

**FACTORS AFFECTING STUDENTS' PRESENCE
(CASE STUDY: PRIVATE KINDERGARTEN, GONBAD-E-QABUS, IRAN)**

by

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FAKTOR-FAKTOR YANG MEMPENGARUHI KEHADIRAN PELAJAR (KAJIAN KES: TADIKA PERSENDIRIAN, GONBAD-E-QABUS, IRAN)

ABSTRAK

Kajian ini bertujuan mengkaji faktor-faktor yang mempengaruhi kehadiran pelajar berdasarkan kemudahan-kemudahan persekitaran pembelajaran. Tempat-tempat yang relevan dengan pembelajaran kanak-kanak seharusnya termasuk persekitaran yang sesuai untuk memperbaiki perkembangan fizikal, mental dan sosial mereka. Ini mungkin dilakukan dengan menggunakan elemen-elemen senibina yang sesuai dan dengan merekabentuk satu tempat yang kanak-kanak gunakan untuk belajar. Bentuk-bentuk senibina berasal dari elemen-elemen yang khas dan tertentu. Tadika merupakan tempat pendidikan dan sosial pertama yang kanak-kanak alami. Ia juga merupakan satu daripada tempat pembelajaran terpenting di zaman awal kanak-kanak yang mempunyai kesan ke atas pendidikan kanak-kanak. Dalam persekitaran sebegini kanak-kanak melalui pengalaman asas pembelajaran. Ia menjadikan kanak-kanak lebih kreatif dan mempengaruhi kelakuan mereka. Justeru itu; persekitaran pembelajaran fizikal ini haruslah menjadi lebih berinspirasi, mencabar, merangsang minda dan menaikkan semangat. Kajian ini telah dilakukan pada kaedah kuantitatif. Tujuan kajian ini telah direkabentuk untuk menyelidiki kesan ke atas sekolah senibina dihadiri oleh pelajar Iran. Data dikumpul daripada kanak-kanak dengan menggunakan Multi Teori Intelligence (MI) dan juga soal selidik dan temuduga yang sebahagiannya dipandu soalan data kuantitatif. Dua jenis tinjauan telah dijalankan dalam kajian ini. Pertama, satu versi ubahsuai Teori Kepintaran Pelbagai (MI) telah digunakan untuk merangka soalan untuk kanak-kanak Iran. Kedua, guru-guru dan pengetua menjawab soalan-soalan tersebut untuk mengetahui persepsi mereka terhadap satu persekitaran pembelajaran yang sesuai. Keadaan persekitaran

bangunan yang diwujudkan dalam tadika harus dirancang dan direka dalam satu cara di mana ia memperbaiki dan membantu tumbesaran kanak-kanak. Oleh itu, kajian ini adalah signifikan kerana ia melibatkan penilaian pelajar-pelajar pada usia yang sangat muda dan ruang pembelajaran mereka. Pertimbangan yang paling penting dalam memilih kota ini adalah kerana latarbelakang sejarah dan rekabentuk senibinanya menjadikannya unik berbanding dengan kota-kota kecil lain di Iran. Tambahan pula, perbezaan fahaman agama menyebabkan beberapa ketidaksamaan budaya antara kota ini dengan bahagian-bahagian lain di negara tersebut. Dari keputusan itu, dapat disimpulkan bahawa guru-guru lebih menitikberatkan pada komponen-komponen, yang berkait langsung dengan kelakuan pembelajaran seperti bangku-bangku yang selesa, sistem lampu yang sesuai, bilik-bilik darjah berkemudahan dan bahan-bahan pembelajaran lanjutan. Hasil kajian mengenai pendapat kanak-kanak terhadap tadika mereka menunjukkan bahawa kepintaran pelbagai memainkan satu peranan utama dalam kehadiran pelajar.

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ABSTRACT

This research investigates the underlying factors affecting students' presence based on learning environment facilities. The places that are relevant with children learning should include appropriate environment to improve their physical, mental and social growth. This is possible by utilizing suitable architectural elements and by designing a place that children use to learn. Architectural forms originate from special and specific elements. Kindergarten is the first educational and social place that children experience. It is also one of the important learning spaces in early childhood that has effects on children's education. In this environment children go through basic learning experience. It makes them more creative and influences their behaviours. Thus; this physical learning environment should be more inspirational, challenging, thought provoking and uplifting. Therefore the aim of this study is to explore the impact of kindergarten architectural design on Iranian student's presence. This study has been done on quantitative methods. Data were collected from children by using the modified version of Multi Intelligence Theory (MI) and also the questionnaires and the interview partly guided questions for the quantitative data. Two types of survey are conducted in this study. First, a modified version of Multiple Intelligence Theory (MI) was used to design the Iranian children questionnaire. Secondly, the teachers and principal answered the questionnaire to write their perception towards a suitable learning environment. The building environment created in kindergartens should be planned and designed in such a way that it improves and helps children's growth. Thus, this study is significant because it involved the evaluation of very young students and their learning space. The most

important consideration in choosing this city is because of its historical background and architectural design make it unique compared to other small cities in Iran. In addition, the religious differences cause some cultural dissimilarity between this city and other parts of country. From the results, it can be concluded that the teachers emphasized more on components, which were directly related to the learning behaviour like comfortable benches, suitable lighting system, facilitated classrooms and advanced learning materials. The findings of the children's opinions about their kindergarten indicated that the multiple intelligences play a key role in students' presence.

CHAPTER 1

INTRODUCTION

1.1 Introduction

Children come into the world eager to learn. Early years of life are the time for enormous growth of linguistic, conceptual, social, emotional and motor competence (NRC, 2000). Although many studies have been conducted in an attempt to determine early childhood education, apparently no instruments assess the qualities of the classroom (Fraser, 1998).

Some previous studies (Boss, 2001; Kolleeny, 2003; Peters, 2003) have shown that learning process can be affected by classroom architecture and design. Students from well maintained, safe and clean schools are also more likely to demonstrate their higher levels of students' presence than those from leaking roofs, broken windows, missing toilet stalls, and dark classrooms for decades. Engineers, architects, psychologists and educators have also examined the role of lighting and colour on students' learning behaviour (Dudek, 2000). There are some significant evidences to show that these elements are directly related to students' presence. For instance, playgrounds and outdoor play equipment's provide fun, fresh air and exercise besides bringing hours where children tend to bond with others, make friends and get socially activated. Play in generating environments conducive to learning and to prosaically behaviours (Hathaway, 1995; Dudek, 2000; Tanner, 2000; Sherman, 2001; Muir, 2001; Rittner-Heir, 2002). Some researchers and planners (Reicher, 2000; Plympton et al., 2000) have indicated that the use of daylight in the context of a larger energy-efficient design is not only associated with higher levels of student performance, but can also be cost effective. Several studies

(Boss, 2001; Tanner and Langford 2003) have also focused on the detrimental effects of noise pollution in the learning environment. Tanner and Langford (2003) found that sound system is a significant benefit to young students and should be considered as a “vital part” which helps them to learn. Nevertheless the importance of appropriate furniture (Bullock & Foster-Harrison, 1997) and the need for creating outdoor spaces such as green areas and playgrounds (Tanner & Langford, 2003) are undeniable.

1.2 Impact of Architecture and Design in Kindergarten in Iran

Iranian architecture displays a great variety, both structural and aesthetic, developing gradually and coherently out of prior traditions and experience (Pope, 1971). Iran is in the midst of its biggest building boom of postmodern architecture. Much of this transformation involves the public sector which is spearheaded by policy makers. There is an increase in the belief of these persons in the context of potential difference between good or bad architecture/design which can have some effects on the life and aspiration of individuals and communities. Architecture for children is a mixture of culture and technology in Iran. School design is a crucial consideration as it is a place that should attract and benefit students with different tastes and social backgrounds. As a matter of fact, the learning theories and structural learning environment design are significantly associated when there is a gap between school designs and learning achievements (Tanner & Langford, 2003). This finding can be explained by the fact that the children are natural builders and the freedom for exploration provides the joy of learning and the joy of surrounding environment discovery. They enact this unity through their play and inquiry of the world around them. There are various environmental factors which influence the

achievement of those children in the range 5-6 years of age. These influencing factors are summarized as below:

1.2.1 Vision

Those visionary buildings with a character or attractive factor for creating excitement and happiness are important in the location decisions, give motivations, increase the sense of innovations and cause discoveries in kids. While some elements like graffiti and some activities such as sculpture helps children to increase their innovation and creativity (Nathan & Febey, 2001).

1.2.2 Aesthetics

The importance of the physical appearance of a school building should not be minimized. It should provide an interior environment with a visual comfort environment by stimulating of integrating natural and artificial lighting, eliminating glare, and incorporating colours which depends on the space function (Kamelnia, 2005). The interior should enhance the learning achievement by:

- 1) Increasing learning values which are important in location decisions.
- 2) Helping educators by providing inspiration and stimulation; heightening students' morale and satisfaction, improving effectiveness and reducing absenteeism.
- 3) Motivating pupils and students, reducing malingering and improving students' presence.
- 4) Contributing to improve children' talents and skills in kindergartens.
- 5) Providing less harmful environments for kids to stay, play and learn safely.

1.2.3 Context

The buildings context examines particularly how far or near the building is from natural view such as green spaces, trees and water features in order to (Kamelnia, 2005):

- 1) Increase the learning and teaching value and enhance students' satisfaction and motivations, particularly where the context is contiguous to high quality mixed-use playgrounds.
- 2) Impact positively on the children's and staff's health system

1.2.4 Space

The allocation and use of space has a significant impact on the effectiveness, efficiency, comfort and satisfaction in kindergartens. In most cases, a variety of space affords different environments that have some benefits. In educational issues, cramped classrooms reduce motivation and performance of pupils. Linking of space in kindergartens can reduce staffing costs. While quiet spaces increase the student's motivation and performance, public and common areas foster social interaction that reduces studying ability. Children appear to be happier in bright rooms with more spaces and multi-bed rooms can reduce feelings of isolation. In a learning environment, open-plan classrooms improve communication but can also be distracting. Provision of creative / flexible spaces can encourage creativity and inspiration. Greater space per educator reduces illness (Nathan & Febey, 2001).

1.2.5 Comfort

Schools should be comfortable visually, acoustically and thermally thus it leads pupils to good health, creativity and productivity.

1.2.6 Easy Navigation

Providing an effective and easy navigation builds confidence and security for the kids. Children are more confident when they are more familiar with the school environment; on the other hand, their level of confidence in school is associated with their achievements. Consequently, familiarity with the school environment increases the school achievement among children by increase in their level of confidence.

1.2.7 Green Space

Regardless of the school's configuration, children need a healthful and stimulating outdoor environment in which learning is the most important issues. Schools should have excellent outdoor space where should be safe and secure. The outdoor environment should also provide some space for social interaction with other children's parents and teachers.

1.3 Problem Statement

The physical environment affects children's learning and development in many ways. Well-designed environments support exploration, give young children a sense of control and enable children to engage in focused, self-directed play (Inan, 2009). On the other hand, poorly designed environments discourage these activities. When well-designed environments are engaging, they minimize problematic behaviours such as aggressiveness and aimless wandering. The physical environment also affects relationships. Well-designed spaces evoke a sense of security, which is a prerequisite in the formation of a healthy identity. Also classrooms with an appropriately designed are given to children with an opportunity to play both independently and in small groups while the teachers are supported in their role as

observers and facilitators of children's learning and development. The physical environment affects a program's ability to promote best practice. In addition it helps teachers to experience more appropriate interactions with children (Torelli, 2002).

The relevant places for children's learning must provide a safe and secure environment to develop children's physical, mental and social activities. This can happen by utilizing appropriate and practical architectural elements to design a suitable place for children to learn, play and grow. Cosco and Moore (2009) stated that the ability to design an appropriate place for children depends on the intimate knowledge about children's world. Architecture and design approach for children should be consistent with children's functioning in indoor and outdoor spaces, which suggests that the value of a place is determined by its systematic function, safety, shapes and colour kindergarten construction. They consist of two parts: main building (indoor areas) and playground as outdoor areas (Tuttle, 2000). The kindergarten design should simulate children and afford sufficient space for physical activities and give opportunities to the children to socialize their control and choice. The young children mostly practice their academic skills inside the building and occasionally they are allowed to engage with outdoor space such as playgrounds and lawn area. In a controlled micro-climate indoor space where temperature, lighting and humidity should stay steady, the children face with a variety of furniture, toys and games. Eventually, the children realize the architecture is an element that makes little changes. The outdoor space is more spacious that allow the children to move more freely compared to inside the building. With a natural and dynamic micro-climate, outdoor experience allows the children to explore the differences of features and phenomena from the indoor experience. The issue here is the architectural design

on the planning spaces and kindergarten for young children generally looks from adults' point of views and perceptions. As stated earlier adults' point of the views may not be appropriate for children's standpoints and observations. In most kindergartens' design approaches, some fundamental childhood traits such as language barrier skills and child shyness issues have been totally ignored (Sener, 2006).

In Iran, approaching kindergarten design is mainly characterized by adult control. The architecture from the adults' point of view does not generate a sense of place attachment for the children. As a result, children feel bore to go to the kindergartens and school and they are not able to develop the sense of favourite place due to the adults' design (Ladd, 1999).

Therefore, there is a need for a research to find out what exactly children expect from kindergarten's architecture and how the design of kindergarten will help them to improve their presence.

1.4 Kindergarteners' Needs

Nowadays, most parents believe that parental involvement and school are together responsible for children's educational outcomes. A study by Eisenhart and Graue (1990) indicated that parental involvement includes many different kinds of activities mainly to support their young children emotionally and mentally. They found that parents at both elementary and middle school levels are much more child-specific than school-general involvement. Meanwhile in case of young children, parents have more sense of effectiveness in helping their child to improve their

academic skills (e.g., counting, writing and reading) in school compared to teachers (Knudsen-Lindauer & Harris, 1989). The fact is parental involvement and is linked to improved student achievement. Many kindergartens are often asked to increase their efforts to involve parents in children's education and achievements. Since kindergarten is the first official year of schooling that children are away and in the mix of the educational system, therefore it is important for the school and parents to work together and develop the children skills. Starting school is recognized as a major transition and adjustment in the child's life (Fabian, 2002) that can determine their future success. It is a time for action when children and their families are expected to manage changes in their physical surroundings (Dockett and Perry, 1999), changes in social interactions and expectations (Hamre and Pianta, 2001), changes in the type and structure of learning environments (Fabian, 2002) and changes in how children feel about themselves as learners (Early et al., 1999).

Creating a stress-free environment for most children represents the opportunity to increase their knowledge and enhance their individual needs. In kindergarten besides academic skills (numbers, shapes, and colours) that help young children to keep up with the curriculum, there are equally important readiness skills that set the stage for their learning. Children need to be provided by explicit expectations of engaging in whole-group discussions and games to raise the eager learners. It can be achieved not only through curriculum integration but the children's surrounding is essential to their success.

Curricula are not only to demonstrate measurable content skills and education by students but also consist of more than curricular content and quantities subjects

and courses outcomes. The quality of the environment in which students learn plays a paramount role in fostering those things (Fraser, 1986; 2002). According to Fraser (2002) the classrooms and the learning environment can have a vital rule to enhance student outcomes. The learning environment has a psychological profound impact on the educators that will lead to improving the effectiveness of education.

Beginning kindergarten is a huge milestone for children and it would be much easier for both parents and teacher if the children are mentally prepared. Young children are often excited about entering school. But when they do, they mostly find the environment totally different from what they are used to. In kindergarten, children learn more about social and communication skills than academics, therefore, it is not only important to prepare them mentally for entering kindergarten, it is also essential to prepare them physically. Children will need to collaborate on the projects and share the toys, which teach them to participate in group activities. Most of five-year-old children do not start school with good social skills and mental maturity. They have to develop some qualities in a short period of time in order to survive in kindergarten. According to Paulu (1996), children improve their chances for success in kindergarten if they have had opportunities to begin developing these qualities:

Confidence: Children must learn how to feel good about themselves and believe in their success. Confident children are more willing to attempt new tasks and get it done.

Independence: Children need to learn to do things themselves (Clarke, Dawson, & Bredehoft, 2004).

Motivation: Children must be eager to learn

Curiosity: Children naturally seek to explore their world and environment. Thus they gain competence and control over their learning environment (Bredehoft, 2006).

Persistence: No matter how challenging the task is, the child should be able to stick at it until it is completed (Grouzet et.al. 2005).

Cooperative: Children must be able to get along with others and learn to share and take turns.

Self-control: Pre-schoolers must learn how to respond to situations without just acting. They should realize the rules and boundaries of behaviour and differentiate between the appropriate and inappropriate manners (Bredehoft, 2006).

Empathic: Children must learn to have an interest in others and understand how others feel.

The children would be able to build up these skills with the help of environment and kindergartens' architecture (Baek and Lee, 2008). Culture plays an important role in architecture and shaping the built environment. It also seems obvious that architecture would affect human behaviours and capabilities (Warwick, Archer, Hamilton et al., 2008). In order to increase the awareness and alertness among the users the brighter and lighter objects will be applied in the designing of that space. However; mainly intended spaces for relaxation should feature darker colours, dimmer lighting, fewer sharp edges on furniture and bookshelves. Lower ceilings improve performance in detail-oriented tasks, whereas high ceilings encourage abstract creative thought. A design process that involves the participation of children should effectively elicit the needs of child users by considering characteristics such as their age-appropriate levels of cognitive ability, shyness,

language skills, and motor-sensory capabilities (Baek and Lee, 2008). More than other building types, school facilities have a profound impact on their occupants and the functions of the building, namely teaching and learning. Children in various stages of development are stimulated by light, colour, the scale of their surroundings, even the navigational aspects of their school. Children can also react negatively to adverse conditions. The differences in children family backgrounds are associated with school characteristics (e.g., educational activities, architecture's environment) that will affect students' presence significantly (Zaroban, 2006). A complex and continuous collaboration exists between the children's presence and the learning environment design which can provide sufficient scaffolding and support that detrimentally influence on children capability for success and subsequently their learning achievements (Maccoby, 1992).

From the above discussion, it can be concluded that not only children's physical and mental characteristics will influence them to enhance higher students' presence but also the design of learning environments have also the positive impacts on children's capability for success.

1.5 Children and Learning at Kindergarten

Entering kindergarten is an exciting time for every child. Moving from the home environment to the school environment is a rite of passage. Kindergarten refers specifically to the education program for children in the year prior to Grade 1.

1.5.1 What Is Kindergarten?

“Kindergarten” refers specifically to a place with the education program for children in the year prior to Grade 1. “Early Childhood Services” refers to the broad coordinated system of local and provincial programs that meet the developmental and special education needs of young children and their families. The Kindergarten program is an important part of Early Childhood Services (Alberta Ed., 2006).

It must be taken into the consideration that the kindergarten is a school for five-year-olds and also its grading system is very different from the other school levels (Hymes Jr, 2004). Children are genetically programmed to explore the world and bond with nature. In kindergarten they learn how the world works in evocative way. Their direct contacts with the environmental features permit them to explore, imagine and discover their surrounding world (Sener, 2006).

1.5.2 How Children Are in Five-year-olds

These little humans talk big and brave, but five-year-olds are soft and fragile inside. They are essentially shy. No matter how tough they are, they are still very timid. The fives are not good sitters; they are not youngsters who can stay quiet for so long; and they are not good listeners either (Alberta Ed., 2006). Besides all these qualities, one thing makes them very unique, 5-year-old children are adventurous explorer by nature. They want to see, know and discover their surrounding world. Therefore, children’s school architecture should be based on children’s understandings and perceptions not on the presumption of adults. Kindergarten is the first educational and social place that children step in, and it is one of the important learning spaces during childhood (Hymes Jr, 2004).

1.5.3 What Is Learning?

Certainly kindergarten as a learning environment has impacts on children's learning. In this environment besides going through basic learning techniques, children experience life in a bigger society. This learning environment makes kids more creative and influences their behaviour therefore the physical learning environment must be inspirational, challenging, thought provoking and as uplifting as the learning experience itself (Nussbaum, 2003).

Learning is inseparable from human life, even without concentration, it can still happen. School is the best example of purely educative society but a set of points must be followed in order to educate children and make them to learn. These points are listed as below:

1. At schools there should be more emphasize on the learning art rather than teaching.
2. Teachers should encourage educators to be independent and innovator.
3. Teachers should not forget the fact that learning is a process and it cannot happen over a night.
4. There is a need of strong bonding and connection between teachers and students at school.
5. Besides teaching, teachers have other responsibilities to guide and help students. It's their duty to build a trust based relationship with the children.

1.5.4 How Do Young Children Learn?

Young children see the world different from their seniors. They learn from their experiences and best through interaction and manipulation process to explore

and experiment the real objects. They learn by doing, moving and talking and through playing by using all of their senses. Young children are naturally curious, eager to learn active and learn through a variety of ways. Purposeful play is an effective way for children to practice. Educators and psychologists refer to play as the best way to facilitate children's development. Playing is an exciting activity of discovery and leading children to concentration, motivation and self-discipline.

As children play, they receive and clarify information, integrate ideas from earlier experiences, explore and experiment their surrounding environment. Play gives children opportunities to gain more knowledge, learn new skills and practice what they have learned in past. Through play, children learn to control and manage their feelings, interact with others and resolve conflicts. They develop their imagination, creativity and ability to solve problems (Alberta, 2010). Play is the most natural way for children to learn. It is effective and valuable in order to provide the opportunity for children to learn and develop their skills (Kay, 2003).

1.5.5 Brief Introduction about Iranian Kindergarten

This research is a study on private kindergartens in Gonbad, Iran. Gonbad-e Qabus (known as Gonbad) is a city in the province of Golestan in the northeast of Iran. It has about 238,030 populations in 2006. Gonbad is dominated by Turkmen. 77% of the population including all Turkmen are Sunni Muslim, and their culture and their language are different from other parts of Iran (ISC, 2009). These differences in religion and language, made this city specific in culture and behaviour of people from other parts of Iran (Countries and Their Cultures, 2010).

Some children in Iran protest going to kindergarten. Because children are naturally so playful, curious, and social so, when they are forced to sit in their seats and listen to a teacher they feel their freedom has been limited. So children must feel safe and free in their kindergarten (Kamelnia, 2005).

1.6 Objective of the Study

The Design approaches for children should be consistent with their needs, sensitivity and uniqueness as curious users (Alberta, 2008). There are both obvious and obscure differences between designing spaces for adults and children. A review of the literature, regarding designing for children, indicates that the major issues can be divided into the major categories of physical and psychological needs (Ruth, 2000).

With the above deliberations, the objective of this research is to examine the relationship between kindergarten architectural design and students' presence in Gonbad-e-Qabus; a city in Iran. The specific objectives are:

1. To measure children's perceptions towards the kindergarten's architectural design.
2. To find the relationship between MI theory elements and students' presence and achievement.
3. To determine the teachers' perceptions of the kindergarten's architectural design in relation with students presence.
4. To analyse the relationship between interior design of the learning space and students' presence in Gonbad city, Iran.

1.7 Significance of the Study

This research will be useful to researchers, architects, designers and teachers who attempt to increase students' presence by focusing on learning environment. Children as main users of the kindergartens deserve special attention for many reasons. To children, kindergarten is the first society that they enter to interact, learn and develop their skills and play. Many studies indicate that the physical environment can directly affect the quality and quantity of play, which in turn affects development (ASID, 2005). In addition other children's capabilities can be influenced by their surrounding environments (Hymes Jr, 2004).

Thus not only the curriculum program of the kindergarten needs to be developed carefully but the architecture and interior design of this environment also play a key role in students' presence. Unfortunately only small numbers of studies have demonstrated the impact of architecture and interior design in kindergartens and their learning environments. This study can be a platform to many other similar studies in the same area, especially those that are focusing on the influential external factors such as interior design and building architecture on children's learning. The findings of this study would provide invaluable input to the parents, researchers, teachers, designers and even government policy makers.

The environment in the kindergarten has some important functions. Firstly, it act as personality developer and socializing function. The organization of the environment for the children in the kindergarten classroom can either make the social interaction with people and objects easier, or more difficult. Secondly, is the psychological aspect. Here the favourable arrangement of kindergarten environment

stimulates a positive activity of all psychological phenomena comprising sensations, perceptions, mental pictures, thinking and imagination. Thirdly, is the communicability aspect? It is not possible for the child to have wholesome experience of his/her childhood without the communication with peers and adults. Fourthly, is the cognitive component, the environment in the kindergarten integrates different aspects of the knowledge about the world around and is a source of information about people, the things and phenomena (Cornelius & Kessler, 1995). The fifth aspect is creativity. Creativity as a basic human ability is directly linked with sensations and cognition. The children need to make full use of their sense through multifarious activities and contact with objects, materials, events and people to be able to build up an understanding about the world. According to the comments of Cornelius and Kessler, creativity is one of the ways in which people interact with their environment (Cornelius & Kessler, 1995). The sixth is sport and movement. Movement is crucially important for every child. Satisfying this need will be contingent upon its integration into the organization of the environment of a kindergarten room with its layout and objects. The next is the aesthetics. The environment in the kindergarten could affect the development of aesthetic thoughts and tastes in children.

The organization of the environment in the kindergarten depends also on the conditions in the town or village where the kindergarten is located. These conditions include that border on the demographic, ethnic, geographic, historical, social and economic. When creating the kindergarten environment all the factors of place, time, people, ideas and resources are taken into consideration.

1.8 Summary

This chapter briefly tackled introduced the impact of kindergarten architectural design on students' presence. The chapter identified the aims of the study: the investigation of students' preferred learning environment design and investigation of associations between children's perceptions of the classroom learning environment and students' presence. The chapter includes a brief discussion of literature supporting the aims of the study, the significance of the study and an overview of other chapters. In everyday life, students find themselves gathering and evaluating information (Davidson, 1997). This study brought to attention to how various learning environments can promote students' presence and perception. The thesis contains six chapters. Chapter 1 discusses on the general introduction about the present study and discuss theoretical underpinnings of the research. The conceptual framework is developed in chapter 2. In this chapter, the theories underlying the research are discussed. Chapter 3 elaborates on the methodological approach used by the study. The discussions focus on the research design and data management and analysis conducted for the study. Specifically, the selection of the research area, sampling procedure, questionnaire formulation and strategies used for data gathering is reviewed. A detailed explanation of the various statistical procedures used for data analysis is provided. Chapter 4 describe the case studies and explain the plan of each kindergarten that has been researched. Chapter 5 presents the descriptive analysis, chi-square and designing the kindergarten architectural model. Chapter 6 summarizes the important results of the study. Some conclusions and strategy options drawn from research results are discussed. The limitations of the study are outlined. The chapter ends with suggestions and recommendations made for future research.

CHAPTER 2 LITERATURE REVIEW

The purpose of this chapter is to review previous studies as well as empirical findings of studies; these are relevant to the objectives of this study in order to gain some insight on the model specifications and methodology of kindergarten's architectural design in influencing students' presence and learning outcomes.

2.1 Introduction

Kindergarten is a critical period of children's skill and brain developments. This period subsequently influences their learning and school achievement in the future schooling experience. For children, kindergarten is the beginning of the journey of the formal schooling world (West, Denton and Germino, 2000). Today's kindergartens are different from what they used to be. Besides shifting from play and group adjustment –oriented setting to classrooms and skills direct teaching, the parents and teachers' roles have also been changed (Schulting et al, 2005). Parents' involvements and teachers' interaction affect kindergarten students' presence. Moreover students from different socio-economic backgrounds, skills and experiences gather at kindergarten to excel and improve their abilities (Zill et al., 1995).

Increasingly children success in kindergarten and early childhood schooling will determine their success as adults. There are multiple factors which determine children success at school such as their physical well-being, social development, cognitive skills and knowledge and their approaches to learning (Kagan et al., 1995, Campbell et al, 2008).

The first five years of life are a time of enormous growth in linguistic, cognitive, social, emotional, and motor competence. Children learn continuously from when they were born, therefore childcare and education cannot be thought separately. Early education promotes the overall development of a healthy child, but it is also critical because children who have had the right kinds of educational experiences before kindergarten do better in school (Dwyer, Chait and McKee, 2000). Nevertheless the kindergarten architecture has played an important role in an active learning process. Children skills are strongly developed by the messages and the signs they receive from learning environment (Cooper, 2002).

2.2 Social Context in Iran

Many child development studies examine the effect of social and cultural contexts in relation to educational processes. However few researchers have discussed the role of families, communities, and schools involvements in the children mental and physical health. Emphasis has been given to the special role of education in linking community resources for an integrated approach to address problems in children's learning achievements. Iran is a huge country with the population of 70 million (ISC, 2010). The official language is Persian and next to it, there are other relatively popular languages but schooling, broadcasting and publication are in Persian. There is a sole academic system in Iran and all the regional and tribal groups should follow though they are allowed to teach their literature and language in the schools besides Persian (Ministry of Education, 2007). In Iran due to religion and political affairs the students should be separated based on gender in the all educational sections before entering university except of private primary schools and kindergartens. There is not much difference between the architectural and interior

design of single gender classroom and the mixed ones. Design of learning environment especially in case of children is an important factor to evaluate the school success. Similarly the role of social context in the success of the school is undeniable. The kindergarten's design and architecture can be an effective tool to develop multiple dimensions of child skills. One of the purposes of architecture can be to approach the child development frequently incorporate with social and cultural factors.

2.3 Cultural Context in Iran

Hofstede (1995) argues that the influence of national culture is important to education for three reasons. The first are political and institutional. Nations differ in formal institutions such as forms of government, legal systems, educational systems, labour and employer's association systems, and the ways they are used. The second is sociological. It concerns the identity of people, and part of the "who am I", in contrast to those with different identities. The third is psychological. People's thinking is an effect of their life experiences, which are not the same across national borders. Activities like management and organization are therefore culturally dependent (Lu, 2006). "Management is not a phenomenon that can be isolated from other processes taking place in a society" (Hofstede, 1993). Particular attention has been given to the idea of child development as a consequence rather than premise of learning experiences. Such a reversal allows for new interpretations of the relationships between cognitive development and education at different junctions of the human life span (Kozulin, 2003). Similarity in child learning development the cultural background as an important factor can influence their abilities and potential of learning (Joy and Kolb, 2009). According to Joy and Kolb (2009), it is directly

related to religious, political and financial background and situation of each country. In case of Iran, the political context, with its anti-Western sentiments after the Islamic revolution and the limited amount of exposure to Western countries, is very different from what it was earlier (Tavakoli, 2010). Nevertheless it has caused some cultural gaps among the Iranians in their society, which grow unease cultural differences in how the students engaged in the learning process (Tavakoli, 2010). In case of kindergarten educators, this gap is not very obvious. The kindergarten architectural design and their classmates easily make them extremely happy and excited, but yet the family cultural background plays fundamental role in choosing the suitable learning environment by parents (Koohsari and Lotfi, 2009). Iran is a Muslim country with a huge number of religious people, who prefer their children to get familiar with Islamic principles, cultures and opinions at their earlier stage (Al-Mateen and Afzal, 2004). Thus there is a need to allocate some space to approach Islamic ideas and design like a little mosque to teach children how to pray (Elashi, 2010). Moreover family choice of school depends on different criteria such as their financial situation, kindergarten curriculum, the building architectural design, the destination and the transportation facilities (Hynes& Brooks, 2008).

The discussion above shows that there is strong evidence in favour of kindergarten and the influences of the cultural, social and political context. This also includes the architectural components of the indoor and outdoor areas.

2.4 Kindergarten in Iran

Iran's educational system comprises many schools and universities with no tuition fees for full-time students. Kindergarten in Iran is mandatory and begins at

the age of 5 for a period of 2-years. The first kindergarten was established in Iran in 1924 and the Supreme council for Culture adopted the first statute for kindergartens in 1933 (ISC, 2009). In 1955 an independent bureau was established within the Ministry of Culture for kindergartens. In 1961, the government, taking into account, the different dialects prevalent in the country as well as the fact of taking care of the children of employed women in various organizations, authorized the private sector to the quantitative development of pre-school education (UNESCO, 2006). In 1973-77 that is during the fifth construction plan both the qualitative and quantitative development of the kindergartens was given prominence to and kindergartens were built in bilingual regions enjoying local dialects, such that the number of like centres increased from 53 to 2,481 in the governmental sector in 2009 (ISC, 2009). Since 1999 kindergartens were also set up in different ministries. Some two years later, all ministries and governmental organizations allocated a budget to the establishment of kindergartens. The women's organization was authorized to set up and to supervise them. Kindergartens take care of and educate children between the ages of 4 months and 6 years. In such centres, children are classified according to the following criteria (UNESCO, 2006; ISC, 2009):

- To 18 months old: Infant
- 19 month olds to 2-year olds: Toddler
- 3 &4 year olds: Very young child
- 5 & 6 year olds: Pre-school age

Almost all of Iranian kindergartens are not situated in building built originally for this purpose. They are generally in rather big houses converted to kindergartens by rearranging, redecorating and making the least changes. All

education experts accepted the potential ability of playing the role in these contexts (Afkhaminia, 2007). Kindergarten designs could communicate many different subjects such as aesthetics, sociology, psychology structure as well as culture, artistic, politic, etc. of a society (Kafshchian moghadam, 2004).

Today, different institutions provide pre-school education services. These include: Ministry of Education, social security, municipalities, NGOs, Ministry of Labour and Social Affairs, as well as different governmental, non-governmental, private, and charity organizations. Pre-school education matters, coordinating and supervision over the Education for All (EFA) program, Planning and development of textbooks and supervising the condition of kindergartens are all taken care of within specialized related offices located in pre-school and primary education bureaus. Based on the type and nature of the activity undertaken, the bureaus of the Ministry of Education are responsible to follow up on issues related to the pre-primary stage as well as other educational levels and periods (ISC, 2010). In the provinces and their related areas, bureaus for education are active in the field of pre-primary education as well. This is also true about other related sectors. Taking care of the affairs related to the management of kindergarten classes (those affiliated to both private and public primary schools) is the responsibility of the principal (UNESCO, 2006).

The main objectives of pre-primary education in Iran (kindergarten) are as follows:

- To contribute to the physical, mental, emotional and social growth of young children, and their perceptions of the learning environment based on religious and ethical principles;

- To develop the abilities and talents of children in order to prepare them for future studies;
- To prepare children to easily comprehend scientific concepts; to promote the Persian language, particularly in the provinces where different languages are spoken;

Therefore there are many factors, which are involved in kindergarten and its environment to make it a comfortable and friendly second home for children. Unfortunately only small numbers of studies have been demonstrated on the effects of interior design in kindergartens and their learning environments. Iran enjoys four seasons which two of them (autumn and winter) consider as cold weather. The academic year runs for 10 months (200 active days) from September to June. There are three terms: September–December, January–March and April–June. Winter (January – March) can be very cold in Iran and government due to heavy snow will close schools. During school season’s students spend most of their time in the school and indoor areas especially end of autumn and winter. Therefore the buildings’ interior design light, colour and the other elements of the building can directly affect students’ learning process and performance in this learning environment. In Iran, it is compulsory for children to go to kindergarten when they turn into 5 year of age. Kindergartens are considered as preschool for children, which are divided into two levels; one and two. After passing this two levels children are allowed to join elementary schools. Pre-primary education in kindergarten is a one -year program aims to prepare 5-year-old children for the elementary stage.