X university is very dense; that is, each [department or faculty] is in the same

place. This feature [special areas to each department] of DU is nice. Of course, more buildings do not mean it is better. But, my department has its own space; I have personal space in my building, and my department has several large buildings. These make me feel good. If there are more buildings, there are more laboratories or more study halls. In my department, there are many buildings; for example a large area is allocated to the design course which we are pleased to use (EEE10).

Moreover, if an academic building provides the facilities related to subject area and if that academic building indicates that which discipline is taught in there, it is seen as a university building. Therefore, an academic building should be specific to each discipline. For example, the ARCH building includes artworks and students' works and it consists of studios which enable students to study as an Architect; the GEOE building has a museum showing many different types of stones and it has several items on the walls such as maps and tables; and Engineering buildings have several science laboratories. Hence these buildings are specific to field and they are seen as a university building.

Moreover, the campus contains some academic buildings which fit to the idea of university in students' mind. These are the ARCH building, the IE building and block B in EAS because these provide places to students' diverse social and academic activities. With the following quote, one EDU student gives block B in EAS as a good example of the university.

I don't like narrow and long corridors where a series of classrooms are lined up. For example, the Business building can be a good example of the university building because it has large spaces. There are places in addition to canteen where students can sit and spent time. There are also chairs, armchairs and tables. We have a real trouble of lack of space in this building [block A in EDU]. For example, we should study in groups on the projects; however, there is not any suitable area for this in the EDU building (EDU-A10).

The university building means that students spend time for their academic and social activities and they share their knowledge and experience with friends and they learn and realize their friends' perspective and they enrich their experiences via peer-communication. Therefore, the building fulfilling students' academic, social, and personal needs transmit the message that it is a part of university.

4.8.5.3.4 *Lecture hall*

Lecture hall (large classrooms organized in the shape of an amphitheatre, called “amfi” in Turkish) is the other physical element representing university according to some students. These students prefer to attend a class in the lecture hall and feel in the university. Half of these students are from EDU. Their buildings do not have lecture halls, thus they stressed the lecture halls in other buildings (especially lecture halls in block B in EAS).

Ideas of students from different departments about the lecture halls are as follows:

The term university reminds me of a lecture hall. The reason can be the films showing the lecture hall in the university, that is why I had such an expectation (EAS-B4).

The lecture hall also has obvious advantages. There are physical advantages: For example, the sound reflects and echoes better and it is easier to see all people in the lecture hall, but it primarily makes me feel that I am at university (EDU-A6).

The only lecture halls, which I differentiate, are the biggest lecture halls of the IIBF-B. It includes a swivel chair for each person. These are huge. These fit the model of university in my mind: a crowded class, the instructor coming and lecturing. There is a large board and instructor is lecturing and leaving. This is not like let me make a note of this in case the teacher asks, or teacher saying “do not turn back and pay attention”, and a place where attendance is taken. Because the lecture is a knowledgeable person, s/he delivers the knowledge and the person, who wants to gain knowledge, comes to course and gains whatever they want in the way they want, that is the logic. However, in my department, there are courses in which attendance is compulsory (EEE10).

In addition to the students who explicitly stated that the lecture hall represents the concept of university, the lecture hall as a teaching space was an issue for many students who were interviewed. In the buildings which include both classrooms and lecture halls, students differentiated between these two teaching spaces. Some of them prefer to take a lesson in the lecture hall and they feel comfortable; while some others stated the lack of concentration and acoustic problem causing not to hear the lecturer. Most of the students agree on that the biggest role of the lecture hall is to gather a large amount of the students.

All in all, if the building is different than the high school in terms of its appearance and size, if the building has many social areas as well as the teaching spaces, if the building includes lecture halls, and if the building serves a specific field, this building is more likely to be accepted as a university building. This conclusion is also observed in the data in general because the most frequently mentioned buildings have these criteria. First of all, the ARCH building is an architecturally beautiful building including many open spaces inside, and inner yards, which enable students to be socialized. Second, the IE building is a different and uniquely designed building including many study areas and facilities. Finally, the Business building is the newest building with many lecture halls and open study spaces. On the other side, the GEOE building, the EEE building, and the EDU buildings were accepted as places where the only courses taken mostly.

4.8.5.4 Meaning of university: Campus itself as a physical indicator

In general, the focus of the students about how the university should be was that the university environment should fit the students' needs. Having more facilities for the benefit of the students is a very significant element to makes a university the university. It is commonly accepted that the Dynamic University possesses the attributes that identify a university. The single campus itself breeds a university atmosphere. Single campus unites all elements of the campus environment and all parts in it. It serves students not only with academic buildings, but also other facilities such as alternative dining options (cafes, restaurants, canteens, and fast food options), social places (student clubs room, playing areas, and the public and open spaces), and sport places (swimming pool, tennis courts, football fields, and gymnasium). The campus also includes the residential facilities for not only the students but also for the faculty members. Moreover, this campus is not for a particular student group, the campus embraces all students from all departments on campus and it connects students from different departments. As well as these features, because the activities held on the campus which were enabled by the physical structure of the campus, the life among all participants of the campus survives and maintains. These valuable features together make DU a real university. One student shared his experiences and feelings about the campus environment as:

Before being a student in this university, I visited this campus. At that time, I said to myself “yes, this is a university”. I came in the summer time when there are fewer university students. Students were laying on the grass, playing guitar, and the relation between students were nice, and there was a social and comfortable environment. I liked it all. Moreover, there were a lot of green, a shopping center, sports centers, and there were lots of facilities, then I thought that this was a big university (IE4).

Because the university life is not limited with the classroom environment and the life on the campus continues, this showed that the university own the necessary criteria what the university should have.

Being a single campus is a promotive factor for an enhanced university life whether the students are resident students or not. The students define the university life is not only studying course also socializing, joining any other activities. “No need to go out” as a concept is evaluated by the meaning of the campus, that is the campus says “do not go out, stay on campus”. Because the campus consists of many facilities as well as the academic buildings, because the buildings fulfill the students’ different needs, and because the campus with all these facilities enable to student spend time out of class, the campus mirrors the idea of “don’t go out of campus and concentrate on your study”. In line with these notions, students’ comments are as follows:

The purpose of the campus is to create an academic and scientific environment because it is far from the chaos of the city and the city life. Life is difficult for everybody. Therefore, the purpose is to escape from these chaoses and focus is on science more. The campus is surrounded by trees to show this purpose (EDU-C4).

If I had stayed in home, I would live far from the students’ life. It would be a domestic life with a television. However, on campus, when I see my friend who is studying or who is getting ready to study, I feel that this university is a cradle of science and living inside campus means living with science (EEE6).

Moreover, these facilities provoke to facilitate these opportunities and to develop students themselves. Although the development depends on the students’ characteristics, and whether the students spend their time to develop themselves intellectually and socially or not, according to some students, the campus itself indicates that its focus is the students’ development. One student’s interpretations of the purpose of the campus architect are as:

This university is established in order to make students socialize and provide students with a good campus life and to give more modernist and prospective education than the years when it was established. That was a good job. They thought that the campus should be beautiful because the time the students spend there is a very critical period in their personal development (GEOE11).

On campus, the academic buildings itself provides opportunities in some extent. In the Dynamic University, many departments have own building, which is especially valid for the Faculty of Engineering. Even some Engineering Departments have multiple buildings. For example, the Department of the Civil Engineering has thirteen buildings, EEE consists of more than 5 buildings. All these showed that the departments have many opportunities in terms of classrooms, laboratories, and social facilities. If the buildings have own area and building with many opportunities are an indicator of the developed university.

Because the building is far from the Rectorate building [the campus center], we sometimes have troubles especially in cold days; however, I do not have complaint about this issue because there are other academic buildings in the same situation. You couldn't gather all academic buildings in one area, at that case it can not be a campus, it would be an apartment building. I don't complain, even I like the distribution of the buildings on campus (GEOE7).

What makes university "university" is the free environment provided to the students. Freedom is created by the Dynamic University environment. The Dynamic University campus in general gives the feeling of the freedom to students. As mentioned the section of the feeling, the campus symbolizes the independence with natural elements and social components; the life on campus make students free. The following two quotations showed the students' feelings of the freedom.

The language of this campus is limited to your dreams. You can do everything in this campus. You are free. This freedom contributes a lot to our future life and career; this freedom will make them think and express themselves freely after graduation (GEOE10).

Messages of the campus can be this: "independence in every respect". Independence can be more in freedom of thought. It can be transformation of physical freedom to freedom of thought. That is, you are free physically; nothing makes us restricted (EAS-A10).

Freedom is on the center of the concept “university”, therefore any restriction due to the limited use of any physical environment is the consideration removing the idea of university. For example, not allowing to the outside students’ usage of a computer laboratory allocated to a particular department, closing the central library, unlocked any door (e.g study hall, reading room, classroom and laboratories) out of working hours are the restrictions. Although the students reasoned why these places are locked and they stated that some reasons are logical, the students’ desire are to be more freedom to use places when they need in any time. A university should remove these restrictions for a more participatory, comfortable and lively university environment.

4.8.5.5 Prestige elements of the university

As stated by some of the participants, the university pays more attention to some places and areas in the campus environment. The prestige elements are distinguished with its maintenance, its role in the university, and the importance given by the university administration. These three factors were discussed together in this section, because these factors could not be separated. For example, when a place has a significant role, its’ maintenance is high.

The maintenance is the more salient factor indicating that the place is important. If any place is well-kept more than the other places, these places are seen as prestige elements by the students. Specifically, the Physics Lawn and the Culture and Convention Center (CCC) and their surroundings are two places which are well-kept by the university administration, and they are different in terms of its appearance from the other places. One of the students photographed differences between two places in terms of maintenance and indicated his ideas on this as follows:



Figure 4.8.51 Photographed by PHYS4



Figure 4.8.52 Photographed by PHYS4

This is the path going to Cafeteria, I like this path because it is well-kept. Now it is not seen clearly but they plant flowers and they bloom in the summer. It is a very nice place in summer (PHYS4).

The following photo [the right hand photo] is the place where the care is absent; however, this place should be just like that [the left hand photo]. Why doesn't the person caring for that place [the left hand photo] also care for this place? If you fall in this place, you can get injured; therefore not caring that place is a very wrong [policy]. Researcher: Which places are taken into consideration? -For me, the inside of the buildings is not maintained well; however, the outside of the buildings is nice. For example, when someone comes to our department and sees the outside of my department building, s/he says that it is nice; however, when that person goes into the building, s/he says that it is neglected. I think that because the DU administration knows they couldn't maintain everywhere, they only give importance to the visible parts of the university (PHYS4).

Moreover, the Physics Lawn is a very popular open space which is used by many students. One of the reasons choosing this area is its maintenance and its beauty. Furthermore, its location is very strategic because it is seen as the center of the campus.

About the CCC, the students defined that it has a different design, it is big and ostentatious. It has a different structure than of the academic buildings. Even some of the students criticized that it is not a student area and it is for the graduates or the academicians. The reasons for this critique can be counted as: (1) The price of activities held in CCC is too high for students' budget, (2) If the student clubs desire to organize an event in the CCC, they need to pay, which is also not suitable for the clubs' budget and which is not reasonable according to the students, and (3) The

luxury atmosphere of the CCC is not appropriate for some students clubs' moderate themes. One of the students' ideas about the CCC is as:

CCC and its entrance seems as if it was not a part of Dynamic University. This building seems different; it is the modern face of this university, which opens to future. The meetings are held there (ID2).

For some students, CCC is the first place they saw in DU as the Dynamic University Promotion Days and Registration were held in the CCC. Stands were set up inside the CCC. One student mentioned the first impression about CCC as:

My first impression was like that: A1 road is a very nice road. I walked on this road till CCC. Natural beauty of the A1 road was very nice. When I came in the CCC, I said to myself that if a university had such a building [big and beautiful], it should be a really good university (EDU-C1).

After his experiences with the CCC, the same students shared his ideas like that:

CCC makes me feel like this; the first time I did not consider like this, but now I think it is a place where mostly the graduates use and where the school uses when it wants to show off because it is more different than other buildings (EDU-C1).

As well as the CCC, block B in EAS is the other building which is used for the introductory meetings. About the IIBF – B buildings, some of the insider students stated that that building is used as a visiting place and also that building held many academic activities and organizations. These places were evaluated as the visible side of the Dynamic University. Due to reasons explained above, these places are considered as the prestige elements of the campus, thus they are among the visiting places of the campus tour for incoming students.

Two students made comments on the general campus environment regarding the most popular and neglected places as follows:

Before being a student in this university, beautiful places of this campus were showed to us. I guess they [the university administration] want us to discover the bad places later (EEE4).

When you, as a new comer, come to school, you can spend time in the shopping center, or you come to theatre in the CCC or you can spend time in the *Café 1* which is one of the known places. All these places attract people. I

think that there is a kind of hidden policy that in order to advertise the school well, the school keeps these places well and gives an importance to them, rather than considering students. For example, the maintenance of the surrounding of the CCC is not the same as the maintenance of my department. Although the campus center where everybody sees is well kept, places where the students spend time are not given importance (GEOE2).

Prestige elements of the university are realized only by some students but not many students. This depends on students' experience and observation. For example, if the introductory meeting was held on the technologically enhanced lecture hall and this lecture hall was not used during their education, the students began to conceptualize that some places serve for the special usage of the university.

The other example is from the sport areas. One student is playing football in the campus football fields, however he had some problems about accessing the football fields and the maintenance of the football fields. There are three football fields on the campus, while there are twelve tennis courts, which is a problem for him, it is an indicator that the tennis is promoted by the university administration but not football. It is necessary to indicate here that, this was realized and stressed by only one student and he is not the only football player among the participants of this study. However, it can be possible that he had more problems while accessing the football fields than others or he languish this problem more than others. In this respect, it can be assumed that a student who is playing tennis cannot realize the differences regarding the lack of importance given to the football fields. If a student complains about any place due to the lack of care related to the physical environment, there is high possibility that those students realize the prestige elements more.

CHAPTER V

CONCLUSIONS

In this chapter, conclusions concerning the functions of the physical environment as hidden curriculum are discussed. This part of conclusion is titled ‘conceptualizing the physical environment as hidden curriculum’ and it includes two main subsections: student influences and the physical environment. Under the heading ‘student influences’, the following subheadings are explained: students’ past experiences and their expectations, students’ experiences with a setting, student personality, students’ awareness and adaptation, students’ education and training, students’ learning pattern and their needs and the relationship between these factors and physical environment. Then, the section of the physical environment is divided into three parts, respectively: impact of the physical environment, meaning of the physical environment, and invisible side of the physical environment. Finally, this part is concluded with implications for theory and practice and recommendations for further research.

5.1 Conceptualizing the Physical Environment as Hidden Curriculum in Higher Education

“Individuals change the environment and their behavior and experiences are changed by the environment” (Gifford, 1997, p. 1). Lewin (1951) created the formula ‘ $B=f(P, E)$ ’ to explain that behavior (B) occurs as a result of personality (P) and environmental factors (E). This main assumption of the field of environmental psychology has been subject to many disciplines. Not only psychologists, environmental psychologists, architects, and designers but also sociologists, ethnographers, politicians and educators searched the mechanisms and relations in the transactions between individuals and their physical settings. In these transactions,

two main elements (individual and the physical environment) are inputs, while the results of these transactions are outputs. In this study, the ‘individuals’ are undergraduate students. The physical environment means built settings, such as academic buildings and other facility buildings (e.g. library, cafes, and cafeteria), materials in the building and campus environment (furniture, bulletin boards, and sculptures) and natural settings on campus. Correspondingly, this chapter includes these two inputs. First of all, ‘student influences’ are explained because it was concluded in the study that human characteristics are influential in order to create and define environments. Secondly, the physical environment, its impacts and its hidden outcomes are examined.

5.1.1 Student influences

Individuals who share an environment are transmitter of the environment as their characteristics compose the dominant features of that environment (Holland, 1973). Although the Dynamic University (DU) students’ ideas, experiences, and perceptions about the physical environment form a common structure basic to understanding the student approach to environments presented in the previous chapters, all students participating in this study reflected different aspects that are unique to themselves presented in this chapter.

Gifford (1997) asserted that personal influences including gender, personality, education and training, experience with a setting, and whether a person likes the setting are influential factors on environmental perception. As well as these influences, there are many factors in forming students’ perception toward the environment emerged in this study: (1) students’ past experiences and their expectations, (2) students experiences with a setting, (3) student personality, (4) students’ awareness and adaptation, (5) students’ education and training, and (6) students’ learning pattern and their needs. These factors are presented in Figure 5.1.1.

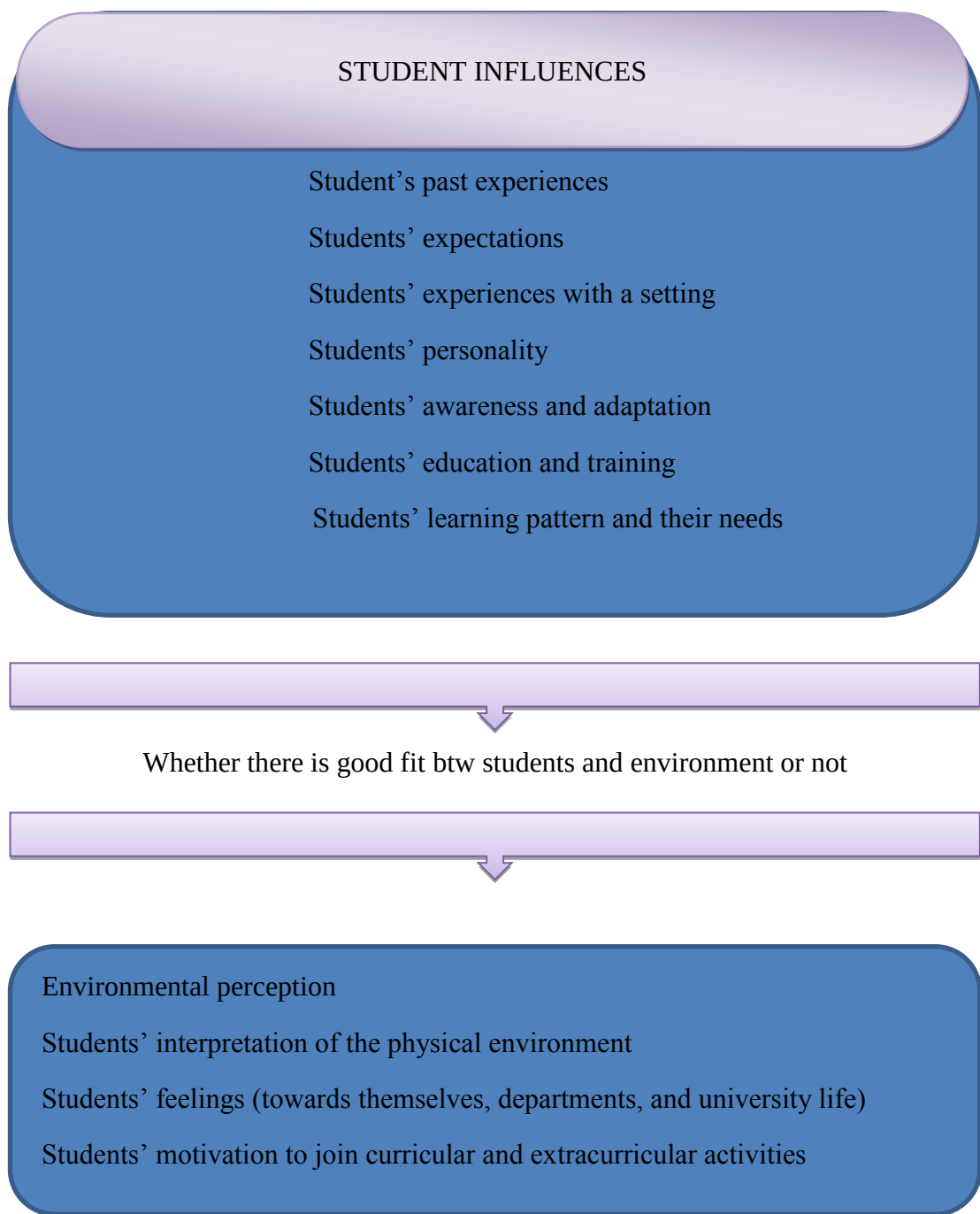


Figure 5.1.1 Student influences in forming students' perception toward the physical environment

5.1.1.1 Students' past experiences and their expectations

Students' past experiences and their expectations refer to the time before that a student comes to DU. Each student has experiences with the environment before coming to university, which forms students' schema. Norberg-Schulz (1965) defined schemas as "a typical (stereotyped) reaction to a situation, that is, as a typical attitude or a characteristic coherence-system of intentional poles" (p. 41). Schemata are formed during socialization. In this respect, two factors forming students' aspects toward their academic building and campus environment were observed: their last school building and the city that they lived in. Students compared their academic building with their last school building, while they compared the campus environment with the city they lived in. In this comparison process, equal and better conditions in the university made students gain more positive feelings, however, worse conditions in the university resulted in negative feelings that students have toward the physical environment of the university. For example, if their high school building was larger than the current academic buildings of the undergraduate students, this made some students upset. Or, if the campus was as green as, or greener than the city that students lived in, students became happy. Within this respect, their academic buildings are ordinary when it is similar to their schemas gained by previous life experience via the school building. On the other side, their department buildings are unusual, which is desirable, that is; the buildings have different design characteristics which students have not seen and/or experienced before.

Every student comes to the university with expectations related to the physical environment. Expectations and experiences of students before coming to university influence their feelings (e.g. sense of belonging toward the building and their mood in daily life). While some students had visited to DU before, most of the students did not have not any experience in DU. University brochures, university webpage, and ideas and experiences of other people who had been in any university campus or in DU before compose the students' image of the university environment. Because the students come to DU with this concept of university, if the environment does not fit their previous image and expectations, this brings in negative feelings and this

decreases their motivation to go to the department. On the other hand, if the university environment meets their formed expectations, they have positive feelings and are more motivated to come to class and study.

5.1.1.2 Students' experiences with a setting

Gifford stated that one of the factors influencing the environmental perception is one's experience with or evaluation of the setting and "even small differences in familiarity can affect perception" (1997, p. 22). In this research, although there were clear differences in experiences and evaluation of the physical environment between the freshman and senior students, there were some exceptions in that some students who had fewer years of experiences provided richer descriptions and evaluations about their environment. This may be due to their observation or verbal ability. Moreover, these students may be effected from their environment more than the other students. However, some students use more facilities in the campus, so they know much more places than the others. Some students like to walk rather than using a vehicle, and therefore they explore more places and areas of the campus and so campus become more familiar to them.

The students who spent more than six years on the campus might have witnessed many changes. In those years, the classroom seating arrangement could be changed, the use of any area could be restricted, and the new physical stuff could be installed. Because these students saw the differences over time with their real experiences, they evaluated these changes in detail; therefore, their evaluations were more informative in understanding the hidden side of the physical environment. This made it possible to compare the old and new version of any physical entity and to reach conclusion on differences created by these changes.

Moreover, place is constructed via a receptacle of shared memories and customs (Corcoran, 2002). Student memories taking place in a particular environment is critical in forming the meaning of the environment. Positive or negative memories and experiences affect students' appraisals toward a specific environment. For example, as the findings showed, if the students take an examination in a class and if the result of this examination is not satisfactory, the students' memories are negative,

and this results in ongoing or unending negative feelings that they have. However, if the students spend good and enjoyable time with their friends in any place, if they take a course and they like this course, they have positive feeling toward that particular place.

5.1.1.3 Students' personality

The field of personality deals with the entire individual and with individual differences. As Pervin (1993) stated: "Although we are each unique in some ways, in other ways we are like some other people and in some ways we are like all other people" (p. 4). Moreover, cognitions, affects and overt behaviors are components of the personality and this field is concerned with the complex relationships among these components and processes created by them in the person. These processes may be influenced by stimuli and situations, some of which are created by the environment and some others by the person (Pervin, 1993).

The study also indicated that the students' personalities change their own views toward the physical environment. For example, some of the students prefer to live in the academic building which has different architectural value and which reflects the history lived within it. On the other hand, some students wanted to study in a modern, new and technologically-equipped academic building. Another example is that some of the students are like inspectors that they use each part of the building and know each detail about the building. They know the faculty members' areas; who use which room; which room was the biggest one and who uses that room; which faculty members are cross with each other and so their offices are not on the same corridor. This may be attributed to their self-confidence, their curiosity, their good relationships with faculty members, and their observation skills. On the contrary, some students know only the basic places which they have to use during their campus life.

5.1.1.4 Students' awareness and adaptation

Gifford discussed the level of the people' awareness and adaptation toward environment in his book 'Environmental Psychology'. Awareness and adaptation

refer to choosing a few cues from scenes and ignoring other cues (Gifford, 1997). Some of these cues can be important for people. He asserted that we may actively examine the environment from time to time (e.g. the first look to somewhere, and while renting a house). On the other hand, we may be unaware of our surroundings because human perception does not always focus only on physical entity; it is sometimes on the human and social characteristics of environment. As mentioned by Gifford (1997), the students in this study have different level of awareness and adaptation toward the physical environment. Based on the findings of this study, there are many examples showing this fact. One of these examples is that although ten students were interviewed about the same building, only one student mentioned the list of the students, which was hung on the wall in the study hall and which showed whose grades are 4.00 (the highest grade). When mentioned this feature, the student did not elaborate on the reason(s) for hanging the list of wall or the academic purposes of the administrations; he just mentioned it as an object while describing the study hall. When the researcher asked the reason(s) behind this list, the student's answer was that "the faculty may want to motivate us to be good achievers". These wall hangings are significant impetus to teach the norms as accepted in the literature however it is quoted by only one student. The other example is that some students realized that some furniture placed for their use was second-hand (e.g. used by faculty member or students in other departments before), which made them angry. However, some students did not realize this fact so they did not criticize the situation. Or, they did not consider this as a problem and the current function of the furniture, which was useful for them to sit and study on, was more important for students.

There are two possibilities in these situations. First, the students' awareness and adaptation level can be below the researchers' expectations. In this case, the researcher interested in the hidden curriculum should study and question the hidden curriculum research more because many hidden curriculum research is based on the researchers' point of view, not the students'. Second, although students are aware of many physical entities surrounding them, their focuses are not really on these and they do not care about them. In both situations, for hidden curriculum research, a

researcher should study one particular area (only with canteen and/or study hall) with qualitative methods (e.g. interview and observation) and should ask more direct questions.

5.1.1.5 Students' education and training

Another important difference in perception is based on education and training. "Along with the basic knowledge we acquire, we seem to learn a *way of seeing* that is characteristics of our chosen professions" (Gifford, 1997, p. 22). Gifford gave the example of this statement in evaluation of the roads and dams. While an architect sees form, light, and color, a civil engineer pays attention to slopes, streams, and valleys. Hereby, in the evaluation of the environment, specialized education in their profession is a key individual difference.

This deduction was seen clearly in this research. The clear differences were between the students studying in social sciences and the students studying in engineering. While social science students gave more detailed descriptions about the environment and their words were loaded with more meaning towards the environment, the engineering students' descriptions of the physical environment was simple and their evaluations and ideas were more related to the functions of the physical environment. While analyzing the data obtained from the students studying in social sciences, I spent more time and therefore, more descriptions and students' affective evaluations (feelings toward the physical environment and the meaning of the environment) were documented in the case section about these social science buildings (see part 1, 2, and 3 in Chapter 4). On the other hand, it can be realized in evaluation of engineering buildings that less interpretation of the physical characteristics was provided. It is necessary to underline that this conclusion is general; in other words, this does not mean that each engineering student made less comment on the physical environment than social science students.

Among the social science students, the other apparent differences were realized while evaluating the physical environment was obtained from the ARCH students. The ARCH students provided more detailed descriptions and evaluations of the physical environment; furthermore, it was seen that their knowledge about their

department building and the campus environment shaped their evaluation. For example, evaluating the physical environment of the library interior design, while the EDU students mentioned that the library depicted a beautiful view, according to the ARCH students, it was beautiful because glass as a material was used in the design. Moreover, since they have been educated the history of the campus design, and they have used the building as a subject in their course, their interpretations of their own building and the other buildings on campus were more technical.

5.1.1.6 Students' learning patterns and their needs

A number of researchers have identified the subcultures of the students in a college environment which is shaped from the behavior of people who reside in it (Walsh, 1973). Each student's learning pattern is different; each learns in a unique way.

Clark and Trow, among those who conceptualized the subcultures of students on college campuses, define four subcultures (the Academic, the Nonconformist, the Collegiate, and the Vocational student) with their observation that "certain broad patterns of student orientation toward college which tend to give meaning to the informed relations among students" (as quoted in Walsh, 1973, p. 41). The students who belong to the Academic subculture study hard, have tendency to broaden their knowledge, achieve high grades, join in campus life, and identify themselves with prominent intellectuals, scholar, and faculty (Bogler & Somech, 2002; Strange & Banning, 2001). The Nonconformist students maintain a "critical detachment from the college they attend and its faculty, and a generalized hostility to the administration" (p. 42) and they can be in residual categories such as hippies, bohemians, political activists, and rebels. Students in the Collegiate subculture tend to value the social and extracurricular activities in college life with a limited interaction with faculty unlike the 'Academics'. Finally, students in the Vocational subculture focus more on acquiring training for a particular career.

As well as Clark and Trow's subcultures, Holland developed a theory of personality types and a model environment for each type of personality. The main rationale of this theory is that "human behavior is a function of personality and environment" (as quoted in Walsh, 1973, pp. 63-64). In Holland's schema, heredity, cultural, and

personal forces; that is, individuals' life history and the physical environment are influential to choose a vocational career. He described six basic personality types: realistic, investigative, artistic, social, enterprising, and conventional. He extended his typology into a model environment; that is, each personality type needs can be fulfilled with a particular environment (Strange & Banning, 2001). Each personality type is related to the following physical and social environment: realistic, investigative, artistic, social, enterprising, and conventional environment. Inconsistency between personality type and environment produces dissatisfaction such as changes in vocational choice, lack of achievement, and personal instability (Walsh, 1973).

Like Crow and Trow, and Holland's studies on the college students' characteristics and the environment, Astin (1968) defined the college students' activities in order to understand the effects of a specific campus environment. He reasoned to what extent a campus environment affects students' intellectual and academic interests, and, which observable and measurable behaviors (e.g. the frequency of student-student discussion and faculty-student interactions) are consequences of that campus environment (Strange & Banning, 2001). By using the Cooperative Institutional Research Program's (CIRP) survey, Astin (1993) identified seven typologies of college students which can be differentiated according to students' behaviors, expectations, attitudes, values, and self-concept. These seven typologies are Scholars, Social Activists, Artists, Hedonists, Leaders, Status Strivers, and Uncommitted students.

Each student' learning pattern in this study is also different; each learns in a unique way. Some students are 'Nonconformist' students such as political activists defined by Crow and Trow and they have tendency to criticize university administration negatively. Some of them are 'Scholar' in Astin's typologies and they study hard, they try to be high achievers, they have aspirations for high-level academic degrees. Moreover, some students can be defined as Academic and Scholar and they study with faculty members and they use faculty members' areas (e.g. laboratory and research center), and some criticize decisions of administrators because they see clearly the unequal differences between students areas and faculty member areas.

Conversely, because some of them have good opportunities by using faculty members' areas, they are satisfied and they do not condemn administrators. Furthermore, the Collegiate students would like to join social and extra-curricular activities and if they find a place for these activities, they are satisfied, however if they do not find a place or any opportunity, their needs' are not fulfilled. Consequently, every student's experiences and perspectives are different, and their evaluations of the environment yield more distinctive results. Therefore, in the hidden curriculum research, defining student characteristics with standard scale could be helpful in interpreting results as a point of hidden curriculum.

Furthermore, except that the needs that arise from students' own personality and learning patterns, they have many other different needs. Humans' needs are categorized by Maslow who is a humanistic psychologist. He proposed that individuals have a seven-level hierarchy of needs and this hierarchy forms the principle for motivation (Maslow, 1943). These needs are arranged in a ladder/pyramid starting with lower needs and moving on to higher needs. A lower need must be satisfied in order to move beyond for person's development (Krech, Crutchfield, & Livson, 1974). From the bottom to top, the needs are, respectively, physiological needs, safety, love and belongingness, esteem, cognitive, aesthetic, and self-actualization needs. The first four levels of needs (physiological, safety, love and belongingness, and esteem) are called deficiency needs, while the other three higher-level needs (cognitive, aesthetic and self-actualization) are called growth or being needs. As well as this classification, university students' needs can be gathered under three types of needs: basic needs, socialization needs, and educational and academic needs. Basic needs are physiological needs and safety in Maslow hierarchy. Socialization needs are related to love, belongingness and esteem. In university environment, students spend long days together, thus they should have opportunities to select a place when they need to be with people or a special friend and when to be alone. Making these choices can regulate students' own rhythm in forming their social relationships. Educational needs are related to students' academic studies. For example, students under a particular department have different responsibilities during their education therefore; students' needs during their university education vary from

department to department. For example, in this study, while the EDU students focused on socialization needs, the EEE students focused this need less than them. Moreover, each student's vocational purposes, expectations, and career plan is different therefore needs change from person to person. Thus, "[t]he ideal physical and social environment is therefore one that makes possible the gratification of each level of needs as it reaches its crest in the individual" (Krech, Crutchfield, & Livson, 1974, p. 462).

All in all, there should be student-environment congruence. Congruence in psychology means that there is a good fit, or correspondence, between one's needs, wishes, and preferences on the one hand and situation, rewards, and gratification on the other hand. Similarly, Tinsley (2000) defined congruence as the relation between desires and supplies.

The concept of 'person-environment fit/congruence' started a prominent position in the field 'industrial and organizational psychology. The assumption of the person-environment fit theory is that well-being and performance is a function of the transaction between individual and their environment. Good fit increases well-being and contributes to satisfaction, self-confidence, and high feelings of mastery (Edwards & Rothbard, 1999; Gilbreath, 2004; Kristof, 1996; Moos 1988 as cited in Gilbreath, Kim & Nichols, 2011), while poor fit can cause opposite outcomes including dissatisfaction, lack of self-confidence, depression, and boredom (Edwards & Rothbard, 1999; French et al. 1974; Leyden & Kuk, 1993 as cited in Gilbreath, Kim & Nichols, 2011). Although its' origin comes from different fields, this term 'person-environment fit' is suitable for also university environment, so it is used throughout this thesis. That is, student-university fit refers to the compatibility between what students want to have in a university and the characteristics of their university. One of the propositions of Holland's (1997) restatement of his theory related to person-environment fit declares "[p]eople find environments reinforcing and satisfying when environmental patterns resemble their own personality patterns. This situation makes for stability of behavior because persons receive a good deal of selective reinforcement for their behavior. The greater the discrepancy between people's personality patterns and environmental patterns, the more dissatisfying,

uncomfortable, and destructive these interactions become. . .” (pp. 67–68 as quoted in Spokane, Meir, & Catalano, 2000, p. 142).

Briefly, as stressed by Holland, a particular environment is necessary to fulfill the needs of each personality type. Students with various learning needs demand spaces with different functions such as supporting facilities and smaller classrooms on campus (Kenney, Dumont, & Kenney, 2005). Good student-environment fit is likely to result in increased satisfaction, well-being, and performance. Moreover, reaching a good fit environment is fortunate for students, as it can result in high self-esteem and self-efficacy.

5.1.2 Examining the built and campus physical environment

In this part, the transactions between individuals and environment are explored in terms of hidden curriculum. The general agreement is that the hidden curriculum includes the learning of attitudes, norms, rules, rituals, and values. Various definitions help to point out the conceptualization of the hidden curriculum. Bowles and Gintis (1976) claim that there exists a correspondence between the social relationships which govern personal interaction in the work place and the social relationships of the educational system. With regard to the hidden curriculum, they claimed:

The structure of social relations in education not only inures the student to the discipline of the work place but develops the types of personal demeanor, modes of self-presentation, self-image, and social-class identifications which are the crucial ingredients of job adequacy (p. 131).

Their quote indicates that a hidden curriculum is linked with outcomes. Similarly, Martin (1994) stressed on the outcomes of the hidden curriculum as stating that “a hidden curriculum consists of some of outcomes or by-products of schools or of non-school settings, particularly those states which are learned yet are not openly intended” (p. 156). With regards to the physical environment, Getzel (1974) differentiates four different classrooms in terms of the conception of the learner and the nature of the learning process so these classrooms “teach lessons of their own; they tell the child who is supposed to be and how is supposed to learn” (p. 538).

All definitions of hidden curriculum do not necessarily deal with the same phenomena. The kind of learning outcomes can be the impact of social, physical and cognitive environment, or the combination of any two. In this study, the physical environment was on the center in searching the hidden curriculum. The physical environment as hidden curriculum were conceptualized in three dimensions: (1) impact of the environment, (2) meaning of the environment, and finally, (3) invisible side of the physical environment (see Figure 5.1.2)

The schools' physical environment is surely pervasive and consistent in its influence (Gordon, 1982, p. 190). In this study, impact of the environment is pervasive in the students' university life, thus impact of the environment is the first described dimension. In this study, most of students' comments were concerning the impact of the built physical environment and campus physical environment. Therefore, this section is explained totally by students' direct comments relating to the built and campus physical environment.

Regarding the meaning of the environment, it is firstly essential to explain what meaning of the environment is related to. In order to explain the transactions between individual and environment, environmental stimulation can be evaluated in two ways; its amount and its meaning. The amount of stimulation varies according to intensity, duration, and frequency. "Meaning refers to each person's integration and interpretation of the stimulus information that arrives" (Gifford, 1997, p. 7). The meanings that individuals attribute to a place are fundamental to their experience of the environment. Meaning of the environment is to understand what a place really means for the people who spend time in that place. The meaning can be positive or negative and includes varieties according to people. In this study, meaning of the university physical environment was obtained directly from the participants. In addition to these meanings obtained by students' ideas, I also interpreted the meaning of the environment by insight gained from the data because not all students provided a clear description about the meaning of the environment.

Final dimension is the invisible side of the hidden curriculum. According to Seddon (1983), there are degrees of hiddenness as the relative nature of the word hidden and

its degrees originated from differential levels of awareness of any phenomena. He also asserted that hidden curriculum is not known by everybody, the knowing person may utilize his gains to achieve a particular outcome. Moreover, Vallance (1974) stated that hidden curriculum includes different degrees of intentionality, and the depth of 'hiddenness' as perceived by an investigator. At this point, an investigator's focuses and interests are very critical in order to interpret hidden curriculum of any phenomena. Researchers' point of view changes the interpretation of hidden curriculum in that a sociologist or psychologist examines the results of the same study differently. Therefore, learning from hidden curriculum and degrees of hiddenness can differ from one investigator to another. In parallel with this, because my field is Education, I illustrated my education point of view while examining the invisible side of the physical environment. The name of this dimension is 'invisible' because more than students' comments on the physical environment, the points that the students did not mention much were stressed. Moreover, my interpretations rather than students' ideas constitute the interpretation of the invisible side of the physical environment as hidden curriculum.

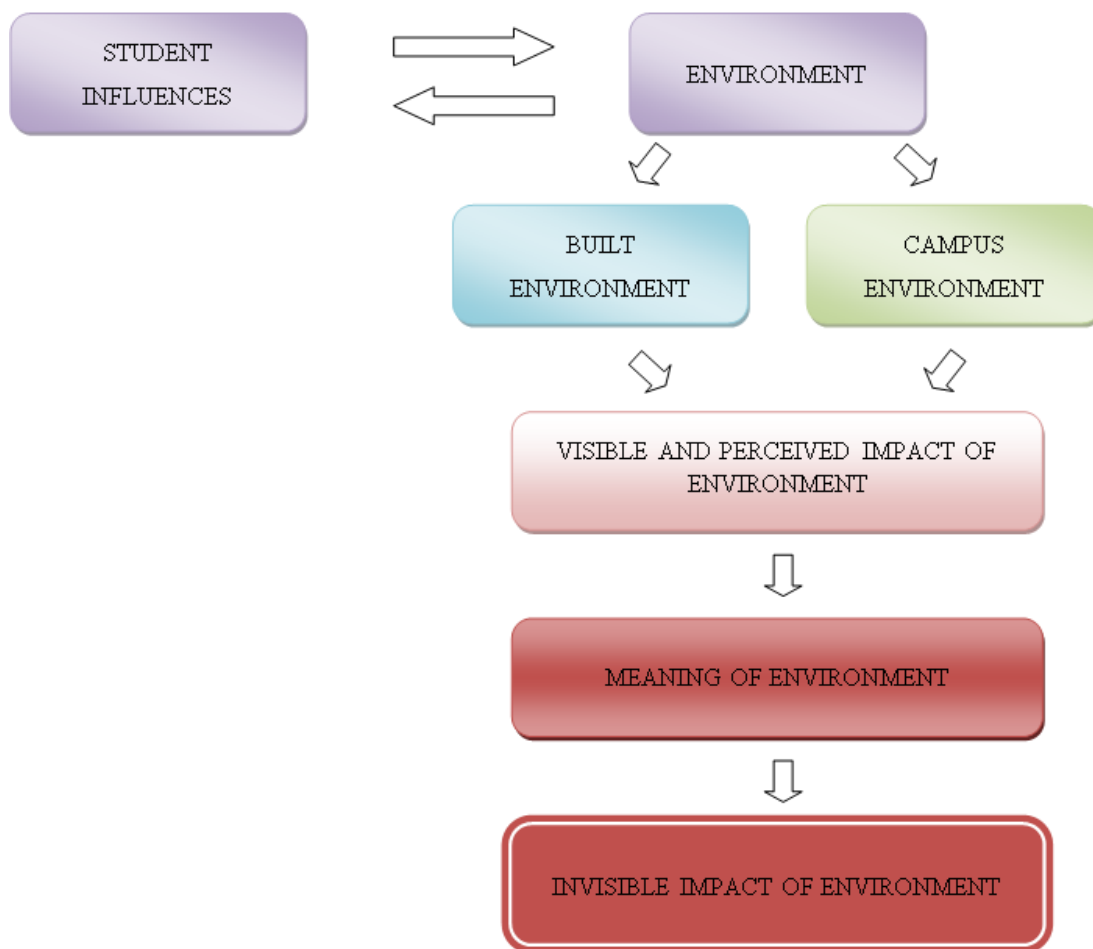


Figure 5.1.2 The summary of the conceptualization of the physical environment as hidden curriculum

5.1.2.1 Impact of the physical environment

The impacts of the environment are examined with regard to three subdimensions: (1) impact of the physical environment on students' socialization (see Figure 5.1.3), (2) impact of physical environment on students' feelings (see Figure 5.1.4), and finally (3) impact of physical environment on students' ideas concerning field specificity (see Figure 5.1.5).

5.1.2.1.1 Impact of the physical environment on students' socialization

One prominent focus of the interviewees by means of the physical environment was about socialization in general. Socialization is defined by Brim (1966, p. 3) as "the process by which individuals acquire the knowledge, skills, and dispositions that

enable them to participate as more or less effective members of groups and the society.” Weidman (1989) examined the undergraduate students’ world in terms of socialization and he asserted that “[u]ndergraduate socialization can...be viewed as a process that results from the student’s interaction with other members of the college community in groups or other settings characterized by varying degrees of normative pressure” (p. 304). Professional socialization as one broad types of socialization is related to initial preparation in university to acquire an occupational role and knowledge, skills, and dispositions necessary to achieve this role regardless of the setting (Crow, 2006). Therefore, what happens in the university, and what coursework is about are the focuses of the professional socialization. According to McKinney, Saxe, and Cobb (1998), scope of the professional socialization includes supporting learning experiences and well-rounded academic experiences, and providing knowledge and skills to help them to understand college life and sociological imagination.

Because an environment consists of an individual, the properties of space, objects and other people in the setting and social rules in culture (Ittelson, Proshansky, Rivlin, & Winkel, 1974), “[a]s a member of various social groups and institutions, man is socialized to behave appropriately in relation to specific physical settings, not simply to isolated stimuli, but to symbolic meanings of settings as well. Although we may separate the physical and social components of an environment, there is really only a total environment” (Ittelson, Proshansky, Rivlin, & Winkel, 1974, pp. 126-127). For university education, undergraduate students spend a lot of time in the campus environment. Places can connect individuals with other people and other activities. Accordingly, places in university environment should meet the students’ needs for community and provide many areas for their socialization.

Bennett (2007) discussed the concept of knowledge in higher education in two views: foundational and non-foundational view. The foundational view asserts that “knowledge is an entity formalized by the individual mind and verified against reality” (Bruffee, 1999, p. 180). Knowledge comes from external reality as connected with individual intelligence. Therefore, the individual scholar’s success is praised. In the foundational views of knowledge, classroom teaching, academic life, academic

reward system, and institution's prestige are prominent. On the other hand, non-foundational view of knowledge asserts that knowledge is constructed by individuals communicating within communities. Knowledge is constructed by a person who is working in groups. "All knowledge is therefore the "property" not of an individual person but of some community or other, the community that constructed it in the language spoken by the members of that community" (Bruffee, 1999, pp. 294–295). Non- foundational view is more popular in the issues in higher education (Bennett, 2007).

At this point, the role of physical environment is critical because the physical environment either encourages or discourages to do something. As emphasized by the students, being a university student does not only mean attending a course but also means meeting friends, sharing knowledge and experiences with each other, and organizing activities. It was concluded that a place providing more opportunities enhances this interaction among students. Therefore, in order to support the non-foundational view of knowledge, the physical environment should be well- designed in line with students' needs.

John Seely Brown (2001) observes the nature of learning and states as

Learning is a remarkably social process. In truth, it occurs not as a response to teaching, but rather as a result of a social framework that fosters learning. [It is] the learning communities that universities establish and nurture that remove them from the realm of a delivery service, or from being mere traffickers of information, to knowledge creators. An on-campus social learning environment offers exposure to multiple communities of scholars and practices, giving students broad access to people from different fields, backgrounds, and expectations, as well as opportunities for intensive study, all of which combine to form a creative tension that spawns new ideas, perspectives, and knowledge (p. 69).

In this point, out-of-class experiences are critical for the undergraduate students because students spend most of their time doing something except taking a course. Many research show that student involvement and student integration to university community are significant elements in improving students development and their academic achievement (e.g., Astin, 1984; Pascarella & Terenzini, 2005; Terenzini & Wright, 1987).

Importance of peer relations is defined as “the single most important environmental influence on student development” (Astin, 1993, p.xxii). One view is that the most important teacher of a student is another student (Chickering & Reisser, 1993). Greater student-student interaction, students’ forming network, and diverse experience with peers are positively related to the following: students’ development (Tierney, Corwin, & Coylar, 2005), intellectual development (Kuh, Pace, & Vesper, 1997; Whitt, Edison, Pascarella, Nora, & Terenzini, 1999; Pascarella & Terenzini, 2005), and personal development (Kuh, Pace, & Vesper, 1997). In this study, this role of physical environment was accepted by the undergraduate students. Providing a place to student communities can be primary force influencing student development in university environment. This provides a setting in which undergraduate students can come together, interact, discuss and study, in which professional identities may grow, and in which interprofessional relations are formed. As stated by Giery (2002) that “[b]uildings stabilize social life. They give structure to social institutions, durability to social networks, persistence to behavior patterns. What we build solidifies society against time and its incessant forces for change” (p. 35).

If an academic building provides a place, the community is formed by the students of that academic building. According to Chickering and Reisser (1993), student development is enhanced when students feel as a member of a community. This community can be established in ‘residence hall unit, sorority or fraternity house, student organization, and informal circle of friends’ (p. 398) without any place restriction. A community has the following advantageous: (1) it supports regular interactions among students, and establishes a basis for their ongoing relationships; (2) it provides opportunities for collaboration that students can engage in meaningful activities and battling common problems together; (3) individual can feel themselves useful; (4) it comprises of individuals from diverse backgrounds; and (5) “it serves as a reference group, where there are boundaries that indicate who is “in” and who is “out”. It has norms that inform those with different roles, behaviors, and status that they are “good” members or that what they are doing is unacceptable” (Chickering & Reisser, 1993, p. 399).

When we consider the cases in this study, the building providing students with a place was regarded as places increasing the social relations between students. As stated by Bennet (2007), “well designed spaces afford their occupants the opportunity to act in certain ways but do ensure that those activities will happen” (p. 15). This place can be a study room, an open study area, an atrium, a large corridor with abundant furniture, a club room, and canteen or café; that is, this place can be any place that students utilize in order to fulfill any need. For example, the Department of Industrial Engineering (IE) building includes a large entrance hall, a large canteen, study rooms, computer labs, and club rooms. The students of this building utilize each part of their buildings efficiently and one of the important functions of the building is to socialize the students. Almost same opportunities are offered in the ARCH and EAS buildings. With their study rooms, studios, open spaces and specialized activity areas, these academic buildings support a great variety of student activities that draw them together to exchange ideas, information, and fellowship. On the contrary, the GEOE, EEE and EDU buildings do not meet most of students’ needs.

Students identified a range of barriers and facilitator factors related to physical environment influencing their socialization: common place and large corridors with furniture, spatial arrangement in the building, and campus spatial arrangement and location of the academic buildings on campus.

First of all, common place and large corridors with furniture should be provided for students in order to be involved in any activity. An academic building should genuinely invite the students in; they function essentially as public territory for the students. According to Alexander, Ishikawa, and Silverstein (1977), in order to form a social group in a building, one of the necessary patterns is to create a single common area in the building which provides constant informal contact among its users. Moreover, the transition areas, corridors, and hallways should be large enough to allow for these spontaneous contacts. In order to make common places and corridors more functional, it is needed to keep the environment filled with enough benches and table and to make these places relatively comfortable which are large, spacious and light. These design criteria have been applied in the university

environment in the recent projects. Many academic buildings provide users with learning cafes, informal areas for seating, corridor niches or social ‘hubs’, and these spaces become playful settings (Boys, 2010). In this study, there were five contexts including the ARCH, IE, PHYS buildings, and block A and B in EAS. Providing common place and large corridors which are considered by students to have social functions. Since these common large places with benches and facilities for local sports gather many students and create visible social life.

On the other hand, as stated by Popenici and Brew (2013), restrictions imposed by the building design and general arrangement of transitional areas and corridors enhanced or limited in students’ mind. Actually, as Mitchell (2003) stated “[i]f you get [a] wireless reception under a tree, there really isn’t any need to be in a classroom” (as quoted in Van Note Chism, 2006, p. 26). In this scenario, a wireless under a tree means not going another place, not trying to find wireless that preserving time and making good use of time. In this sense, blank corridors without any function are just useful for going one place to another. However, any seat or table located on the corridor gains the function which is limited to students’ imagination. For example, a student can play any table game (e.g. scrabble, chess, and domino). Such places increase using that place, in turn increase the communication and relations among the users of the buildings. Alexander et al. (1977) proclaimed that if a building does not promote constant informal contact among its users, no social group survives. If students meet each other, they may share their experiences and a set of values. People with a shared way of life can form a community. However, in other cases of this study including the EDU, GEOE, and EEE buildings do not provide functional and large corridors. Unlike the ARCH, IE, EAS, and PHYS buildings, the students criticized their buildings which limit their social activities.

As well as the main places, if an academic building consists of the facilities which meet the students’ several needs, the students utilize the building more. These facilities can be a photocopy center, a stationery, and lockers. These facilities make students’ life easy and prevent them from wasting energy and time in going to other places. For example, because the ARCH and IE buildings provide many facilities, as stated by the users of those buildings, they do not need to go out of the building

which provides them with an easier life. This means keeping the students together enhances the social life in a building.

Another way to increase the interaction among students is to place a local sport such as a ping-pong table or a table soccer in the communal area. Local sports are considered as another necessary design pattern by Alexander et al. (1977) who states that “[t]he human body does not wear out with use. On the contrary, it wears down when it is not used” (p. 364). In the university environment, by means of local sports, students have an opportunity to use up their leisure time actively while they are socializing with their peers. For example, in the IE and PHYS buildings, there is a ping-pong table in the larger entry hall. Students, whether they play or not, like to have such an opportunity because it yields a lively environment; some students play, and others watch them. Moreover, providing relief from the academic study via these leisure time activities makes students relaxed and comfortable. Furthermore, they get rid of the idea that “only course-related issues are of concern in the building”.

Providing a space is a main criterion to encourage to students’ activities and communication among them. In this study, DU students mentioned that socialization is more in particular spaces than the others. Canteens, club rooms, and cafes on the campus are very functional in terms of the socialization provided place to usage of them. These places are called informal learning spaces and they increase the chance of encounter, divergent conversations, and reflection and study about content presented in formal settings. As well as these academic activities, they can use this space to hang around, meet, and talk informally out of class (Acker & Miller, 2005). To facilitate peer-to-peer learning, new trend is to have informal gathering places for social learning which provides “a physical relaxation of academic institutions... with a soft zone of informal area for sitting, informal teaching and flexible seminar spaces...” (Cook, 2005 as quoted in AMA Alexi Marmot Associates, 2006, p. 8). For the case of DU, it can be concluded that canteens are the most significant places as vehicles to enhance communication and relations among students. Its main function is about catering, which is fulfill the basic need of the students, however, at the same time, it enables students to use it for other activities including meeting a classmate, studying in group or individual, discussing a critical point of view of any topic

emerged in the lesson, summarizing and discussing the critical points of topics in 10 minutes before the exam. Moreover, club rooms are places in which any member of the club use whenever they want, in which they feel ownership and in which meeting and activities are held on. A club room enables the student from several departments meet and conduct a project together. Therefore, club rooms are seen as headquarters for socialization. Furthermore, cafes on campus are the other socialization areas. Whether students' academic buildings fulfill their needs or not, they find a place on campus. Because the campus has several kinds of cafes, any student finds a café which appeals to their needs and budget. Like cafes on campus, the shopping center with many cafes and specialized activity areas cultivates community by providing centralized facilities and services; therefore, it is a place which encourages interaction among students, fulfill their daily needs (e.g. dining and shopping), promote development, cradle diversity, and cultivate connections in the university environment.

Similar to the functions of peer interactions as a mechanism for socialization, student faculty relationship are critical elements for socialization. As argued by Astin (1984), and Weidman (1989), student involvement and undergraduate socialization process include their interaction with faculty member. Positive relationships between students' faculty and peer interactions and students' learning and development was presented in many studies (e.g. Astin, 1993; Cruce, Wolniak, Seifert, & Pascarella, 2006; Furman & Gavin, 1989; Kuh & Hu, 2001; Newman & Newman, 1976; Pascarella & Terenzini, 2005; Corwin, Coylar, & Tierney, 2005; Whitt et al., 1999). If a student has greater interaction with faculty members also out of class and work them on research, these interactions are positively related to the following outcomes: students' satisfaction with the institution (Astin, 1993), students' satisfaction with college experience (Pascarella, 1980), persistence (Grosset, 1991), occupational decisions (Feldman & Newcomb, 1969), educational aspirations (Pascarella, 1980, 1985), academic growth (Terenzini & Wright, 1987; Terenzini, Pascarella, & Blimling, 1996), personal and intellectual growth (Astin, 1993; Endo & Harpel, 1982; Pascarella, 1980; Pascarella & Terenzini, 2005), knowledge acquisition (Kuh, 1993), and career interest and selection (Astin, 1993). Moreover, informal student-

faculty interaction is bound up with to withdrawal/ persistence decisions (Terenzini & Pascarella, 1980). Furthermore, according to Astin (1999), frequent student-faculty interaction brings in students' satisfaction toward all college experiences such as friendships, different courses, academic environment, and university administration.

The physical environment enables or hinders of the socialization with faculty members. Like student-student interaction, contact with faculty member after class can be encouraged by the provision of benches or clusters of chairs in the hallways of classroom buildings or departmental lounges in easy access (Chickering & Reisser, 1993). In this point, providing a place is the most important requirement in order to enhance student-faculty and student-student relations. This will enact the students' activities and in turn, their development.

Spatial arrangement is seen as an indicator of the communication level between students and faculty member in the literature. As Hillier and Hanson (1984) argue, 'the ordering of space in buildings is really about the ordering of relations between people' (as quoted in Temple, 2014, p. 4). The physical environment structures the level of interaction between faculty and students, as observed by Romero:

Our classrooms are not in the same building as our offices. Since classrooms are very spread out over a large area, the kind of interaction that might occur between students and faculty going to class in the same building where faculty have their offices, does not occur (as quoted in Gair & Mullins, 2001, p. 29).

Similar results are concluded by Van Note Chism (2006) that separate areas for faculty offices increase the distance between student and instructors and decrease agency on the part of students, so they reinforce the transmitter image of the faculty member. The faculty member is set apart rather than be a co-learner (Van Note Chism, 2006).

When examining the results of this study, student differentiated the places according to users of the places; there are places for faculty members and for students. However, in general, there were not mutual areas allocated by both faculty members and students. However, students found this separation of the places reasonable and

they did not find this odd. Some students preferred such a separation to be more comfortable. It can be argued that there is a formal relation between students and faculty members. Students seem to accept this formal relationship built through physical space. Some students stated that such separation is functional for them to find any faculty member's offices easily. Moreover, students' characteristics are important to determine the communication level of instructors and students. Some students like to talk with instructors out of class, and some of them are social that they would like to be closer to the instructors. On the other hand, some students want to keep their distance from instructors. "Teachers" are very precious for some students; some students are very respectful to them. This would be an indicator of a common authoritarian relationship between students and faculty members.

The students who commented about the relationship between the communication with instructors and the physical environment, stated that communication depended on instructors' behavior and their characteristics. These are more influential in determining communication between students and teachers. If an instructor uses the common places in the building (e.g. canteen), uses the entrance door used mostly by students, states to students that you can come to my office if you are required about the course, and if an instructor chooses to talk with students in break time rather than going his/her off, all these are determinants of students' ideas about the instructor. If an instructor utilizes students' used places and students' used stairs, the hierarchy or formal but cold relation is broken between students and instructors.

Finally, campus spatial arrangement and the location of an academic building in this arrangement are the important factor influencing the students' interaction and integration of the campus life. If an academic building is far from the campus, the students of that building take advantage of the campus life in more difficult circumstances. Cass, Shove, and Urry (2005) studied to analyze the travel and communication processes that cause and strengthen social exclusion in contemporary societies. Similarly, Kenyon, Lyons, and Rafferty (2002) see the reduced accessibility to opportunities; services and social networks engender people's participating in the economic, political and social life of the community. Case, Shove, and Urry (2005) also concluded that there are three reasons bringing in social

exclusion such as distance, inadequate transport and limited ways of communication. Among these, distance between places and transportation are the most binding barriers for social exclusion. For the university students in this study, in weekdays, these two factors cause more bother because of the short time between courses. Transportation was not adequate for many students and the EDU students were in group who complained the most frequently. However, these obstacles do not result in not participating an activity in campus, but can result in decrease number of activities the students join or result in difficult access. On the other hand, short distance between different department buildings increases the socialization among students.

Location of the academic buildings determines the level of communication and relations. If the location of the academic building is far from the campus center, it is difficult to reach that particular building and perceived as a waste of time by the students. As a result, if the building is far away from the campus center, the use of building by students from other departments decreases. When buildings are isolated and free standing, it is of course not necessary for the people who do not use them to interact with the people who use that academic building. On the contrary, the building located in the visible area on campus is a concrete manifestation of a social group or social institution. Moreover, if there is any particular public place near any academic building, because students use this public place, that academic building becomes familiar, available, and open to students from the other departments. Therefore, the students have opportunity to have an idea about discipline taught in it, what the discipline deal with, and how life of students in that building is going on. For example; there is an Architecture Lecture hall close to the ARCH building, any student gets knowledge about the ARCH building by using this hall. There is a same relation between IE building and *Café 1*.

Some academic buildings are used for different purposes. Lecture halls are used for different activities. Student clubs are open to all students in the campus and particular club rooms are located in a particular academic building. These academic buildings enabling the diversity use hold the social potential.

Consequently, learning spaces determine the nature of interaction between students and students, students and instructors and so they determine educational results (Van Nott, 2006). According to Edward and Usher (2000), space is relational. That is, it is a product of social relations and at the same time, it produces social relations. Owing to the contributions of communication among students and between students and instructors, the academic building should provide appropriate places to make activities including seminar, peer work, academic discussion, chatting, and group work.

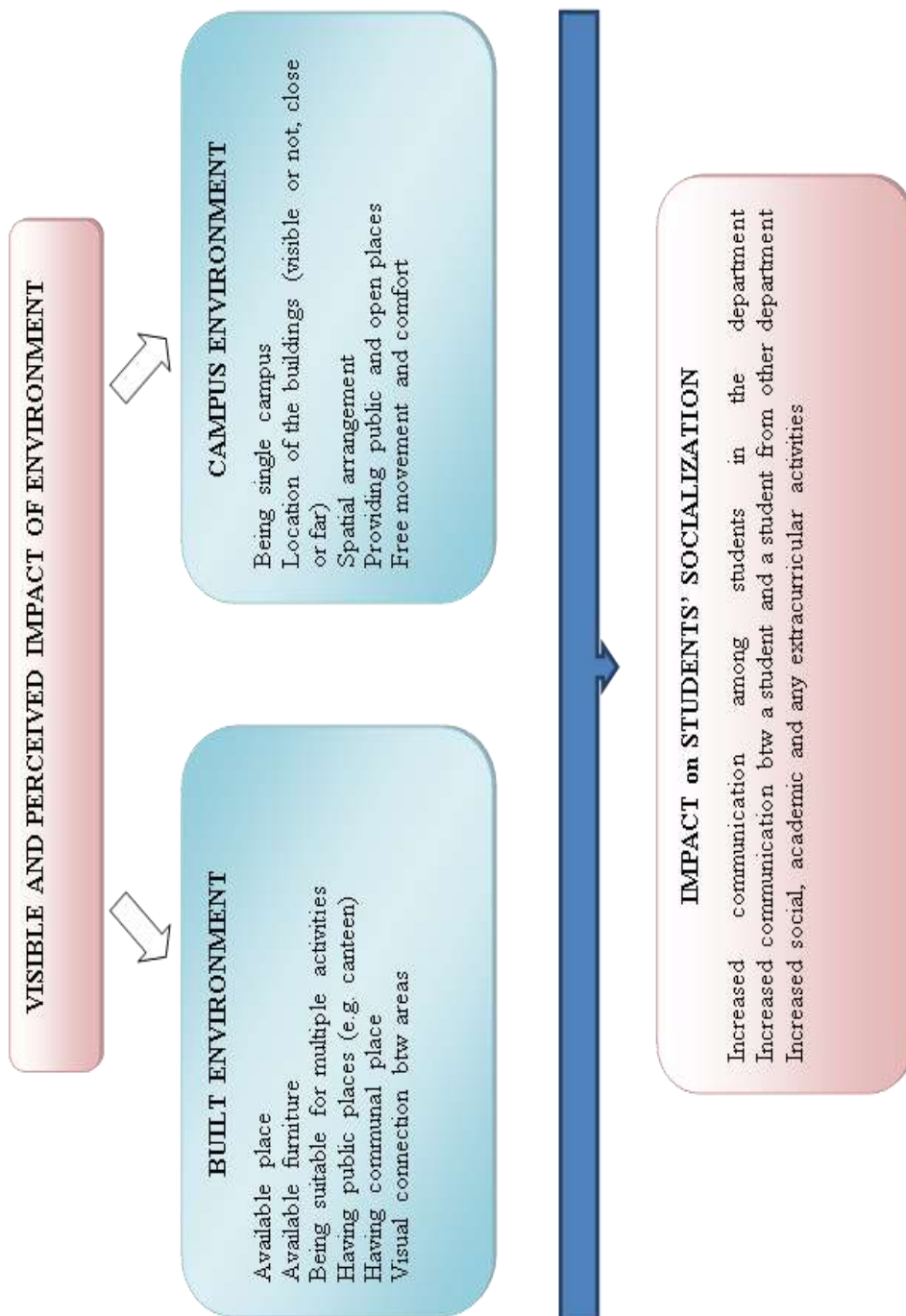


Figure 5.1.3 Summary of visible and perceived impact of environment on students' socialization

5.1.2.1.2 Impact of physical environment on students' feelings

Extensive prior research exist on student satisfaction and the student evaluation of teaching in the university environment. Although research do not focus on the physical environment totally, some include the evaluation of the physical environment and the students' satisfaction with it. "Satisfaction is a person's attitude toward an object. It represents a complex assemblage of cognitions (beliefs or knowledge), emotions (feelings, sentiments or evaluations) and behavioural tendencies" (Hamner & Organ, 1978, p. 216). Mai (2005) studied determining influential factors of the student satisfaction in higher education. It was found by the researcher that as well as the overall impression of the quality of the education, and teachers' competence and their interest in their subject area, the overall impression of the school, and the quality and accessibility of IT facilities were the most influential predictors of the students' satisfaction (Butt & Rehman, 2010).

In terms of campus environment, the studies show that the first impression toward the campus physical environment is critical in selection process of the students. The physical facilities on campus and the campus physical environment have been accepted as playing a significant role in students' perceptions about the university and as an important factor in prospective students' selection process (Price, Matzdorf, Simith, & Agahi, 2003; Boyer, 1987; Kenney, Dumont, & Kenney, 2005). Boyer found that 62 percent of prospective university students' choice is a result of the basic of the appearance of the campus (Boyer, 1987). Liking the university and desiring to be a student in that university is usual on campus which clearly indicates the vision of the university (Kenney, Dumont, & Kenney, 2005). As admissions directors stated, students decide whether to enroll in a college or reject the application after thirty minutes experiences in the campus (Kenney, Dumont, & Kenney, 2005). Kenney, Dumont, and Kenney (2005) suppose that the entry sign, campus size, the parking lot, and walkways are the factors forming their opinions about the campus. It is essential and important for the students to have facilities including well-managed cafeterias, parking areas, play grounds, clubs and gymnasiums. With these excellent facilities, a university can appeal to many students "by having its name in the leading educational institutions of learning" (Malik,

Danish, & Usman, 2010, p. 8). The findings of this study support the findings of other studies. Almost all students, who visited the campus before the university selection process, liked the campus because of its physical attributes. It has a large area lived with greenery and trees, it has many facilities for eating, sports, accommodation, and social activities. These attributes were influential factors that lead students to choose DU. Among these attributes, the natural environment of campus was one of the most prominent. The importance and the role of the nature in the campus environment were central to students' experiences. Many students' hometowns do not include green areas and trees as much as DU campus environment does. Therefore, this attribute is very prominent and pleasing for the students. Moreover, there is too much asphalt roads, tall buildings and big malls, and heavy traffic in the city of Ankara and the campus does not resemble the city of Ankara, which is comforting to them. According to Alexander et al. (1977), "[p]eople need green open spaces to go to; when they are close they use them. But if the greens are more than three minutes away, the distance overwhelms the need." (p. 305). In DU, the greenery is just in front of their academic building, or on their paths and is just far enough to see of the windows. Students valued different facets of the outdoor environment and most of the students focused on the open expanses of lawn and trees. The campus gives wealth to students, because it is impossible to find these oceans of opportunities in any place. These lawns and trees offer students both solitude to study or to sit and reflect, and a space to get closer to each other and the beautiful nature. Paths lined by trees are vital for the students to be able to nourish themselves by going on walks after heavy courses or boring day. Ideas associated with well-being such as reflecting, relaxing and recharging were prevalent in the students' daily life. Moreover, students were able to find a place where the atmosphere was private, intimate and compelling. Because of the distinctive qualities of the places, these university students thought that they are lucky and they are important.

I want to drag the topic of natural environment from the students' feelings in daily life to its contribution to protect the nature. Cotton and Winter (2010) gave an example to protect the environment by the hidden curriculum; provision of recycling

facilities, green spaces and facilities to help individuals to store their bikes are factors to support green nature environment (as cited in Luo, 2013). Similarly, for DU, such greenery on campus and the university's current policy to plant trees every year bring in students' sensitivity to protect the green. Some of the interviewees focused on this issue that after coming to DU, they become more mindful to nature.

As well as the natural environment, students' social needs are fulfilled by the physical environment; their properties are satisfied and admired by them. The campus environment enables students to do whatever sports they want, it supplies public spaces to students from different socio-economic statuses or different preferences, and it provides a place for several activities, the students' satisfaction toward the campus physical environment is high. Students commented on this wide range of stimuli which contributed to their sense of well-being. In other words, this is the combination of a single campus surrounded by the trees, many facilities which require many needs of the students, and the composed student community.

The campus physical environment has an important role in institutional marketing, in addition to the recruitment and retention of the prospective university students and faculty members (Boyer, 1987). The campus environment with all attributes is "a precious resource" because it affects the students daily and education life and hence it has an impact on the quality of the university life. Opportunities and facilities for holistic and transformative university experiences allocated to students contribute to a students' wellbeing and a sense of belonging. Before coming to university and after being a student in DU, the social atmosphere created by the university students is another factor affecting students' feelings. The "feeling of freedom" is triggered by heterogeneous and differentiated student community and students' free behavior on campus.

At this point, it is essential to explain the concept of place attachment because some of the students use this concept explicitly and some students' statements were indicators of the place attachment. Although there is a disagreement concerning the name of the concept '*place attachment*', community attachment, place dependence, place identity, sense of community, and place identity are also used in the literature

(Hidalgo & Hernandez, 2001), in this thesis, place attachment is used as embracing the other terms. Place attachment is described by Hidalgo and Hernandez (2001) as “an affective bond or link between people and specific places” (p. 274). According to Low and Altman (1992), it is “an individual’s cognitive or emotional connection to a particular setting or milieu” (p. 165). Low and Altman noted:

The social relations that a place signifies may be equally or more important to the attachment process than the place qua place’... It is through the vehicle of particular environmental settings that individual, group and cultural processes are manifested...Extending to this idea, place attachment may contribute to the formation, maintenance and preservation of the identity of a person, group, or culture (1992, p. 7).

Relf suggests that, “an authentic sense of place is above all that of being inside and belonging to your place both as an individual and as a member of a community, and know this without reflecting upon it” (1976, p. 65). Thus, place is defined as a setting where social relations are constituted. The presence of relational life in the form of interaction, individual relations, local institutional practices are critical for place attachment (Simonsen, 1997 as cited in Corcoran, 2002). Although social interaction is an important identifier in determining place attachment for many scholars, other scholars focus on the physical component of place attachment. They stress the need to take into account the physical component of place (e.g. Hidalgo & Hernandez, 2001; Riger & Lavrakas, 1981). For example, as concluded by Hidalgo and Hernandez’s study (2001), social attachment is greater than physical attachment. However, they focused that place attachment has two components including physical and social attachment: individuals feel attached to the physical component dimension of places as well as social attachment.

Although almost all students in this study had positive feelings toward the campus physical environment, some of the students were not satisfied with the location of their academic buildings on campus because they did not feel attached to the social life on the campus while they were in their academic buildings. Location of any academic building which is far from the center creates negative feelings in students’ gaining negative feelings and as they get the sense that their discipline are not given importance. Especially the EDU students were in this group. The EDU students were

not satisfied in their buildings because they felt out of campus life due to the long distance between their academic buildings and the campus center. The GEOE building is also far from the campus center however the students of it did not complain as much as the EDU students. This difference might be connected to the distribution of the buildings and the access to walking paths. As Alexander et al. (1977) stated that people do not feel comfortable in their house if a group of houses form a cluster, which is far from their houses. Because a group of academic building forms a cluster in the campus center and the campus life is going there, the EDU students feel out of campus. However, although the GEOE building is located far from the campus center, there are still other academic buildings surrounding it. Moreover, there are walking paths among the trees between the GEOE building and the campus center, which make the GEOE students satisfied.

Like the campus physical environment, the physical environment of the academic buildings is influential in forming the students' feelings. Similar to the campus physical environment, having multiple opportunities and facilities gain the university students positive feelings. At this point, it is important whether a building fulfills the students' needs or not. Needs consist of basic needs (e.g. eating and heating), educational needs (appropriate classroom environment and study spaces for group and individual study), and social needs (canteens, club rooms, and any place allocated to students for free use). People need an identifiable spatial unit to belong to. As discussed below, in order to develop place attachment, the social and physical components are essential and vital. When academic buildings do not provide a place allocated to students, such feelings do not occur. In using a place, people acquire a sense of attachment. Such identification with place often involves emotional ties to place. Uline, Tschannen-Moran, and Wolsey (2009), after observation of their universities, concluded that

The personality of a specific school building may or may not encourage a sense of belonging. The personality of the school environment can be thought of as a combination of various attributes, including events that have taken place within the school, affect of the people who inhabit and transform various spaces, the organization of the space as it was designed and so forth (as quoted in Popenici & Brew, 2013).

In this junction, if there are places allocated to only student use such as a studio, a student club room, and if the students have the key to such places, the use of these places increases. The presence of these places plays a vital role in educational support and development because the possibility of organizing any events increases. These places can both serve to arrange social activities and to increase the possibility of satisfaction and a sense of belonging.

If an academic building includes many facilities (e.g. ping-pong table, locker, lift, and open and closed places), that building fits more to the students' needs, it contributes to students' well-being during their university education. For example, large corridors enabling easy movement have positive psychological effects that people's instincts and intuitions enact, while restricted movement prohibits these feelings (Alexander et al., 1977). On the contrary, if an academic building does not consist of any place rather than teaching places, that building does not fit students' needs, which results in students' gaining negative attitude toward themselves, their discipline, and their university life. Furthermore, such buildings decrease the interaction among users, thus ongoing contact with a place is essential to maintain a sense of place and also to continue relationships (Hay, 1998).

The building including many opportunities attracts more students. For example, the ARCH and IE buildings have inner yards which are some kind of private outdoor spaces. These gardens are fundamental for also biological needs of students. Anyone who has to work in noise, in offices with people all around needs to be able to pause and refresh himself/herself with quiet in a more natural situation. Therefore, these buildings also fulfill need for relaxation; that is, they influence students' moods positive.

At this point, it is essential to indicated that coming to a building just for attending courses does not create a feeling of a being a university student; that is, students do not want to consider solely the academic learning side of the university.

In addition to the students' basic, educational, and social needs, aesthetic needs have considerable place in changing their moods and feelings. As Kenney, Dumont, and Kenney (2005) stated "[p]eople want to be in places that feel good to them. They

prefer nicely appointed places with beautiful views rather than adequate but uninteresting places” (p. 5). Aesthetic quality is one element to increase students’ feeling of being privileged; on the contrary, non aesthetic quality signals the absence of this feeling among the students. If a building is defined as an aesthetically and architecturally beautiful building; it appeals to students’ emotions and sensations. Assessing the aesthetic and architectural quality of any building is not an easy task, however, in this research, it was concluded that differently designed buildings which students have not encountered before is one of the most important criteria showing aesthetic and architectural quality of any building. The best examples in this study are the ARCH and IE buildings. These two buildings have an atrium. The atrium space type consists of open multistoried spaces and glazed courtyard spaces. Open multistoried spaces provide a visual connection between activities inside. According to students, this feature made these buildings prominent buildings which offer areas well suited to serve ceremonial and social functions. In the IE building, atrium design often involves skylights and generous glazing areas that provide an infusion of natural light.

Moreover, if a building has a beautiful welcoming entry, the students feel good and motivated while going in the building. In this study, there are two welcoming entries which were defined as transmitter of good feelings. Which are in ‘long corridors’ that can be found in the ARCH and EEE buildings. It is well known that the ARCH building is architecturally beautiful for not only from view point of the interviewees of this study but also design wise. While the ARCH students enter the building, their having good feelings is an expected result. However, the EEE students generally complained about their academic buildings, and it can be said that the only satisfactory feature of their buildings was their building entry. They indicated that they feel good and privileged while entering the building.

If an academic building is negligently constructed, students think that the university administration does not care about them. On the contrary, if an academic building is constructed mindfully, students do not only get idea that the university administration cares about them.

One of the other factors determining whether a building is beautiful or not is its maintenance. Indeed, it seems obvious that in a rundown building, the university students tend to feel less valued and motivated which is causing them not to use the building except for courses. But, a clear and well-kept environment is a desirable physical feature that makes students comfortable in the learning environment. Furthermore, ambient environment is the other factor changing the atmosphere in the built environment. Appropriate ambient environment is the basic premise that contributes to the users' well-being. Having adequate light, moderate noise level, and fresh air make student comfortable in the learning environment. Some of the students mentioned that non-well-kept buildings decrease their motivation to attend the course, listen to a lesson thoughtfully, and join social activities willingly. Motivation involves being moved to do something (Maslow, 1943). When a person feels force to act, s/he is motivated; while a person lacking any feeling of driving force is characterized as unmotivated (Maslow, 1943). Many studies showed that users in the buildings can feel better physically and psychologically, study more forcefully, and be more effective in artfully designed environments. Moreover, well-chosen proportions, adequate light, appropriate color, appealing textures and details, pleasant views, good acoustic qualities, comfortable furniture, and proper ventilation can have a considerable impact on body and mind (Lewis, 2000).

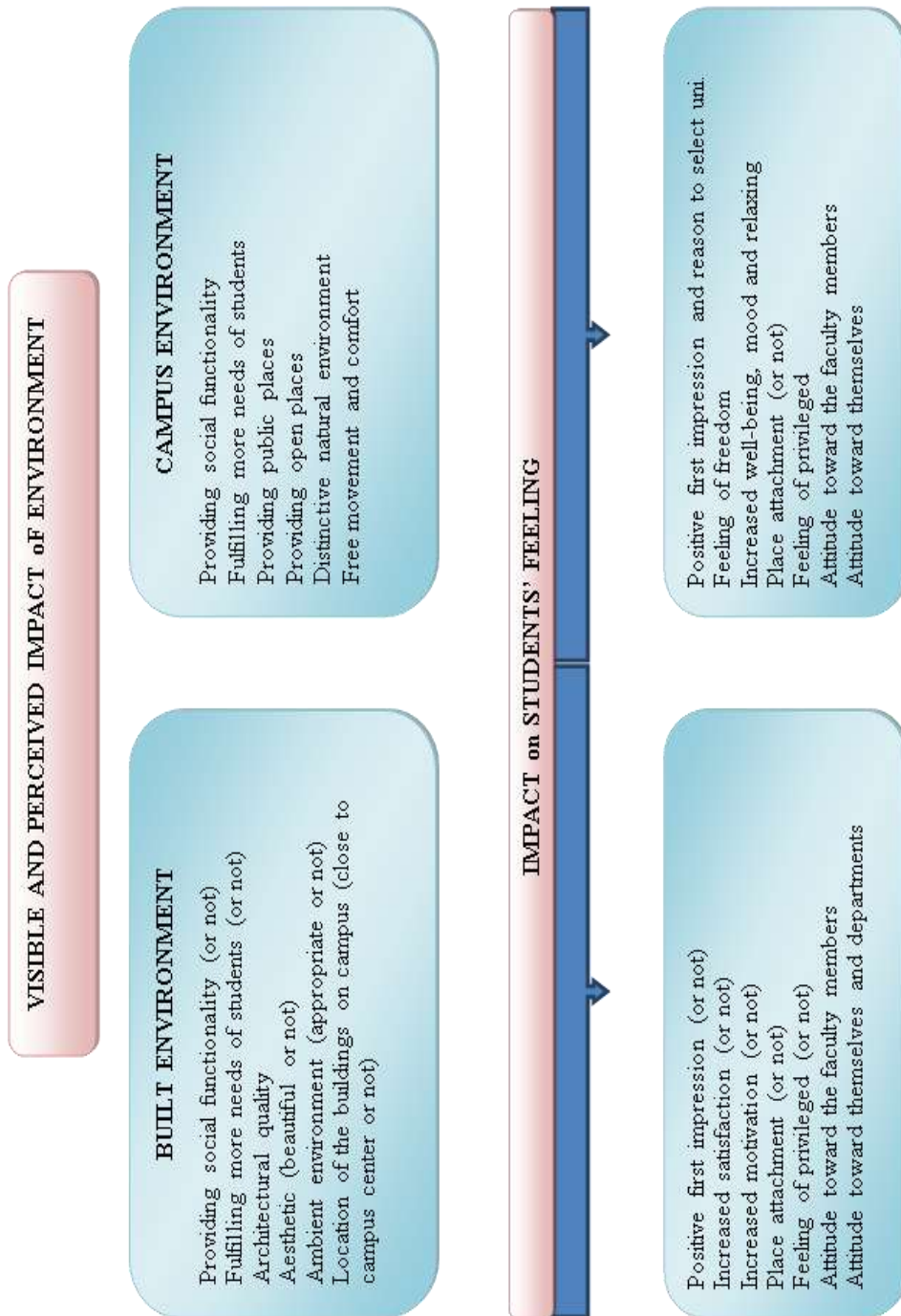


Figure 5.1.4 Summary of visible and perceived impact of environment on students' feelings

5.1.2.1.3 Impact of physical environment on students' ideas concerning field specificity

Field specificity explains how a place represents the discipline which is taught in the building, and whether there is a department-environment congruence. Department-environment congruence refers to the degree of fit between discipline and environment. It refers to the level of fulfillment of students' educational needs. Field specificity is seen an essential element in understanding the physical environment as hidden curriculum. In this study, the question of “do you see the connection between your profession and the physical environment of your building?” was asked to the participants. Some of the students answered this question directly. Whether each student answered this question directly or not, many clues were obtained from students' comments concerning their academic buildings. This section is discussed in three subsections: physical artifacts, fulfillment of the students' educational needs by the physical environment, and building itself.

Physical artifacts:

Students get important cues regarding their new professional roles from especially the physical artifacts. Banning and Bartels (1997) identified four types of physical artifacts on campus. These are art, signs, graffiti and architecture. First of all, art includes paintings, posters and statuary. The academic buildings consist of art such as wall hangings, statuary, poster and other materials. In the hidden curriculum research, built environment is considered as learning tools. Buildings can serve as a form of knowledge and as an instrument of curriculum and instruction in the learning process. Mechanisms of socialization to a new role are threefold according to Crow and Glascock (1995): ‘exploration’, ‘giving up the previous role’, and ‘adjusting self and new role to each other’. Students try to discover and get knowledge about their new status and roles (as cited in Bogler & Somech, 2002, p. 235). At this point, physical artifacts have a role to make student explore their departments. If an academic building consists of clues or is a representative of which department is educated in that building, these complement the academic and professional needs of students in harmony with the academic mission of the institution. These materials

give the students motivation before they begin the school and knowledge about what their discipline is interested in. Moreover, they are useful in making the knowledge concrete during the education.

The academic building including more arts than other buildings is the ARCH building in DU. The ARCH building consists of plenty of artworks, architectural elements, bulletin boards with many posters, advertisements, project posters, and the students hands-on works in the corridors. As well as the function of the artifacts on discipline description, their functions are strengthened by the courses. These artifacts are materials of their assignments given by their instructors, thus, the students have examined these artifacts and thought about them. The building is a good teaching material and in this way, the students have an understanding of the arts as well as a basic technical understanding of these arts. As Lewis stated that

Architecture entails activities of both mind and body acting in concert-seeing, thinking, imagining, drawing, and crafting. The architect must know not only how to draw a line but also why and when. The senses must all be engaged to observe so that the mind can analyze and synthesize (2013, p. 9).

By means of architectural elements in the building, the ARCH students see the real examples of analysis and synthesis in architectural composition.

Building's wall is a vehicle conveying institutional purposes, ideas, pedagogical emphasis, and school culture. Administration can use the bulletin boards in accordance with their own hidden curriculum (Costello, 2001). For example, according to Lefebvre (1991), the walls present the ideological system of the university, and they are controlled and designed by a university authority.

Students' works on the walls of the School of Education however is seen as a manner reminiscent of high school (Costello, 2001). Costello discussed the possibility the student works placed on the law school, which can be seen as unprofessional because they do not present "intellectualism, access to resources, or upper-class aesthetic sensibilities" (2001, p. 52). This depends on the ideology of the schools; therefore example given by the School of Law and the student work cannot be suitable to this discipline. However, in DU, the School of Architecture being accepted as the

prestigious school, the students' works being displayed in the corridor of the building was evaluated as an indicator of the value given the students' endeavor and students themselves regarding not only the Architect students but also the outsider students.

The corridors of Boalt Hall were decorated not with student posters, but with fine artwork. Artwork serves not only to ornament bland spaces, but also to convey messages about the institution that displays it. By choosing to display artwork in the fine arts tradition, the law school administration transmits a message to students 'supporting upper class continuity' (Costello, 2001). The corridors of the ARCH building were decorated not only with students' works and students' posters, but also with fine artwork and architectural elements. The students entering this building get an impression of the profession and get positive feelings and get a good impression. More importantly, by using these fine artworks and architectural elements during their education, the importance and the role of these elements in students' learning increase.

The other academic building including many physical artifacts was the GEOE building on campus. The GEOE building consists of several different kinds of maps, and posters related to departments. Like the ARCH building, this building informs the users that what Geology is related. Since the first days of the GEOE students' studies, they have got clues about their discipline. Then, after courses began, they make sense of the knowledge conveyed by these physical artifacts.

In IE building, the most functional physical artifacts are boards in the entry hall. As soon as students enter in the building, they encounter these boards that the final project posters of the senior students hang on. From the first days of their school experience, they realize that they will do a big project and this idea prepares them to be ready for following years.

In these three examples, the important point should be emphasized that the faculty members have an active role in showing importance of these physical artifacts. The instructor gives an assignment which necessitates the use of arts in the ARCH building, the instructor uses the maps before going to field in the GEOE building,

and the instructor encourages students to examine the project posters presented in the IE building.

Moreover, Gair and Mullin (2001) commented about the role of physical artifacts as

The buildings themselves tell you who belongs in there . . . what's on the walls tells you who belongs in there and who doesn't. Some people are in and some people are out. Some knowledge is privileged and some isn't. Yet we want to seem like we are inclusive and embracing (p. 29).

The different perspective about walls was stated by Popenici and Brew (2013) that if there is limited commercial posting and lack of institutional concern to make academic life and possibilities visible, these restrict visibility of learning and research activities and students' aspiration and academic enthusiasm. "The spaces for learning are also enhanced or limited in students' minds through restrictions imposed by the building design" (p. 151). In this point, the EDU buildings can be given as an example as a negative respect. Because the EDU buildings include lack of educational and social postings, the students complained about this reality and some of them emphasized that there was no life in these buildings. This means that the buildings are not vehicle of the departments' works in educational manner.

Another result of the Costello's study (2001) is related that donation list can give message that being willing and able to give money is desirable. In DU, block B in EAS was constructed by the donation of many known companies. This knowledge is transmitted by the name of the company on the wall of the lecture halls and the on the bank outside of the building. However, students did not mention about these donations, these names, the importance of the donation to their ideas and feelings.

Fulfillment of the students' educational needs by physical environment :

There are specific places in the academic buildings and on campus associated with the departments. According to students, these are the studios in the ARCH building, laboratories in Engineering buildings, the museum in the GEOE building, research centers in the EEE buildings, the reading rooms in the EAS buildings, and the group study hall in the IE building.

The design studio is seen as a place where knowledge can be shared, experienced, applied, communicated and evaluated, and where knowledge is conceptualized and applied simultaneously. As stated by Dinç (2001), the design studio is basis essential for Architecture Education curriculum. Design studio is defined as follows:

[It is] the place where the idea or the theory (ratio) looks for its object through the skills of individuals and support of others. It is the time in which a student learns about the nature of architectural design and experiences his/her personal ways of handling it. [It] is a kind of learning-by-making, therefore exposing one's self to the features of the profession through design issues (p. 187).

Moreover, studios create an environment where professional and individual features combine simultaneously and interact with each other effectively. According to the ARCH students, studio has a significant place in their education life because the studio is used for course, a study area, and extra-curricular activities.

In the GEOE building, there is Geology Museum. This museum is visited by the students in first days before being a student in DU. Different stones represented in very different ways in museum and special collections can be viewed, and understood by the freshmen. These stones can also be sources and triggers in realizing the department. As well as the museum, the laboratories are seen as prominent places in the GEOE building. This is valid also for EEE. As John Seely Brown (2001) observed that participation in communities supports deep learning and he continued:

People don't learn to become physicists by memorizing formulas; rather it's the implicit practices that matter most. Indeed, knowing only the explicit, mouthing the formulas, is exactly what gives an outsider away. Insiders know more. By coming to inhabit the relevant community, they get to know not just the "standard" answers, but the real questions, sensibilities, and aesthetics, and why they matter (p. 68).

Although the students do not utilize the science laboratories out of course, because these laboratories are used by their instructors for research in general and the work related their occupation is held on, they saw these laboratories as indicators of their departments. Similarly, EEE has a new research building on campus. This research

center has high technology labs and it is an example of energy sensitive building in Turkey. Therefore, it is a good model showing the importance of their disciplines.

The educational and professional needs change from the department to department. One department necessities to study in group, the other necessities individual study. The common necessity of all departments is to study in group, do group discussion, and to have an exchange of ideas. In this junction, the IE and EAS students' needs are met by their academic buildings according to students. The EAS buildings include reading room and open study spaces that student saw these facilities are suitable for their departments. Similarly, the IE students do many projects in groups and the study spaces were provided to them. Some of students interpreted these facilities that the administration provides these to them in order to promote the group study which is necessary to develop skills for their occupation.

In summary, if academic buildings fulfill students' needs about academic responsibilities (doing homework, studying lesson or exam, and joining group work), if academic buildings consist of teaching spaces which are appropriate to their discipline (e.g. laboratories for engineering, and studios for architects) and if academic buildings meet educational needs of the curriculum, these academic buildings are suitable for that particular department.

Building itself:

Building itself is an indicator of the department. The ARCH building and block B in EAS are two cases which are considered by the students stated as "suitable for the department".

Hiller and Hanson (1984) interpreted the building in the Winchester University that if someone reads iconic buildings as a 'text', this text represents contemporary learning theories. They gave an example that social learning is stressed by technologically enhance spaces and layouts, and openness and transparency is emphasized by glass facades. Moreover, the most outstanding buildings indicate the values given to students and transmit the notion of a modern, creative, and inspiring university experience. Correspondingly, the ARCH building as a text is read to

occupy interest and stimulate artistic activity because of its outstanding design, a large atrium, and fully equipped studios. Individuals entering in the ARCH building for the first time are likely to feel inspired, they find themselves dumped ceremoniously into many large intersecting hallways with natural light coming from large windows and inner yards. Prospective students obtain important cues regarding their new professional roles from the architecture, decor, and design. Not only ARCH students, but also other students on campus stated that the building itself proclaims that it is an ARCH building.

Related to block B in EAS, a student obtains cues about the department in it. A student entering this building gained an impression of wealth because it was commented by the students that it was the newest academic building on campus, it was built by the donation, much money was expensed, it was luxury and different than the other academic buildings.

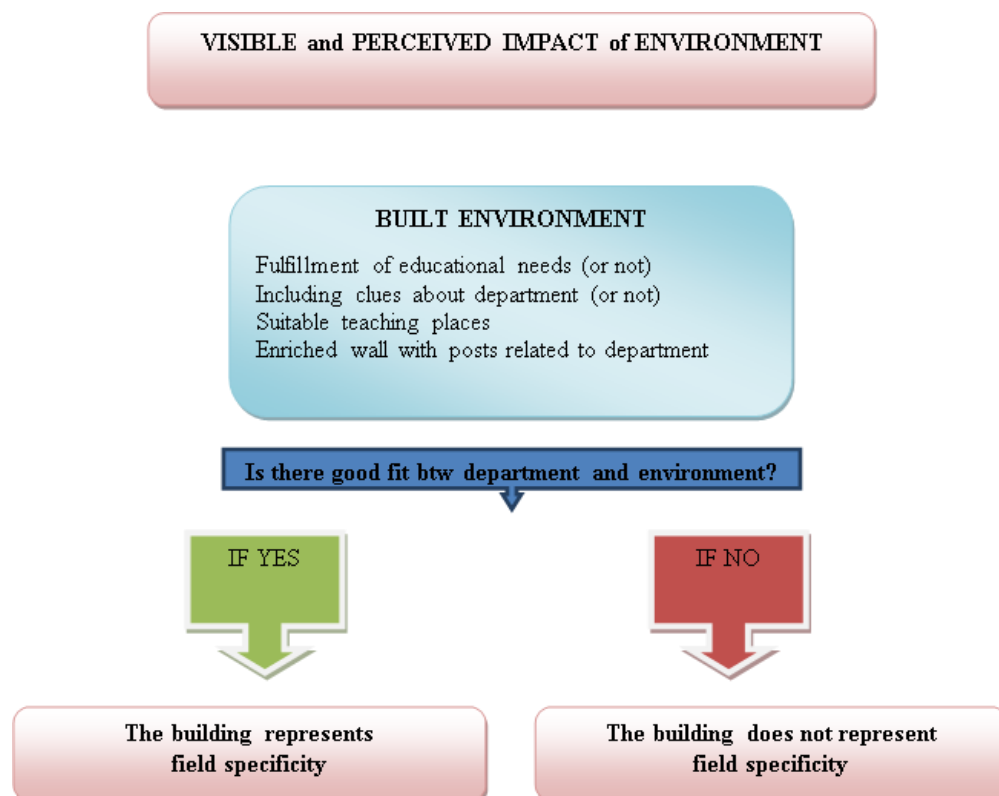


Figure 5.1.5 Summary of visible and perceived impact of environment on students' ideas concerning field specificity

5.1.2.2 Meaning of the physical environment

In this section, what the academic buildings and campus physical environment say to students in general is presented. At the beginning, searching ‘what does the physical environment say’ was on the center of this study and this question was asked to the students with its variations (e.g. ‘what is the language of the buildings/campus?’). While some students explicitly stated places which are important for them and described what these places say or mean to them, some other students did not make sense of these questions. However, they still gave clues me to understand the meanings of the places. For example, students’ needs about their educational life determine their ideas on the meaning of the place. Therefore, if students’ stresses more on a particular need and deficiencies related to this need gave insight to understand the meanings of the place. Furthermore, their experiences of place are related to the conceptualization of ‘place’ within social science. In sum, this section illustrates how students’ experience in the university environment can be interpreted into place, thereby forming meaning.

Meaning ascribed to place is a paramount issue in environmental physiology and social science. Meaning is obtained via environmental perception, description and evaluation of the environment. Meaning is associated with a positive or negative valuation of places. Relph (1976), in the basis work in environmental psychology entitled ‘Place and placelessness’ identified three components of place: physical setting, activities and meanings. Moreover, Rapoport’ conceptualization written in his book entitled ‘The meaning of the built environment: A nonverbal communication approach’ is valuable source for literature (1982). As Rapoport (1982) presume that “physical elements of the environment do encode information that people decode. In effect, while people filter this information and interpret it, the actual physical elements guide and channel these responses” (p. 19). Describing the meanings of places in university is complicated as Relph (1976) discussed, revealing meanings of place is more difficult than the other (physical settings and activities) in spite of its’ vital importance (Tuan, 1977). One of the reasons of this difficulty depends on the way to reveal the meanings. And it has many components to be searched in detail. People’s evaluation of environment is influenced by images and

ideals (Rapoport, 1982) and their words are loaded with affective and meaning-laden terms. Moreover, searching of meanings with a somewhat different perspective is provided by Gifford (1997). Investigating how the concept meanings of place has been explained, he finds four different processes: (1) place attachment, (2) ideological communication, (3) personal communication and (4) architectural purpose. Furthermore, Gustafson (2001) developed an initial model of meanings of place; meanings were mapped into three poles including self, others and environment. Firstly, self refers individual whose experiences, emotions, and personal meanings are influential to capture the meanings of places. Secondly, related to 'others', places are formed by others' characteristics, traits and behaviors. Finally, meanings of place depend on environment itself irrespective of 'self' and 'others'.

In the light of this literature, the meanings of each academic building were explored. It is concluded that each academic building has its own meaning. The meanings of some buildings are explicit according to students. These buildings are block B in EAS and the ARCH building, and these two buildings are well-known buildings and many students utilize these buildings for different activities.

If it is necessary to remind block B in EAS, it is the newest academic building. First of all, it is defined as new, big, spacious, light, and organized. Secondly, the building is interpreted that it is not like the other buildings in the campus and it resembles a private university with a luxury design. Finally, it has many large lecture halls enabling wide academic or social organizations. The last feature of the building shapes the students' ideas about the meaning of the EAS building. As indicated by Rapoport (1978), the function of the environment are important to understand meaning of the environment. "When latent aspects of functions are considered, it is quickly realized that meaning is central to an understanding of how environments work" (p. 14). Similarly, according to Relph (1976) and Canter (1977), to understand the meaning of place, the relation of physical characteristics and activities associated with place is essential. It is understood from the case of EAS that not only design but also events and activities, students' profile, students' clothing are the factors generating the life in the building. According to the students, because the building

has luxury design and it is also big, because the building enables to arrange all these academic, cultural and educational activities, this building is chosen as a location for these events. So this building is well-kept and clean and equipped continuously. Therefore, the people dress up smartly. In conclusion, these all compose the meanings of the building.

The ARCH building is one of the biggest buildings with large corridors and large atrium. It is an architecturally and aesthetically beautiful building that it attracts many students. It is located on the alley which is visible to many students. Moreover, it has big lecture hall which many academic and social activities held on; thus, many students utilize this lecture hall. Moreover, it has popular canteen that many students use and like the design of the canteen. These definitions are valid according to not only the ARCH students but also the other students. In addition to these, the ARCH students have their own studios, photocopy center, stationery, and inner and back yards, therefore they really dwell in during their education. Consequently, it is a social and living building that enables students to use it for any purpose.

Agnew (1987) provided a model of place. As he discussed, there are three major elements of place: 'locale, location and sense of place'. Locale refers to social relations in the settings. Location is the geographical area encompassing the settings for social communication. Finally sense of place is the structure of feeling. These three elements should be considered in capturing the meaning of place. All in all, Gustafson (2001) summarizes this by writing: "meaningful places emerge in a social context and through social relations, they are geographically located and at the same time related to their social, economic, cultural etc. surroundings, and they give individuals a sense of place, a 'subjective territorial identity'" (p. 6).

The meanings of the campus physical environment in this study are focused on the idea of university (see Figure 5.1.6). 'What university is' was described by means of the physical environment. The structure of the academic building, non course – oriented building, and having a lecture hall are the indicators pointing the meaning of the university.

Building size, appearance, architectural significance of the buildings were some basic determinants to indicate whether an academic building is a university building or not. An academic building should be bigger than previous schools that students went. It should have more interesting design which the students did not see before. As indicated by Rapoport (1982), human characteristics such as cognitive taxonomies, categories and schemata are influential in determining meaning, and physical elements have meanings which can be decoded by people if they match people's schemata. In this point, students' expectations determined by their schemata before coming to university influence their evaluation of the academic buildings. As it is known, university administrations show the best side of the university environment on the webpage and visualize the different world than the students' world. Therefore, these forming students' cognitive taxonomies and schemata are influential factors the students' interpretation whether the academic building resembles a university building or not.

Moreover, some students explicitly stated that the lecture hall represents the concept of university. Classroom setting shows something about how our society views education called hidden cultural perspective (Stolp & Smith, 1995). For example, in the straight rows of desk facing the front of the room, students' attentions are toward the teacher. Hidden side of classroom interior design illustrates the value given to the disciplined learning (Stolp & Smith, 1995). Observation of the two different departments' lecture hall was conducted by Costello (2001) and she concluded that the classroom arrangement changes the process of professional school socialization. At the Law school lecture halls, because the professor is at a podium on a stage and s/he see each student, while students' focuses is only toward her/him, and this is facilitated by the elevated position. In brief, this lecture hall conveys social superiority and establishes a power hierarchy (Costello, 2001). On the other hand in this research, participants did not mentioned the professor or any lecturer authority originated by the physical design of the classroom. Contrary to literature about students' passivity in the lecture hall, this student role was accepted as being university student. During interviews, there were some comments on the comfortableness of the lecture hall in many respects. For example, because some

lecture halls has two doors (one is close to the instructors' place and/or board and the other is at the top) and when a student comes late, entering the lecture hall from the door at the top without any excuse gives the comfortableness to students. Moreover, because the lecture hall includes sometime hundreds students and the instructor couldn't make eye contact each individual and also the instructor couldn't realize all disturbing behavior of students like texting and dozing off, the students like to take a course in the lecture hall. Furthermore, because the instruction in the lecture hall does not base on the asking a question to whoever the instructor choose, students also feel comfortable. Even some students like to be lost in the lecture hall. All these (excusing the instructor or being asked questions) what students try to escape are the things which they confronted during their educational life (eg. primary and secondary school). Therefore, it can be concluded that removing the things which remind the previous experience makes the lecture hall representing the university. Students want to replace the idea of "high school" and the old experience in their mind with a university building which is actually a model depending on the students' independence and their social needs, in which the students behave free and comfortable while they fulfilling the responsibilities of their discipline and they are getting roles of their disciplines. On the other hand, because the lecture hall is connecting many students from many different departments, it represents the university teaching spaces. Moreover, because the conception that university students' learning depends on himself/herself, and "if a student wants, a student learns", the instruction enabled by the lecture hall reminds this conception, again it represents the university. As well as the role of the lecture hall described above, the university environment is symbolized with lecture hall in the films and TV series, which constructs the lecture hall as university teaching space in the students' minds.

In sum, the conception of the role of lecture hall in the students' minds is different than the hidden side of the lecture hall in the literature. However, the hidden side of the lecture hall preserves the idea of disciplined learning in DU as it was seen by the students' comments on the lecture hall that is, they did not criticize the instruction design made in the university teaching spaces. Other respect asserted by the Becker (1989) is about whether the classroom layout matches student centered or social-

constructivists approaches (as cited in Jessop & Smith, 2008). Standard classrooms, unattractive décor, the lack of technological devices, and lack of peer-to-peer communication caused by the seating arrangement show the limitation in learning. In this respect, the students could not evaluate the teaching spaces where the collaboration is made, where the group work is done in the course time. However, the classrooms are utilized out of class for group and individual studies if classroom are available or are not locked.

Furthermore, the findings of this study revealed that a course-oriented academic building does not identify with a university building because the university building should mean that students spend time for their academic and social activities, they share their knowledge and experience with friend, they learn and realize their friends' perspective, and they enrich their experiences via peer-communication. Similar understanding is seen about the campus environment. Because DU campus has a single campus with abundant facilities satisfying the students' vital and social needs, DU campus has meanings that 'it is a living space' and 'it is a student centered'. Being a single campus is a promotive factor for an enhanced university life whether the students are resident students or not. The students defined that the university life is not only studying course also socializing, joining any other activities. "No need to go out" as a concept is evaluated by the meaning of the campus; that is, the campus says "do not go out, stay on campus". Because the campus consists of many facilities as well as the academic buildings, because the buildings fulfill the students' different needs, and because the campus with all these facilities enable to student spend time out of class, the campus mirrors the idea of "don't go out of campus and concentrate on your study".

Campus is a student-centered because the students' needs are fulfilled and the freedom is on the center of the students' life. There are many places that students feel free and behave freely. They feel that they live in a comfortable environment on campus in general. Freedom is on the center of the concept "university", therefore any restriction due to the limited use of any physical environment is the consideration removing the idea of university. For example, not allowing to the outside students' usage of a computer laboratory allocated to a particular department,

closing the central library, and unlocked any door (e.g study hall, reading room, classroom and laboratories) out of working hours are the restrictions. Although the students reasoned why these places are locked and they stated that some reasons are logical, the students' desires are to be more freedom to use places when necessary. A university should remove these restrictions for a more participatory, comfortable, and lively university environment.

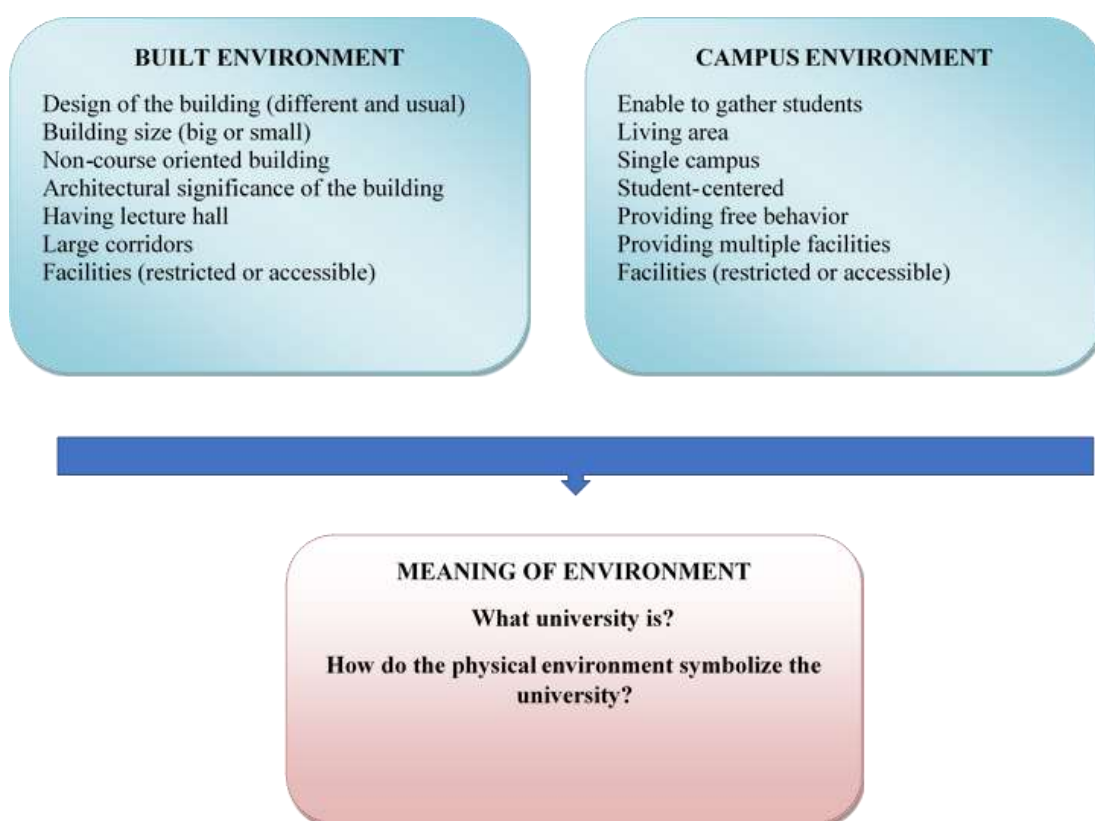


Figure 5.1.6 The summary of the meaning of the physical environment

5.1.2.3 Invisible side of the physical environment

“The campus mirrors the issues that an institution faces” (p. 4) and there is a link between institution’s mission and its place (Kenney, Dumont, & Kenney, 2005). As asserted by Chapman (2006), “the institutional story is told through the campus....The campus is an unalloyed account of what the institution is all about” (xxiii) (as quoted in Temple, 2014, p. 4). Similarly, Blumenfeld-Jones (as an interviewee) asserted their ideas that a building brings in someone’s feelings about the institution and education in it when someone looks at the building and walks

through the doors (Gair & Mullins, 2001). Also Blumenfeld-Jones stated that “[t]he way in which you structure an institution tells you about the desires and agendas of that institution” (Gair & Mullins, 2001, pp. 27-28). The mission of DU is as follows:

[It is] to reach, produce, apply and promote knowledge, and to educate individuals with that knowledge for the social, cultural, economic, scientific and technological development of our society and humanity. This is to be done by bringing teaching, research and social services up to universal standards (Mission of university, n.d., para. 1).

In order to reach this mission, the basic principles of DU are scientific approach, academic freedom, interdisciplinary approach, lifelong education, the training of qualified people, student support, communication with society, and involved administration. Among these, the basic principles including ‘scientific approach’, ‘academic freedom’, ‘interdisciplinary approach’, ‘the training of qualified people’, and ‘communication with society’ are discussed under the invisible side of the physical environment as hidden curriculum.

5.1.2.3.1 Scientific approach

The basic principle ‘scientific approach’ means that

It is unconditionally accepted that a university's mission is to ensure the understanding of current knowledge and the discovery of new knowledge. On this subject, there should be no hindrance to the discovery and sharing of new knowledge. An environment should be created in which research; creativity and student self-development can be fostered (Mission of university, n.d., para. 2).

DU reached remarkable achievement in 2014 in the World University Rankings announced by English based Times Higher Education. DU is ranked 85th in the top 400 universities which were evaluated in five areas including “Teaching”, “Research”, “Citations”, “Industry Income” and “International Outlook”. As it is widely accepted, DU has realized its mission related to scientific approach. However, how the scientific approach is promoted or is not promoted via the physical environment is deficient; therefore, this mission and a link between this mission and the physical environment from students’ point of view are discussed.

First of all, it is essential to determine which departments' students talked about the science. While interviewing about the academic buildings, the word of science was told by the EEE, GEOE, and PHYS students. If it is necessary to look each case specifically in terms of the physical environment, EEE students mentioned science while commenting about the laboratories and the scientist eikons which are placed in surroundings of the EEE buildings. The GEOE students used the word of science while talking about the museum, laboratories, wall hangings (posters, maps, scientists' photographs, and research articles of academicians). Finally, the PHYS students recited 'science' while talking about laboratories. In summary, there are places indicating science such as laboratory and museum. In addition, there are physical artifacts which are the reminder of the science. To extend these classifications, firstly, it is necessary to talk about the laboratories. Laboratory is defined by Oxford dictionary as "a room or building equipped for scientific experiments, research, or teaching, or for the manufacture of drugs or chemicals". Gieryn (2002) defined 'laboratory buildings' as "provide not just square footage for research and teaching; they convert the abstraction of "discipline" into something more palpable, stable, and enduring" (p. 46). A laboratory is a place of science; therefore, it is very usual laboratories to be mentioned together with science. As defined, the laboratories in university environment are utilized for research and teaching, and some of them are used only for research by only academicians. However, students' use of laboratories out of courses is limited. Students utilize particular science laboratories for courses and/or for doing their term project, but these laboratories are not available for extra research and examination for students. This restriction made some students angry and some students stated that these blocks to learn and to discover something. Although they found rationales of this restriction (e.g. laboratories include expensive devices, and there is a need of supervision while students are using them), this restriction is an indicator that DU does not establish an environment in which students can do research freely, express their creativity and develop themselves as opposed to its mission related to scientific approach. As well as laboratories, the museum, which is mentioned specifically for the GEOE building, is a place symbolizing the science. The reminder is not the function of the museum but the materials (e.g. stones) which are presented in it. Like stones, physical several

artifacts presented on the corridors and surrounding of buildings are other reminders of the science. The acceptable assumption is that learning is happening in the transitional spaces with students' random encounters. Therefore, informal messages are received by the signs on the walls and the architectural landscape (Popenici & Brew, 2013). If there is a lack of commercial posting and institutional concern for visibility of academic life and possibilities, this could not enhance students' aspirations toward academic interest (Popenici & Brew, 2013). If any artifact related to science, any research article on the wall, any poster or photograph related to any scientist are visible or are realized by the students, these materials have functions; these make students internalize something about science indirectly. These are useful devices to canalize what happens in the building, what research is about, and what science is.

In contrast, the word of science is either recited little or not at all by the students of EAS, ARCH, and EDU. When we examine these disciplines, which are all social sciences, their work is not related to purely experimenting, testing, and research activities which are conducted hands-on manner. In general, social science is a study that is centered on society and its development. These disciplines deal with humans, both as individuals and as interacting groups. Moreover, Economics is a social science that studies the various theories and problems relating to production and distribution of goods and of course the consumption of wealth. Therefore, because of these characteristics of the disciplines, the students' speeches were not loaded with 'science' as much as the students in the natural science. Among these disciplines, the students of block A in EAS mentioned the science when they commented about what their disciplines deal with and they showed the seminar rooms. The students in block B in EAS mentioned more about extra-curricular activities, meetings, cocktails, and academic seminars by not emphasizing the word of science. In this point, like the laboratories and wall hangings as the reminder of the scientific activities in the natural science buildings, the rooms which are used for seminars and/or scientific activities remind science to students. Whether the students join these activities and listen to any seminar or not, this seminar room is impetus to encourage the students to join in research activities. In the EAS buildings, although there is not any science

laboratory, there are rooms used for seminars and lecture halls are used for any academic or social activity. This means that the only function of the rooms, classrooms and lecture halls is not teaching but scientific activities. It is proud that many students dwelling in these buildings mentioned this function of these places. On the contrary, unfortunately, any student in the EDU buildings mentioned this function of any classroom and room and stated that they listen a seminar while introducing the faculty and department building. This shows that the building is for only teaching but not scientific activities. In this sense, semiotic functions of the buildings take a critical role for indicating science. As indicated by Hillier and Hanson (1984, p. 8) “physical environments can express social meanings by acting as a system of signs”. It is possible to obtain the cultural meanings of “science” by reading into laboratory buildings and other sites of scientific works including libraries, and museums. The following research example shows the semiotic function of buildings in the science building. Gieryn (2002) give examples of modern laboratories, which are differentiated from each other according to their floor plans and to present them as a means of exploring the intellectual and ideological origins of scientific life. Tycho Brahe’s castle-observatory-chemistry at Uranibog and its scientists are isolated from the public life and civil society. By contrary, a Chemical House in a city was designed to do research in public life and be willing to take on civic responsibilities. Moreover, Victorian University has science buildings with factory-like rows of laboratory and with benches places in open rooms, which increased visibility to “impose proper discipline” to the rebellious students. Furthermore, in more recent times, two campus-based science buildings are compared according their floor plan, significantly different identities for academic biotechnology, “one the face of corporate incubator” and “another the face of promising undergraduates” were concluded (Gieryn, 2002, p. 47). These analyses conclude that the buildings like “statements” (Gieryn, 2002, p. 47) say something about the role and importance of the places. As emphasized by Tempe (2009), one way to indicate the importance of scholarship is the particular building or campus designs, which is called ‘message-sending’. Edwards (2000) is a proponent of this approach, and Edwards states that “the exacting agendas of intellectual inquiry, of scientific experiment, and refined taste...in the design of many university buildings

[as silent teachers]” (p. 150). In the social science buildings, the agendas about research and academic activities can be encouraged by the visible places and the activities in it. Another advantage of visible places is to show the faculty members’ world. Students may explore the whole of the faculty members’ world round them and they may realize their role in the university. One of the purposes of the university education is to train the scientist and each undergraduate student is a candidate of scientist. Before deciding to be scientist, faculty members as researchers should be observed for the students in order to establish as a role model for themselves. When undergraduate students are asked where faculty member is, the common answer is that they are in rooms. As stated by Alexander et al. (1977), “the adults transmit their ethos and their way of life to children through their actions, not through statements” (p. 294). Undergraduate students are not children but they are still students of the instructors and observing instructors’ are fundamental in order to understand their behavior, studies, and experiences. By using the faculty areas, visiting their areas used by them, and using some laboratories together with faculty members, these students make sense of the faculty members’ actions and behavior in the university environment.

Furthermore, it was observed that the student endeavor is more about their course content and exams. One of the interesting results was gained through the students’ comments about the Central Library. Library is defined by the Oxford dictionary as “a building or room containing collections of books, periodicals, and sometimes films and recorded music for use or borrowing by the public or the members of an institution”. According to this definition, the function of the library is to keep written materials. However, according to students, this primary function was not mentioned, few students mentioned range of the books. However, DU library is the best central library providing service to the university whole (Çelik, 2001), and it “has one of the largest collections in Turkey with it's 461.323 books, 132.638 e-books, 183.259 bound periodicals, 1.127 journal subscriptions, 53.824 e-journal subscriptions, and 19.300 dissertations according to the indicators in 2012” (History of library, n.d., para. 8). Moreover, it is a well-equipped library with a wide variety of computing facilities in Ankara (Tonta, 2001). Facilities of library transmit the message that

research is important part of university's mission and help students develop positive attitudes towards research. However, DU students' focuses on specifically were on its function as a study area. Students made comment on its physical and social characteristics as a reason of choosing the library as a study area. Interestingly, there were very few comments on the books and other resources.

5.1.2.3.2 Interdisciplinary approach

The other principle is related to gain interdisciplinary approach in university. The basic principle 'interdisciplinary approach' is defined as "Interdisciplinary education and research are encouraged. The university enables academic staff to work on educational and research projects with educational centers and institutes outside their own academic units" (Mission of university, n.d., para. 3). Although this principle focuses on the academicians' works, because the interdisciplinary approach is one of the paramount objectives of higher education in worldwide which should be gained by the students, the link between interdisciplinary approach and the university environment is presented in this part.

Higher education direction in recent years is toward the interdisciplinary approach. The critical question is whether the institution fulfills this necessity of the new era. The campus planning and architectural designs are seen as vehicles to indicate the vision of a university about the interdisciplinary approach. For example, as indicated by Kenney, Dumont, and Kenney (2005), arcaded walkway which unites the Biology and Chemistry buildings in the university's new sciences quadrangle can be a space that point outs to the importance of the sciences as the university's vision and shows the spark of interdisciplinary approach between these two departments.

In this study, the campus planning was the topic of the interviews and one of the most important indicators showing the importance of the interdisciplinary approach according to students was the university with a single campus. According to students, a single campus means meeting different individuals from different disciplines, sharing knowledge about their disciplines and learning different views from their friends from different departments, and realizing which disciplines deal with what. However, although the campus has many different faculties and there are several

disciplines taught, students could not take advantage of the courses opened by the other department because of the physical obstacles. The student who wants to take course from the other department is obliged to abandon this desire because of the short time between two courses and the distance between his/her own building and the building the course is given in. As focused by Kenney, Dumont, and Kenney (2005), an increased attention on interdisciplinary approach necessitates giving more importance to the campus physical arrangements for interdisciplinary study and research.

In this issue, the overall planning of campus is necessary for the university as Kenney, Dumont, and Kenney (2005) explained. They indicated individual decisions of any department can solve a problem at that time; however, this solution is not adequate to see the long term and the big picture. DU campus planning changed over time, when academic buildings began to obviate the student capacity for some departments, the new buildings were constructed; the EDU buildings, block B in EAS, and the Aerospace Engineering building. Therefore, the final campus plan is composed of academic buildings created as individual entities at different times rather than as part of a greater whole and these changes in campus planning led to isolated academic buildings on campus. Especially, the students of EDU complained about the long distance between their buildings and the other academic buildings because their access to those buildings and campus center is difficult; thus, their joining campus social and academic activities are also difficult.

As a university policy, DU students take service courses (especially in the first year) in other buildings. This is important because in this way the students familiarize with the campus physical environment. Moreover, they gain knowledge about works conducted in a particular academic building in the semiotic sense. Furthermore, with this university policy, students have a chance to meet with new friends from different departments, in turn, they get knowledge about these departments. In general, some students' desires were to have a holistic experience of living in the university environment as it was also revealed in their answers to the questions of "how would you design the campus if they were architects?". They had a general tendency to plan a single centered oval campus to construct an integrated university.

In the hidden curriculum research, the campus planning and how the money is invested in what kinds of buildings in general reveal which discipline is considered more important than others. The interviewees in the study conducted by Gair and Mullins (2001) pointed out that “interviewees that noted the embodiment of attitudes, emotions, and dispositions toward education and learning in physical structures almost always pointed to the divisions among disciplines (p. 28). For example, the most university administrations invest in support of schools of engineering, business, and the natural sciences, while less prominence is given to the humanities and social sciences. In this study, clear distinction between dominant disciplines did not emerge, with few exceptions though. Few exceptions were obtained from especially the EDU students. The architectural investments in the EDU buildings are less than the other buildings, the architectural quality is not as same as some other buildings. Moreover, because the location of the EDU buildings was not taken into consideration in the initial campus planning, as a temporarily solution, the EDU buildings were carried away from the campus center, most of the EDU students indicated that more importance is given to the other disciplines, especially to the Engineering. On the other hand, many students except EDU students, stated that although they realized the differences in architectural design, number of buildings, and the buildings’ location in campus, all of these features were not the signs of more precedence given to any discipline.

In conclusion, although academic buildings are located far apart from each other, because DU is a campus university and there are many public spaces for students’ use, and students from different departments can get together quite easily, which supports interdisciplinary approach. In order to promote interdisciplinary approach more, the university administration should find solutions about transportation problem. Moreover, some new facility buildings could be constructed close to academic buildings which are far from the campus center in order to increase communication among students.

5.1.2.3.3 The training of qualified people

The other principle is related to the training of qualified people and it is defined as

For the good of society, the university aims to develop students with humane and moral values, the skills for leadership, open-mindedness, and the habit of continuously re-educating themselves. Graduates are oriented to employ the skills they have learned at [DU] in their workplaces. Students are encouraged to become scientists, and thus be among the nation's most important human resources (Mission of university, n.d., para. 6).

These statements emphasized the principle of 'the training of qualified people'. As many researches shows that student involvement and student integration to university community are critical in order to train qualified undergraduate students (e.g., Astin, 1984; Pascarella & Terenzini, 2005; Terenzini & Wright, 1987). The frequency of academic and social integration between students and faculty members, attendance to student organizations and research activities, and integration into the major program are determinants of student involvement and integration (McKinney, Saxe, & Cobb, 1998). These experiences can be a bridge for students' academic and professional socialization. Therefore, this part is handled in two sections: self-development and peer relations as the first part and student-faculty relations as the second part.

The significance and role of good peer communication and student-faculty relations were discussed in the section 'impact of the physical environment on socialization' in this chapter, thus these topics are not presented again in this section. Astin (1999) identified three implicit pedagogical theories related to improving student involvement. One of them is 'the resource theory'. With a view to enhancing student learning, an institution should hold three resources: physical facilities (e.g. laboratories and libraries), human resources (e.g. high quality faculty members and counselors), and fiscal resources. In this theory, if these three essentials are provided by the institution, student learning and improvement will occur. Among these three resources, the students in this study focused more on the physical facilities about peer communication. When the academic buildings were evaluated in terms of the physical facilities, some of the academic buildings are perceived enabling students to socialize with their peers, and in turn they satisfy their educational and academic needs, but some buildings do not respond to these needs. Therefore, it can be concluded that academic buildings with lack of facilities do not encourage students' development via the physical environment. With regard to student-faculty relations,

the students' comments indicated that there was distinct separation among student and faculty member areas, but this was not a sign of the lack of student-faculty relations however it could influence the frequency of encounter and interaction. The student-faculty relations mostly depend on faculty members' manners and behaviors. However, the analysis showed that students did not show any place where meeting, conversations, and any mutual study with the faculty members can be held.

Apart from the built environments, the campus physical environment was a prominent resource for the students. Since the first days of students' studies, they have been satisfied with the campus environment and they have found it functional to improve themselves in many respects. According McKinney, Saxe, and Cobb (1998) undergraduates' academic and professional socialization necessitates "providing learning opportunities and experiences, as well as knowledge and skills to help students understand the workings of college life, the importance of a well-rounded academic experience, the sociological imagination, and the ethics and standards of our discipline" (p. 2). DU campus was designed in parallel with these necessities; it provides the club rooms for many student organizations, many sports facilities (for swimming, basketball, tennis and for many others), residential facilities, commercial facilities (stationery, markets, and banks) and public places (restaurants, cafes, and canteen). Especially, the club activities were seen as good vehicles to train qualified people. The club rooms as education environments satisfy active, problem and/ or project based and cooperative learning which the students need. In the club activities, the students come together, they meet and discuss any topic, they conduct a project to solve the problems and they can find a chance to enact this project. They learn critical thinking, problem solving, reaching consensus in teamwork. Thus, they take responsibility for their and others' learning. Therefore, it can be concluded that campus life functions as a more important element in fostering a rich and vigorous educational environment than the built environment and the classroom in DU.

5.1.2.3.4 Communication with society

The other basic principle 'communication with society' is related to society integration. This principle says that

The university aims to continue performing its functions in order to benefit every sector of society and remain in contact with its environment. The university is concerned with the finding and promoting of solutions to the problems of our nation, region and the international community. It plays a prominent role in providing communication in scientific, cultural and social fields (Mission of university, n.d., para. 8).

DU campus is isolated from the city physically with following features. The site of the campus is monolith which is not broken by city roads and which does not include any public entity used for society. The campus is surrounded by trees; although it is close to city, city is not visible for students. Finally, as a university policy, the entrance and exist of the campus is controlled by the security staff and any vehicle or individual without permission cannot enter the campus. As well as these physical features, DU campus itself does not require going out of campus, because it holds many facilities in its own constitution. The campus life results in the lack of contact with the city life. In addition to all these campus physical characteristics, it is becoming increasingly difficult for students to come into contact with city life. A chaotic city life is defined by the student with “heavy traffic, stale air, concrete and cold walls, and chaos life”, which all undesirable features were not defined for DU campus physical environment. It can be thought that students prefer to have a peaceful campus environment rather than chaotic city life.

Kenney, Dumont, and Kenney (2005) questioned the community integration and whether students complain of isolation and lack of community or not. In the case of DU, with few exceptions, students absolutely did not complain about the isolation of the campus and the lack of communication with community. Conversely, they see the community outside different from the campus student community which they create. They like to be member of this student community on campus, because members of this community are humanist, modern, open-minded, educated, and respectful to humans, nature and animals, therefore, they live in a free and comfortable environment. On the contrary, for the students it is a fact that the community outside is not modern and respectful to humans, nature and animals; thus, they do not feel comfortably prefer to stay much outside of the campus.

On the other hand, some student clubs carried many projects on behalf of society. The students as members of these clubs are acting responsibly in society and the world.

In conclusion, while there is a strong student community in the campus environment, because the campus fulfills many needs of the students, and therefore the students do not need to go out, and because the campus is isolated from the city physically, the campus environment decreases the possibility of communication with society.

5.2 Summary of the Conclusions

The summary of conclusion reached from the findings and discussion of this study. The researcher completed the integration of all the categories as guided by the section ‘conceptualizing the physical environment as hidden curriculum in higher education’ (see Figure 5.2.1). This section illustrates the general findings of the result in brief.

5.2.1 Students characteristics

1. Students’ characteristics are one of the dominant features in evaluating the physical environment.
2. Students’ past experiences and their expectations, their experiences with a setting, their personality, their awareness and adaptation, their education and training, their learning pattern and their needs are important factors in forming their ideas and evaluations of the environment.
3. Good fit between personality and environment produces positive results such as satisfaction and high performance, while lack of congruence between personality and environment leads to dissatisfaction, lowered performance, and lack of time.

5.2.2 Impact of actual place characteristics

5.2.2.1 Impact of physical environment on socialization

1. What goes on inside university building can also be influenced by the building itself
2. The most important requirement in order to enhance students' socialization is to provide a particular place to students for particular purpose. Even this initiates the students' activities and self development.
3. Even two seats in narrow and long corridors give function to that corridor, which is an impetus to effectuate any activity of students.
4. The built physical environment determines the nature of interaction between students and students and students and faculty members. However, the physical environment is more influential to form relations among students than relations between students and faculty members.
 - 4.1. Canteens are one of the most important tools increasing communication and relations among students.
 - 4.2. The building collecting many different activities together increases the communication and relations among students.
 - 4.3. When the building provides optimum support for the activities desired, many areas for diverse use, and freedom of movement and comfort, the building has social functionality according to students.
 - 4.4. Having a communal place with furniture in any particular building has a power to form a sense of community.
 - 4.5. If the building provides a visual connection between areas, this visualization gives information about what the building generally offers to students and also about what is offered in terms of socialization.
5. The campus physical environment determines the nature of interaction among students.

- 5.1. Single campus maximizes the probability of chance encounters, and encourages lingering on an encounter.
- 5.2. Campus spatial arrangement and the location of an academic building in this arrangement are the important factors influencing the students' interaction and integration with the campus life.
- 5.3. If the building is located in the visible area on campus, the possibility of forming social group for a student increases.
- 5.4. If the building is away from the campus center, the use of building by students from other departments decreases.
- 5.5. The campus environment including all the faculties, departments, and facilities inside has more power to enhance communication and relations.
- 5.6. The existence of open spaces on campus increases the communication and relations among students.
- 5.7. The existence of public eating spaces including canteens, cafeteria, and cafes on a campus increases the communication and relations among students.
- 5.8. Having a path which is closed to car traffic enables students to walk freely and meet spontaneously.
- 5.9. Short distance between the department buildings increases the socialization among students.

5.2.1.1 Impact of physical environment on students' feeling

1. Having multiple opportunities and facilities in the built physical environment and campus physical environment evokes positive feelings in university students.
2. The built and campus environments that students evaluate as good and find beautiful make them feel pleasant.
3. The built and campus environments with natural elements are useful to increase students' well-being.
4. The built physical environment has an effect on students' feelings.

- 4.1. If the academic building includes many facilities (ping-pong table, locker, lift, open and closed places), that building fits more to students' needs, which contribute students' well-being during their university education.
- 4.2. If the academic building consists of many places with multiple purposes as well as teaching places, that building fits students' needs more, which results in students' displaying positive attitude toward themselves, their department, and their university life.
- 4.3. If there are places allocated to only students' use such as studio, student club room, which means if the students has a key of such places, students' sense of belonging and the use of the particular place increases.
- 4.4. When students' social needs are fulfilled by the physical environment, its facilities are satisfied and admired by them.
- 4.5. If the building is defined as aesthetically beautiful; it appeals to students' emotions and sensations. Aesthetic quality increases students' feeling of being privileged.
- 4.6. Appropriate ambient environment and well-kept environment are the basic requirement that contribute to the users' well-being.
5. The campus physical environment has an effect on students' feelings.
 - 5.1. The first impression of the campus environment has critical effect in university selection process of the prospective students.
 - 5.2. The campus with different facets of the outdoor environment and open expanses of lawn and trees gives wealth to students.
 - 5.3. The distinctive qualities of the outdoor spaces enable students to think that they are lucky and important.
 - 5.4. If an academic building is a solitary building, which means that other academic buildings do not surround it and which is far from the campus center, it influences students' feelings that they do not feel

attached to campus social life and they feel that less importance is given to them and their discipline.

5.2.1.2 Impact of the physical environment on students' ideas concerning field specificity

1. An academic building should reflect which department it is.
2. The physical environment of an academic building is an indicator of the field specificity:
 - 2.1. If an academic building fulfills students' educational needs about academic responsibilities (doing homework, studying lesson or exam, and joining group work)
 - 2.2. If an academic building consists of clues or is representative of which department(s) it reflect.
 - 2.3. If an academic building consists of teaching spaces which are appropriate to their discipline (e.g. laboratories for engineering, and studios for architects)
 - 2.4. If the walls of the academic building include materials and students' works related to discipline
 - 2.5. If there is no conflict between program and the building design,
3. The degree of the department-environment congruence depends not only on having particular places for the discipline, but also on the easy access to those places.

5.2.2 Meaning of the environment

1. Each academic building has its own meaning.
2. Building design is an indicator that this place is a university.
 - 2.1. If the building is different from the students' high school, if the building is larger than the students' previous school, if the building

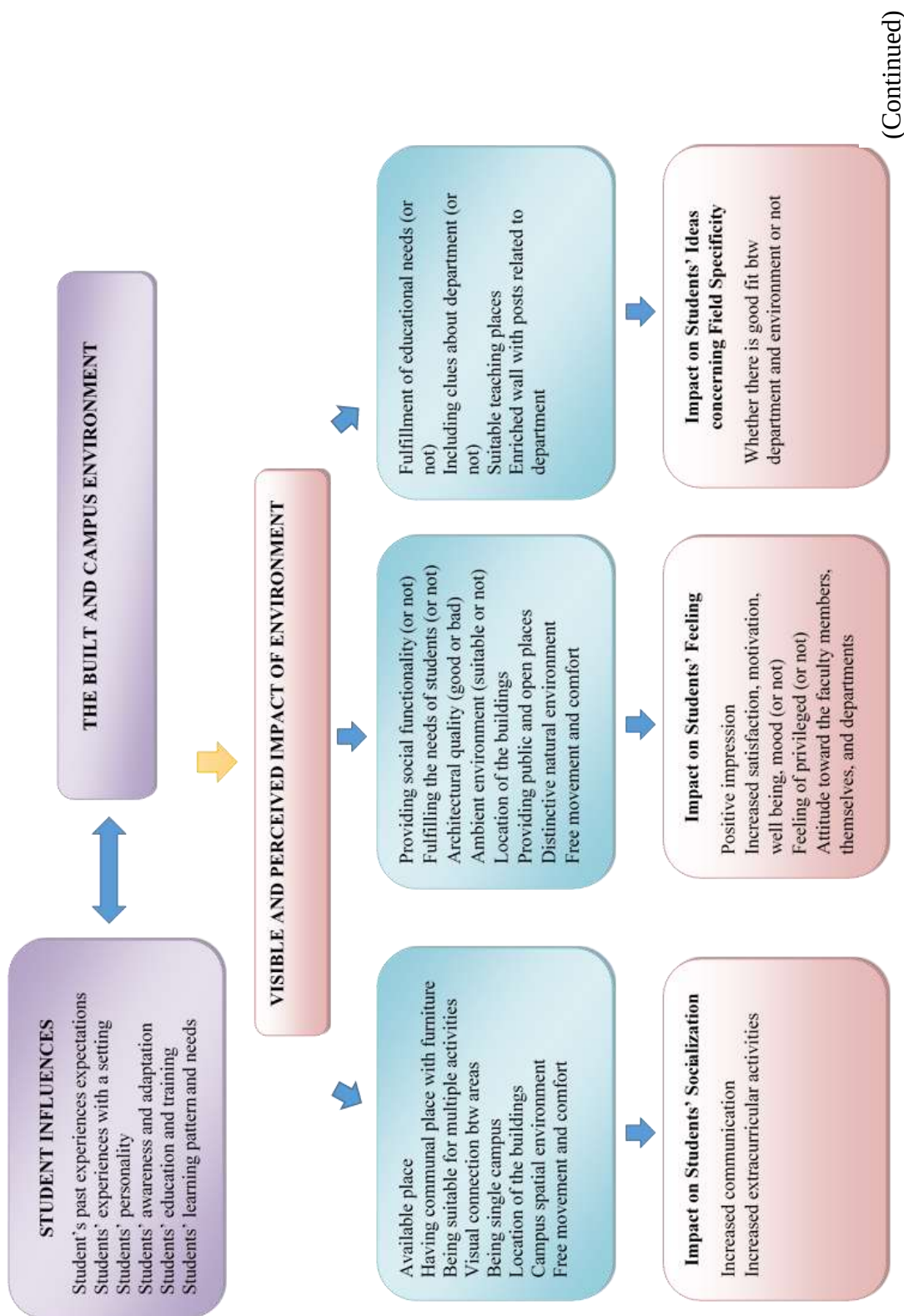
has its own architectural philosophy, that building design is an indicator of the university

- 2.2. If the academic building includes narrow corridors not enabling social activities, if it consists of only classrooms, that building is not seen as a university building.
- 2.3. Lecture halls are seen as the symbols of the university.
3. Providing a social life in a building is one of the most important factors determining that the building is an university building
4. The bulletin boards on the walls of the buildings are perceived as the symbol of either the culture in the building or the school culture.
 - 4.1. Empty walls indicate that there are no social and educational activities in the academic buildings and they are indicators of exclusion of students, while full and updated walls indicate the importance given to students in that building and how life is going on in the building.
5. Luxury buildings are the symbols of the private institution.
6. The campus physical environment has meaning in many respects.
 - 6.1. The campus is designed to allow its students to focus on classes, activities, friendships, and to foster their academic, social, cultural, and personal growth, because with numerous public and recreational places, it is a living space.
 - 6.2. If the campus environment provides a free use place, access to many places, comfortable places, if there is lack of factors interfering in students' behavior in any place and students feel free, campus is a student-centered campus.
 - 6.3. A single campus with a multitude of facilities is an indicator that this place is the university.
 - 6.4. Continuously well-kept places on campus are indicators of the prestige elements of the university.

5.2.3 Invisible side of the physical environment

1. The built physical environment and campus physical environment mirror the institution's missions.
2. The built and campus physical environment shows whether scientific approach is achieved or not.
 - 2.1. Restriction to use laboratories is an indicator that university does not support scientific approach among undergraduate students.
 - 2.2. Visible seminar rooms on the corridors are signs of the scientific approach.
 - 2.3. The lack of seminar room in the building shows that less academic activities are held in that academic building.
 - 2.4. Library which is seen only as study place is an indicator of lack of scientific approach in that university.
3. The built and campus physical environments show whether interdisciplinary approach is achieved or not.
 - 3.1. Single campus embracing all faculties and departments is the indicator that interdisciplinary approach is achieved.
 - 3.2. Short distance among academic buildings is sign of the interdisciplinary approach.
4. The built and campus physical environments indicate whether qualified people are trained or not.
 - 4.1. The campus with a multitude of facilities is an indicator of training qualified people.
 - 4.2. Students' distinct separation of the faculty areas from student areas is the indicator that there can be problem in training qualified people.

- 4.3. Multiple opportunities given to students which increase the social relations among them are the signs of training of qualified people.
- 5. The campus physical environment itself is a sign whether good communication between student community and society is achieved or not.
 - 5.1. The monolith site of campus which is not broken by city roads is an indicator of lack of communication with society.
 - 5.2. The campus surrounded by trees which make the city invisible is a sign of lack of communication with society.
 - 5.3. The single campus which is adequate for every need of the students leads to less communication between students and the society.



(Continued)

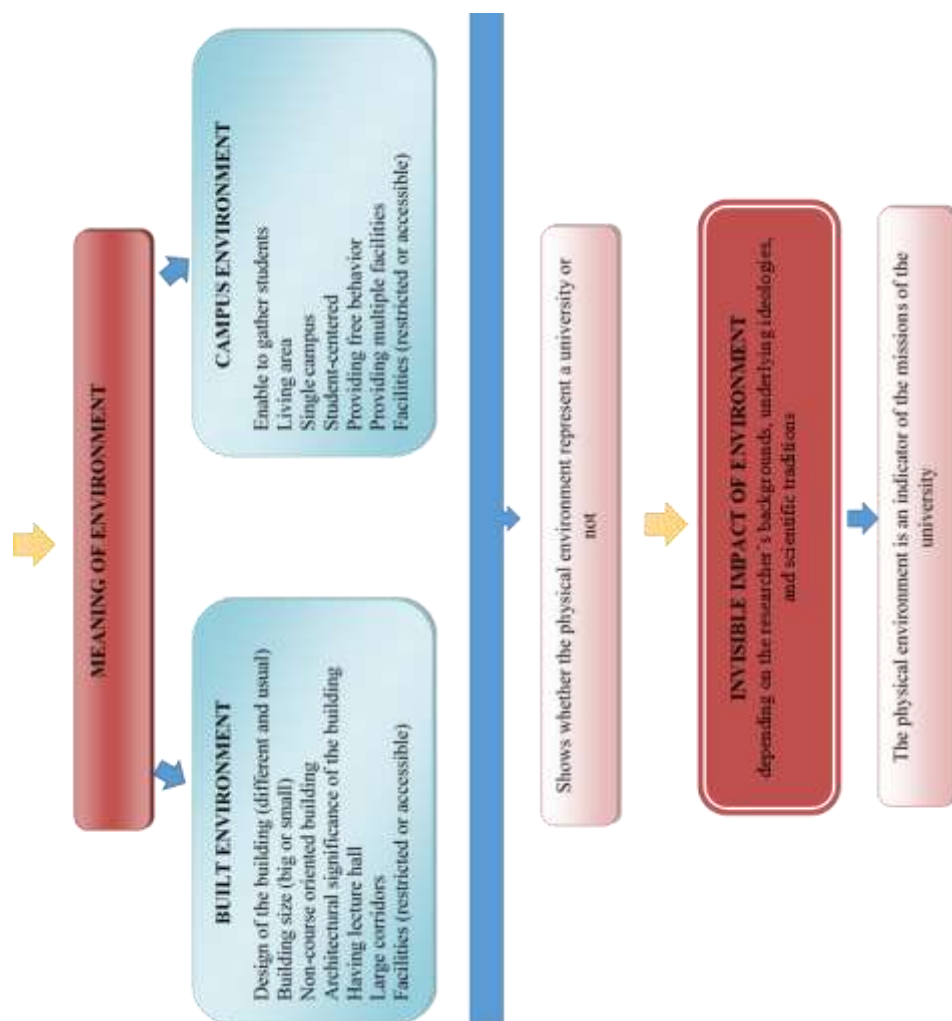


Figure 5.2.1 The conceptualization of the physical environment as hidden curriculum

5.3 Implications for Theory

The results of this study offered some implications about the hidden curriculum theory. In this part, the physical environment as hidden curriculum are explained as consideration of the basic questions examined under the heading of ‘the term hidden curriculum’ in the second chapter. In this respect, the following questions are clarified: (1) does the physical environment as hidden curriculum refer to process or outcome of learning?, (2) is the physical environment as hidden curriculum presented in an unintentional or intentional way?, (3) what are students actually learning from the physical environment as hidden curriculum?, (4) how is learned?, and (5) are the effects of hidden curriculum positive or negative?.

5.3.1 Does the physical environment as hidden curriculum refer to process or outcome of learning?

The definition of the hidden curriculum refers to both process and outcome as it is a process leading to outcomes (Seddon, 1983). Like the hidden curriculum, this study showed that the physical environment as hidden curriculum indicates both process and outcome. Transactions between undergraduate students and the environment do not arise in a short period of time. The students use a particular place, socialize with friends or others, collect memories about it, evaluate that physical environment and then form the meaning of it. Although an idea about the physical environment is formed after the student’s first impression, this idea may be changed or strengthened over time. On the other hand, as shown in the result section, the physical environment is an influential factor which changes the outcomes related to students’ socialization, feelings and ideas on field specificity. Moreover, the physical environment can change and it is a highly possible that the differences between the old and new physical environment yield different outcomes on students’ socialization, moods, daily life, and university life.

5.3.2 Is the physical environment as hidden curriculum presented in an unintentional or intentional way?

The hidden curriculum is hidden because it is not stated explicitly by teachers and administrators or not written in the syllabus and school policy documents. The physical environment as hidden curriculum should be examined differently than the hidden curriculum in classroom learning environment. First, while architects design a building, they have some particular reasons and purposes behind selecting that design. Second, administrators or faculty members in an academic institution take decisions about the physical environment, there are factors influencing their choices some of which are not put into action as planned. However, the users of that building utilize the building without knowing the architects', decision makers' opinions and purposes as well as all process of the construction and renovation of building. It is not common in general to share the purposes and decisions about the physical environment with the university students. Furthermore, it is not exactly known whether these purposes and intentions are conveyed as planned to users of that building. Therefore, even if the physical environment is designed intentionally, it can be accepted that the physical environment as hidden curriculum is presented in an unintentional way.

5.3.3 What are students actually learning from the physical environment as hidden curriculum?

This study revealed that the physical environment has a direct impact on the students' socialization, feelings and ideas concerning field specificity, which form the meaning of the environment. Moreover, Vallance (1974) indicated that researchers' discipline and political orientation are critical in conceptualizing the hidden curriculum, which was concluded also in this thesis under the heading of invisible side of the physical environment as hidden curriculum. The degree of the hiddenness depends on the investigators' ability, point of view and research orientation. At this point, it should be stressed that a project to which the researchers

working in different disciplines contribute could be helpful in order scrutinize the physical environment as hidden curriculum for providing deeper perspective about it.

5.3.4 How is it learned?

This study showed that the physical environment itself gives an idea about the missions of the university, whether the built and campus environment is a good representative of the university, the place of the students in the institution, and the values that administrators prefer to develop. In brief, the physical environment is a tool which teaches students. Moreover, there are many design criteria that influence students' socialization, feelings and ideas on field specificity as presented in the result and discussion chapter. At this point, it is necessary to underline that the physical environment cannot be the only hidden curriculum in a particular educational context. The other two aspects of the hidden curriculum determined by Gordon (1983), social environment and cognitive environment, should be taken into consideration while studying the hidden curriculum in micro context.

5.3.5 Are the effects of hidden curriculum positive or negative?

Effects of the physical environment as hidden curriculum can be beneficial or detrimental. The effects of physical environment change from person to person, setting to setting, and time to time. First, students are affected differently from each other in the same environment because each has different characteristics, learning patterns, needs and training. Second, a particular environment can influence each user positively or negatively. Examples from this study showed that almost all students from EDU are influenced negatively by the physical environment, while almost all students from ARCH are affected positively. Third, because the physical environment can change over time, its effects can change with time. From the students' point of view, their instant moods not the physical environment lead to different interpretation of the physical environment.

5.4 Implication for Practice

The results of this study offered some implications on how learning spaces are constructed. There are two stages of designing an academic building: before the construction of the building and after the construction of the building.

At the stage of preconstruction, all stakeholders' opinions and needs should be taken into consideration. The experiences, the ideas of users including students, administrators and faculty members as well as architects and designers' knowledge should be regarded. The university students' needs come to the fore in this thesis and the important and functional are presented as follows:

1. The places which the students use for social activities (for meeting, organizing extra-curricular activities, and discussion).
2. The places which the students use for educational activities (for individual and group study, and for laboratory experiments).
3. The places integrating all social and education activities.
4. The visible and communal places like large entry or atrium.
5. The comfortable and furnished corridors and hallways.
6. Flexible places which can be rearranged according to different activities.
7. Large and pleasant environment that students would like to occupy.
8. Campus designed with an integrated approach.

Providing these places is very crucial because it is impossible to demolish a building and abandon the use of that building after construction. After construction, practices of the decision-makers (administrators and faculty members) are as significant and vital as the designs of the architects. The followings are some of the significant use of spaces for higher education:

1. There should be places and spaces allocated only to students for their social and academic activities.
2. The places should be open and available; there should not be any restrictions about a place which especially fulfills students' educational needs (experiment, doing project, and group study).

3. Seminar rooms should be located in a visible area, to convey the message that the academic activities were performed in that building.
4. Walls should be utilized according to the missions of the university. There should be posters about the scientific studies, departmental issues, and students' activities on the walls.
5. The same care should be given both to student and faculty areas.
6. The places should be consistent with the curriculum and/or a faculty member's words. For example, while an instructor states 'there should not be any material distracting attention in the classroom environment' and if there is a distracting element in that classroom, these words would be meaningless to students. Moreover, if electricity is used inefficiently in the EEE building, this basic knowledge about their department could not be transferred to students meaningfully.
7. The places should include a material symbolizing their department. A place designed as a cockpit can be a motivational factor to Aerospace Engineering students.
8. The places as attraction centers which should be open not only to the students of the department but also to the students from other departments/faculties.
9. It is meaningful when faculty staff shares the history and their decisions about the design of the building with students. This can make students more integrated into the community in that building, and the students can develop a sense of belonging.
10. Students' needs concerning the physical environment should be taken time to time, and the changes should be made in line with these needs. Before any renovation, taking students' opinions transmit the message that they are important for the department.

5.5 Recommendations for Further Research

This study was conducted through interviews as a method of qualitative research in which the main aim was to examine the functions of the physical environment as hidden curriculum. In order to get thick description about the physical environment, the present study was conducted in DU because DU provides many variations to this

research and the researcher. DU consists of departments of both social sciences and natural sciences. It included many academic buildings, some of which were constructed many years ago while some others were built in recent years. Moreover, the academic buildings are located in various spaces on campus. Because of these variety in characteristics of physical environment the findings of this study revealed many further research suggestions for curriculum specialist, sociologist, environmental psychologists and for the other scholars from many different disciplines.

The findings of present study provided number of recommendations for future research in four headings: (1) recommendations for further research in DU, (2) recommendations for further research related to the nature of physical environment, (3) recommendations for further research related to the nature of hidden curriculum, and finally (4) recommendations for further research concerning methodologies.

5.5.1 Recommendations for further research in the Dynamic University

1. This study revealed that the location of the academic building is critical since it has impact on students' social life and their feelings. The EDU buildings are solitary buildings because of its long distance to other academic buildings and campus center which yield negative outcome. Comparing this result with another solitary building (e.g. Aerospace Engineering building) is possible for DU campus. Moreover, while Education is a social science, Aerospace Engineering is the branch of the engineering, which can yield different results. Hence, obtaining data from Aerospace Engineering students could be meaningful in order to interpret the current results.
2. In this study, student clubs are very important as socializing agents according to students, therefore, 'which physical factors influence this socialization and how?' could be searched in the further research.
3. The students of DU are not the only citizen of Turkey but also from other nations. In the present study, the most of the participants are the citizen of Turkey and a few foreign students joined in the study voluntarily. I assumes

that foreign students' perspectives and focuses could be different; thus, these students could be encouraged to join in such a study in order to get rich data.

5.5.2 Recommendations for further research related to the nature of physical environment

1. The present study revealed that lecture hall symbolizes whether an academic building is a university building or not. In order to get more information concerning its role, importance and meaning, the direct question should be asked to participants.
2. Canteens are one of the significant and vital socialization spaces for students. Moving beyond the description, deeper phenomenological analysis can be conducted via observation in different canteens.
3. There are many different spaces in the academic buildings including seminar rooms, study rooms, computer laboratories, teaching spaces (classrooms vs lecture halls), and canteens. The kinds of spaces that are conceptual, physical, social and/or personal and the features that make these spaces social could be searched.
4. This study also revealed that physical artifacts are very crucial in showing culture of the school, mission of the school, life in the school and more. In order to obtain more detailed information, the focus on research should be narrowed and many questions related to understand the role and importance of the physical artifacts could be asked.

5.5.3 Recommendations for further research related to the nature of hidden curriculum

1. In the present study, only undergraduate students' opinions and perspectives about the physical environment and to what extent the physical environment fulfills their educational, social and academic needs were taken into consideration. For further research, first of all, the administrators' and their

opinions about the use of the physical environment, their purposes while changing the physical environment and which factors influencing their decisions would be obtained in order to analogize between these information and the current perceptions of the students.

2. In this study, the students, who are more politically inclined than others, stressed different point while searching the hidden curriculum. Therefore, 'which political views change the direction of the students' should be searched with the aim of understanding the hidden curriculum better.
3. At the beginning of the further research, if the more detailed information about the students' characteristics with standardized questionnaires and their views about the purpose of the higher education with concrete questionnaires (for example, to get a diploma, to be a researcher, to become a sociable person, and to develop myself) are obtained, these additional information will give more insight in order to interpret the searched phenomena more.
4. The participants compared the physical environment of DU as a state university with the private university. Thus, especially the students of the private university should be obtained to understand the nature of the hidden curriculum.

5.5.4 Recommendations for further research concerning methodologies

1. Photo-elicitation interview revealed more detailed data while analyzing two places. The walking interview enabled me to ask more questions to participants about the places walked and talked. Therefore, these two techniques could be utilized in further research.
2. In the current study, the walking interviews were conducted and the participants determined the route which gives knowledge about the students' mostly used areas. For the further research, the route determined by researcher would yield more different results because some places were not visited by the participants. Thus, the participants' ideas about these places could be obtained.

3. In this study, the participants' opinions and ideas were taken about the academic building used by them. During this study, a few students made a comment about the hidden side of the physical environment without thinking their used buildings but only depending on their general experiences and speculations. Therefore, for the further research, without referring any building, the participants' ideas could be obtained asking general and specific questions about the hidden curriculum. For example, the question 'if you were an administrator of an academic institution, which changes would you do and why?' could be asked.
4. In this study, the data concerning the built environment is obtained via the walking interview. However, because of the weather conditions, the campus environment could not be walked by the participants. Walking on the campus and talking about its features could yield more in depth information.
5. In this study the opinions of undergraduate students were investigated. As an important element and input of university education, faculty members and administration should be included in a further study. The interview form should include more specific and concrete questions. In addition to the interview, observation might be used to collect data.
6. In this study, only one university site was included in the sample yet and the comparison with other universities (especially) could not be provided. The same study may be conducted in the different campus site in order to compare the results gained from two different sites and conceptualize the physical environment as hidden curriculum more precisely.
7. The data for present study were gathered through interview protocols. Thus, in order to increase the effectiveness of the study, a further extension of the study can be conducted via observations. Moreover, longitudinal research studies might be effective in finding stable aspect of the environment which is unstable in nature.

8. Lastly, especially in Turkey, there is lack of research on the physical environment as hidden curriculum. Therefore, it is suggested to conduct more qualitative studies followed by quantitative studies to understand this phenomenon better.

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APPENDICES

APPENDIX A: Turkish Version of Pre-Interview Questions

İlk Görüşme Soruları

- 1- DÜ'yü seçmenizin sebepleri nelerdir?
- 2- Fakültenize girdiğinizde genel olarak neler hissedersiniz? Bu hislerin neden ve nelerden kaynaklandığını düşünüyorsunuz?
- 3- Ders dışında fakültenizde en çok nerede zaman geçirirsiniz? Neden?
- 4- Fakültede kullanmayı tercih etmediğiniz yerler nerelerdir? Neden?
- 5- Fakültenizin fiziksel ortamını nasıl değerlendiriyorsunuz?
- 6- Fakültenizde eksikliğini hissettiğiniz mekânlar var mı? Eğer varsa, bu durumu nasıl değerlendiriyorsunuz?
- 7- Tek başınızayken nereyi kullanırsınız?
- 8- Grup olarak nereyi niçin seçersiniz?
- 9- Araştırmalar fakültelerin fiziki ortamının mesaj verdiğini söyler. Sizce fakültenizin fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?
- 10- Kendi fakülteniz dışında kullandığınız, gördüğünüz fakülteler var mı? Bu fakülteler ve fiziki yapıları hakkında ne düşünüyorsunuz?
- 11- Üniversitenizin kampus ortamını düşündüğünüzde en çok vurgunun neye yapıldığını düşünüyorsunuz? Bunu düşünme nedeniniz (nedenleriniz) nedir?
- 12- Sizce DÜ üniversite yaşamının nasıl olmasını hedeflemektedir?

- 13- DÜ'nün kampus ortamı desek ilk aklınıza gelen ne olur? Neden? Kampusun fiziksel yapısında ilk dikkatinizi çeken şey nedir?
- 14- DÜ ortamının size sunduğu en önemli imkânlar nelerdir? Niçin?
- 15- DÜ kampus çevresinin hangi özellikleri sosyalleşmeyi sağlamaktadır? Üniversitede hangi faktörler sizin sosyalleşmenizi sağlar?
- 16- Kampusun fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?
- 17- Mimar olduğunuzu düşünün. Kendi fakültenizi nasıl tasarladınız? Bunu nedenleriyle açıklayınız.

APPENDIX B: Pre-Interview Questions

- 1) What are your reasons for choosing Dynamic University?
- 2) How do you feel when you enter the building? From what do you think these feelings originate?
- 3) Out of class, which place do you spent time most? Why?
- 4) Are there any places you do not prefer to use in faculty/department building?
If yes, what places? Why?
- 5) How do you evaluate you're the physical environment of faculty/department building?
- 6) Is there any place that you feel is deficient? If yes, how do you evaluate this situation?
- 7) While you are alone, which places do you prefer to use?
- 8) Which places do you use as a group? Why?
- 9) Some research indicates that buildings and their physical environment give messages. What values, notions, and attitudes do you think are transmitted by the physical environment of your faculty/department building? Why?
- 10) Are there other faculty/department buildings you have seen or used other than your own faculty? What do you think about them?
- 11) When you consider the campus environment, what do you think is the greatest emphasis given to? Why?
- 12) What does DU aim for the campus life?
- 13) When I say DU campus, what is the first thing that comes to your mind?
Why? What is the first thing you notice about the physical environment of the campus?

- 14) What is the most important opportunity provided by DU? Why?
- 15) What features of DU campus environment provide socialization? Which factors influence this socialization?
- 16) What values, notions, and attitudes do you think are transmitted by DU campus environment? Why?
- 17) Imagine that you are an architect. How would you design your faculty building? Explain why.

APPENDIX C: Turkish Version of Walking Interview Schedule

Görüşme Formu

Merhaba ben Dürdane Tor. Orta Doğu Teknik Üniversitesi Eğitim Bilimleri Eğitim Programları ve Öğretim Anabilim Dalında doktora öğrencisiyim. Doktora çalışmamın amacı Dinamik Üniversitesinde (DÜ) eğitim gören lisans öğrencilerinin sosyalleşme sürecinde fiziksel ortamın örtük programına ilişkin bir kuram ortaya çıkarmaktır. Bu görüşme sırasında sizlerin kendi fakültenize ve genel olarak kampusun fiziki ortamına dair görüşleriniz alınacaktır. Katılımınız ve cevaplarınız, sizlerin sosyalleşme sürecinizde fiziki ortamın örtük programına dair incelemeler yapılması ve bu hususta önermeler geliştirilip kuram oluşturulması açısından oldukça önemlidir.

Vereceğiniz bilgiler yalnızca araştırma amacıyla kullanılacak ve kişisel bilgileriniz araştırmacı dışında başkaları ile paylaşılmayacaktır.

Görüşmeye başlamadan evvel görüşmenin ses kayıt cihazı ile kayıt altına alınacağını belirtmek isterim. Bu hususta bir sıkıntınız varsa lütfen belirtiniz. Görüşme yaklaşık 45 dk. sürecektir fakat bu süre verdiğiniz yanıtlara ve var olan zamanınıza bağlı olarak değişebilir.

Bu çalışmaya katılmayı kabul ettiğiniz ve zaman ayırdığınız için çok teşekkür ederim.

Görüşme veya araştırma ile ilgili sorularınız var mı?

İzin verirseniz sorulara başlamak istiyorum.

Tarih: _____

Başlangıç Zamanı: _____

Çalışma dolaşarak görüşme ile başlayacaktır. Dolaşarak görüşme her katılımcının en çok kullandığı fakülte ya da bölüm binasında gerçekleşecektir. Fakülte binasında gezilirken rotayı katılımcı belirleyecektir. Araştırmacının aşağıdaki yönergesiyle görüşme başlayacaktır.

Merhaba <Katılımcının Adı>, farz edelim ben sizin bölümünüzü yeni kazandım ve üniversite eğitimimi bu fakülte/bölüm binasında geçireceğim. Bu fakülte/bölüm binası hakkında hiçbir bilğim yok ve ilk kez gezeceğim. Aynı zamanda sizin yakın bir arkadaşınızım. Bana fakülte/bölüm binanı ve fiziksel ortamını tüm deneyim ve yaşantılarını katarak tanıtır mısınız? Ayrıca beni şu hususlarda bilgilendirir misiniz?

- 1- Sizce, fiziki ortamın kullanımına ilişkin yazılı olmayan ama bilinmesi gereken kurallar, ilkeler nelerdir? Bu binayı kullanırken nelere dikkat etmeliyim?
- 2- Bu fakülte/bölüm binasındaki görsel materyaller hakkında beni bilgilendirir misin?
- 3- Sizce, bu fakülte/bölüm binasına ait hangi mekânlar kimler tarafından hangi amaçla kullanılmaktadır?
- 4- Siz fakülte/bölüm binasındaki mekânları nasıl kullanırsınız? Ne amaçla? Ne zaman?

Diğer Sorular:

- 5- DÜ'yi seçmeden önce DÜ'ye gelmiş miydiniz? Evet, ise; DÜ'nün fiziki ortamı DÜ seçiminizi etkiledi mi? Neden?
- 6- DÜ'ye ilk geldiğinizde fakülte/bölüm binanız ve kampus fiziki ortamı hakkında ilk izlenimiz neydi?
- 7- Fakülte/bölüm binanıza girdiğinizde genel olarak neler hissedersiniz? Bu hislerin neden ve nelerden kaynaklandığını düşünüyorsunuz?
- 8- Fakülte binası sizin için ne ifade ediyor?
- 9- Şimdi fakülte/bölüm binanızı kullanımınız hakkında bilgi edinmek istiyorum.
 - Ders dışında fakültenizde zaman geçirir misiniz? En çok nerede zaman geçirirsiniz? Neden?
 - Fakültenize hangi amaçla ve ne zaman gelirsiniz?

- Fakültede kullanmak isteyip kullanamadığınız mekânlar var mı? Varsa nereler? Neden kullanamıyorsunuz?
 - Fakültenizde kullanmayı tercih etmediğiniz yerler nerelerdir? Neden?
 - Tek başınızayken nereyi kullanırsınız?
 - Grup olarak nereyi tercih edersiniz?
- 10- Fakülte/bölüm binanızın fiziksel ortamını nasıl değerlendiriyorsunuz?
- 11- Fakülte/bölüm binanızın fiziki ortamı sizin kullanımınız üzerinde etkisi nedir?
- Derslerdeki performansınızı nasıl etkiliyor?
 - Davranışlarınızı nasıl etkiliyor?
 - Davranışlarınızda bu fakülte binasının fiziki özelliğinden kaynaklı bir değişim söz konusu mu?
 - Fakülte/bölüm binası size nasıl davranmanız gerektiğini söylüyor?
- 12- Bu fakültede kimler nerelerde zaman geçirir?
- Öğretim üyeleri, öğrenciler, asistanlar, idari personel, diğer hizmetliler
- 13- Fakülte/bölüm binanızda eksikliğini hissettiğiniz mekânlar var mı? Eğer varsa, bu durumu nasıl değerlendiriyorsunuz?
- 14- Fakültenin kauptaki yeri hakkında düşüncelerin nelerdir?
- 15- Araştırmalar binaların ve fiziki ortamının mesaj verdiğini söyler. Fakülte/bölüm binanızın fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?
- 16- Kendi fakülteniz dışında kullandığınız, gördüğünüz fakülte/bölüm binaları var mı? Bu fakülte/bölüm binaları ve fiziki yapıları hakkında ne düşünüyorsunuz?
- 17- Mimar olduğunuzu düşünün. Kendi fakülte/bölüm binanızı nasıl tasarlardınız? Niçin?

Kampus Ortamı Hakkında Sorular:

- 18- DÜ'nün kampus ortamı desek ilk aklınıza gelen ne olur? Neden? Kampusun fiziksel yapısında ilk dikkatinizi çeken şey nedir?

- 19- Üniversitenizin kampus ortamını düşündüğünüzde en çok vurgunun neye yapıldığını düşünüyorsunuz? Bunu düşünme neden(ler)iniz ne(ler)dir?
- 20- Sizce DÜ üniversite yaşamının nasıl olmasını hedeflemektedir?
- 21- Kampus ortamının fiziksel koşullarını nasıl değerlendiriyorsunuz?
- 22- Bu kampusta kimler nerelerde zaman geçirir?
- Öğretim üyeleri, öğrenciler, asistanlar, idari personel, diğer hizmetliler
- 23- DÜ kampus çevresinin hangi özellikleri sosyalleşmeyi sağlamaktadır?
- 24- DÜ'nün merkezi neresi? Neden?
- 25- DÜ'nün fiziki sembolleri nelerdir?
- En çok sevdiğin hangisi? Neden?
- 26- Kampusun fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?
- 27- Mimar olduğunuzu düşünün. Kampusun fiziki ortamını nasıl tasarladınız? Niçin?

Bitiş Soruları:

- 28- Sizce bu konular hakkında söylenmesi gereken son ve önemli olan bir husus var mı?
- 29- Tüm bu konuşmalarımız kapsamında eklemek istediğiniz bir husus var mı?

Sizin katılımcı olarak bu araştırmada yer almanız çok önemliydi. Çalışmama katıldığınız ve zaman ayırdığınız için teşekkür ederim.

Bitiş Zamanı: _____

APPENDIX D: Walking Interview Schedule

Dear <Participant's name>,

I am Dürdane Tor. I am a doctoral candidate at the Curriculum and Instruction Program, Department of Educational Sciences, Middle East Technical University. The aim of my dissertation is to investigate the functioning of physical environment as one dimension of hidden curriculum during the socialization of university students enrolled at the Dynamic University (DU). By this walking interview and interview, I will collect your opinions about the physical environment of your faculty/department building and campus. I think that your participation and answers will be valuable to investigate physical environment as hidden curriculum during socialization and to develop theorems for a grounding theory.

The information you provide during this interview will be utilized only for research purposes and your personal information will not be shared with third parties.

I would like to inform you that this interview session will be audio-taped. If there is a problem about this issue, please let me know. The estimated time for this interview is 45 minutes, but this duration may change depending on content of your answers and your available time.

Thank you very much for agreeing to participate in this study and for taking your time.

Do you have any questions about interview and research?

If it is convenient for you, I would like to begin.

Date: _____

Start Time: _____

The walking interview will be conducted in each participant's own faculty or department building. The route of walking interview will be determined by the participant. The walking interview will begin with the researcher's following instruction.

Hello <Participant's name>, Imagine that I have just started the program in your department and I will spend most of time in your faculty/department building. I do not have any idea about this faculty/department building and this is the first time I am getting around. I am also a close friend of yours. Would you like to describe the physical environment of your faculty/department building in your own experience? Additionally, please inform me about the following points:

- 1- According to you, what are the unwritten rules, norms and principles I should know in using the faculty building? What should I consider when using this building?
- 2- Could you inform me about visual materials in this building?
- 3- According to you, which places are used by whom and when? What are their purposes for using this faculty/department building?
- 4- How do you use these places in this building? What purposes? When?

Other Questions:

- 5- Before you decided to study at DU, did you come and see the DU campus? If yes; did the physical environment at DU influence your decision?
- 6- When you came to DU for the first time, what was your first impression about your faculty/department building and campus environment?
- 7- How do you feel when you enter the building? From what do you think these feelings originate?
- 8- What does your faculty/department building mean for you?
- 9- I will list some words one by one. Please, tell me the first thing that comes to your mind about each. Faculty/department building, corridor, inside of the building, outside of the building, canteen, garden.
- 10- Now, I would like to know about your use of the faculty/department building.

- Out of class, do you spend your time in the faculty/department of building? If, yes, where do you spend most of your time? Why?
- When and why do you come to your faculty/department building?
- Are there any places you are not allowed to use but would like to?
- Are there any places you do not prefer to use in faculty/department building? If yes, what places? Why?
- While you are alone, what places do you prefer to use?
- What places do you use as a group?

11- How do you evaluate your faculty/department building?

12- What is the effect of the physical environment of your faculty/department building on your use?

- How does it affect your performance in course?
- How does it affect your behavior?
- Is there any change in your behavior because of the physical characteristics of the building?
- What message is your faculty building giving to you in your use?

13- Which places in faculty/department building are used for whom?

- Instructors, academicians, undergraduate students, assistants, administrative staff, and other staff

14- Do you think the faculty/department building lacks certain places? What are they? How do you interpret this situation?

15- What are your opinions about the location of your faculty/department building on campus?

16- Some research indicates that buildings and their physical environment give messages. What values, notions, and attitudes do you think are transmitted by your faculty/department building?

17- If you were required to make an analogy, what metaphor would you use for your faculty/department building?

18- Are there other faculty/department building you have seen or used other than own faculty? What do you think about them?

19- Imagine that you are an architect. How would you design your own faculty/department building? Why?

Questions related to campus environment:

20- When I say DU campus, what is the first thing that comes to your mind? Why? What is the first thing you notice about the physical environment of the campus?

21- When you consider campus environment, what do you think the greatest emphasis given to?

22- What does DU aim for the campus life?

23- How do you evaluate campus environment and its physical condition?

24- What places in the campus are for whom?

- Instructors, academicians, undergraduate students, assistants, administrative staff, and other staff

25- What features of DU campus environment provide socialization?

26- Where is the center of the DU campus? Why?

27- What are the physical symbols of DU?

- Which is the most favorite for you?

28- What values, notions, and attitudes do you think are transmitted by DU campus environment? Why?

29- If you were required to make an analogy, what metaphor would you use for DU campus environment?

30- Imagine that you are an architect. How would you design the campus environment? Why?

Final Questions:

31- Do you have final remarks about these issues?

32- Is there anything you would like to add to what we have been talking?

Your participation in this study was very important. Thank you for your participation and time for this study.

End Time: _____

APPENDIX E: Turkish Version of Interview with Photo-Elicitation

Görüşme Formu

Merhaba ben Dürdane Tor. Orta Doğu Teknik Üniversitesi Eğitim Bilimleri Eğitim Programları ve Öğretim Anabilim Dalında doktora öğrencisiyim. Doktora çalışmamın amacı DÜ’de eğitim gören lisans öğrencilerinin sosyalleşme sürecinde fiziksel ortamın örtük programına ilişkin bir kuram ortaya çıkarmaktır. Bu görüşme sırasında sizlerin kendi fakültenize ve genel olarak kampusun fiziki ortamına dair görüşleriniz alınacaktır. Katılımınız ve cevaplarınız, sizlerin sosyalleşme sürecinizde fiziki ortamın örtük programına dair incelemeler yapılması ve bu hususta önermeler geliştirilip kuram oluşturulması açısından oldukça önemlidir.

Vereceğiniz bilgiler yalnızca araştırma amacıyla kullanılacak ve kişisel bilgileriniz araştırmacı dışında başkaları ile paylaşılmayacaktır.

Görüşmeye başlamadan evvel görüşmenin ses kayıt cihazı ile kayıt altına alınacağını belirtmek isterim. Bu hususta bir sıkıntınız varsa lütfen belirtiniz. Görüşme yaklaşık 45 dk. sürecektir fakat bu süre verdiğiniz yanıtlara ve var olan zamanınıza bağlı olarak değişebilir.

Bu çalışmaya katılmayı kabul ettiğiniz ve zaman ayırdığınız için çok teşekkür ederim.

Görüşme veya araştırma ile ilgili sorularınız var mı?

İzin verirseniz sorulara başlamak istiyorum.

Tarih: _____

Başlangıç Zamanı: _____

Araştırmada kullanılacak Materyaller: Katılımcı Fotoğrafları, Kampus Haritası

Bilgisayar ortamına aktarılan fotoğraflar hakkında şu sorular sorulacaktır:

- 1- Bu fotoğrafların çekilme amacı nedir?
- 2- Bu fotoğraf sizin için ne ifade etmektedir?
- 3- Bu fotoğrafı çekerken ne düşündünüz?

Fotoğraflar hakkında konuşulduktan sonra aşağıdaki sorulara geçilecektir.

Giriş Soruları:

- 4- DÜ'yi seçmeden önce DÜ'ye gelmiş miydiniz? Evet, ise; DÜ'nün fiziki ortamı DÜ seçiminizi etkiledi mi? Neden?
- 5- DÜ'ye ilk geldiğinizde fakülte/bölüm binanız ve kampus fiziki ortamı hakkında ilk izlenimiz neydi?

Fakülte/Bölüm Binası Hakkında Sorular:

- 6- Fakülte/bölüm binanıza girdiğinizde genel olarak neler hissedersiniz? Bu hislerin neden ve nelerden kaynaklandığını düşünüyorsunuz?
- 7- Fakülte binası sizin için ne ifade ediyor?
- 8- Şimdi fakülte/bölüm binanızı kullanımınız hakkında bilgi edinmek istiyorum.
 - Ders dışında fakültenizde zaman geçirir misiniz? En çok nerede zaman geçirirsiniz? Neden?
 - Fakültenize hangi amaçla ve ne zaman gelirsiniz?
 - Fakültede kullanmak isteyip kullanamadığınız mekânlar var mı? Varsa nereler? Neden kullanamıyorsunuz?
 - Fakültenizde kullanmayı tercih etmediğiniz yerler nerelerdir? Neden?
 - Tek başınızayken nereyi kullanırsınız?
 - Grup olarak nereyi tercih edersiniz?
- 9- Fakülte/bölüm binanızın fiziksel ortamını nasıl değerlendiriyorsunuz?
 - Fakülte/bölüm binanızda eksikliğini hissettiğiniz mekânlar var mı? Eğer varsa, bu durumu nasıl değerlendiriyorsunuz?

- Fakülte binanda kullanılan görsel materyaller hakkında neler düşünüyorsunuz?
- Fakültenin kampustaki yeri hakkında düşüncelerin nelerdir?

10- Fakülte/bölüm binanızın fiziki ortamı sizin kullanımınız üzerinde etkisi nedir?

- Derslerdeki performansınızı nasıl etkiliyor?
- Davranışlarınızı nasıl etkiliyor?
- Davranışlarınızda bu fakülte binasının fiziki özelliğinden kaynaklı bir değişim söz konusu mu?
- Fakülte/bölüm binası size nasıl davranmanız gerektiğini söylüyor?

11- Bu fakültede kimler nerelerde zaman geçirir?

- Öğretim üyeleri, öğrenciler, asistanlar, idari personel, diğer hizmetliler

12- Sizce, fiziki ortamın kullanımına ilişkin yazılı olmayan ama bilinmesi gereken kurallar, ilkeler nelerdir? Bu binayı kullanırken nelere dikkat etmelidir?

13- Araştırmalar binaların ve fiziki ortamının mesaj verdiğini söyler. Fakülte/bölüm binanızın fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?

14- Kendi fakülteniz dışında kullandığınız, gördüğünüz fakülte/bölüm binaları var mı? Bu fakülte/bölüm binaları ve fiziki yapıları hakkında ne düşünüyorsunuz?

15- Mimar olduğunuzu düşünün. Kendi fakülte/bölüm binanızı nasıl tasarladınız? Niçin?

Kampus Ortamı Hakkında Sorular:

16- DÜ'nün kampus ortamı desek ilk aklınıza gelen ne olur? Neden? Kampusun fiziksel yapısında ilk dikkatinizi çeken şey nedir?

17- Üniversitenizin kampus ortamını düşündüğünüzde en çok vurgunun neye yapıldığını düşünüyorsunuz? Bunu düşünme neden(ler)iniz ne(ler)dir?

18- Sizce DÜ üniversite yaşamının nasıl olmasını hedeflemektedir?

19- Kampus ortamının fiziksel koşullarını nasıl değerlendiriyorsunuz?

20- Bu kampusta kimler nerelerde zaman geçirir?

- Öğretim üyeleri, öğrenciler, asistanlar, idari personel, diğer hizmetliler

21- DÜ kampus çevresinin hangi özellikleri sosyalleşmeyi sağlamaktadır?

22- DÜ'nün merkezi neresi? Neden?

23- DÜ'nün fiziki sembolleri nelerdir?

- En çok sevdiğin hangisi? Neden?

24- Kampusun fiziki yapısının öğrencilere hangi değerleri, fikirleri ve tutumları kazandırdığını düşünüyorsunuz? Neden?

25- Mimar olduğunuzu düşünün. Kampusun fiziki ortamını nasıl tasarladınız? Niçin?

Bitiş Soruları:

26- Tüm bu konuşmalarımız kapsamında eklemek istediğiniz bir husus var mı?

27- Sizce bu konular hakkında söylenmesi gereken son ve önemli olan bir husus var mı?

Sizin katılımcı olarak bu araştırmada yer almanız çok önemliydi. Çalışmama katıldığınız ve zaman ayırdığınız için teşekkür ederim.

Bitiş Zamanı: _____

APPENDIX F: Interview Schedule for Photo-Elicitation

Dear <Participant's name>,

I am Dürdane Tor. I am a doctoral candidate at the Curriculum and Instruction Program, Department of Educational Sciences, Middle East Technical University. The aim of my dissertation is to investigate the functioning of physical environment as one dimension of hidden curriculum during the socialization of university students enrolled at the Dynamic University (DU). By this walking interview and interview, I will collect your opinions about the physical environment of your faculty/department building and campus. I think that your participation and answers will be valuable to investigate physical environment as hidden curriculum during socialization and to develop theorems for a grounding theory.

The information you provide during this interview will be utilized only for research purposes and your personal information will not be shared with third parties.

I would like to inform you that this interview session will be audio-taped. If there is a problem about this issue, please let me know. The estimated time for this interview is 45 minutes, but this duration may change depending on content of your answers and your available time.

Thank you very much for agreeing to participate in this study and for taking your time.

Do you have any questions about interview and research?

If it is convenient for you, I would like to begin.

Date: _____

Start Time: _____

Questions about the photo taken by the participants

- 1- Why did you take this photo?
- 2- What does this photo mean for you?
- 3- What did you think while you were taking this photo?

Other Questions:

- 4- Before you decided to study at DU, did you come and see the DU campus? If yes; did the physical environment at DU influence your decision?
- 5- When you came to DU for the first time, what was your first impression about your faculty/department building and campus environment?
- 6- How do you feel when you enter the building? From what do you think these feelings originate?
- 7- What does your faculty/department building mean for you?
- 8- I will list some words one by one. Please, tell me the first thing that comes to your mind about each. Faculty/department building, corridor, inside of the building, outside of the building, canteen, garden.
- 9- Now, I would like to know about your use of the faculty/department building.
 - Out of class, do you spend your time in the faculty/department of building? If, yes, where do you spend most of your time? Why?
 - When and why do you come to your faculty/department building?
 - Are there any places you are not allowed to use but would like to?
 - Are there any places you do not prefer to use in faculty/department building? If yes, what places? Why?
 - While you are alone, what places do you prefer to use?
 - What places do you use as a group?
- 10- How do you evaluate your faculty/department building?
- 11- What is the effect of the physical environment of your faculty/department building on your use?
 - How does it affect your performance in course?
 - How does it affect your behavior?
 - Is there any change in your behavior because of the physical characteristics of the building?

- What message is your faculty building giving to you in your use?
- 12- Which places in faculty/department building are used for whom?
- Instructors, academicians, undergraduate students, assistants, administrative staff, and other staff
- 13- Do you think the faculty/department building lacks certain places? What are they? How do you interpret this situation?
- 14- What are your opinions about the location of your faculty/department building on campus?
- 15- Some research indicates that buildings and their physical environment give messages. What values, notions, and attitudes do you think are transmitted by your faculty/department building?
- 16- If you were required to make an analogy, what metaphor would you use for your faculty/department building?
- 17- Are there other faculty/department building you have seen or used other than own faculty? What do you think about them?
- 18- Imagine that you are an architect. How would you design your own faculty/department building? Why?

Questions related to campus environment:

- 19- When I say DU campus, what is the first thing that comes to your mind? Why? What is the first thing you notice about the physical environment of the campus?
- 20- When you consider campus environment, what do you think the greatest emphasis given to?
- 21- What does DU aim for the campus life?
- 22- How do you evaluate campus environment and its physical condition?
- 23- What places in the campus are for whom?
- Instructors, academicians, undergraduate students, assistants, administrative staff, and other staff
- 24- What features of DU campus environment provide socialization?
- 25- Where is the center of the DU campus? Why?
- 26- What are the physical symbols of DU?

- Which is the most favorite for you?

27- What values, notions, and attitudes do you think are transmitted by DU campus environment? Why?

28- If you were required to make an analogy, what metaphor would you use for DU campus environment?

29- Imagine that you are an architect. How would you design the campus environment? Why?

Final Questions:

30- Do you have final remarks about these issues?

31- Is there anything you would like to add to what we have been talking?

Your participation in this study was very important. Thank you for your participation and time for this study.

End Time: _____

APPENDIX G: Turkish version of Additional Questions Emerged in Interviews

Görüşme Süresince Ortaya Çıkan Diğer Ek Sorular

1. Öğrencinin araştırma süresince kullandığı rotası hakkındaki sorular.
 - 1.1. Neden buradan başladın?
 - 1.2. Belirli bir yeri (akademisyen mekânları) gezdirmedin. Neden?
2. Öğrencinin yorumda bulunduğu mekânlar hakkında sorular.
 - 2.1. Neden bu mekân senin için önemli?
 - 2.2. Neden ve ne zaman bu mekânı kullanırsın?
 - 2.3. Bu mekânın fonksiyonları nelerdir?
 - 2.4. Bu mekânı kimler kullanır?
3. Yollar hakkında sorular.
 - 3.1. Bölüme gelirken günlük rotan nedir?
 - 3.2. Neden bu yolu kullanırsın?
 - 3.3. Bu yolun senin için önemi nedir?
4. Bina ya da kampus çevresindeki değişiklikler hakkında sorular.
 - 4.1. Bu değişikliği nasıl yorumluyorsun?
 - 4.2. Bu değişiklikten sonra ne tür farklılıklar ortaya çıktı?
 - 4.3. Bu değişiklik hakkındaki hislerin nelerdir?
5. Bir mekânın kullanıma ilişkin sorular. (örneğin, kullanımı kısıtlı alanlar)
 - 5.1. Bu mekânın kullanımı hakkında ne düşünüyorsun?
 - 5.2. Bu mekânın kullanımı hakkında ne hissediyorsun?
6. Kampustaki doğa hakkında sorular.
 - 6.1. Doğa seni nasıl etkiliyor?

APPENDIX H: Additional Questions Emerged in Interviews

1. Questions about the route.
 - 1.1. Why do you start from this place?
 - 1.2. You did not visit a particular place (e.g. faculty areas). Why?
2. Questions about specific place (e.g. canteen, stadium) which an participant make comment.
 - 2.1. Why does this place important for you?
 - 2.2. Why and when do you use this place?
 - 2.3. What are the functions of this place?
 - 2.4. Who use this place?
3. Questions about the roads
 - 3.1. What is your daily route while coming to your department building?
 - 3.2. Why do you use this road?
 - 3.3. What is importance of this road?
4. Questions about changes in built and campus environment?
 - 4.1. How do you evaluate this change?
 - 4.2. What are the differences emerged after this change?
 - 4.3. What are your feelings about this change?
5. Questions about the usage of a particular place (e.g. restricted usage of a seminar room)
 - 5.1. What do you think about the usage of this place?
 - 5.2. What are your feelings about it?
6. Questions about nature on campus.
 - 6.1. How does nature affect you?

APPENDIX I: HSEC Approval

UYGULAMALI ETİK ARAŞTIRMA MERKEZİ
APPLIED ETHICS RESEARCH CENTER



ORTA DOĞU TEKNİK ÜNİVERSİTESİ
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16 Ekim 2012

Gönderilen: Doç. Dr. Cennet Engin Demir
Eğitim Bilimleri Bölümü
Gönderen: Prof. Dr. Canan Özgen
IAK Başkan Yardımcısı
İlgi: Etik Onayı

"Üniversite Fiziksel Ortamında Örtük Program: Bir Kuram Oluşturma Çalışması" isimli araştırmanız "İnsan Araştırmaları Komitesi" tarafından uygun görülerek gerekli onay verilmiştir.

Bilgilerinize saygılarımla sunarım.

Etik Komite Onayı

Uygundur

16/10/2012

Prof.Dr. Canan ÖZGEN
Uygulamalı Etik Araştırma Merkezi
(UEAM) Başkanı
ODTÜ 06531 ANKARA

APPENDIX J: Turkish Version of Research Participant Information and Consent Form for Walking Interview

Gönüllü Katılım Formu (Dolaşarak Görüşme)

Çalışmanın Başlığı: Bir Kuram Oluşturma Çalışması: Üniversite Eğitiminde Fiziksel Ortamında Örtük Programının Ortaya Çıkarılması

Sayın <Katılımcının Adı>,

Bu çalışma, Orta Doğu Teknik Üniversitesi (ODTÜ), Eğitim Bilimleri Bölümü'nde Doç. Dr. Cennet Engin Demir danışmanlığında doktora öğrencisi Dürdane Tor'un doktora tezi kapsamında yürütülmektedir. Dinamik Üniversitesi'nde (DÜ) eğitim gören lisans öğrencilerinin sosyalleşme sürecinde fiziksel ortamın örtük programın ortaya çıkarılmasını amaçlayan bu çalışmada katılımcı olmak üzere davet edilmektesiniz. Kuram oluşturma çalışması olan bu araştırma kapsamında siz ve sizin gibi lisans öğrencilerinin kendi fakülte ve kampus ortamıyla ilgili düşünceleri alınacaktır. Katılımınız, üniversite öğrencilerinin sosyalleşme sürecince fiziksel ortamın verdiği mesajların güvenli ve akademik bir şekilde ele alınmasına katkı sağlayacaktır.

Araştırma kapsamında, kendi fakülte ya da bölüm binanızda dolaşarak görüşmeye ve sonrasında da yarı yapılandırılmış bir görüşmeye katılmanız ve araştırma konusu ile ilgili soruları yanıtlamanız beklenmektedir. Görüşmenin yaklaşık olarak 45 dakika sürmesi beklenmektedir, fakat bu süre verdiğiniz yanıtlara ve var olan zamanınıza bağlı olarak değişebilir.

Görüşme süresince elde edilen tüm bilgilerin en doğru ve eksiksiz bir şekilde saklanabilmesi için görüşme ses kayıt cihazına kaydedilecektir. Vereceğiniz kişisel bilgileriniz araştırmacı dışında başkaları ile paylaşılmayacaktır. Ses kayıt cihazı ile kaydedilen görüşmeler ve bu görüşmelerin yazılı metinleri araştırmacı tarafından kilit altında tutulacaktır. Elde edilecek bilgiler sadece araştırmacı tarafından yapılan doktora tezinde ve bu tezden yapılacak olan bilimsel yayınlarda kullanılacaktır.

Katılımınız tamamıyla gönüllülük temelinde olmalıdır. Görüşme genel olarak kişisel rahatsızlık verecek soruları içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz, görüşmeyi yarıda bırakmakta serbestsiniz. Böyle bir durumda araştırmacıya devam etmek istemediğinizi söylemeniz yeterli olacaktır. Görüşmenin herhangi bir anında çalışmayla ilgili sorularınızı araştırmacıya sorabilirsiniz, araştırmacı sizi bilgilendirecektir. Çalışma hakkında daha fazla bilgi almak ve herhangi bir sorunu iletmek için bana 2104176 nolu telefonda veya dlafci@metu.edu.tr adresinden veya sayın danışmanım Orta Doğu Teknik Üniversitesi Eğitim Bilimleri Bölümü öğretim üyesi Doç. Dr. Cennet Engin-Demir'e 2104038 nolu telefonda veya cennet@metu.edu.tr adresinden ulaşabilirsiniz.

Bu formu imzalamanız, formu okuduğunuzu, gönüllü olarak araştırmaya katıldığınızı, verdiğiniz bilgilerin bilimsel amaçlı yayınlarda kullanılmasını kabul ettiğinizi ve istediğiniz anda çalışmadan ayrılabilceğinizi bildiğinizi belirtir. İsterseniz bu formun bir kopyasını alabilirsiniz. Araştırmam için zaman ayırdığınız ve katılımınız için çok teşekkür ederim.

Katılımcının Adı: _____

Tarih: _____

İmza: _____

**APPENDIX K: Research Participant Information and Consent Form for
Walking Interview**

**Title of the Study: Title of the Study: A Grounded Theory Study: Discovering
Physical Environment as Hidden Curriculum during University Education**

Dear <Participant's name>,

This study is conducted by Dürdane Tor supervised by Assoc. Prof. Cennet Engin Demir. You are invited to participate in this study which aims to investigate the functioning of physical environment as one dimension of hidden curriculum during the socialization of university students enrolled at the Dynamic University (DU). In this grounded theory research your opinions as university students will be asked about your own faculty/department building and campus environment. Your participation will provide insights related to the investigating messages of physical environment during the socialization of university students.

Within this research, you are expected to participate in a walking interview in your own faculty/department building and then a semi-structured interview. The estimated time for these interviews is 45 minutes, but this duration may change depending on content of your answers and your available time.

This interview session will be audio-taped to keep data safe. Your personal information will not be shared with third parties. Tapes and transcripts will be kept under lock by the researcher in a coded way for each participant. Data gathered from interviews will be used in doctoral thesis and in academic publications.

Your participation is completely voluntary. The interviews do not include questions which will cause personal discomfort. However, if you feel uncomfortable during interviews, you may discontinue your participation at any time. In this case, it is enough to say to researcher that you do not want to continue. Should you ask questions related to research at any time of interview, researcher will inform you. To obtain more information about research and tell any problem, you should contact me at 2104176 or dlafci@metu.edu.tr and also my advisor, Assoc. Prof. Dr. Cennet

Engin-Demir, Department of Educational Science at Middle East Technical University at 2104038 or cennet@metu.edu.tr.

Your signature indicates that you have read this consent form, have voluntarily consent to participate, have accepted your information used in scientific publications and are free to discontinue at any time. You can receive a copy of this form. Thank you for your time and participation.

Name of Participant: _____

Date: _____

Signature: _____

APPENDIX L: Turkish Version of Research Participant Information and Consent Form for Photo-Elicitation

Gönüllü Katılım Formu (Fotoğraflı Tanımlama Metodu)

Çalışmanın Başlığı: Bir Kuram Oluşturma Çalışması: Üniversite Eğitiminde Fiziksel Ortamında Örtük Programının Ortaya Çıkarılması

Sayın <Katılımcının Adı>,

Bu çalışma, Orta Doğu Teknik Üniversitesi (ODTÜ), Eğitim Bilimleri Bölümü'nde Doç. Dr. Cennet Engin Demir danışmanlığında doktora öğrencisi Dürdane Tor'un doktora tezi kapsamında yürütülmektedir. Dinamik Üniversitesi'nde eğitim gören lisans öğrencilerinin sosyalleşme sürecinde fiziksel ortamın örtük programının ortaya çıkarılmasını amaçlayan bu çalışmada katılımcı olmak üzere davet edilmektesiniz. Kuram oluşturma çalışması olan bu araştırma kapsamında, katılımınız, üniversite öğrencilerinin sosyalleşme sürecince fiziksel ortamın verdiği mesajların güvenli ve akademik bir şekilde ele alınmasına katkı sağlayacaktır.

Araştırma kapsamında, yarı yapılandırılmış bir görüşmeye katılmanız ve araştırma konusu ile ilgili soruları yanıtlamanız beklenmektedir. Görüşmede sizin tarafınızdan çekilmiş fotoğraflar kullanılacaktır. Görüşmenin yaklaşık olarak 45 dakika sürmesi beklenmektedir, fakat bu süre verdiğiniz yanıtlara ve var olan zamanınıza bağlı olarak değişebilir. Görüşme süresince elde edilen tüm bilgilerin en doğru ve eksiksiz bir şekilde saklanabilmesi için görüşme ses kayıt cihazına kaydedilecektir. Vereceğiniz kişisel bilgileriniz araştırmacı dışında başkaları ile paylaşılmayacaktır. Ses kayıt cihazı ile kaydedilen görüşmeler ve bu görüşmelerin yazılı metinleri araştırmacı tarafından kilit altında tutulacaktır. Elde edilecek bilgiler sadece araştırmacı tarafından yapılan doktora tezinde ve bu tezden yapılacak olan bilimsel yayınlarda kullanılacaktır.

Katılımınız tamamıyla gönüllülük temelinde olmalıdır. Görüşme genel olarak kişisel rahatsızlık verecek soruları içermemektedir. Ancak, katılım sırasında sorulardan ya da herhangi başka bir nedenden ötürü kendinizi rahatsız hissederseniz, görüşmeyi

yarıda bırakmakta serbestsiniz. Böyle bir durumda araştırmacıya devam etmek istemediğinizi söylemeniz yeterli olacaktır. Görüşmenin herhangi bir anında çalışmayla ilgili sorularınızı araştırmacıya sorabilirsiniz, araştırmacı sizi bilgilendirecektir. Çalışma hakkında daha fazla bilgi almak ve herhangi bir sorunu iletmek için bana 2104176 nolu telefondan veya dlafci@metu.edu.tr adresinden veya sayın danışmanım Orta Doğu Teknik Üniversitesi Eğitim Bilimleri Bölümü öğretim üyesi Doç. Dr. Cennet Engin-Demir'e 2104038 nolu telefondan veya cennet@metu.edu.tr adresinden ulaşabilirsiniz.

Bu formu imzalamanız, formu okuduğunuzu, gönüllü olarak araştırmaya katıldığınızı, verdiğiniz bilgilerin bilimsel amaçlı yayınlarda kullanılmasını kabul ettiğinizi ve istediğiniz anda çalışmadan ayrılabileceğinizi bildiğinizi belirtir. İsterseniz bu formun bir kopyasını alabilirsiniz. Araştırmam için zaman ayırdığınız ve katılımınız için çok teşekkür ederim.

Katılımcının Adı: _____

Tarih: _____

İmza: _____

APPENDIX M: Research Participant Information and Consent Form

Title of the Study: A Grounded Theory Study: Discovering Physical Environment as Hidden Curriculum during University Education

Dear <Participant's name>,

This study is conducted by Dürdane Tor supervised by Assoc. Prof. Cennet Engin Demir.

You are invited to participate in this study which aims to investigate the functioning of physical environment as one dimension of hidden curriculum during the socialization of university students enrolled at the Dynamic University. In this grounded theory research your opinions as university students will be asked about your own faculty/department building and campus environment. Your participation will provide insights related to the investigating messages of physical environment during the socialization of university students.

Within this research, you are expected to participate semi-structured interview and answer questions about the research. At the beginning of the interview, the photos taken by you will be utilized. The estimated time for these interviews is 45 minutes, but this duration may change depending on content of your answers and your available time.

This interview session will be audio-taped to keep data safe. Your personal information will not be shared with third parties. Tapes and transcripts will be kept under lock by the researcher in a coded way for each participant. Data gathered from interviews will be used in doctoral thesis and in academic publications.

Your participation is completely voluntary. The interviews do not include questions which will cause personal discomfort. However, if you feel uncomfortable during interviews, you may discontinue your participation at any time. In this case, it is enough to say to researcher that you do not want to continue. Should you ask questions related to research at any time of interview, researcher will inform you. To obtain more information about research and tell any problem, you should contact me

at 2104176 or dlafci@metu.edu.tr and also my advisor, Assoc. Prof. Dr. Cennet Engin-Demir, Department of Educational Science at Middle East Technical University at 2104038 or cennet@metu.edu.tr.

Your signature indicates that you have read this consent form, have voluntarily consent to participate, have accepted your information used in scientific publications and are free to discontinue at any time. You can receive a copy of this form. Thank you for your time and participation.

Name of Participant: _____

Date: _____

Signature: _____

APPENDIX N: Turkish Version of Demographic Questionnaire

Katılımcı Bilgi Formu

1. Adınız Soyadınız:
2. Telefon Numaranız:.....
3. E-postanız:.....
4. Yaşınız:
5. Fakülteniz:
6. Bölümünüz:.....
7. Sınıfınız: () 1 () 2 () 3 () 4 () 5
8. Döneminiz:
9. Bölüm tercih sıranız:
10. Mezun olduğunuz okul:
11. Mezun olduğunuz okulunuzun yeri:
12. Annenizin eğitim düzeyi: Babanızın eğitim düzeyi:
() İlköğretim 1. kademe () İlköğretim 1. kademe
() İlköğretim 2. kademe () İlköğretim 2. kademe
() Orta Öğretim () Orta Öğretim
() Önlisans/Lisans () Önlisans/Lisans
() Master/Doktora () Master/Doktora
() Diğer () Diğer
13. Şu an kaldığınız yer :
14. Üniversitenizde öğrenci topluluklarına üyeliğiniz var mı? Varsa lütfen hangi(leri) olduğunu aşağıdaki boşluğa yazınız.
.....
15. Fakültenizde ders dışında haftada ortalama kaç saat geçiriyorsunuz?
() 0-5 saat () 6-10 saat () 11-15 saat () 16-20 () 21 ve üzeri
16. Fakülteyi kullanımınız hakkında aşağıdakilerden sizin için uygun olanları işaretleyiniz.
() Fakülteme sadece ders almak için giderim.
() Ders aralarında ve teneffüslerde mecburiyetten fakültede bulunurum.
() Dersler dışında fakültemde zaman geçirmeyi tercih ederim.
() Fakültemde zaman geçirmeyi severim.
() Fakültem ders dışı zamanlarda ders çalıştığım bir mekândır.
17. Kaç farklı binada eğitim görmektesiniz?
() 2 () 3 () 4 () 5 () Diğer

APPENDIX O: English Version of Demographic Questionnaire

Participant Information Form

1. Name and surname:
2. Phone number:.....
3. E-mail:.....
4. Age:
5. Faculty:
6. Department:.....
7. Year: () 1 () 2 () 3 () 4 () 5
8. Term:
9. Preference rank of department:
10. High school:
11. City/ county of high school:
12. Mother education level: Father education level:

☐ Primary School (K-5)	☐ Primary School (K-5)
☐ Secondary School	☐ Secondary School
☐ High School	☐ High School
☐ Undergraduate	☐ Undergraduate
☐ Master/PhD	☐ Master/PhD
☐ Other	☐ Other
13. Current place of residence (house or dormitory):
14. Memberships to university student clubs. If yes specify.
.....
15. How many hours do you spend in your department/faculty building out of class?
() 0-5 hours () 6-10 hours () 11-15 hours () 16-20 hours () 21 hours or more
16. Which of the following are suitable for you about your usage of the department/faculty building?
() I come to my department/faculty building for only courses
() I stay in the department/faculty building btw courses and in break hours because I have no other option
() Out of class, I prefer to spend time in the department/faculty building.
() I like to spend time in the department/faculty building.
() My department/faculty building is a place where I study out of class.
17. How many buildings do you use for your undergraduate education?
() 2 () 3 () 4 () 5 () Other

APPENDIX Q: Turkish Summary

Türkçe Özet

YÜKSEKÖĞRETİMDE FİZİKSEL ORTAMIN ÖRTÜK PROGRAMININ İNCELENMESİ: BİR GÖMÜLÜ KURAM OLUŞTURMA ÇALIŞMASI

GİRİŞ

Fiziksel çevre ve öğrenme süreci arasındaki ilişkinin varlığı 19. yüzyıl sonlarında psikologlar, mimarlar ve eğitimciler tarafından tanınmıştır ve bunun etkisiyle 1960'lı yılların sonlarına doğru çevre psikolojisi alanı doğmuştur. Çevre psikolojisi en genel anlamda fiziksel çevre ile insanlar arasındaki karşılıklı ilişkinin incelenmesi olarak tanımlanmaktadır. Bu ilişkinin ana dayanağını insanların çevreyi değiştirirken, aynı zamanda çevrenin de onların davranış ve deneyimlerini değiştirmesi düşüncesi oluşturmaktadır (Gifford, 1997).

Bir okul ortamı olarak tasarlanmış bir çevrede bulunan öğrenciler, birçok çevresel uyarıcıyla çevrilidir. Fiziksel çevrenin önemi nedeniyle, fiziksel çevre ve onun öğrenmeye, akademik performansa, tutuma, ruh haline olan etkisi birçok çalışmanın konusu olmuştur. Çevresel bakış açısından, araştırmacılar ilk olarak ışık, ısı, okulun büyüklüğü, binaların fiziksel koşulları gibi fiziksel etmenlerin eğitimsel sonuçları üzerine yoğunlaşmışlardır (örn: Cash, 1993; Eartman, 2004; Fisher, 2001; Hines, 1996; Lanham, 1999; Phillip, 1997). 1990'lı yıllarda daha çok ilk ve orta öğretimde yoğunlaşan bu çalışmalar, 21. yüzyılın gelişi ile birlikte yükseköğretim düzeyinde de yerini almıştır (örn: Graetz & Goliber, 2002; Jameison, 2003; Jessop, Gubby,& Smith, 2012; Oblinger, 2006; Temple, 2007, 2008). Yükseköğretim düzeyindeki fiziksel çevre araştırmalarının odağını enformel mekânlar oluşturmuştur. Ayrıca, araştırmacıların ilgisi, sınıf ortamından çok kampus ortamına yoğunlaşmıştır. Öğrenme mekânları artık sadece eğitimcilerin etkinliklerini gerçekleştirmek için kullandıkları alanlar olma olgusundan çıkmış, öğretmen ve öğrenci arasındaki sosyal etkileşimi etkileyen, öğrenci tarafından bilginin yapılandırılması sürecinde aktif bir rol oynayan, yeni pedagojilerin etkili bir şekilde aktarılmasına yardımcı olan bir araç

olarak değerlendirilmeye başlanmıştır. Bu doğrultuda 21. yüzyılın yükseköğretim kurumunun sahip olması gereken fiziksel özellikler belirlenmiştir (Joint Information Systems Committee, 2006). Buna göre fiziksel çevre şu anki ve olası pedagojiler için uygun olabilecek şekilde ‘esnek’, değişen kullanım amaçları için ‘geleceğe dönük’, öğrencileri motive edecek şekilde ‘yaratıcı’ ve birçok amaç için kullanılmak üzere ‘destekleyici ve girişimci’ ve ‘sağlam’ olmalıdır. Oblinger’e (2006) göre, 21. yüzyılda bir mekân aynı anda birçok role sahip olmalıdır. Bir mekân, öğrencilerin buluşmalarına, çalışmalarına, işbirliği içinde bulunmalarına, sosyalleşmelerine, internete bağlanmalarına, sohbet etmelerine, hatta beslenmelerine izin verecek şekilde tasarlanmalıdır.

Ayrıca fiziksel çevre ve ortam bir öğrenme aracı olarak görülmektedir şöyle ki binalar bir eğitim programının veya öğretimin bir enstrümanı olabilir. Bunun bir diğer tarifi de fiziksel ortamın ikinci öğretmen olarak düşünülmesidir. Sanoff, Pasalar, & Hashas’a göre fiziksel ortam ikinci bir öğretmendir çünkü mekân farklı yaşlardaki insanlar arasında olumlu ilişkileri desteklemede ve organize etmede, değişimi sağlamada, etkinlikleri desteklemede ve böylece sosyal, bilişsel ve duyuşsal öğrenmelere katkı sağlamada büyük bir güce sahiptir (2001). Alanyazında ‘fiziksel çevre öğrenmeye yardım eder ya da engeller’, ‘fiziksel çevre ikinci öğretmendir’ ve ‘fiziksel çevre sessiz öğretmendir’ gibi fiziksel çevreye yönelik yargılar çok sıklıkla görülmeye başlanmıştır. Fiziksel ortamın bu yönü örtük program olarak adlandırılmaktadır.

Örtük program eğitimcilerin, sosyologların ve psikologların odağında olmuş bir konudur. Örtük programın okullarda okutulan resmi programlardan daha etkili olduğu varsayımı da araştırmacılar tarafından tartışılmaktadır (Gordon, 1983). Örtük program çerçevesinde ele alınan konular resmi programlardan daha geniştir. Ballantine ve Hammack’ a (2012) göre, örtük program okulun resmi olmayan sistemini tanımlamak üzere kullanılmaktadır. 1960’lı ve 1970’li yıllarda örtük programın tanımı üzerinde durulmuştur. İlk olarak 1968 yılında Jackson örtük program kavramının anahtar özelliklerini tanımlamıştır. Jackson’a göre örtük program gayri resmi beklentileri, gizli değer ve normları işaret etmektedir.

Bir mekânın öğrenmeyi nasıl etkilediği konusu örtük program kapsamında ele alınan ve tartışılan bir konudur. Okulda öğretilmeye çalışılan disiplin, alışkanlıklar ve gizli değerler, öğretmen davranışları, rol modeller fiziksel mekânların tasarımı ile öğrencilere iletilmektedir (Cox, 2011). Bir öğrenme mekânı bir kurumun yönetimi tarafından düzenlendiği için, bu mekânlar yazılı ve yazılı olmayan mesajlar ve öğrenmenin kavramsallaştırılması hakkında ipuçları taşırlar (Popenici & Brew, 2013). Yükseköğretim binalarının yanı sıra üniversite kampusunun fiziksel yapısı da öğrencilere yazılı olmayan mesajları iletmektedir (Strange & Banning, 2001). Bir kampus davetkar ve değerli olabildiği gibi cesaret kırıcı ve değersiz de olabilir. Yükseköğretim düzeyinde örtük programı ele alan, Eric Margolis tarafından editörlüğü yapılmış olan ‘The Hidden Curriculum in Higher Education [Yükseköğretimde Örtük Program]’ adlı kitapta fiziksel ortamın örtük program olarak ele alınması ile ilgili değerli ve ışık tutan bölümler vardır (2001). Bunlardan birisi Gair ve Mullins (2001) tarafından gerçekleştirilmiş bir görsel etnografi çalışmasıdır. Gair ve Mullins (2001) sosyalleşme ve örtük program konularına ışık tutmuş ünlü araştırmacılarla görüşme yapmıştır. Bu görüşmelerin analizi binaların, mekânların kullanımının, sınıfların fiziksel düzeninin ve diğer mimari özelliklerin belli tarih ve siyasi gündemleri desteklediğini sonucunu göstermiştir. Diğer bir çalışma da Costello’ya aittir (2001). Costello (2001) katılımcı gözlemci rolü ile iki farklı yükseköğretim kurumunun fiziksel çevresini incelemiş ve fiziksel çevrenin sosyal tabakalaşmada rolü olduğunu ortaya koymuştur.

Örtük program birçok araştırmacı tarafından ele alınan bir konu olmasına rağmen, fiziksel ortamın örtük program araştırmalarının temeline alındığı çalışmalar eksiktir. Ayrıca Strange ve Banning’in (2001) belirttiği üzere kampüsün bir öğrenme mekânı olarak rolü alanyazında zaman zaman ortaya çıkmasına rağmen hala kavramlaştırılma aşamasındadır ve fiziksel çevrenin öğrencilerin gelişimleri ve öğrenmeleri için bir araç olarak kullanımı hala en az anlaşılan ve en çok ihmal edilen konudur. Bu doğrultuda, bu çalışma yükseköğretimde fiziksel çevrenin örtük program açısından incelenmesine odaklanmıştır.

Araştırmanın Amacı

Bu çalışmanın ana amacı üniversite eğitiminde fiziksel ortamın örtük programını araştırmaktır. Gömülü kuram oluşturma çalışması olan bu çalışmayla fiziksel ortamın örtük programının teorisini oluşturmak ve bu teorinin kapsam, derinlik ve ilişki boyutlarını açıklamak amaçlanmıştır.

Bu amaca yönelik, gömülü kuram oluşturma çalışması temel bir soru ile başlamıştır: “Lisans öğrencilerinin üniversite eğitimi süresince fiziksel çevrenin örtük programı nedir?” Ayrıca alanyazın dikkate alınarak aşağıdaki yardımcı araştırma soruları belirlenmiştir:

1. Yükseköğretim kurumunun sosyalleşme araçları nelerdir? Hangi bağlam ve süreçte nasıl çalışırlar? Fiziksel mekânlar hangi normları desteklemektedir?
 - 1.1.Fiziksel mekânlar nasıl sosyal bir ortam olurlar?
 - 1.2.Bir fakülte binası ve kampus çevresi üniversite öğrencilerinin sosyalleşme sürecini nasıl etkilemektedir?
 - 1.3.Öğrencilerin sosyal ve akademik etkinliklere katılmasını engelleyen ya da teşvik eden faktörler nelerdir?
2. Öğrenciler tarafından deneyimlenen en önemli resmi ve resmi olmayan ortamlar hangileridir? Bunlar hangi normları açıklamaktadır?
3. Mekânlar duyguları olumlu ya da olumsuz nasıl etkilemektedirler?
4. Bir mekânın örtük özellikleri nelerdir?
 - 4.1.Koridorların örtük özellikleri nelerdir? Farklı bölümlerde koridorların işlevlerinde farklılaşma var mıdır?
 - 4.2.Fakülte üyelerinin mekânlarının örtük özellikleri nelerdir? Farklı bölümlerde bu mekânların işlevlerinde farklılaşma var mıdır?
5. Hangi mekânlar hangi sebeplerle daha önemlidir?
6. Üniversite eğitiminde fiziksel çevrenin rolü nedir?
7. Üniversite binaları ve kampus hangi fiziksel özelliklere sahip olmalıdır?

Araştırmanın Önemi

Bu çalışma yükseköğretimde fiziksel ortamın örtük programı hakkında kavramsal, uygulamalı ve teorik bir çerçeve sunduğu için önem arz etmektedir. Teorik açıdan, araştırma sonucunda elde edilen sonuçlar, bundan sonraki çalışmalarda fiziksel çevrenin örtük program olarak nasıl değerlendirilmesi gerektiği konusunda eğitim alanına ışık tutacaktır.

Ayrıca, bu çalışma bir üniversite ortamında fiziksel çevrenin fonksiyonlarının neler olduğu ve öğrenme mekânlarının nasıl yapılandığı konusunda kavramsal bir çerçeve sunmaktadır. Çalışma aynı zamanda üniversite öğrencileri için üniversite eğitimleri boyunca hangi mekânların neden önemli olduğu hakkında bilgi sunmaktadır. Bunlara ek olarak, öğrenme mekânlarının eğitimsel bir araç olarak nasıl kullanıldığı ya da kullanılması gerektiği ve bunun disiplinlere göre nasıl değişiklik gösterdiği hususunda aydınlatıcı bilgiler sağlamaktadır. Ayrıca, bu çalışmayla üniversite öğrencilerinin gözüyle üniversite çevresi ve ortamı nasıl olmalıdır, hangi fiziksel özellikler bir üniversite eğitimini destekler ve üniversite ortamını simgeler konusunda aydınlatıcı bilgiler ortaya konulmaktadır. Tüm bu bilgileri içeren bu çalışma, gelişmekte olan ülkemizde açılan birçok üniversite binası yapımı öncesinde ve sonrasında fiziksel ortamla ilgili kararlar alınırken öğrenci ihtiyaçları ve fikirlerini ortaya koyduğu için iyi bir kaynak niteliğinde olabilir.

Son olarak, Türkiye’de fiziksel çevrenin yükseköğretimdeki önemi ve rolünü özellikle örtük program konusu altında analiz eden bir çalışmaya rastlanmamıştır. Bu nedenle bu çalışmanın alanyazındaki bu boşluğu dolduracağı düşünülmektedir. Çalışma bulgularının, fiziksel çevrenin örtük programının daha iyi anlaşılması ve analiz edilmesi noktasında, hem kuramsal hem de uygulama da eğitim alanına katkıda bulunması beklenmektedir.

ALANYAZIN TARAMASI

Bu çalışmanın alanyazın taramasında ele alınan konular şunlardır:

- (1) Araştırma yapılan kurumun tarihçesi
- (2) Örtük program alanyazınındaki yaklaşımlar

- (3) Örtük programın tanımı
- (4) Çevre ve davranış ilişkisi
- (5) Yükseköğretimde fiziksel çevre
- (6) Yükseköğretimde örtük program olarak fiziksel çevre

YÖNTEM

Araştırma Yöntemi

Bu çalışmada nitel bir araştırma yöntemi olan gömülü kuram oluşturma yaklaşımı kullanılmıştır. Gömülü kuram geliştirme, en kısa biçimde tanımlamak gerekirse verilerden kuram türetme amacı taşıyan bir araştırma yöntemidir. Bu yöntem, Creswell tarafından şu şekilde tanımlanmıştır:

Kuram oluşturma çalışmasının amacı belli bir durum ile ilgili olgunun soyut analitik şemasını, kuramını oluşturmak ve keşfetmektir. Bu durum, bireylerin bir olguyla ilgili olarak iletişime geçmesi, birlikte hareket etmesi ya da olguyla ilgili sürece dâhil olmasıdır. İnsanların bu olguya nasıl tepki verdiğini çalışmak için, araştırmacı öncelikli olarak görüşmeler yolu ile veri toplar, birçok kez alanı ziyaret eder, elde ettiği bilgi kategorilerini ilişkilendirir ve geliştirir, kuramsal önerileri ve hipotezleri yazar veya kuramı görsel olarak sunar (1998, p.56).

Gömülü kuram oluşturma çalışmasında araştırmacı, kavramlar, temalar ve bunların birbirleriyle ilişkilerine yönelik açıklamalar sunar. Bu açıklama veriler temelinde ortaya çıkan kuramı oluşturmaktadır. Bu çalışmada, kavram, kategori ve temaları alanyazında tam olarak belirlenmeyen fiziksel çevrenin örtük programı olgusunun detaylı bir şekilde irdelenmesi için gömülü kuram yaklaşımının kullanılması uygun görülmüştür. Buna ek olarak, fiziksel ortamın boyutlarının lisans öğrencilerinin algı ve bakışları açıları çerçevesinde analiz edilmesi, verilerin derinlemesine yarı-yapılandırılmış görüşme ile toplanması gerekliliği ve toplanan verilerin tümevarım yaklaşımı ile analiz edilmesinin öngörülmesi, bu yaklaşımın uygulanmasını gerekli kılmıştır.

Kuram geliştirme yaklaşımını ortaya çıkaran Glaser and Strauss (1967), kuram geliştirmenin bileşenlerini şu şekilde sıralamaktadırlar:

1. Veri toplama ve analiz süreci eş zamanlı gerçekleşmektedir.
2. Veri analizinin odak noktasını önceden belirlenmiş hipotezler değil, veriden çıkan analitik kod ve kategoriler oluşturulmaktadır.
3. Veri analizinin her aşamasında ‘sürekli karşılaştırmalı analiz’ yapmak gereklidir.
4. Veri toplama ve analiz sürecinin her aşamasında, kuram geliştirilmeye çalışılır.
5. Kategorileri ayrıntılı bir şekilde açıklamak, kategori özelliklerini belirtmek, kategoriler arasındaki ilişkileri tanımlamak ve eksiklikleri fark etmek için çalışmanın her aşamasında kısa not yazımı gereklidir.
6. Örneklemin amacı popülasyonu temsil etmek değil kuram geliştirmektir.
7. Her veri analizini alanyazın taraması takip etmektedir.

Bu doğrultuda araştırmacı, bu hususları dikkate alarak aşağıda ayrıntılı bir şekilde açıklanan araştırma örneklemini ve yöntemi seçimini gerçekleştirmiş ve veri toplama ve analiz sürecini tamamlamıştır.

Araştırma Ortamı ve Katılımcıları

Bu çalışma Dinamik Üniversitesi’nde okuyan lisans öğrencileri ile gerçekleştirilmiştir. Gömülü kuram oluşturma yaklaşımında anlamlara ve yaşantılara odaklanmak önemlidir. Bu nedenle, derinlemesine görüşmeler üniversite binalarını aktif kullanan, kampus ortamında zaman geçiren üniversite öğrencilerinin “yaşanmış deneyimlerini ve bu deneyimlerden kaynaklanan anlamları” (Seidman, 2006, p. 9) incelemek üzere gerçekleştirilmiştir. Üniversite öğrencilerinin seçimi yanında, çalışılacak fakülte ya da bölüm binalarını belirlemek bu çalışmanın önemli örneklem seçimi konusudur. Katılımcılar ve binalar amaçlı örnekleme yöntemlerinden maksimum çeşitlilik örnekleme yolu ile seçilmiştir.

Katılımcılar seçilirken yaş, cinsiyet, sınıf düzeyi ve bölüm kriterlerine dikkat edilerek çeşitleme sağlanmıştır. Ayrıca bir fakültenin eğer çoklu binası varsa, her binanın kullanıcılarına ulaşılmaya çalışılmıştır.

Binalar seçilirken çeşitlemeye gidilmesinin en önemli sebebi örtük program ve fiziksel çevre alanyazınında bina yaşı, binanın kampustaki konumu, binanın

mekânsal düzenlemesi gibi değişkenlerin sonuçlarda değişiklik ve çeşitlilik yaratmasıdır. Bu bağlamda, bu çalışmada yer alacak binalar seçilirken binanın yaşı, bir fakülte ya da bölüme ait bina sayısı, binanın kampustaki konumu, binanın mimari yapısının birbirinden farklılığı gibi değişkenler göze alınmıştır. Ayrıca, Dinamik Üniversitesi bir kampus üniversitesidir ve bünyesinde hem sosyal hem de sayısal bilimlere mensup fakülte ve bölümleri barındırmaktadır. Bu nedenle hem sosyal hem de sayısal bilimlere ait binalar çalışma kapsamında ele alınmıştır. Sonuç olarak çalışmaya dâhil olan akademik binalar ve seçilme gerekçeleri Tablo 1’de ayrıntılı olarak sunulmuştur.

Tablo 1

Çalışma Ortamlarının Seçilme Nedenleri

Akademik Bina	Seçilme Nedenleri
Eğitim Fakültesi (Eğt.)	Merkezden uzak olması 6 bölüm, 7 lisans programı yürütülen fakülteye ayrılmış üç binanın bulunması
Elektrik Elektronik Mühendisliği (EE Müh.)	Merkezi konumda yer alması Bir bölüme ait çoklu binanın bulunması
Endüstri Mühendisliği (End. Müh.)	Merkezde bir bina olması İlk 13 görüşmenin hepsinde bu binadan bahsedilmesi
Fizik Bölümü	Merkezde yer alması Kampusun en eski binalarından biri olması
İktisadi ve İdari Bilimler Fakültesi (İİBF)	Birisi yeni inşa edilmiş iki binasının olması İki binanın birbirinden farklı tasarımda olması Bir binanın merkezi, diğer binanın biraz daha uzak bir konumda yer alması
Mimarlık Fakültesi (Mim. F)	Kampustaki ilk bina olması Farklı bir tasarıma sahip olması
Jeoloji Mühendisliği (Jeol. Müh.)	Merkezden uzak olması

Sonuç olarak, 62’si dolaşarak görüşme, 31’i fotoğrafla tanımlama görüşmesi olmak üzere toplamda 93 lisans öğrencisi çalışmaya katılmıştır. Katılımcıların

fakülte/bölüm, sınıf düzeyi ve katıldıkları yöntem açısından sayısı Tablo 2’de ayrıntılı olarak sunulmuştur.

Tablo 2.

Katılımcı Bilgileri

	1. sınıf		2. sınıf		3. sınıf		4. sınıf		
	DG	FT	DG	FT	DG	FT	DG	FT	
Mim. F	4	3	1		2	3	3		16
Eğt. A Binası	1	1		1	4*		3	1	11
Eğt. B Binası	2	1	1	2		1	2		9
Eğt. C Binası	1	1					2		4
EE Müh.	1		2		2	1	3	1	10
İİBF A Binası	1		5	1	2		1		10
İİBF B Binası			2	1			1	2	6
Jeol. Müh.	1	1	2	1	3		2	2	12
End. Müh			2		2	2	2	2	10
Fizik Böl.				2	2*		1	1	6
Toplam	11	7	15	8	17	7	20	9	94

*Eğitim fakültesinde bir öğrenci Fizik bölümü binasında dolaşarak görüşmeye katılmıştır.

DG: Dolaşarak Görüşme, PT: Fotoğrafla Tanımlama

Veri Toplama Yöntemi

Bu çalışma, gömülü kuram oluşturma yaklaşımında en çok kullanılan veri toplama yöntemlerinden biri olan görüşme yoluyla gerçekleştirilmiştir. Araştırmanın amacına uygun olarak fiziksel çevrenin boyutları hakkında derinlemesine veri elde edebilmek amacıyla veri çeşitlemesine gidilmiş ve iki temel veri toplama yöntemi kullanılmıştır: Dolaşarak görüşme ve fotoğrafla tanımlama.

Dolaşarak Görüşme: Dolaşarak görüşme mimarlık alanında kullanılan bir araştırma yöntemidir. Bu yöntem katılımcıların mekânla ilişkisinin önemli olduğu durumlarda yürütülmesi uygun olan bir yöntemdir. Bu yöntemle, katılımcının kullandığı mekânlar dolaşarak katılımcının mekân hakkındaki deneyimleri, düşünceleri, değerlendirmeleri alınmıştır.

Dolaşarak görüşmede önemli noktalardan birisi de dolaşma rotasının kimin tarafından belirleneceği konusudur. Kusenbach (2003) eğer araştırmacı rotayı belirlerse katılımcının kendi hakiki deneyimlerinin ve yorumlarının alınamayacağı

görüşünü savunmuştur. Bu çalışmada da araştırmacı için önemli olan katılımcıların deneyimlediği ya deneyimlemediği mekânları, katılımcının kararı doğrultusunda ziyaret etmek ve katılımcı için bu mekânların anlamını anlamak olduğu için rotayı katılımcılar belirlemiştir. Görüşme günü, önceden belirlenen bir mekânda araştırmacı ve katılımcı buluşmuştur. Katılımcı önceden rotayı kendi belirleyeceğini bilmemektedir ve görüşmenin başlamasıyla beraber rotayı belirler. Katılımcı istediği zaman dolaşarak görüşmeyi sonlandırır. Sonrasında araştırma kapsamındaki diğer soruları sormak üzere sessiz bir mekânda görüşme devam etmektedir.

Fotoğraf Tanımlama yoluyla Görüşme: Bu çalışmada odağa alınan konu mekânlar olduğu için, görsel araştırma yöntemlerinden biri olan fotoğrafla tanımla stratejisi kullanılmıştır. Buna ek olarak, bu çalışma sadece seçilen akademik binaları değil kampus fiziksel ortamını da içermektedir. Fakat çalışmanın veri toplama süreci kış aylarına geldiği ve dolaşarak görüşme kampus ortamında daha zor gerçekleşeceği için fotoğrafla tanımlama yöntemi ile kampus çevresi hakkında görsel öğelere de ulaşılabileceğinden bu yöntem çalışma için uygun bulunmuştur. Fotoğrafla tanımlama stratejisinde, öğrenciler tarafından çekilen fotoğraflar üzerinden görüşmeler yürütülmüştür. Çalışma öncesinde araştırmacı, katılımcılara yönerge göndermiş kampus ve kendi binalarında kendi üniversite yaşamları boyunca önemli olan fiziksel mekân ve öğeleri fotoğraflamalarını istemiş ve görüşmenin neden bu mekânların ve öğelerin çekildiği konusu üzerine başlayacağını belirtmiştir. Katılımcıların fotoğrafladığı mekânlar ve öğeler, önceden belirlenmiş sessiz bir mekânda bilgisayarda yansıtılmıştır ve görüşme bu fotoğraflar üzerinden konuşma ile başlamıştır. Sonrasında, araştırmacının merak ettiği diğer konular üzerinden görüşme sürdürülmüştür.

Veri Toplama Süreci

Araştırmacı, derinlemesine alanyazın taramasının ardından Nisan 2012- Temmuz 2012 arasında görüşme formunu geliştirmiştir. Bu görüşme formu ile 3 lisans öğrenciyle pilot görüşme yapılmış ve soruların anlaşılır olup olmadığı kontrol edilmiştir. Son olarak eğitim bilimleri alanında uzman akademisyenlerin geçerlik konusundaki görüşleri ve değerlendirmeleri alınarak veri formu son haline getirilmiştir. Görüşme formunun geliştirilmesinden sonra veri toplama süreci

Temmuz 2012 yılında başlamıştır. Gerekli izinler ODTÜ Etik Komite tarafından alınmıştır. Çalışmaya katılmayı kabul eden üniversite öğrencileriyle görüşmelerin ilk etabı 26 Temmuz - 3 Ağustos tarihleri arasında yaz okulu zamanında gerçekleşmiştir. Geri kalan diğer görüşmeler yeni eğitim-öğretim yılının Eylül ayında başlamasıyla başlamış ve Ocak ayında sonlandırılmıştır. Toplamda 93 öğrenciyle ortalama bir saat süren görüşmeler gerçekleştirilmiştir. Katılımcılardan gönüllü katılım formu alınmış ve bütün görüşmeler katılımcıların izni alınarak ses kayıt cihazı ile kaydedilmiştir.

Veri Analizi

Elde edilen veriler Nvivo 10 nitel veri analizi yazılım programı yardımı ile analiz edilmiştir. Görüşmelerden elde edilen veriler öncelikle kelimesi kelimesine deşifre edilmiştir. 93 kişinin görüşme deşifresi Şubat 2013’de başlamış Mayıs 2013 sonlanmıştır. Bu yazılı metinlerin deşifresi ve düzenlemesi esnasında araştırmacı verilere aşina olmuştur.

Gömülü kuram geliştirme yaklaşımında veri analizinin amacı kişisel deneyimlere odaklanmaktan çok kuramın geliştirilmesine yönelik olmalıdır (Suddaby, 2006). Gömülü kuram geliştirme yaklaşımının veri çözümlemesinde üç ana kodlama türü vardır: açık, eksen ve seçici kodlama. Bu çalışmada da bu kodlama türleri kullanılmıştır. Açık kodlama için bütün görüşme metinleri satır satır analiz edilmiş ve tüm metin kodlanmıştır. Bu çalışmada mekânlar üzerinde yorum yapıldığı için, her mekân kendi içinde kodlanmıştır. Açık analizin sonucunda ortaya çıkan tüm kodlar şu şekildedir:

1. Mekânın tanımı
 - 1.1. Mekânın ambiyansı (ışık, ses ve ısı düzeyi)
 - 1.2. Mekânın rengi
 - 1.3. Mekânın büyüklüğü ve genişliği
 - 1.4. Mekânın görünümü
 - 1.5. Mekânın konumu
 - 1.6. Materyaller ve objeler (örn: panolar)
 - 1.7. Mekâna ait önemli özellikler
 - 1.8. Mekânın düzeni

2. Mekânın kullanıcıları (öğrenci, fakülte üyesi, yönetici ve çalışanlar)
3. Mekânın kullanımı
 - 3.1. Aktiviteler (grup çalışması, kişisel çalışma, dinlenme)
 - 3.2. Program dışı aktiviteler
 - 3.3. Oryantasyon programı için kullanımı
 - 3.4. Bölüm dışı dersler için kullanımı
 - 3.5. Ders için kullanımı
 - 3.6. Kilitli ya da kullanımının yasak olması, sınırlı kullanıma sahip olma
4. Mekânda bulunan mobilyalar (masa, sandalye, koltuk vb.)
5. Mekânın fonksiyonları
6. Mekândaki olanaklar
7. Mekân ile ilgili problemler
8. Mekânın türü (buluşma yeri, kaçış noktası, dinlenme yeri, kişisel mekân, sosyalleşme yeri vb.)
9. Mekânın önemi
 - 9.1. Mekânın tarihsel önemi
 - 9.2. Mekânın sembolik önemi
10. Öğrencilerin mekân ile ilgili duyguları
11. Mekâna ilişkin ilk izlenim
12. Mekânın anlamı

Bu kodların bütün çalışma ortamlarında var olup olmadığı kontrol edilmiştir. Araştırmacı her bir ortamı ayrı ayrı analiz etmiştir. Örneğin Eğitim Fakültesi ile ilgili tüm görüşmelerin analizleri bittikten sonra Mimarlık Fakültesi ile ilgili görüşmeler analiz edilmiştir. Mimarlık Fakültesinde ortaya çıkan farklı bir kod olduğunda araştırmacı yeni kodu analiz ettiği diğer ortamlarda ayrıca incelemiştir. Buna gömülü kuram geliştirme yaklaşımında sürekli karşılaştırmalı analiz denmektedir.

Açık kodlamanın akabinde, ikinci kodlama türü olan eksen kodlama gerçekleştirilmiştir. Eksen kodlama, açık kodlamayla ortaya çıkan kategorilerin birbiri ile bağlantılandırıldığı aşamadır. Araştırmacı bu aşamada bütün çalışma ortamlarından elde ettiği kodları kıyaslamış ve yeni kod çıkmadığı noktada var olan kodları belli temalar altında toplamıştır.

Son kodlama seçici kodlamadır ve seçici kodlamada araştırmacı bilinçli olarak bir temayı asli kategori olarak seçer ve ona yoğunlaşır. Araştırmacı veri analizinde en çok vurgulanan temaları seçmiştir. Bu temalar şu şekildedir:

1. Fiziksel çevrenin etkileri
 - 1.1. Fiziksel çevrenin öğrencilerin sosyalleşmesine etkisi
 - 1.2. Fiziksel çevrenin öğrencilerin duygularına olan etkisi
 - 1.3. Fiziksel çevrenin binanın alana özgü olup olmadığına ilişkin öğrenci düşüncelerine etkisi
2. Çevrenin (bir bütün olarak bina ve kampus çevresinin) anlamı

Tüm veri toplama ve analizi süresince, kuramı oluştururken kategoriler, özellikler, kavramsal ilişkiler arasındaki bağlantıları kurabilmek için araştırmacı not yazımına dikkat etmiş ve notlarını sürekli değerlendirmiştir.

BULGULAR ve TARTIŞMA

Bu bölümde çalışmanın ana bulguları sunulmuştur. Öncelikle çevre-insan etkileşiminin en temel ögesi olarak öğrenci özelliklerine dair bulgular sıralanmıştır. Bunu, veri analizi sonucunda ortaya çıkan fiziksel ortamın örtük programının 3 ana boyutu izlemiştir. İlk boyutta, öğrencilerin açıkça belirtmiş oldukları fiziksel ortamın öğrencilerin sosyalleşmelerine, duygularına ve bir binanın alana özgü olup olmadığına dair onların fikirlerine olan etkileri tartışılmıştır. İkinci boyutta, kampüs fiziksel ortamının üniversiteyi nasıl sembolize ettiği betimlenmiştir. Son olarak, araştırmacının çalışma alanına ve ideolojisine bağlı olarak değişen fiziksel ortamın gizli etkisi sunulmuştur.

Öğrenci Kişisel Özellikleri

1. Öğrenci özellikleri çevreye ilişkin değerlendirmeleri etkileyen en önemli etmenlerden biridir.
2. Öğrencilerin geçmiş deneyimleri, beklentileri, mekâna ilişkin deneyimleri, kişilikleri, farkındalık ve uyum düzeyleri, aldıkları eğitim, öğrenme şekilleri ve ihtiyaçları, onların çevre ile ilgili düşünce ve değerlendirmelerini etkileyen önemli faktörlerdir.

3. Kişilik ve çevre arasında iyi bir uyum olması memnuniyet ve yüksek performans gibi olumlu sonuçlar sağlarken, kişilik ve çevre arasında tutarlılık olmayışı memnuniyetsizlik, düşük performans, zaman kaybı gibi olumsuz sonuçlara neden olmaktadır.

Fiziksel Çevrenin Etkileri

Fiziksel Çevrenin Öğrencilerin Sosyalleşmelerine Etkisi

1. Bir üniversite binasında yaşam binanın kendisi tarafından etkilenebilir.
2. Öğrencilerin sosyalleşmeleri artırmak için en önemli gereklilik öğrencilere belli amaçlar için belli mekânlar sunmaktır. Sadece mekânın varlığı bile öğrenci aktivitesini ve dolayısıyla öğrenci gelişimini başlatabilir.
3. Bir koridordaki iki oturma yerinin olması o koridora bir fonksiyon katabilir; öğrencilerin aktivitelerini gerçekleştirmek için bir itici güç oluşturabilir.
4. Bir binanın fiziksel çevresi öğrenciler ve öğrenciler, öğrenciler ve fakülte üyeleri arasındaki etkileşimi belirleyebilir. Fakat fiziksel çevre öğrenci-öğrenci ilişkilerini belirlemede öğrenci-fakülte üyesi ilişkilerini belirlemeden daha etkilidir.
 - 4.1. Kantinler öğrenciler arasındaki iletişim ve ilişkiyi artırmada en önemli araçlardan biridir.
 - 4.2. Birçok farklı aktivitenin gerçekleşmesini sağlayan binalar öğrenciler arasındaki iletişim ve ilişkiyi artırmaktadır.
 - 4.3. Bir bina istenen etkinlikler için optimum destek, farklı kullanımlar için alanlar, hareket rahatlığı ve konforu sağlıyor ise, bu bina sosyal fonksiyonu olan bir binadır.
 - 4.4. Bir binada mobilyalara sahip komünal bir alanın olması o binada bir topluluk oluşması için önemli bir itici güçtür.
5. Bir kampus çevresi öğrenciler arasındaki etkileşimin doğasını belirlemektedir.
 - 5.1. Bir üniversitenin tek kampüsünün olması öğrencilerin birbirleri ile karşılaşma olasılığını ve anlık sohbetleri artırmaktadır.
 - 5.2. Kampus mekânsal düzeni ve akademik binaların kampustaki konumu öğrencilerin kampus yaşamına katılımını etkileyen önemli faktörlerdir.

- 5.3. Eğer bir bina kampusta görünen bir yerde konumlanmışsa, o binada sosyal bir grup oluşma olasılığı artmaktadır.
- 5.4. Eğer bir bina kampus merkezinden uzaksa, bu binanın diğer bölüm öğrencileri tarafından kullanımı azalmaktadır.
- 5.5. Bütün fakülte ve bölümleri ve diğer fiziksel olanakları bir arada tutan bir kampus ortamı öğrenciler arasındaki iletişim ve ilişkiyi artırmada daha büyük güce sahiptir.
- 5.6. Bir kampusta açık mekânların olması öğrenciler arasındaki iletişim ve ilişkiyi artırmaktadır.
- 5.7. Bir kampusta kamuya ait kantin, kafeterya, kafe gibi yeme-içme yerlerinin olması öğrenciler arasındaki iletişim ve ilişkiyi artırmaktadır.
- 5.8. Kampusta trafiğe kapalı bir yolun olması öğrencilerin özgür biçimde yürümelerini ve öğrencilerin birbirleri ile karşılaşmalarını sağlar.
- 5.9. Akademik binalar arasındaki mesafenin kısa oluşu öğrencilerin sosyalleşmelerini artırır.

Fiziksel Çevrenin Öğrencilerin Duygularına Etkisi

1. Bir binada ve kampusta birçok fırsata ve olanağa sahip olmak üniversite öğrencilerinde olumlu duyguları ortaya çıkarmaktadır.
2. Bir binayı ve kampusu iyi olarak değerlendiren ve güzel bulan bir öğrenci o bina ve kampus hakkında genel olarak olumlu duygulara sahiptir.
3. Doğaya ait elementler içeren bir bina ve kampus çevresi öğrencilerin iyiliğini artırmaktadır.
4. Bir bina öğrencilerin duyguları üzerinde etkiye sahiptir.
 - 4.1. Bir akademik bina birçok olanağı (örn: masa tenisi, asansör, açık ve kapalı mekânlar) barındırıyorsa, bu bina öğrenci ihtiyaçlarını daha çok karşılamaktadır ve bu nedenle üniversite eğitimleri boyunca öğrencilerin iyi olmalarına katkı sağlamaktadır.
 - 4.2. Bir akademik bina öğretim mekânları yanında birçok amaca hizmet eden mekânları barındırıyorsa, bu bina öğrencilerin ihtiyaçlarını daha çok karşılamaktadır ve dolayısıyla bu durum öğrencilerin kendilerine,

- bölümlerine ve üniversite yaşamlarına yönelik olumlu duygulara sahip olmalarını sağlamaktadır.
- 4.3. Eğer bir binada öğrencilere sadece onların kullanımına açık stüdyo, kulüp odası gibi yerler tahsis ediliyorsa, bu öğrencilerin bir anahtar sahibi olması demektir ki bu öğrencilerin bölüme aidiyet hissini ve o mekânı kullanımını artırmaktadır.
- 4.4. Öğrencilerin sosyal ihtiyaçları fiziksel çevre tarafından karşılandığı zaman, öğrenciler o fiziksel çevredeki olanaklardan memnun olmakta ve bunları takdir etmektedir.
- 4.5. Bir bina estetik açıdan güzel olarak tanımlanıyorsa, bu bina öğrencilerin duygu ve hislerine hitap etmektedir. Estetik kalite öğrencilerin kendilerini prestijli hissetme duygusunu artırmaktadır.
- 4.6. Bir binanın uygun ambiyansa sahip ve düzenli olması kullanıcıların refahını sağlayan temel gerekliliklerdendir.
5. Bir kampus çevresi öğrencilerin duyguları üzerinde etkiye sahiptir.
- 5.1. Kampus çevresine olan ilk izlenim aday öğrencilerin üniversiteyi seçim sürecinde kritik bir etkiye sahiptir.
- 5.2. Farklı dış mekân görünümlerine sahip, geniş çimlere ve birçok ağaca sahip olan bir kampus öğrencilere esenlik vermektedir.
- 5.3. Dış mekânda bulunan ayırıcı nitelikteki mekânlar öğrencilerin kendilerini şanslı ve önemli hissetmelerini sağlamaktadır.
- 5.4. Eğer bir akademik bina belli bir alan üzerine konumlanmış tek akademik bina ise yani onu çevreleyen başka akademik binalar yoksa ve kampus merkezinden uzaksa; bu durum binayı kullanan öğrencilere, kampus sosyal yaşamına bağlı olmadıklarını ve onlara ve onların bölümüne az değer verildiğini hissettirmektedir.

Fiziksel Çevrenin Öğrencilerin Binanın Alana Özgü Olup Olmadığına Dair Düşüncelerine Etkisi

1. Bir akademik bina hangi fakülte veya bölüme ait olduğunu yansıtmalıdır.
2. Bir akademik binanın fiziksel çevresi o binanın alana özgülüğünün bir göstergesidir.

- 2.1. Bir akademik bina eğer öğrencilerin akademik sorumluluklarına yönelik (ödev yapmak, sınava çalışma, grup çalışması yapmak) eğitimsel ihtiyaçlarını karşılıyorsa, o bina alana özgüdür.
- 2.2. Bir akademik bina okutulan bölüme ait ipuçları taşıyorsa, alana özgüdür.
- 2.3. Bir akademik bina bölüm için gerekli ve uygun öğretim mekânları (örn: mühendislik için laboratuvarlar ya da mimarlar için stüdyolar) barındırıyorsa, o bina alana özgüdür.
- 2.4. Bir akademik binanın duvarları bölümle ilgili öğrenci çalışmalarını ya da diğer materyalleri içeriyorsa, o bina alana özgüdür.
- 2.5. Bir akademik binanın tasarımı ve okutulan program arasında tutarlık varsa, o bina alana özgüdür.
3. Bölüm ve çevre arasındaki tutarlık düzeyi sadece o binanın o bölüm için gerekli mekânları barındırmasına bağlı değil, o mekânlara kolay ulaşılmasına da bağlıdır.

Bina ve Kampus Çevresinin Anlamı

1. Her akademik bina kendisine has bir anlama sahiptir.
2. Bir binanın tasarımı onun bir üniversite binası olduğunun göstergesi olabilmektedir.
 - 2.1. Bir bina eğer öğrencilerin lise binasından farklı ve büyük ise, eğer mimari bir felsefeye dayalı inşa edilmiş ise, bu özellikler o binanın bir üniversite binası olduğunun göstergesidir.
 - 2.2. Bir akademik bina sosyal etkinliklere ve iletişime izin vermeyecek şekilde dar koridorlara sahipse, o bina bir üniversite binası olarak algılanmamaktadır.
 - 2.3. Amfiler üniversitenin simgesidir.
3. Bir binanın sosyal yaşamı desteklemesi o binanın üniversite binası olup olmadığını gösteren en önemli etkenlerden biridir.
4. Bir binanın duvarındaki panolar o binadaki kültürün bir simgesi olarak algılanmaktadır.
 - 4.1. Boş duvarlar o akademik binada sosyal ve eğitimsel etkinliklerin olmadığına işaret ederken, dolu ve yenilenen panolar öğrencilere önem

verildiği mesajı ile birlikte o binadaki günlük yaşama ilişkin ipuçları verir.

5. Lüks binalar özel kurumlara ait bir simgedir.
6. Kampus fiziksel çevresi birçok açıdan bir anlama sahiptir.
 - 6.1. Bir kampus öğrencilerin derslerine, etkinliklerine, arkadaşlıklarına odaklanmasını sağlayacak ve onların akademik, sosyal, kültürel ve kişisel gelişimlerini destekleyecek şekilde tasarlanmışsa, o kampus bir yaşam alanıdır.
 - 6.2. Bir kampus öğrencilerin özgürce kullanabilecekleri ve ulaşabilecekleri rahat mekânlar sağlıyorsa, ve bu mekânlarda öğrenci davranışlarını engelleyecek etkenler yoksa, o kampus öğrenci merkezli bir kampustur.
 - 6.3. Eğer üniversite içinde birçok olanağın sunulduğu tek bir kampusa sahipse, bu onun üniversite olduğunun göstergesidir.
 - 6.4. Sürekli olarak bakımı yapılan yerler üniversitenin prestij elementleri olarak görülmektedir.

Fiziksel Çevrenin Gizli Etkisi

1. Bir bina ve kampus çevresi kurumun misyonlarını yansıtmaktadır.
2. Bir binanın fiziksel yapısı ve olanakları üniversitenin bilimsel yaklaşım misyonunu başarıp başarmadığını göstermektedir.
 - 2.1. Bir binadaki laboratuvarların kullanım izni kısıtlı ise; bu durum üniversitenin, üniversite öğrencilerinin bilimsel yaklaşım kazanmalarını desteklemediğini göstermektedir.
 - 2.2. Seminer odalarının binada öğrencilerin kolay ulaşabileceği bir yerde olması o binada bilimsel aktivitelerinin olduğunun bir işaretidir.
 - 2.3. Bir binadaki seminer odasının olmayışı o binada bilimsel aktivitelerin az olduğunu göstermektedir.
 - 2.4. Sadece çalışma mekânı olarak görülen bir kütüphanenin oluşu üniversitede bilimsel yaklaşımın eksikliğinin göstergesidir.
3. Bir bina ve kampus fiziksel çevresi üniversitenin disiplinlerarası yaklaşım misyonunu başarıp başarmadığını göstermektedir.

- 3.1. Bütün fakülte ve bölümleri içeren tek bir kampusun oluşu disiplinlerarası yaklaşımın başarıldığının bir göstergesidir.
- 3.2. Akademik binalar arasındaki mesafenin kısa oluşu disiplinlerarası yaklaşımın başarıldığının bir işaretidir.
4. Bir bina ve kampus çevresi nitelikli insan yetiştirilip yetiştirilmediğini göstermektedir.
 - 4.1. Birçok olanağa sahip bir kampus nitelikli insan yetiştirilebileceğinin bir göstergesidir.
 - 4.2. Öğrenci mekânları ile fakülte üyelerinin kullandığı mekânlar arasındaki kesin ayrım nitelikli insan yetiştirme hususunda bir problemin olduğunun göstergesidir.
 - 4.3. Öğrencilerin sosyal ilişkilerini geliştiren olanakların oluşu nitelikli bir insan yetiştirilebileceğinin bir işaretidir.
5. Bir kampus çevresinin kendisi toplumla iletişim misyonunun başarılı olup olmadığının bir işaretidir.
 - 5.1. Herhangi bir şehir yolu ile ayrılmamış bütüncül bir kampus toplumla iletişim azlığının bir göstergesidir.
 - 5.2. Ağaçlarla çevrili olmasıyla şehri görünmez kılan bir kampus toplumla iletişimin eksik olduğunun işaretidir.
 - 5.3. Öğrencilerin her ihtiyacını karşılayan tek bir kampus öğrencilerin toplumla az iletişime girmesine neden olmaktadır.

ÖNERİLER

Bu bölümde uygulama ve araştırma boyutlarında öneriler sunulmuştur.

Uygulamaya Yönelik Öneriler

Bu araştırmanın sonucunda uygulamaya yönelik öneriler 2 bölümde sunulmuştur. Bir binanın ya da kampus ortamının oluşmasında iki süreç vardır. Birinci süreç bir bina ve kampus ortamı oluşturulmadan önceki ve mimar ve tasarımcıların yönetimde olan süreçtir. İkinci süreç ise inşası bitmiş bir çevrenin yönetimci ve öğretim üyesi kararları doğrultusunda yapılan değişiklikleri kapsamaktadır.

Binaların yapımından önce dikkate alınması gereken öğrenci ihtiyaçlarına bağlı ortaya çıkan öncelikli öneriler şunlardır:

1. Öğrencilerin sosyal ve akademik etkinlikler için kullanılabilecekleri mekânlara ihtiyaçları vardır.
2. Bir akademik binada görünebilir geniş bir kamusal alana ihtiyaç vardır.
3. Koridorlar ve holler geniş olmalıdır ve bu alanlara gerekli mobilyalar konulmalıdır.
4. Mekânlar geniş ve memnun edici olmalıdır.
5. Kampus bütüncül bir yaklaşımla tasarlanmalıdır. Daha sonra eklenen binalar bütüncül yaklaşımı destekler biçimde tasarlanmalıdır.

Binaların inşasından sonra alınan kararlar en az bina yapımı için alınan kararlar kadar önemlidir. Bu konuda öneriler şu şekildedir:

1. Sadece öğrenci kullanımı için ayrılan yerler olmalıdır.
2. Mekânlar açık ve ulaşılabilir olmalıdır. Özellikle öğrenci akademik ihtiyaçlarını karşılayan çalışma salonu, laboratuvar gibi yerlerin kullanımında ihtiyaçları engelleyebilecek kısıtlamalara gidilmemelidir.
3. Seminer odası binada öğrencilerin görebileceği bir yerde olmalıdır. Bu şekilde öğrenci, üniversitede öğretimin yanında bilimsel aktivitelerin de olduğunu gözlemleyebilmelidir.
4. Duvarlar üniversitenin misyonunu yansıtacak şekilde kullanılmalıdır. Duvarlarda ya da panolarda bilimsel aktivitelere ve bölümle ilgili konulara ilişkin posterler ve öğrenci çalışmaları yer almalıdır.
5. Öğrenci ve öğretim üyesi mekânlarına aynı özen gösterilmelidir.
6. Bir mekânın düzeni öğretim üyesinin söyledikleriyle ve eğitim programıyla tutarlı olmalıdır.
7. Bir bina bölümü sembolize edecek materyaller içermelidir.
8. Bir akademik bina sadece kendi kullanıcıları için değil tüm üniversite öğrencileri için bir cazibe merkezi haline getirilmelidir. Bunun için binalarda tüm üniversite öğrencilerinin kullanılabileceği öğrenci kulüp odaları olmalıdır.

9. Öğrencilerin binada var olan sosyal yapıya olan aidiyetlerini artırmak amacıyla yöneticiler ve öğretim üyeleri binaların tarihi ve alınan kararları öğrencilerle paylaşmalıdır.
10. Fiziksel çevreye ait alınacak kararlardan önce öğrenci görüşleri alınmalıdır.

Diğer Araştırmalar için Öneriler

İleride yapılacak araştırmalara yönelik öneriler şu şekildedir:

1. Bu çalışmada amfilerin bir üniversite ortamını sembolize ettiği sonucu ortaya çıkmıştır. Amfilerin rolü, önemi ve anlamı hakkında daha ayrıntılı bilgilere ulaşmak için bu konuda daha doğrudan sorular sorulmalıdır.
2. Kantinler öğrencilerin sosyalleşmeleri için önemli ve vazgeçilmez mekânlardır. Bunu sağlayan etmenlerin ortaya çıkması için farklı kantinler seçilmeli ve gözleme dayalı fenomenolojik çalışmalar yürütülmelidir.
3. Bu çalışmada görsel öğelerin (pano, poster, mimari yapıt vb.) okul kültürünü simgeleyen önemli bir etmen olduğu ortaya çıkmıştır. Görsel öğelerin önemini ve rolünü anlamaya ilişkin daha mikro düzeyde çalışmalar yapılmalıdır.
4. Bu çalışmayla üniversite öğrencilerinin görüşleri alınmıştır. İlerideki çalışmalarda örtük programın girdi ve çıktılarının daha net anlaşılabilmesi için yönetimci ve öğretim üyesi görüşleri alınmalıdır.
5. Bu çalışmada öğrenci karakterlerinin örtük programı değerlendirmede farklılık ortaya koyduğu gözlenmiştir. Bu nedenle çalışmaların başlangıcında öğrenci özelliklerine ilişkin daha ayrıntılı bilgiler elde etmek için hazırlanan standart ölçekler kullanılması faydalı olacaktır.
6. Fotoğraf tanımlama metodu mekânlar arasındaki farklılıkları göstermek üzere önemli sonuçlar sunmuştur. Yürüyerek görüşme de görüşme anında araştırmacıya mekânla ilişkili birçok soru sorma fırsatı sunmuştur. İleriki çalışmalarda bu iki yöntemin kullanılması önemli katkılar sağlayabilir.
7. Bu çalışmada dolaşarak görüşme sadece akademik binalarda gerçekleştirilmiştir. Bu nedenle ileriki çalışmalarda dolaşarak görüşme kampus ortamında da yapılabilir.

8. Örtük programın daha iyi açıklanabilmesi için aynı çalışma diğer devlet ve özel üniversite kampuslarında da yapılmalı ve karşılaştırmalı analizler sunulmalıdır.
9. Bu çalışmada kullanılmış olan araştırma yöntemlerinin yanı sıra gözlem yoluyla da araştırmalar yapılabilir.
10. Son olarak, örtük program konusunda ülkemizde yapılan çalışma sayısı yeterli düzeyde değildir. Bu olguyu anlamak üzere hem nitel hem nicel araştırma yöntemlerinin kullanıldığı çalışmalar gerçekleştirilmelidir.

APPENDIX R: Curriculum Vitea

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FOREIGN LANGUAGES

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PUBLICATIONS

Parts in International Books

Lafci, D. (2009). Education, drama and the enhancement of creativity: A review of research. In C. Crouch (Ed.), *Subjectivity, creativity, and institution* (pp. 165-178). Brown Walker Press, USA: Florida.

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PRESENTATION

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Tor, D. & Engin-Demir, C. (2012, September). Evaluation of physical environment of teacher education institution from teacher candidates' perspectives: Middle East Technical University (METU) case. Paper presented at the Applied Education (APPED) Conference, Ankara, Turkey.

Tor, D. (2012, June). Important physical Characters for quality teacher education: the Delphi study. Paper presented at the International association people environment studies (IAPS) Conference, Glasgow, UK.

Lafci, D. (2009, February). The role of the Drama Education in creativity and subjectivity. Conference of Subjectivity, Creativity and Institution, Perth, Australia.

Lafci, D., & Kiraz, E (2008, October). Creative drama as an alternative teaching method in Moral Education. Paper presented at the Conference of Further Education in the Balkan Countries, Konya, Turkey.

National Conference Presentations

Rakap, A., & Lafci, D. (2005, September). Opinions of the Academicians and Seniors Students about courses in preschool teaching program. [Okul Öncesi Öğretmen Yetiştirme Programı'ndaki Dersler Hakkındaki Öğretim Elemanları ve Öğrencilerin Görüşleri] . Paper presented at XV. National Educational Sciences Conference, Muğla, Turkey.

APPENDIX S: Tez Fotokopisi İzin Formu

ENSTİTÜ

Fen Bilimleri Enstitüsü	☐
Sosyal Bilimler Enstitüsü	☒
Uygulamalı Matematik Enstitüsü	☐
Enformatik Enstitüsü	☐
Deniz Bilimleri Enstitüsü	☐

YAZARIN

Soyadı : Tor
Adı : Dürdane
Bölümü : Eğitim Bilimleri

TEZİN ADI: Exploring Physical Environment as Hidden Curriculum in
Higher Education: A Grounded Theory Study

TEZİN TÜRÜ : Yüksek Lisans ☐ Doktora ☒

1. Tezimin tamamından kaynak gösterilmek şartıyla fotokopi alınabilir. ☐
2. Tezimin içindekiler sayfası, özet, indeks sayfalarından ve/veya bir bölümünden kaynak gösterilmek şartıyla fotokopi alınabilir. ☐
3. Tezimden bir bir (1) yıl süreyle fotokopi alınamaz. ☒

TEZİN KÜTÜPHANEYE TESLİM TARİHİ: