



**KINDERGARTEN DESIGN CONSIDERATIONS: A CASE STUDY ON
ANKARA INTERNATIONAL PRESCHOOL AND KINDERGARTEN**

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KINDERGARTEN DESIGN CONSIDERATIONS: A CASE STUDY ON
ANKARA INTERNATIONAL PRESCHOOL AND KINDERGARTEN

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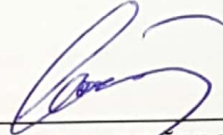
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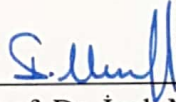
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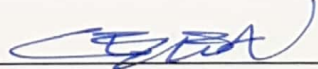
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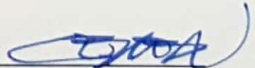
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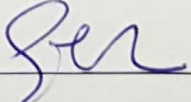
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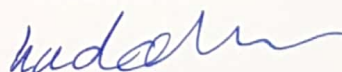
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ABSTRACT

KINDERGARTEN DESIGN CONSIDERATIONS: A CASE STUDY ON ANKARA INTERNATIONAL PRESCHOOL AND KINDERGARTEN

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This thesis analyzes the process of kindergarten design consideration regarding to interior and specifically classroom design regarding the case study of Ankara International Preschool and Kindergarten. The main purpose of this study is to understand the design requirements and consideration applies on kindergarten educational institution, to build ideal model of kindergarten design, and to understand how the important factors such as child psychology, functionality, safety and efficiency, can be considered in the design criteria.

Keywords: Kindergarten Design Consideration, Psychological development, Efficiency, Functionality and Safety

ÖZ

ANAOKULU TASARIMI YAKLAŞIMLARI: BİR ÖRNEK ÇALIŞMA ANKARA ULUSLARARASI KREŞ VE ANAOKULU

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Bu tez, anaokulu tasarımı yaklaşımlarının iç mekân ve özellikle sınıf tasarımı ile ilgili süreçlerini örnek çalışma olan Ankara Uluslararası Kreş ve Anaokulu üzerinden analiz etmektedir. Bu tezin temel amacı, anaokulu eğitim kurumlarında uygulanan tasarım ihtiyaçları ve yaklaşımlarını anlamak, anaokulu tasarımı için ideal bir model oluşturmak ve çocuk psikolojisi, fonksiyonellik, güvenlik ve verimlilik gibi faktörlerin nasıl tasarım kriteri olarak ele alınabileceğini anlamaktır.

Anahtar Kelimeler: Anaokulu Tasarım Yaklaşımları, Psikolojik Gelişim, Verimlilik, İşlevsellik ve Güvenlik

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CHAPTER 1

Introduction

1.1 Brief History on the Kindergarten Education

Early childhood is a basic period in kids' learning and improvement. Early encounters, especially to the age of five, are known to "influence the nature of brain engineering by building up either a strong or a delicate establishment for the majority of the learning, wellbeing and conduct that take after". Young child's land in Kindergarten as exceptional people formed by their specific social foundation, financial status, individual capacities, what's more, everyday encounters, and at various phases of improvement. These factors impact their capacity to achieve their maximum capacity. Encounters amid the early years emphatically impact their future physical, mental, and enthusiastic wellbeing, and their capacity to learn. Thus, kids' initial encounters at school are of foremost significance. Quality early-learning encounters can possibly make strides kids' general wellbeing and prosperity for a lifetime. By making, encouraging, and managing learning situations that are minding, protected, comprehensive, and tolerating, teachers can advance the flexibility and general prosperity of kids. The subjective capacities, aptitudes, and propensities for mind that portray deep rooted students have their establishment in the basic early years. (Ontario, 2016)

Kindergarten education makes the process of transferring and sharing the knowledge easier under the development age of child. Also, it is an important factor of decision making process, strategy, judgment, assessment and ultimately identification of child in order to design an ideal model and framework for

education purpose.(Ondrejкова, 2013)The main purpose of the Kindergarten educationisto build the momentum of learning of child's physical, whole development knowledge growth, knowledge about outdoor activities, real life experience, playground equipment and enjoyment activities. It is also builds and supports the child to learn new innovative ideas, knowledge, manage the difficulties in early age, sensory motor development that could be effective aspect in today's model building of children. (Allen, K. &Marotz, 2006)

We can recognize kids at the age of six when they moved from a kindergarten to school. The teacher with parents fills up the form of child co-operation and development succession plan. The main targetfor this process is to focus on articulation, expression and understanding of child growth.

The Kindergarten Education and learning guidelines are grounded in a solid hypothetical system for conveying amazing instructive encounters to young kids. The Preschool Instructing and Learning Models archive: Characterizes steady learning situations for preschool children give direction on the evaluation of young kids, verbalizes ideal connections between and among families, the group, and preschools, distinguishes expected learning results for preschool kids by area, and also formatively proper instructing hones that are known to help those results.

In Germany 1873, Mr. Frederich Froebel (educator) developed forthe first time thetarget of kindergarten that he designs the learning structure “**a garden of kids**” that based on a place where kids are “permitted to blossom”. He asserts that play is the main target in kindergarten education process where children are permitted to play and motivated to do so by attentive grown-ups instead of educational aspect compulsory upon them. (Weaver, 2000)

In the early 1900's, kindergarten process in America, playgrounds were developed as combining of two main principal factors, child development and physical fitness.(Weaver, 2000)Empirical studies data of England and American school movement and restructuring of kindergartensfound that “*play*” isan important and

legitimate part of primary kids' education. American educator Mr. John Dewey organized the change of kindergartens in the U.S. He believed that in primary or nursery educational process of Montessori and Froebel 'play' is the main role in the development process. He assumed that "play" is one of the important tool that helps kids to "process at significant levels of action and consciousness". It is used as process, structured or tool by instructors to support education but was not realized as learning unto itself. The present emphasis on health disquiets and essential of reduction in stress and relaxation for kinds has enhanced the interest in leisure and play. (Weaver, 2000) From this perspective, the design of the playgrounds is one of the most significant parts of the kindergartens.

1.2 Research Problem and Aim of the Study

Kindergarten is considered as one of the most important periods in a child's life where many abilities, potential and talents can be developed. Kindergartens are sometimes designed without taking a lot of important factors into consideration including child psychology, functionality, safety and efficiency.

Thus, the aim of this study is to analyze the ideal kindergarten requirements and thought relates to effective ideal model for the children success in the early age of life on a selected case study in Ankara. Since kindergarten is reflected an essential tool in child life, this study is helpful to understand the effective kindergarten design requirements and consideration applies in the school in order to produce an ideal model for the chosen kindergarten. In this study, kindergarten period will be investigated, with emphasizing on the interior design of the case study, at the end of this study, some recommendations will be proposed in order to enhance the design ideas. The proposal for the kindergarten design requirements and considerations are going to be discussed with the selected Case Study in Ankara.

The main objective of this study is to understand the design requirements and consideration applies on kindergarten educational institution, to build ideal model

of kindergarten design, and to understand important factors into consideration such as child psychology, functionality, safety and efficiency.

The main research questions for this study will be; how to design and understand important factors into consideration such as child psychology, functionality, safety and efficiency and how to build ideal model of kindergarten design.

1.3 Methodology and Structure of the Thesis

The thesis research method is based on the quantitative research design and survey data analysis. In this connection, the primary data and respective information is collected regarding interior design evaluation, model design, requirements, existing and a proposal for new model of kindergarten design consideration. The data and relevant information is also analyzed in respect of models from the world, design requirements and regulation in the world. Further, case study on Ankara is also assessed based on the field survey, user survey (staff and teachers) and model development. Also descriptive analytical method is used for analyzing the data collected, and at the end of the thesis, an ideal model is suggested for the chosen kindergarten in Ankara.

The thesis is structured under six main chapters. In the first chapter, as the introductory part, the kindergarten will be introduced by giving brief information on the Interior Design for kindergarten system. The problem, aims, objectives and the significance of the study are discussed in this chapter.

In chapter two, as the literature review chapter, the literature on design criteria for kindergarten interior spaces, its relation with child growth characteristics, humanitarian measurements in design, functional and aesthetic foundations for baby furniture are assessed.

In chapter three, the evaluation for the selected case study (Ankara International Preschool and Kindergarten) are discussed by looking the advantages and disadvantages of the existing designand evaluated with the ideal model.

In chapter four, the data collected with a questionnaire is evaluated by discussing the findings form the related questionnaire.

In chapter five, based on the ideal rules on the kindergarten interior design criteria and the evaluation of the questionnaire the inner space of the selected case study is re-designed and modeled. By this way, a new interior design model for Ankara International Preschool and Kindergarten is proposed.

Finally, in the conclusion chapter, chapter six, both the findings and the model are discussed together.

CHAPTER 2

Literature Review

The main objective of this chapter is to provide the necessary information about kindergarten design and system from the past academic studies published in journals, articles, books, industry magazines and related reliable website sources. The primary sources of this research study are information gathering from kindergarten administrators, teachers, children, parents, architects and others from which the current information and the data which is gathering from the questionnaire cited in the appendix. The secondary sources refer to academic studies, journals, books, articles, reports, libraries and reliable websites.

2.1 The Roles and Goals of Kindergarten

Burson shows that kids face certain periods of perusing improvement from preschool through third grade from investigation of books to autonomous perusing. He also discovers what kids at the kindergarten stage ought to have, and what educators and families can do to bolster their improvement at this stage. In kindergarten, kids create essential ideas of print and start to take part in and try different things with perusing and composing. Furthermore, he examines the value to retell clear record stories or instructive compositions. He utilizes enlightening language to clarify, investigate, perceive letters and letter sound matches demonstrate recognition with rhyming and starting sounds see left-to-right and through introduction and natural ideas of print, match talked words with

composed ones and start to compose letters of the letter set and some high-recurrence words.(Burson, 2010)

Allan clarifies that all kids will have entry to high caliber and formatively fitting preschool programs that help tofor making kids ready for school.He also mentionsthateach parent in the United States will be a kid's first educator and give time every day to helping pre-school kids learn, and guardians will have entry to the preparation and bolster guardians require. He finds that kids will get the sustenance, physical action encounters, and human services expected to touch base at school with solid personalities and bodies, and to keep up the mental sharpness important to be set up to learn, and the quantity of low birth weight children will be altogether diminished through improved pre-birth wellbeing frameworks. In the occasion that understudies are to enter kindergarten arranged to learn it is indispensable for watchmen, early youth providers, instructors, and system makers to have a run of the mill cognizance of school accessibility. Furthermore, he finds that there are few communications that have a formal, statewide importance of school status. The need to portray school accessibility is grabbing thought and eagerness by the educational and research assembles. Besides Allan shows that enhancing the school availability of understudies in kindergarten is regularly seen as one of the answers for shutting the accomplishment service between sub gatherings of understudies. Logical research led in the field of early adolescence instruction, underpins the way that the early years of a child's life are a period of quick development and improvement. (Allan, 2008)



Figure 1. Deborah English

Kindergarten. Source: <http://www.beverly.edu.hk/sch.aspx?ic=4>

2.2 Design Criteria for Kindergarten Internal Spaces

Ratliff says that the base space zone for Kindergarten must to be 1250 square meters; the base space range for grade schools ought to be 2750 square meters, the base space range for preliminary and optional schools ought to be 3500 square meters, the base space range for the grounds of essential, preliminary and auxiliary schools ought to be 8500 square meters, and the area of the school must not be adjoining or near commotion sources, business or mechanical locales, and risky areas like petrol station that may influence the instructive procedure. It ought to be in a fitting, effectively open area, with passageways not near roadways and primary streets; it should moreover have attractive parking spaces and school transports, and to case anything that may risk the security of understudies. Also, he mentions that the school building must not be used for private purposes to oblige school staff and masters, that extremely most of two watchmen can remain in the premises amid night shifts. It ought to have stopping range that is sheltered and sufficiently vast to encourage simple development of autos and transports. (Ratliff, 2014)

Indigenous and Northern Affairs Canada states that a lot of schools furnished with an extra kindergarten classroom by including 134.4 m² extra space to allotment suit what remains of the kindergarten children (from 27 to 35). This as in

school Green Leaf Friends Academy (GFA) made a space of 2,189 m²; which addresses the issue, is more practical, and is in accordance with SQL Server Analysis Services (SSAS) arrangements. Indian and Northern Affairs Canada (INAC's) Education Program gives healing direction, clinical administrations, and other bolster administrations to understudies who have learning incapacities and other uncommon needs. Thus, the office, gives extra space stipend for every extraordinary, needs understudy in the assurance of the GFA remittance for a school. The office clarifies that this additional floor space can either be dispensed towards bigger general classrooms or to exceptional classrooms as required. (aadnc-aandc.gc.ca, 2016)

Dodge shows that the nursery school development in England in the 1900's, alongside the going with change of kindergartens in the United States. An American teacher initiated the change of kindergartens in the United States, also the prior instructive models of Froebel and Montessori that utilized play as the essential core interest. (Dodge, 2011)

Previous surveys demonstrated that early learning experiences accept a basic part in the headway of scholarly capacities in adolescents. Coincidentally, early child instructors don't totally agree on the sorts of experiences kindergartners should have in the midst of the early years. Some early child educator's recommend that activities in kindergarten should be solely in perspective of adolescents' unconstrained play activities and see no space for intentional instructional activities in kindergarten classrooms. Diverse instructors prescribe that the essential aptitudes and major thoughts of number juggling, science, and capability can be formally exhibited in the early years. (Sackes, Trundle, & Bell, 2013)

Lynch clarifies that kindergarten class time considered all things as "play" in the classroom encourages upgrades in such subjects as science, language, early education, and socio-enthusiastic aptitudes and it does as such for kids from both low-and higher-pay situations. He also mentioned that analysts battle that, as a

noteworthy result, play helps kids figure out how to coordinate with others and participate in socially proper conduct. In time, these social capabilities created through play exchange to kids' regular practices. Since variety of the plays increases, play has been proclaimed as a transformative and developmentally imperative development. Second, and incomprehensibly, despite the numerous benefits of play perceived by scholastics, late years have seen an enduring diminishing in the measure of time kindergarten classes dedicated to play. Past researches reported the difficulties that school kindergarten educators confront in executing play in their classes and the shift towards all the more scholastically engaged kindergarten educating. (Lynch, 2015)



Figure 2: Waldorf Kindergarten in Istanbul, Turkey: Source:
<https://www.onecommunityglobal.org/replicable-highest-good-communities/>

A few things can be made to advance kindergartener's social and enthusiastic improvement are:

- Providing open doors for child's to be physically and rationally required in exercises including critical thinking and social exercises with others.
- Teaching and giving good example of how to make and keep companions.

- Giving positive models and passionate reactions. Perused stories and talk about emotions, for example, outrage, joy, blame, and pride.
- Giving chances to kids to be pioneer in undertakings and exercises.
- Stating desires for proper conduct and talking about them with your kids. (Sackes, Trundle, & Bell, 2013).

Lee states that most kindergarten kids, especially who have gone to preschool, are anxious to be included, and can acknowledge a lot of duties. They like heading for good things and getting things done, for example, taking a shot at undertakings, testing, and working with others. Socially, kindergarten kids are in the meantime single and autonomous laborers and developing in their capacity and yearning to work agreeably with others, they need to be innovative and fruitful, also their blend of a state of mind and their participation and obligation to make them an enjoyment to instruct and work with kids for developing persistently. He also clarified that all kids have their own examples of development; however, a few qualities are normal to offspring of Kindergarten age to know these gives instructors, guardians and parental figures a superior comprehension of the child. (Lee, Teaching Tools, Teachers' Rules: Scratch Jr in the Classroom, 2015)

Kindergarten kids will likely be; extremely dynamic, self-subordinate in eating, dressing (with the exception of fastening and snapping etc.), growing quickly, losing their first lower teeth, gaining dominance in engine control: will bounce, hop and skip with fluctuating degrees of achievement, nonresistant to infections, farsighted, requiring huge questions and close contact, and interested in other children, yet individualistic. (Stucker, 2008).

Kindergarten children will most likely have; good thinking power, ability to make judgments with grown-up direction, ability to arrange and do plans, desire to talk obviously and to utilize new words, ability to relate encounters and to retell

stories, and changeable personalities step by step gaining more characterized thoughts. (Stucker, 2008).

Kindergarten kids require; to feel secure and adored, to have amass endorsement and acknowledgment, a couple of uncommon companions, a glad domain, opportunity for practicing vast muscles, to share toys and alternate in play, to build their vocabulary, alternate times of rest and movement, at least ten hours of rest every night, and good sustenance propensities. (Hirsh, 2010)

Kindergarten guardians can help by; being occupied with the child's exercises, providing sustenance and an open door for a lot of rest, having calm time every day, inviting other kids to the home, giving gathering play, talking with the child about new encounters while on strolls and rides, providing outings to the library, reading out loud to help build up the familiarity with the composed word, and encouraging the improvement of unselfish states of mind.(Hirsh, 2010)

Hirsh finds inventiveness is a vital and essential apparatus for managing the financial, ecological, and compassionate difficulties of the 21st century and make kids gets ready for this reality. Inventiveness is an essential that is esteemed in many controls and callings, also he said that instruction requires rebuilding to advance a self-ruling classroom that encourages imagination through expressions of the human experience and innovative critical thinking to adequately make kids get ready for the financial, natural, and compassionate difficulties of the new century. (Hirsh, 2010)

Zain and Basri, guarantee that the rights and advantages of babies and young kids are maintained at all circumstances, and that their perspectives and advancing limits are considered. While choosing whether to intercede in a helpful setting, it is basic that no mischief is done to the youngchild in the process, and that the child is set at the focal point of all mediations.(Unicef, 2013) Maintain able philanthropic personality in the examination alludes to people who have a high caliber not just regarding learning, abilities, states of mind, identity and energy additionally the

individuals who are exceedingly concern and mindful to keep the necessities of future eras by considering the ecological security. Instruction gave is not the finish of the graduation procedure, but rather in addition vital is their valuation for the educating and learning procured. He also mentioned that change of psyche is to manageable mentality not just through the way toward instructing and learning in the classroom, however to incorporate open air exercises related with our day by day lives. The capacity to produce reasonable helpful personality requires constant, systematic, and extensive, including all gatherings with a reason and level of success for all and future eras.(Zain, Basri, Basri, Elfithri, &Tazilan, 2011)

The design is proficient by comprising the characteristics physical of texture, shape, size, scale, color, and proportion and mass. The arrangement order and elements of system is to build and manage functional issues and solve visual. The visual relationship is resolute by shadow, light, contrast and edges. The functions following the form are the design approaches whereby the building form is strong-minded by the system of its parts and spaces as we see in figure 3. (Stucker, 2008)



Figure 3. Deborah English Kindergarten Source:

<https://www.shutterstock.com/image-photo/montessori-kindergarten-preschool-classroom-187457777>

2.3. Physical Requirements for Child Social and Psychological Development

The health authorities are needed to analyze the social and school services for helping kid's emotional and social development. It refers to kids from hostile home environment. The associations observed among the scopes of child-teacher relationship, social and behavioral adjustment. Scopes of psychological risks are related to the change from primary to secondary education system. (Smith, 2006)

This trend is regarding to several schools because of essential development of social emotions into the kindergarten students' success in life. The social-emotional capability is described as the capacity and the character to use and knowledge about social-emotional, abilities, regulatory, perspective taking, empathy and social skills in a continuous manner which is suitable for the kids within system of social context. The social-emotional things are self-concept, pro-social behavior, self-regulation and self-efficacy with peers and teachers. The social capabilities based on kindergarten education success are both interpersonal

skills such as co-operating, sharing, managing and helping and work-related skills enhancement are organization, attention and direction to following. The researchers analyzed that social-emotional dimensions and skills under the kindergarten education system are to build related to education readiness and early adjustment in school are positively correlated to initial and subsequent achievement in the academic system and attention to development of social-emotional and its progress in the school system is essential. (Powell, 2012)

2.4 Functionality

Kindergarten school can improve their designing functions as preschool learning center, by providing kindergarten designing facilities as a place of daycare proving thought to kids who stay for long hours. (Mext, 2010)

The School Function Assessment (SFA) analyzes the performance of student and functional tasks which helps her or his participation in the social and academic aspects of elementary education program for KG grades. This system support and maintains collaborative decision-making strategies and planning for comprehensive set of learning, common functions, school rules, education material, classroom, performance and knowledge. (Pearson, 2008)

Executive function and self-regulation skills are the mental procedures that empower us to design, center consideration, recollect directions, and juggle numerous undertakings effectively. Similarly, as an aviation authority framework at a bustling air terminal securely deals with the landings and flights of numerous air ship on different runways, the mind needs this range of abilities to channel diversions, organize undertakings, set and accomplish objectives, and control motivations.

At the point when children have chances to create official capacity and self-direction abilities, people and society encounter deep rooted benefits. These abilities are pivotal for learning and improvement. They additionally empower

positive conduct and enable us to settle on sound decisions for ourselves and our families.

Official capacity and self-direction aptitudes rely upon three kinds of mind work: working memory, mental adaptability, and poise. These capacities are exceedingly interrelated, and the fruitful use of official capacity aptitudes expects them to work in a joint effort with each other.

2.5 Safety and Health Requirements

Safety and Health are main requirements for every level of kindergarten school system. Almost 7 million children under the age of 5 died in 2012 due to lack of safety and health system within the given scope. These kids' deaths are because of lack of proper condition which can be prohibited or treated with contact to cheap and simple interventions. Leading causes of demise in the early age kids are preterm birth, pneumonia, asphyxia, malaria and diarrhea. Kindergarten schools are primary place of actual awareness and information system to instruct people to use safe and healthy life practices at large. Hence, WHO (World Health Organization) were started operations in 1995 "Global School Health initiative) in order to incorporate health education in kindergarten school level for kids. Because safety and health are state of mental, physical, psychological, well-being and social which reduce the several kinds of disease among the general society.(Alatraqchi, Abu Bakar, & Mohamad, 2014)

The change in kindergarten school is an essential and complicated movement in kid's life, but for kids with special needs of health and safety and their families. With special care of children required moderate complex way of transition to kindergarten, these significant gaps exist. These children frequently need additional support to manage to the environment of school and system at satisfactory level for education. (Janus, Lefort, Cameron, &Kopechanski, 2007)

A kindergarten kids shows a major demographic cohort from a general society perception since a significant foundation for education success and enjoy of academic initiates in kindergarten. Moreover, the promotion of safety and healthful behaviors at an initial stage of life will impact on lifestyle selection and health lifelong. Additionally, the schedules and programs presented to kindergarten students at school have the significant to potential impact on student wellbeing.(Thirkill, 2015)

The development of education system is essential but it becomes so important to have full time health awareness, security and safety for the children. The training system of first aid during the situation of emergency to sanitation, cleanness and healthy environment for kids, buses and vans used for transportation and care centers all are designed with security and safety for kindergarten school system. (Garcia, 2014)

2.6 Efficiency

The efficiency of kindergartens school includes the resources that include learners with attractive opportunities and practice. Kindergarten education system is essential for children which help them to understand efficient level of skills which will create on throughout their life. At kindergarten kids will improve emotionally and socially efficiently by their ability to learn new things, language recognize, play, movement, motor skills, creative, self-confidence, communication skills, reading and effective way of learning to develop more social improvements. (Victoria, 2016)

2.7 Cognitive Development

"Kids' Home Environments: Social and Cognitive Effects", demonstrates that from an early age, varieties in the social condition of the home have effect on the child's psychological and social improvement. The sum, the sort, and the planning of the social incitement gave by the social operators in a child's house are essential

determinants of his later improvement. Parke stresses that the young kids live in an intricate social condition that includes mother, father, kin, companions, and relatives. These operators assume an imperative stimulatory part in early improvement. Judgment is a subjective evaluative process and is firmly associated with many elements like information, feelings, states of mind, level of stress, or age. Judgment is impacted by subjective capacity, identity, experience and information.(Büyükpamukçu, 2004).

Intellectual advancement is subdivided into four sorts of play, each adding to a child's psychological improvement at various ages. These sub-classifications incorporate utilitarian/hone play, productive play, emotional/typical play and diversions with standards. At long last, the social/mental formative stage is partitioned into five sub-classifications. Singular play, parallel play, aggregate play, helpful play/critical thinking and self-regard/character are the sorts of play exercises that bolster this kind of improvement. This network is not intended to be an outline for a fruitful scene configuration, yet to graphically demonstrate the numerous potential outcomes for making formatively suitable plans for various gatherings of children.(Ondrejškova, 2013)

2.8 Physical Development

Formative classifications incorporate physical improvement (counting language advancement), subjective improvement, and social/mental advancement. Thoughts were acknowledged, disposed of and additionally adjusted to work with the physical outline of an instructive scene for kids. Assessing the thoughts required looking not just at the thought as it is introduced additionally perceiving the superseding idea driving the thought. Thoughts in regards to openness were extended the present ADA definition to incorporate the idea of different scales – making the scene and components inside it available to offspring of any age, sizes and formative stages. By and large, eighteen outline contemplations are recommended and give a far-reaching structure to the scene planner to make

formatively fitting instructive scenes. They address the ideas of physical improvement, subjective advancement, social/mental advancement and scholarly advancement inside the setting of play.(Burson, 2010).

The improvement of gross and fine engine abilities propels along for the part of unfaltering course of events for most ordinary kids. By the age of three, most kids have faced an assortment of abilities; bouncing, jumping on one foot, skipping, and running. By four or five years old these abilities have turned out to be more refined, with an expansion in body control. One reason engine abilities grow so quickly amid the preschool years is that children invest a lot of energy honing them. "To end up distinctly an ace player is the tallness of accomplishment for kid's age's three to five". Physical play is the work of early youth, used to create body .and aptitudes. (Fitzpatrick, 2014).

2.9 Design Requirements and Regulations in the World

The Primary School Design Guidelines express the particular plan necessities and room among connections appropriate to the outline of elementary schools. A decent quality sunshine dispersion is required in each live with the normal day lighting variable for each space to be in the range 4.5 to 5.5% with the accentuation on an even light circulation all through the space. A timetable of all rooms and related sunlight element is to be given. All spaces ought to have the advantage of 1/3 high and 2/3 low level characteristic ventilation opening areas in the windows. Tilt and turn windows are not proper. The window plan as for geometry and opening segments must be founded on overheating computations which ought to consider the air snugness standard. Sufficient normal ventilation ought to be achievable without drafts.(Eccles, 1999).



Figure 4 Istanbul International Preschool. Source: <http://istanbulint.com/en-us/home.aspx>

In any case, play areas had kept on developing in Europe. Issues encompassing child improvement had changed the play area past a straightforward bit of practice hardware. In the late 1800's, Dr. Marie Zakerzewska, (an American guest to Germany), bring back data on the 'sand heap' play areas that she had found in that nation. Created as a major aspect of Froebel's kindergarten, these regular play areas gave kids the chance to communicate with nature. Soil, sand, water, plants, and creatures turned into the "hardware" of this play area. Play was not so much organized but rather more creative. The presentation of 'sand greenhouses' in 1886 denoted the start of the primary genuine play development in the United States coordinated at youngchildren. (Elliott, 2014)



Figure 5 Istanbul International Preschool. Source: <http://istanbulint.com/en-us/home.aspx>

The essential mission of the Jamestown Settlement is instructive. The primary sentence of the establishment's statement of purpose expresses; the mission of the Jamestown-Yorktown Foundation is to teach and advance comprehension and familiarity with Virginia's part in the formation of the United States of America." This instructive mission and the dynamic showcasing of the Jamestown Settlement toward grade school age kids in conjunction with the Virginia Standards of Learning bolster the determination of this site for investigation in light of the plan contemplations. (Ondrejko, 2013).

The most ideal approach to instruct children was to attach it to their encounters of their general surroundings. The play could be valuable in helping kids to "capacity at larger amounts of cognizance and activity". Play would be utilized as a device, organized by instructors to bolster training however was not seen as instructive itself. This play/training development has proceeded and extended from that point forward. In the most recent a quarter century investigation of play has taken a rise.

The present concentrate on wellbeing concerns and the significance of stress decrease and unwinding for both grown-ups and kids has supported the enthusiasm for play and recreation.(Elliott, 2014).

2.9.1 Interior Design Requirements

Tezuka clarifies thatthe kindergarten school education systems are designed to allow kids to move and mix around at will. There are less fixed walls among the classroom, and kids will move among the groups of class. When children have an issue, they may ask to the staff members for help, and they can link members or play individually their curiosity dictates and mood. All furniture and fixture would be efficiently reorganized to accommodate several sizes of groups and activities. The desks and chairs for the kids, there are many boxed of wooden which are used to panel minor areas and to include more benches for seating. This furniture boxed is also effective to play or store things, material learning, shoes and coats for children. It is also including more interior space and flexibility is often reconfigured in the year. Wood furniture is used to design the room appearance kind and welcoming. The accident with fall is obvious of damages among kids. Solid oak and floor joists reduce the injuries from falling. (Tezuka, 2007)



Figure 6: Doğa school kindergarten interior design, Turkey.Source: <http://www.dogakoleji.k12.tr/kindergarten>

2.9.2 Classroom Design Requirements

The kindergarten education system was integrated to design classroom with more resources, convenience, mobility, bulletin board, hooks, whiteboard, colorful wall, and workplace zone for students, casters to chairs, plywood desks, group tables, furniture and fixture to create nooks and visualizing. (Wade, 2016)

A kindergarten room ought to be intended for kids to take part in vast and little gathering exercises while additionally upgrading regularly developing free and self-improvement aptitudes. A preschool room ought to have a substantial covered region for amass socialization. Unmistakable and all around characterized zones, as characterized by situation of furniture and gear, will permit for self-coordinated direction and encourage the stream of movement inside the room. A bigger washroom space and cubby range, with child measure civilities, will additionally improve self-improvement abilities. As usual, room estimate, divider shading, regular lighting, and giving an assortment of surfaces, inside a comprehensive setting, keep on being foremost, Necessities: A play action space for not more than 24 kids with an unhindered floor territory of 8m^2 for each kid, washing, dressing, toileting, space for seclusion, stockpiling, for programs 6 hours and more for each day. The room should have: An unhindered coated window territory identical to at least 10% of the floor zone, stockpiling for quaint small inns, space for eating, resting (kids and staff), Nourishment planning zone; office zone; and stockpiling for open air hardware, and allude to DNA and Utilitarian Arrangement as we see in figure 7. (New Jersey, 2014)



Figure 7 One of the classroom of the British International School in Istanbul.

Source: <https://www.flickr.com/photos/britishschoolistanbul/sets/>

Kindergarten classroom design requirement and environment are very essential. The size of the interior and classroom areas must be colorful walls, attractive furniture and fixture, lights, room arrangements that all influence students learning. The classroom must also include several colors such as red (active, passionate, strong, grabs attention); yellow (high visible, cheerful); green (natural, relaxing, quiet, attention grabs) and blue (comfort, attention and security). (USC, 2015)

CHAPTER 3

Evaluation of the Case Study: Ankara International Preschool and Kindergarten

3.1 The Design of the Classrooms in Ankara International Preschool and Kindergarten

The classroom interior design is essential to inspire the children under the kindergarten education level. This study is designed to analyze the ways of enhancing the children learning environment. The analysis of International Preschool and kindergarten has an attractive classroom interior include child development, environment, play theory, exterior and interior classroom and furniture. The classroom design of the International Preschool and Kindergarten (hereinafter IPK) have interesting interior and design includes, organized, neat, care, furniture, colorful, space, extension and collection of several attractive things which empower the children and get in touch with new ideas, tips, resources, fun, cohesive green-and-blue color combo, display walls, bookshelf, charts, group / teamwork desk and classroom theme.

Classrooms are usually used for whole-class, individual and group learning in general across the subjects of the curriculum. For young students, the classroom design is very essential. The shape of the classroom and interior spaces, the color selection of the walls, the furniture and flooring, the light, and the room design will affect how students learn. The selection of Classrooms and their places related to the external environment should be taken in the consideration of the

kindergarten. Glare should be avoided where practicable or controlled using translucent blinds.

A floor to ceiling height of 3.15meter is required, taking into consideration the distribution of light and natural breath across the floor of the room. In designing the classroom the class group that will use the room should be taken into consideration. Also, consideration should be given to the activity zones into learning areas, and to the positions of chalkboards, white and green boards, and pin boards.

The position of these boards should be taken into consideration at design stage and should match with the location of surface mounted services. Also, the room furniture layout should be taken into consideration, so that a number of layout options are available for consideration and discussion with the School Administration. Also a suitable water-resistant, easy clean sheet should be available.



Figure 8: Istanbul International School. Source: <http://istanbulint.com/en-us/home.aspx>



Figure 9: Istanbul International School.Source: <http://istanbulint.com/en-us/home.aspx>

Classroom design and learning environment highlight the education environment involved the students towards remarkable place and process. The analysis is indicating that IPK have several kinds of whiteboards to draw pictures, graphs, interactive pictures, visual things, actions, remarks and lighting system to ensure the children role building and engage with new things.

The study is also indicating that classroom design of IPK address the children psychology and plays several roles in actual building classroom of kindergarten way of learning method. They have been provided several things specifically design to enhance the child character and psychological building includes painting, tables, boxes and other involved with pride and ownership which take in the classroom.



Figure 10 Istanbul International School. Source: <http://istanbulint.com/en-us/home.aspx>

3.2 Efficiency, Safety and Functionality in IPK

Classroom under IPK ensure the children to engage with ability to enhance the internal efficiency work process which motivate and helps to increase the brainstorming. It builds the collaborative space in the educational/ classroom that identify the activities and needs to examine the challenges with various perspective. IPK management has been more closely relates to enhance the children efficiency through designing of classroom with changing market needs and tracking to manage the area with social psychological development. Following are the main things are included in the classroom design and consideration efficiency in the IPK: Emotional development, Character building, Ideas, Innovation, Cognitive development, Intrapersonal intelligence skills and system, Fine and gross motor skills, Attractive classroom design and color, and positive behavior



Figure 11MEF International School Izmir. Source: <http://izmir.mef.k12.tr/our-community/services/health-safety/>

The analysis of IPK is also indicating that management needs to further enhance the level of learning based on the standard of education and process design by international education community in order to increase the kindergarten education and design consideration more effectively and efficiently.

3.3 Colors

It is known that colors are the most important things that attract the attention of the child, and affect the psychological side, so it must be the educational environment, which is kindergarten full of color, the walls of the separation must be combined between more than two colors at least , and these colors must be carefully chosen, furniture Floors, games, garden furniture and kindergarten building from abroad also help the child to hang on to the place and develop psychological development and ease of learning.

3.4 The space

The space is a key factor in the design of kindergartens must be considered so that the child needs more spaces to play and the practices of daily activities and hobbies, taking into account the colors of these spaces to create an attractive

environment for the child and catalyst for the process of learning, and this space is very important to empty energy, whether inside the kindergarten, Is the classroom or room activities and reading rooms and dining room, or outside, which is the garden surrounding the kindergarten, which is necessary to be covered with green, which brings joy in the same child and create a healthy atmosphere for the child, so must comply with international standards in the design of space in kindergartens.

3.5Lighting

It is recommended that the lighting used is natural and artificial. It depends on the location of the kindergarten, the location of the windows and the lighting openings and the extent of the light reaching the classrooms and corridors, especially the activities and recreation room, where the child spends most of the time. The light plays a very important role with the colors and space available to create a comfortable environment. For the child and helps to develop the psychological and cognitive side, where you should choose places of artificial lighting carefully, such as placed on the walls and the ceiling

3.6 The Advantages and Disadvantages of the Existing Design in IPK

Following are the major advantages of existing interior design:

It is attractive, modern interior design, colorful, store and work, includes arts and science design, Interactive whiteboards, Projectors, books shelf's, charts and images presentations, more concentration of children, colorful desk, ensure the teamwork management among students, educational material, and ensure the psychological development, as we see in figure 12.



Figure 12MEF International School Izmir

Source: <http://izmir.mef.k12.tr/our-community/services/health-safety/>

CHAPTER 4

Analysis of the Data

In order to analyze the research questions, a survey is used as an effective tool. The research questions are formalized to analyze the overview of Kindergarten school design and seek option to make generalization about the certainty in a population (Saunders, Thornhill, & Lewis, 2009). There are two major types of research design as qualitative and quantitative research methods. Most of the points are consolidate varied level of strategies for collection of data and relevant information such as interviews, studies, observation, focus group study and dialogs etc. All of these methods are helpful for analyst in assessing of results from significant number of group of people. (Saunders, Thornhill, & Lewis, 2009)

There are qualitative research design includes survey for collection of data and information from the concerned population. The quantitative research design study deal with gathering of data from the main respondents. The quantitative study is based on the statistical way of data collection that would be summarized through specialized software. The five liker's scale of questionnaire was used to collect the data in respect to analyze the particular data.(Mackey & Gass, 2013)

For this study, both qualitative and quantitative research methodologies are used as the way of collection of data and information from the concerned respondents. For this reason, this chapter aims to analyze the data of the survey as one of the significant tool for understanding the kindergarten design consideration.

4.1 Ethical Issues

Ethical issues and problem were seriously taken into the research study during the course of conducting the entire study. In the collection of data process of quantitative methods; ethical issues are in top significances of the researchers. Other issues of ethics are un-biasness was ensured during the research study. (Malhotra, 2007)

The researcher had ensured to undertake all kinds of ethical consideration during the course of preparation of research study as per the university rules and regulation.

4.2 Demographic Statistics

The research was based on the kindergarten consideration design in the education system of Ankara, Turkey. Total 83 respondents including (Istanbul International Pre-School, British International School, MEF International Schools, Kemer Kids Garden, Istanbul International Community School), those pre-schools were considered the most important kindergartens in Turkey, the respondents were student's parents, the researcher choose them randomly, which the primary responses were collected include male (53) and female (30) as mentioned in the following table 1.

Gender wise statistics			
	Frequency	Percent	Cumulative Percent
Male	53	65%	65%
Female	28	35%	100%
Total	81	100%	

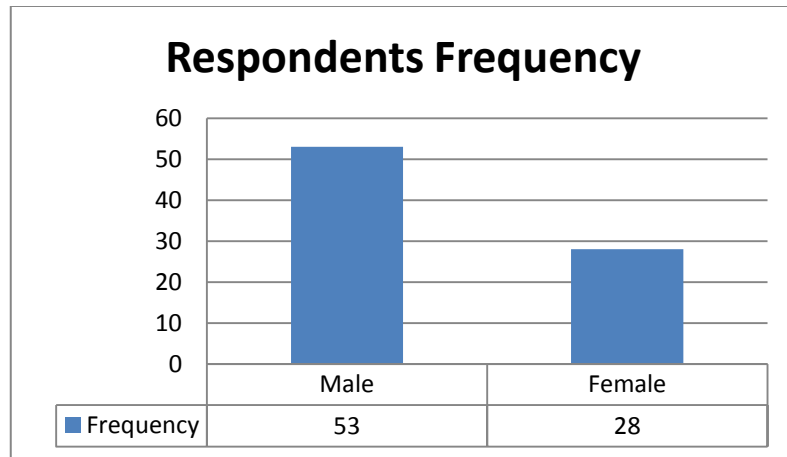


Table 1: Respondent frequency in the findings

4.3 Selection of Case Study for the Questionnaire

The Kindergarten international preschool in Ankara, Turkey has been provided an early childhood study program. The reasons behind choosing this kindergarten as a case study are teaching a new language, encourage students to learn about other cultures holidays, and traditions in other countries with activities involving music and dance and mainly to analyze the various activities perform by management with regards to development of child psychology, functionality, safety and efficiency in the early year of life and education. The main language use under kindergarten school system is English. The main aim of the International schools/ kindergarten in Ankara, Turkey aims to manage kid route these implausible early years. Under this study environment children educational and development needs are being met in friendly environment, loving, safe, careful and playing environment and kindergarten schools are developed and designed intellectual, physical, emotional and social skills. (preschooltr.com, International Preschool, 2017)

- **Toddler group**

Under the international preschool and kindergarten education system, they have been provided friendly, safe and warm learning environment for kids to participate in several activities in an inspiring environment. The children will enjoy the kindergarten education system that interact children to become more socialize, culture, play, learn, encouragement, self-confidence and take part in teamwork where every student is valuable, race, age, gender and culture background and special attention on every growing matter. (preschooltr.com, International Preschool, 2017)

- **Younger Nursery**

A lovely, warm, responsive, caregiver learning environment is offered to promote and enhance the competency of problem solving. In this section, we have provided children to further developing of intentional behavior, purposeful, ability to manage the problems, relationship with cause effect such as to get one purpose. The young kids will learn and understand their roles, actions, motivational environment and cause to change occur which develop the concepts. (preschooltr.com, International Preschool, 2017)

- **Older Nursery**

Under this system and process of education to learning, development and support of children we have education system where process accelerates the development of kids. In this school premises are designed to manage and build the momentum of child development, strengthen and learning. In this program, child can attain the emotional and social development, self-help, hygiene, motor skills and language develop skills. (preschooltr.com, International Preschool, 2017)

- **Pre-Kindergarten**

The pre-kindergarten is reinforcing and introducing general concepts and main skills for life through more varied activities. Students learn to contribute and entertainment in full teamwork activities. Language and communication skills such as speaking, physical expression, listening is skillful through group discussion, songs, reading times, dramatic movements and finger plays. Through several development projects, they can shape confidence in their ability to start to accomplish working self-sufficiently in a kind and development environment that creates positive behavior is satisfied and tributes, and they thrive and blossom. (preschooltr.com, International Preschool, 2017)

- **Existing Design**

Kindergarten is an essential design and step to build the education life at international preschool and kindergarten. They have design kindergarten students to learn and achieve life skills and get knowledge of themselves within teamwork or group. They have always astonished to create the enhancement in their self-confidence, creativity, ability to learn more, new resources, curriculum, teachers, experiments, nature, peers, material, play, co-curricular activities, self-improvement and achievements. They are also think about kindergarteners that they must have the ability to work with others, guidance, confidence, motivation, resolve conflict, instructions, learning and love entertainment.

4.4 Evaluation of the Survey

The user's evaluation survey was designed by the researcher in connection to understand and assess the main purpose of the study. The researcher was also conducted the survey through five Likert scale of questionnaire in connection to analyze the respondents' responses about kindergarten design consideration in line with psychology, efficiency, safety and functionality of children education environment.

The researcher was designed the five Likert scale of questionnaire in connection to understand the four major factors of kindergarten design consideration for children such psychological development, efficiency, safety and functionality in education environment. Following table 2 is showing the descriptive statistics of survey results.

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
There is implementation of strategies Kindergarten design consideration that develops the children psychological consistently.	81	1.00	5.00	3.5432	1.14072
We have developed intellectual and learning environment for children that create the new ideas and psychological development.	81	1.00	5.00	3.5802	.98570
Our existing classroom design and interior integrate the learning environment.	81	1.00	5.00	3.4938	1.07382
Colorful classroom design and interior develop the children psychological development, socially and cognitively.	81	1.00	5.00	3.4074	.99722
We have adopted favorite color scheme in school furniture / interior design.	81	1.00	5.00	3.4444	.97468
We provide the efficient child development learning environment.	81	1.00	5.00	3.5309	.93657
We ensure safety of children that ensure the effective learning environment.	81	1.00	5.00	3.6543	1.08582
We follow the ISO standards in material quality and safety system.	81	1.00	5.00	3.5679	1.11734
We introduce new functions and resources for the level of kindergarten education.	81	1.00	5.00	4.0864	.97721
We integrate the new functions of technology with reliable classroom learning environment.	81	1.00	5.00	4.1481	1.03816

Table 2: Descriptive Statistics of survey results

The statistical data of research study analysis regarding kindergarten design consideration of descriptive information was mentioned in the above table. There were total 10 questions design and respondent's response was demonstrated accordingly. The said table, showing that the most or highest mean / average value is of question 10 (4.1481); (4.0864) question number (9); (3.6543) question number (7); (3.5802) question number (2); (3.5679) question number (8); (3.5432) question number (1); (3.5309) question number (6); (3.4938) question number (3); (3.4444) question number (5) and (3.4074) question number (4) respectively.

Furthermore, the statistical data analysis is signifying that standard deviations of all questions are almost 1, which shows that our results is sloping positive direction and provides satisfactory outcome.

Question One:

The statistics of first question data is described the implementation of kindergarten design consideration strategies and child psychological development. As we see in table 3, and figure 13, the survey results are indicating that most of the respondents agreed with this current statement as (7) extremely disagree; (9) disagree; neutral (10); agree (43); and extremely agree (12) which explains that implementation of strategies of kindergarten design consideration creates the positive impact on child psychological development.

There is implementation of strategies Kindergarten design consideration that develops the children psychological consistently.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	7	8.6	8.6	8.6
Disagree	9	11.1	11.1	19.8
Neutral	10	12.3	12.3	32.1
Agree	43	53.1	53.1	85.2
Extremely agree	12	14.8	14.8	100.0
Total	81	100.0	100.0	

Table 3: Implementation and strategies of Kindergarten design consideration

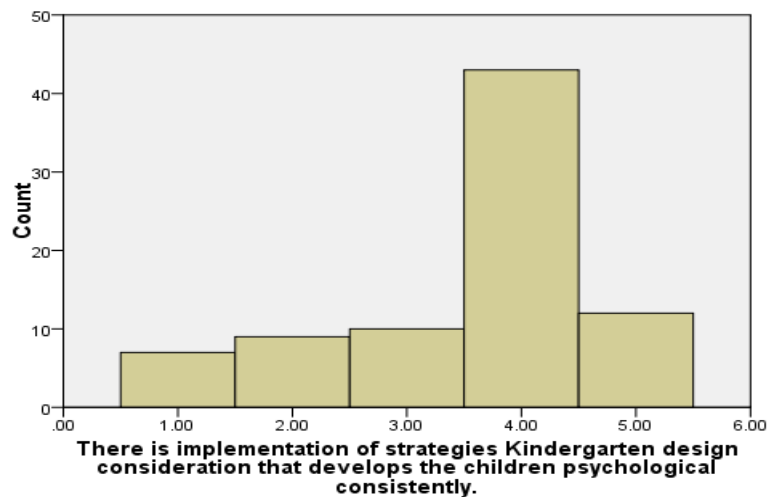


Figure 13 Implementation and strategies of Kindergarten design consideration

Question Two:

The statistics of second question data is described the intellectual and learning environment and psychological development and new ideas. As we see in table 4, and figure 14, the survey results are indicating that most of the respondents agreed with this current statement as (3) extremely disagree; (9) disagree; neutral (18);

agree (40); and extremely agree (11) which explains that new classroom and building design consideration as per standard of kindergarten create the intellectual and learning environment for children which develop the psychology and new ideas.

We have developed intellectual and learning environment for children that create the new ideas and psychological development.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	3	3.7	3.7	3.7
Disagree	9	11.1	11.1	14.8
Neutral	18	22.2	22.2	37.0
Agree	40	49.4	49.4	86.4
Extremely agree	11	13.6	13.6	100.0
Total	81	100.0	100.0	

Table 4: Intellectual, learning environment and psychological development

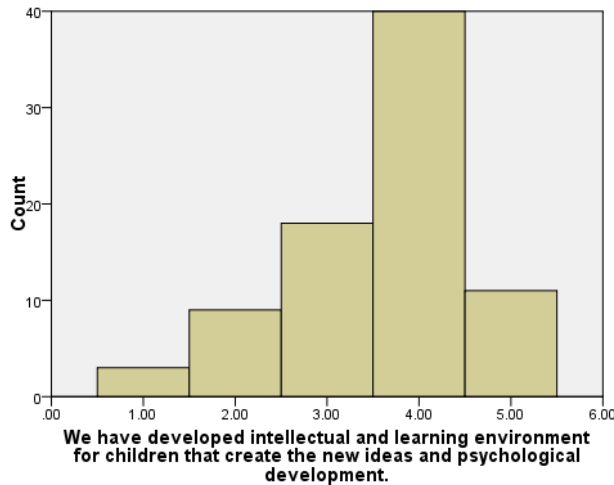


Figure 14: Intellectual, learning environment and psychological development

Question Three:

The statistics of third question data is described the classroom and interior design to enhance the learning environment. As we see in table 5, and figure 15, the survey results are indicating that most of the respondents agreed with this current statement as (5) extremely disagree; (10) disagree; neutral (17); agree (38); and extremely agree (11) which explains that attractive classroom design with interior ensure the effective learning environment.

Our existing classroom design and interior integrate the learning environment.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	5	6.2	6.2	6.2
Disagree	10	12.3	12.3	18.5
Neutral	17	21.0	21.0	39.5
Agree	38	46.9	46.9	86.4
Extremely agree	11	13.6	13.6	100.0
Total	81	100.0	100.0	

Table 5: Classroom and interior design with learning environment

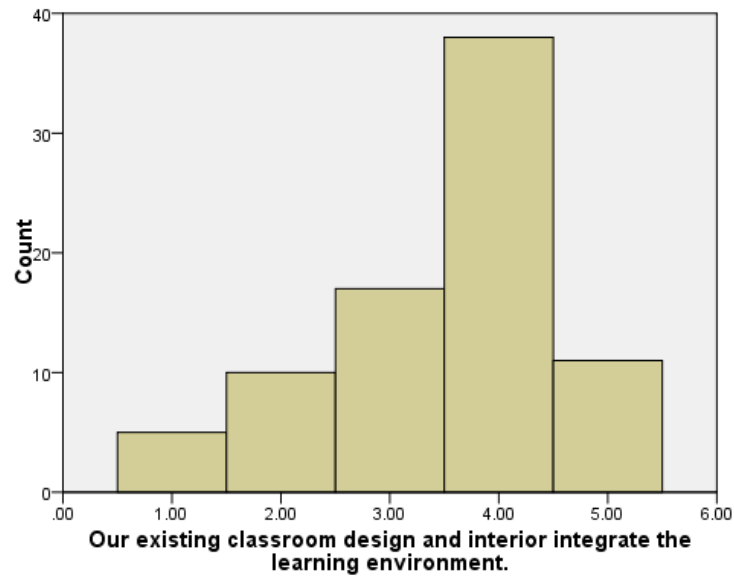


Figure 15: Classroom and interior design with learning environment

Question Four:

Statistics of fourth question data is described the colorful classroom and interior design to improve psychological development, cognitive and social improvement. As we see in table 6, and figure 16, the survey results are indicating that most of the respondents agreed with this current statement as (2) extremely disagree; (15) disagree; neutral (21); agree (34); and extremely agree (9) which explains that colorful classroom design and interior develop the children psychological development, socially and cognitively.

Colorful classroom design and interior develop the children psychological development, socially and cognitively.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	2	2.5	2.5	2.5
Disagree	15	18.5	18.5	21.0
Neutral	21	25.9	25.9	46.9
Agree	34	42.0	42.0	88.9
Extremely agree	9	11.1	11.1	100.0
Total	81	100.0	100.0	

Table 6: Colorful scheme of classroom and interior design

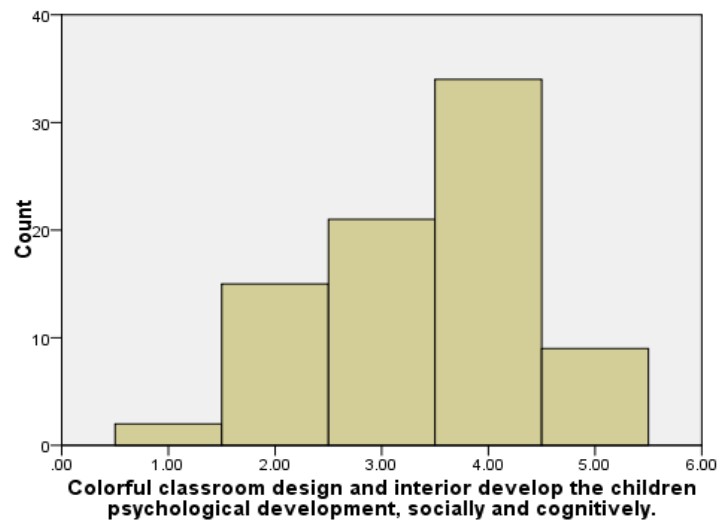


Figure 16: Colorful scheme of classroom and interior design

Question Five:

The statistics of fifth question data is described the favorite color scheme of furniture / interior. As we see in table 7, and figure 17, the survey results are

indicating that most of the respondents agreed with this current statement as (2) extremely disagree; (12) disagree; neutral (25); agree (32); and extremely agree (10) which explains that favorite color scheme with attractive features of interior or furniture improve the learning efficiency under the kindergarten education system.

We have adopted favorite color scheme in school furniture / interior design.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	2	2.5	2.5	2.5
Disagree	12	14.8	14.8	17.3
Neutral	25	30.9	30.9	48.1
Agree	32	39.5	39.5	87.7
Extremely agree	10	12.3	12.3	100.0
Total	81	100.0	100.0	

Table 7: Colorful scheme of kindergarten furniture and interior design

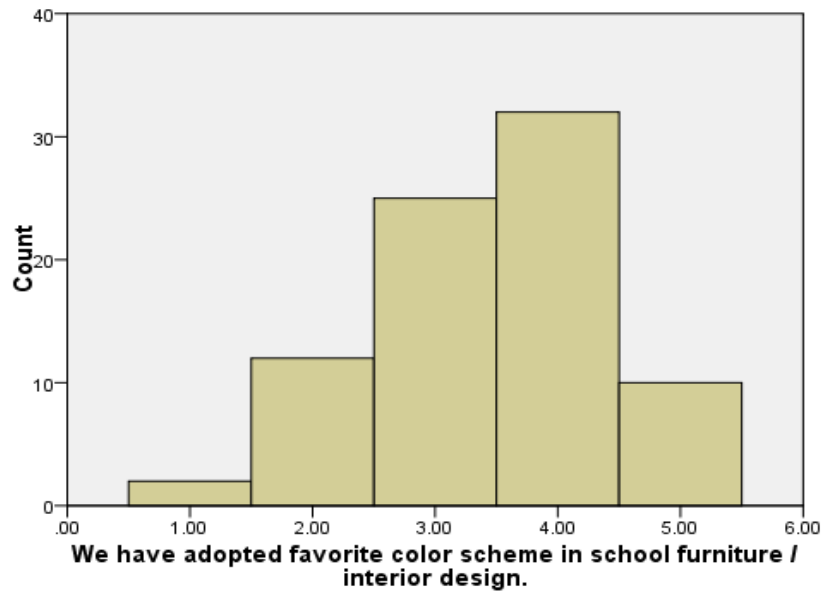


Figure 17: Colorful scheme of kindergarten furniture and interior design

Question Six:

The statistics of sixth question data is described the efficient child development and learning environment. As we see in figure 18 and table 8, the survey results are indicating that most of the respondents agreed with this current statement as (1) extremely disagree; (12) disagree; neutral (21); agree (37); and extremely agree (10) which explains that efficient learning environment includes colorful scheme, interior design, building, play land and other things improve the child development under the kindergarten education system.

We provide the efficient child development learning environment.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely disagree	1	1.2	1.2	1.2
	Disagree	12	14.8	14.8	16.0
	Neutral	21	25.9	25.9	42.0
	Agree	37	45.7	45.7	87.7
	Extremely agree	10	12.3	12.3	100.0
	Total	81	100.0	100.0	

Table 8: Child development and learning environment

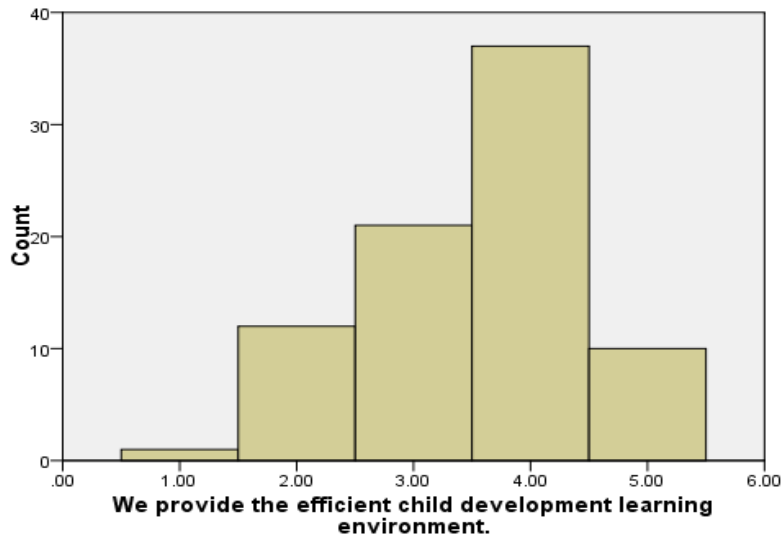


Figure 18: Child development and learning environment

Question Seven:

The statistics of seventh question data is described the safety and kindergarten learning environment. The survey results are indicating that most of the

respondents agreed with this current statement as (3) extremely disagree; (10) disagree; neutral (18); agree (31); and extremely agree (19) which explains that management must ensure to provide safety and implement international standards of safety in order to ensure the effective learning environment for the children under the kindergarten education system.

We ensure safety of children that ensure the effective learning environment.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	3	3.7	3.7	3.7
Disagree	10	12.3	12.3	16.0
Neutral	18	22.2	22.2	38.3
Agree	31	38.3	38.3	76.5
Extremely agree	19	23.5	23.5	100.0
Total	81	100.0	100.0	

Table 9: Safety of child and learning environment

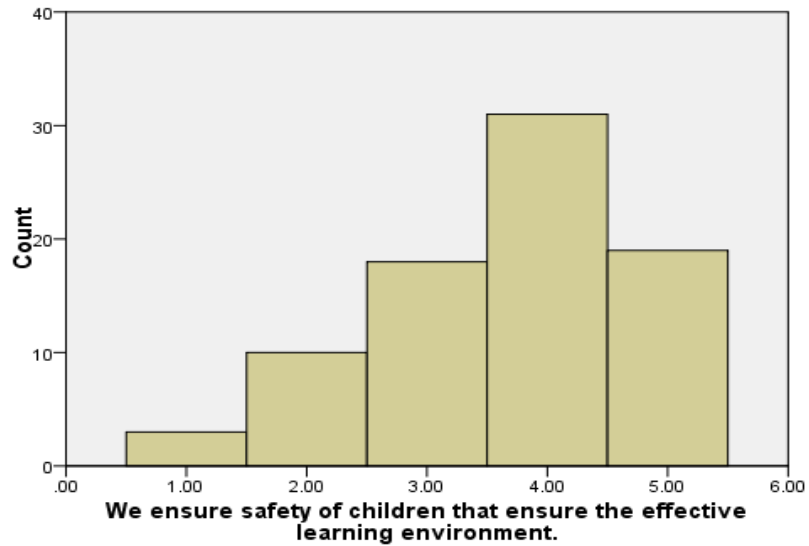


Figure 19: Safety of child and learning environment

Question Eight:

The statistics of eighth question data is described the ISO standards and material quality. As we see in figure 20 and table 10, the survey results are indicating that most of the respondents agreed with this current statement as (5) extremely disagree; (8) disagree; neutral (21); agree (30); and extremely agree (17) which explains that ISO standards of material quality and safety system must be in place to improve the children growth and development.

We follow the ISO standards in material quality and safety system.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely disagree	5	6.2	6.2	6.2
	Disagree	8	9.9	9.9	16.0
	Neutral	21	25.9	25.9	42.0
	Agree	30	37.0	37.0	79.0
	Extremely agree	17	21.0	21.0	100.0
	Total	81	100.0	100.0	

Table 10: International standards of design and quality of safety system

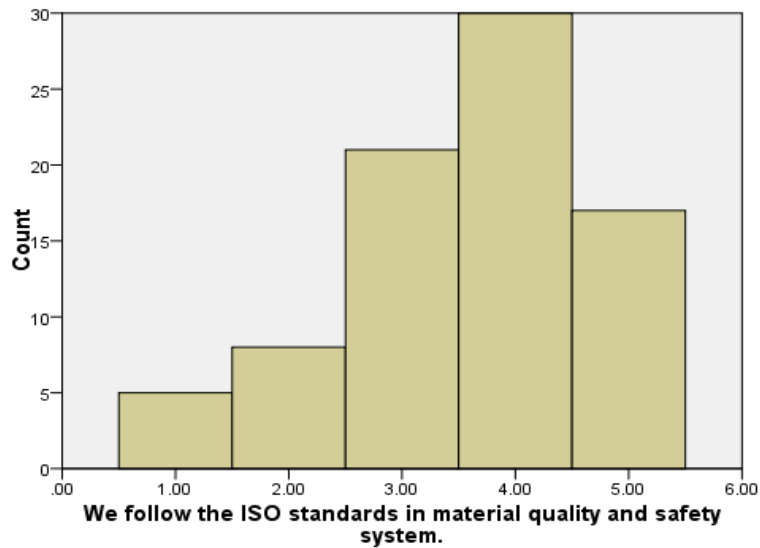


Figure 20: International standards of design and quality of safety system

Question Nine:

The statistics of ninth question data is described the new functions and resources. As we see in figure 21 the survey results are indicating that most of the respondents agreed with this current statement as (2) extremely disagree; (5) disagree; neutral (8); agree (35); and extremely agree (31) which explains that

management of school must introduce new functions and resources for all level of kindergarten education system.

We introduce new functions and resources for the level of kindergarten education.

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Extremely disagree	2	2.5	2.5	2.5
	Disagree	5	6.2	6.2	8.6
	Neutral	8	9.9	9.9	18.5
	Agree	35	43.2	43.2	61.7
	Extremely agree	31	38.3	38.3	100.0
	Total	81	100.0	100.0	

Table 11: New functions and resources under kindergarten education system

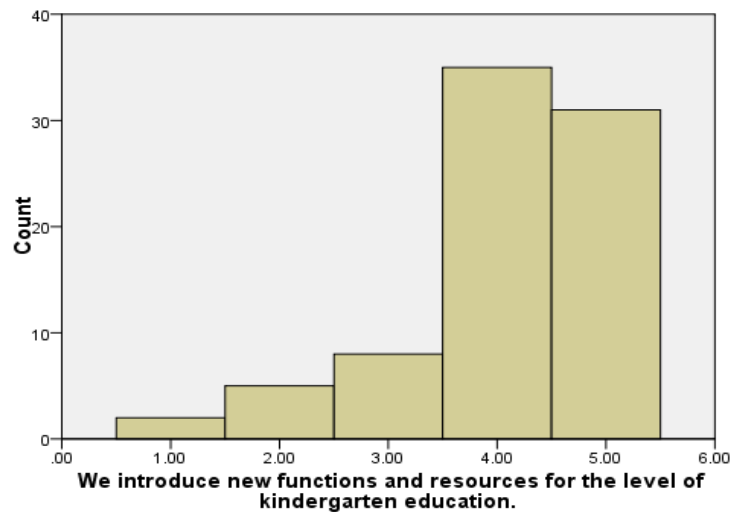


Figure 21: New functions and resources under kindergarten education system

Question Ten:

The statistics of tenth question data is described the new functions and technology with reliable classroom. The survey results as we saw in figure 22 are indicating that most of the respondents agreed with this current statement as (2) extremely disagree; (5) disagree; neutral (11); agree (24); and extremely agree (39) which explains that management must introduce and integrate the new functions of technology with reliable classroom learning environment.

We integrate the new functions of technology with reliable classroom learning environment.

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Extremely disagree	2	2.5	2.5	2.5
Disagree	5	6.2	6.2	8.6
Neutral	11	13.6	13.6	22.2
Agree	24	29.6	29.6	51.9
Extremely agree	39	48.1	48.1	100.0
Total	81	100.0	100.0	

Table 12: New functions of technology and reliable way of kindergarten classroom learning environment

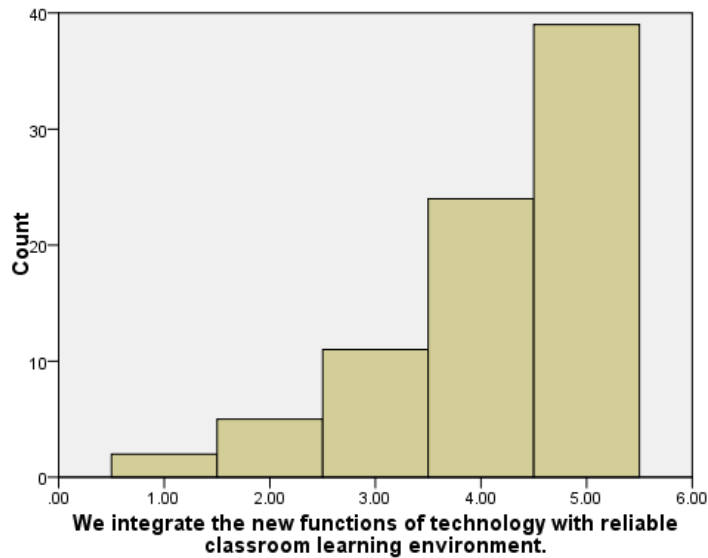


Figure 22 New functions of technology and reliable way of kindergarten classroom learning environment

4.5 Findings and Analysis

Based on the result of the questionnaire, there were total 81 respondents from which primary data was collected. The primary sources are school/ education system under the kindergarten way of learning system. The analysis is indicating that kindergarten education system and building design provides the significant effect on the psychological development, growth, experience, playground, activities and functions. It includes the children support to understand new activities, ideas, knowledge, sensory motor growth and other effective effect on the model character of children.

The analysis is also shows that psychological development of children and kindergarten design consideration place is important with the safety, functionality and interior design to provide the attention in the encouraging, playing activity, enhance the children learning experience, counseling, strengthen and

sustainability. Stylish visibility of interior design and classroom decoration enhance the children motivation of learning. The analysis is also indicating that exterior finishing is also influence the children under the kindergarten education system.



Figure 23AnkaraInternational Preschool and Kindergarten Source: <http://preschooltr.com/>

The analysis is signifying that kindergarten design requirement are includes colors, interior design, wall textures, colorful design of building, playground, furniture, elegance and style way of presentation in the classroom and other premises of the building. All of these increase the learning environment and influence them towards higher level of satisfactions as we see in figure 23.

Furthermore, the study is indicating that ideal model of kindergarten design must be carried out on the basis of children kindergarten design consideration of psychological development, functionality, safety and efficiency.

Most of the participants of study are agreed that implementation of strategies in line with the standard of kindergarten design consideration develop and maintain the psychological development of children. The intellectual and learning

environment for children are important to build new innovative ideas, creativity, growth and psychological development under the effective way of design consideration.



Figure 24AnkaraInternational Preschool and Kindergarten

Source:<http://preschooltr.com/>

The analysis is also indicating that classroom design and interior must also include the learning material. It must also base on the colorful classroom design, interior, wall paper and other various things to develop the children psychology, social, cognitive development as we see in figure 24.

Most of the respondents were also agreed that favorite color scheme in the classroom and interior designing effectively manage the children growth and learning experience in the kindergarten education system. These schools must include the international standards of child growth development plans under the preschool system. It should also base on the safety, effective learning environment, new functions, resources, education material, reliable technology and ideas to increase the child growth.

CHAPTER 5

A New Model for International Preschool and Kindergarten

In this chapter, the interior design of the International Preschool and Kindergarten will be re-designed and proposed a model with reference to the needs specified by the users' comments. The proposed model design criteria and requirements are based on the following things:

- Playground
- Different colorful scheme and designing
- Interior designing
- Specific playing crafts and games
- Interior and exterior design
- Supportive learning environment
- Resources

5.1 The New Model

The new model of kindergarten design consideration for the International Preschool and Kindergarten School needs to include the following images in their respective premises. It includes the several colorful interior and exterior design, playground, various colorful scheme and designing, playing crafts and games, supportive learning environment and new resources of technology which significantly improve the psychological development, efficiency, functionality, growth and safety of preschool (kindergarten) children.

5.2 General Design Requirements

The general design requirements for the kindergarten consideration is design of school or education place to ensure the effective way of providing educational facilities where children will take study and innovative way of learning abilities with innovation.(Ratliff, 2014) As formally characterized at the related rules, understudies are compensated and rebuffed as an outcome of various sorts of practices or accomplishments yet there isn't such a reasonable direct framework, toward the point that understudies' practices are watched, assessed, evaluated and recorded in a reliable way. Additionally, neither corridor passes nor other formal and methodical understudy following frameworks are generally utilized as a part of Turkish schools.



Figure 25The proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.



Figure 26The proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

As in seen in Figure 24 and Figure 25, the respective design of kindergarten building is prepared through specialized software AutoCAD. The proposed 3D model of kindergarten school building includes several kinds of play and attractive area which enhance the attraction and influence over the children.

5.2.1 Classrooms Design Requirements

The classroom design for kindergarten education place that set up and develop the learning place that provide the comfortable place to students and parents with innovative and productive area. The effective classroom increases the children behavior in the classroom. (Dodge, 2011) In this study analysis, classroom design that largely determined by the amount of availability of premises space, doors, windows, flooring area. In order to develop the interested area of learning, classroom design must include art center, table, library, play area, discovery / science, lights, windows and informative place.

The following image (figure 27) is showing the general classroom design by researcher used in this given study analysis. It includes the attractive tables, chairs, color scheme, space, window, door, wall shades and floor design for the kindergarten education place.



Figure 27The proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

5.2.2 Health & Administrative Requirements

It is important to have all kinds of facilities requirements under the kindergarten education place. The administrative and healthcare area should be in place as per international standards and attractive way of influencing the children. The administrative staff must be preparing to have skills and facilities / resources to manage the kindergarten education system effectively and efficiently (Powell, 2012).

The following image figure 28 (is showing the rest and healthcare area under the premises of our kindergarten design of education system. It includes colorful window, walls, furniture, bed and other interior things under the kindergarten education system. (Mext, 2010)



Figure 28 The proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

5.2.3 Activities and Entertainment Requirements

The arts, activities and entertainment facilities section include the framework refer to accommodation of physical for the several activities of arts, playing, forms and nature. The kindergarten education design system also includes the playing area, arts, toys, media, music, performance, drama and other entertainment things. (Alattraqchi, Abu Bakar, & Mohamad, 2014)



Figure 29The Proposed 3D Model for the Kindergarten International
Preschool in Ankara. Source: Designed by Author.

The following image (figure 30) is showing the current study kindergarten education system and design of entertainment and activities that would be placed. It includes several kinds of toys, play area, facilities, colorful design and other important tools to enhance the children knowledge about current learning environment.



Figure 30The proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

5.3. Design Regulations

According to the Turkey, the regulation of design of kindergarten education system building in conventionality with technologies of construction should be made by collaborating with facilities of architecture of the schools. There are things must be included in the kindergarten school:

- The environment of the school must be open to focus on the social, sportive and cultural activities,
- The kindergarten school must also provide the physical special education for disabled children,
- School will have almost thirty students per classroom,
- Administration is needs to provide resources assignments, professional values, building interest, social skills and information technology facilities.

- The administration and teacher must also ensure to provide national and foreign standards with regards to building, personnel, equipment's in education region. (Education, 2001).



Figure 31The Proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

5.4 Kindergarten Design & Psychology

The kindergarten design and psychology consideration are presented in the given study analysis. These considerations are linked to research undertaken by psychology, architecture design, education, environment, playing, social, functionality, safety and efficiency as we see in figure 31. There are also various kinds of strategies and development stages important to address the kindergarten design and psychology outdoor play area, spaces, colors and educational landscapes.

The change to kindergarten school is important and complex way in any children life, but for kids with special needs of psychology, health and safety and their families. With special care of children required moderate complex way of transition to kindergarten, these significant gaps exist. These children frequently need additional support to manage to the environment of school and system at satisfactory level for education. The teachers must understand the psychology needsof children and develop the study environment in order to enhance the creativity, innovation, entrepreneurship, efficiency, healthcare, play and entertainment. (Janus, Lefort, Cameron, &Kopechanski, 2007)

5.4.1 Color

The kindergarten education system need to provide kids to the significant level of colors, textures, material, climate, space, smells, shapes, objects, sounds, movement, people, change, interactions, time and sized. The sensory elements also need to develop in the pre-school level of kids that reinforce the information which allow them tosigns to their choice or way of comfortable form upon it.

In our model of kindergarten education system and consideration design, we have included colorful spaces, puzzles, souvenirs, tokens, shapes, climate, textures, material, spaces, books coloring and other great opportunities under the pre-school age for children. All of the above cited things will improve the psychology level of children in connection to become more valuable in the general society, innovation, creativity, character building and emotions.

5.4.2 Space

A diversity of space under the kindergarten education system from small to high level, are important to build various sized groups of kinds engaged in altered social activities. The spaces recommendation within the landscape or space with sized-child exhibits or furniture's are need to attract the children.



Figure 32The Proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

As we see in figure 32, the kindergarten education system design consideration needs to have space to provide in silent cognitive, manipulative play, social, small groups or individual. The undefined spaces premises of the physical design which not include specific programming system or values would be all the kinds' needs, encouraging, wants imaginary play. (Weaver, 2000).

5.4.3 Lighting

The middle is normally lit with adequate common daylight in the classrooms. The corridor or the center focus of the kindergarten has no common daylight; consequently, the architect had treated one of the classrooms with floor stature sliding entryway, puncturing light into the center. There are a few issues with a classroom close to the administrator where it's dim.

Brilliant toned dividers and normally splendid classrooms are fundamental components to kids to keep them intrigued and fortified in their condition. Concerning sun radiation issues, the inside utilizations characteristic components inside the limit from trees for coordinate sun insurance. This will give common

solace to the kids while playing. The cantilevered area likewise offers protect from the sun underneath the house. Watchful plan thoughts will extraordinarily improve kids' understanding while at the same time realizing there.

5.5 Most Disliked Place at School

Among girls in tremendous classrooms, responses for the most despised put at the school varied among the empty space at the point of convergence of the classroom (38%), staircase (13%), TV room (13%) saw as debilitating in light of the way that one couldn't talk there, evolving territory (13%) in light of the way that one anticipated that would hustle while using it, while another 23% responded by saying there was no such most loathed put. Young ladies in little classrooms demonstrated that there was no place they couldn't have cared less for at school. Among young men in significant classrooms, responses were passed on among the hairdressing corner (25%), family recreations corner (25%) and evolving region (13%) for its being unreasonably dull, while another 37% said there was no loathed put for them at school. half of the young men from little classrooms said they couldn't have cared less for the garden flanking the working in light of the way that the organization staircase was arranged there, while the remaining half responded by saying that there was no such place. (Walden, 2009).

All around, it has been watched, in light of the responses, that there is no place abhorred by the understudies. In any case, the delineation of a place prevented from claiming light as the school's most abhorred region and the unmistakable evidence of the organization staircase at the flanking garden as a despised put due to the danger of falling into the stairwell should fill in as data for thought in plot.(Şahin & Türkün Dostoğlu, 2012)

5.6 Designing a Model

Following image (figure 33) showing the entrance and external location of new proposed model which includes colorful scheme, playground, entrance location, followers and air ventilation under the kindergarten design consideration.



Figure 33The Proposed 3D Model for the Kindergarten International Preschool in Ankara. Source: Designed by Author.

As we can see in figure 34, this image is showing the background of the building that includes cartoon and wall printing, wall designing, building style and colorful scheme decoration that create the attraction and influence on the children and parents.

As we see in figure 36, the proposed model of interior design includes the colorful design table, chair, bench, door, wall paper, wall design, windows and floor designing that significantly improve the psychological, functionality, safety and efficiency level of the children under the kindergarten education system.



Figure 34The Proposed 3D Model for the Kindergarten International
Preschool in Ankara. Source: Designed by Author.



Figure 35The Proposed 3D Model for the Kindergarten International
Preschool in Ankara. Source: Designed by Author.

5.7 Analyses

The analysis of the chapter indicates that kindergarten design consideration has been significant in the preschool level of children psychological growth, functionality, safety and efficiency in connection to improve the growth, innovation, and experience and knowledge effectiveness. The new proposed model includes all cited factors to enhance the quality of education and learning

environment in the preschool or kindergarten education system with attractive design and colorful scheme.

The analysis for the case study is showing that kindergarten design requirements are includes interior design, colors, wall textures, colorful design of building, and playground, furniture, elegance and style way of presentation in the classroom and other premises of the building. All of these increase the learning framework and influence them towards higher level of satisfactions.

The investigation is likewise demonstrating that classroom plan and inside must likewise incorporate the learning material. It should likewise base on the bright classroom outline, inside, backdrop and different things to build up the kid's brain science, social, intellectual advancement.

The greater part of the respondents are likewise concurred that most loved shading plan in the classroom and inside planning adequately deal with the kids development and learning knowledge in the kindergarten instruction framework. These schools must incorporate the worldwide benchmarks of child development advancement designs under the preschool framework. It should likewise base on the wellbeing, successful learning condition, new capacities, and assets, training material, dependable innovation and thoughts to expand the child development.

Basically, this questionnaire was done to decide the issues looked by the guardians in taking part in the instruction of kids in the school and build up an option model to handle the issues confronted. This new model gives a popularity based stage of choices about child's instruction. These choices are shared by the two sides that have obligation in child's instruction.

The experience gained amid preschool years greatly affects the consequent achievements of an individual, and that kindergartens affect kid improvement since these are places where children invest the vast majority of their preschool energy. Early adolescence training has an extraordinary significance among all

other instruction forms since advancement is molded at a substantial degree amid the 0-6 year time of kids. Amid the initial three years, tend to kids is given at different foundations, for example, kindergartens and day mind focuses, however particularly at home, and different projects are done to help early youth improvement.

Preschool instruction depends on programs conveyed at playschools or preschools for children aged 3 to 6, so as to give children a healthier start in life. In Turkey, preschool instruction is conveyed by and large by official and private autonomous playschools (for child's 36-72 months of age) or in playschools that are built up inside schools (for child's 60-72 months of age).

The procedure of preschool instruction contributes with short and long haul impacts on kids and society since early adolescence improvement is seen as a key to social advancement. The nature of the physical and social condition influences child improvement in this instruction procedure.

With a specific end goal to enhance the states of the physical condition, fashioners can endeavor to achieve best plan arrangements, by getting kids' thoughts regarding their instructive condition. In an examination directed at a kindergarten it was expected that the thoughts of preschool understudies about the physical condition in kindergartens can help creators to pick up learning about kids' necessities and this may lead new plans and innovations for supporting solid child improvement.

Really, pre-school education is a processing which child's leave the confined home climate to join a more extensive informal community. Superb training adds to a child's intelligent person, social, physical and enthusiastic improvement. (Cirhinlioglu, 2001)

The process running between the ages of 0 and 6 is one of the periods with quickest physical, scholarly and social advancement. Children increase a large

portion of their fundamental engine aptitudes and capacities as a piece of physical advancement in the preschool time frame. In addition, this is the period when identity, social affectability and inventiveness begin to be formed. It is realized that the advancement procedure that happens in this period enormously influences resulting years and that 60-70% of learning capacity is picked up in the preschool time frame. (Berk, 2003, Bilgin, 2006)

As of late, preschool instruction has been getting a charge out of developing interest and fame. The expansion in the rate of working ladies, the affirmation of the significance of preschool instruction for the eventual fate of social orders, the want of families for their child's to improve a begin at school and in life, and the perception of long haul beneficial outcomes of high quality early adolescence projects can be referred to as purposes behind the developing interest for preschool training. (Wortham, 2003)

Considering that the present child's invest a large portion of their energy in school structures and that the premium in preschool training has developed, the physical traits of such structures will unquestionably pick up significance in view of their impact on kid advancement.

CHAPTER6

Conclusion & Recommendations

6.1Conclusion

Kindergarten stage ought to give kids the best nature of training. This could be accomplished just if the architect, and additionally policymakers, knows about the elements that advance a superior domain for these child's. The goal of this study is to discover the adequacy as opposed to perceiving the issues that exist inside a kindergarten spatial condition. It is basic for a kindergarten to offer every natural jolt to additionally upgrade the nature of early-age instruction through viable plan and engineering drew nearer as sketched out, in order to give the best key training in understanding to Turkish's national motivation. From the discoveries above, it is discovered that common setting is a critical component for a helpful learning condition that empowers child's development and advancement in training Yet because of requirements with regards to urban living in present day society like restricted land space, value climb of property and land possession issues, kindergarten these days must choose the option to utilize existing structures like private and business typologies as learning focuses. Be that as it may, from the investigation led, single abiding write kindergarten is much fitting to be considered as instruction communities for preschool children on account of wellbeing, security and protection reasons. Such case is regarding the flexibility of room in which remodel and extension can happen indoor and open air. This advances

experiential what's more, investigation esteems as a learning procedure when kids wander about in green and huge open spaces.

In this research, the kindergarten design considerations, interior design and other relevant resources were analyzed, to improve the children psychology development, efficiency, safety, functionality and innovation in Ankara, Turkey. Kindergarten design consideration includes room; building and interior design are the important places and things in which kids are the primary active users. The decision making and strategies of design consideration of cited things must be made by the reflection of young kids as the main user. The main purpose of the study about kindergarten designs requirements and considerations and applies in Ankara, Turkey in order to produce an ideal model for the chosen kindergarten. Within this study framework, the properties and characteristics of kindergarten school period kids are learned from cognitive, motor, psychological, innovative, entrepreneur, social, efficiency, functional growth and development points of view.

The study was divided into five chapters, in chapter one, the introduction was made for the kindergarten stage, problem of the study, main purpose, methodology and structure of the study.

In chapter two a literature Review introduced, including the roles and goals of kindergarten, design for kindergarten internal Spaces, physical requirements for child social and psychological development, functionality, safety and health requirements, efficiency, cognitive development physical development, design requirements and regulations in the world, interior design requirements, classroom design requirements, really, kindergarten classroom design requirement and environment are very essential. The size of the interior and classroom areas must be colorful walls, attractive furniture and fixture, lights, room arrangements that all influence students learning. The classroom must also include several colors such as red (active, passionate, strong, grabs, attention); yellow (high visible, cheerful);

green (natural, relaxing, quiet, attention grabs) and blue (comfort, attention and security).

In chapter three we made an evaluation for the selected case study (Ankara International Preschool and Kindergarten) including evaluation for the design of the classrooms in Ankara International Preschool and Kindergarten, Efficiency, Safety and Functionality in IPK, and determining the advantages and disadvantages of the existing design in IPK. This study is designed to analyze the ways of enhancing the children learning environment. The analysis of International Preschool and kindergarten found that it has an attractive classroom interior include child development, environment, play area, exterior and interior classroom and furniture. The classroom design of the International Preschool and Kindergarten have interesting interior and design was organized, neat, care, colorful, space, extension and collection of several attractive things which empower the children and get in touch with new ideas, tips, resources, fun, cohesive green-and-blue color combo, display walls, bookshelf, charts, group/teamwork desk and classroom theme.

In chapter four, data analysis was made to analyze the research questions, and discussion was introduced, a survey is used as an effective tool. The research questions are formalized to analyze the overview of Kindergarten school design and seek option to make generalization about the certainty in a population with showing demographic statistics, case study and objectives, and assessing the need and the purpose of new model of case study of interior, classroom design are the main activity of kindergarten design which was discussed and evaluated in a kindergarten education system. The analysis is indicating that main kindergarten design includes under the preschool education are colorful building design, colorful scheme, interior design, floor style, furniture, entrance of building, wallpapers, chairs, exterior and all other resources and environment have been significant impact on the child mental, psychological development, work

efficiency, learning, safety, functionality of all relevant operation in the preschool environment.

The analysis is also shows that psychological development of children and kindergarten design consideration place is important with the safety, functionality and interior design to provide the attention in the encouraging, playing activity, enhance the children learning experience, counseling, strengthen and sustainability. Stylish visibility of interior design and classroom decoration enhance the children motivation of learning. The analysis is also indicating that exterior finishing is also influence the children under the kindergarten education system.

The necessary things about interior and classroom design were also analyzed and signifying that efficiency and elegance style of design, standards, finishes, material, anthropometric and dimensions, color and safety have been major impact on the child growth and development and all of these should be in line with the requirement of preschool (kindergarten) period of learning.

In chapter five anew model for International Preschool and Kindergarten was introduced, that the interior design of the International Preschool and Kindergarten re-designed and proposed a model with reference to the needs specified by the users' comments. The proposed model design criteria and requirements are based on playground, different colorful scheme and designing, interior designing, specific playing crafts and games, interior and exterior design supportive learning environment, resources

In chapter six conclusion and recommendations were made to give advises for researchers and kindergarten pre- schools makers, while establishing their own project, to make all this regulations into considerations.

The analysis of the case study is showing that kindergarten design requirements are includes colors, interior design, wall textures, colorful design of building, and

playground, furniture, elegance and style way of presentation in the classroom and other premises of the building. All of these increase the learning framework and influence them towards higher level of satisfactions.

The greater part of the respondents was likewise concurred that most loved shading plan in the classroom and inside planning adequately deal with the children development and learning knowledge in the kindergarten instruction framework. These schools must incorporate the worldwide benchmarks of child development advancement designs under the preschool framework. It should likewise base on the wellbeing, successful learning condition, new capacities, and assets, training material, dependable innovation and thoughts to expand the child development.

Finally, the questionnaire was made to decide the issues looked by the guardians in taking part in the instruction of kids in the school and build up an option model to handle the issues confronted. This new model gives a popularity-based stage of choices about child's instruction. These choices are shared by the two sides that have obligation in child's instruction.

The results gained amid preschool years greatly affect the consequent achievements of an individual, and that kindergartens affect kid improvement since these are places where children invest the vast majority of their preschool energy. Early adolescence training has an extraordinary significance among all other instruction forms since advancement is molded at a substantial degree amid the 0-6 year time of kids. Amid the initial three years, tend to kids is given at different foundations, for example, kindergartens and day mind focuses, however particularly at home, and different projects are done to help early youth improvement.

Preschool instruction depends on programs conveyed at playschools or preschools for children aged 3 to 6, so as to give children a healthier start in life. In Turkey, preschool instruction is conveyed by and large by official and private autonomous

playschools (for child's 36-72 months of age) or in playschools that are built up inside schools (for child's 60-72 months of age).

The procedure of preschool instruction contributes with short and long-haul impacts on kids and society since early adolescence improvement is seen as a key to social advancement. The nature of the physical and social condition influences child improvement in this instruction procedure.

With a specific end goal to enhance the states of the physical condition, fashioners can endeavor to achieve best plan arrangements, by getting kids' thoughts regarding their instructive condition. In an examination directed at a kindergarten it was expected that the thoughts of preschool understudies about the physical condition in kindergartens can help creators to pick up learning about kids' necessities and this may lead new plans and innovations for supporting solid child improvement.

At the end, Turkish education system has democratic, modern, secular and coeducation characteristics. The objectives of the system are to build thriving and welfare of Turkish residents and society, to help and quicken monetary, social, social advancement as per national solidarity and respectability, and to make Turkish Country contemporary civilization's valuable, imaginative and recognized accomplice.

Standards of education system are resolved as giving instruction that points efficiency in life and occupation as per national structure, topography, culture and traditions, getting ready reasonable instruction programs and course books, setting up present day schools with logical open doors, giving materials required to instruction and shaping the vital administration and preparing staff who can complete training and preparing administrations at the most abnormal amount.

Development should start from kindergarten stage, which it is the basic stage in child's life, and its effects continued to all other stages, sowed should make a strong basic to child to face the next stages of life with a strong base.

6.2 Recommendations

We can suggest the main recommendations of this study as follows: The education system needs to implement and analyze the international standards of kindergarten way of education system, the management must provide safety and security in every section of building design, interior and exterior design and furniture should be in place with elegance design and standards, the kindergarten design consideration must include the elements of children growth and psychological development, the safety, functionality and efficiency of children growth are important factors of kindergarten design consideration should be in place, and the management must ensure to check and balance in each level of stage of child growth and development.

REFERENCES

- aadnc-aandc.gc.ca. (2016). *School Space Accommodation Standards 2016*. Retrieved February 19, 2017, from <https://www.aadnc-aandc.gc.ca/eng/1326828445933/1326828547622>
- Alattraqchi, A. G., Abu Bakar, M. A., & Mohamad, F. A. (2014). Awareness of Tadika's (Kindergarten) Children towards Healthy Lifestyle in Kuala Terengganu, Malaysia. *Journal of Applied Pharmaceutical Science*, 4(6), 115-122.
- Allan, M. (2008). *Qualitative Study of Kindergarten School Readiness and Personal and Social Development*. Virginia Polytechnic Institute and State University.
- Büyükpamukçu, H. (2004). *Design Considerations in Children Bedroom Furniture of Preschool Period with an Analysis of Today's Turkish Children Furniture Market*. The Graduate School of Natural and Applied Sciences, Department of Industrial Design. Ankara: METU.
- Burson, S. (2010). *The relationship of classroom quality to kindergarten achievement*. Ball State University.
- Dodge, P. (2011). *Managing school behavior: a qualitative case study*. Iowa State University.
- Eccles, J. (1999). The Development of Children Ages 6 to 14. *The Future of Children*, 9(2), 30-44.
- Education, M. o. (2001). *The Turkish education system and developments in education*. Turkey: Ministry of National Education.
- Education, M. o. (2010). *A Collection of Exemplary Design of Kindergarten Facilities*. Japan: Ministry of Education, Culture, Sports, Science and Technology.

- Elliott, J. (2014). Writing instruction at the early childhood level: teachers' use of individual student writing conferences and other strategies to motivate students to write. Texas A&M University.
- Fitzpatrick, D. (2014). Perceptions of Kindergarten Teachers regarding Professional Development in New Jersey's Public Schools. Seton Hall University.
- Gall, M., Gall, J., & Borg, W. (2010). *Applying educational research: How to read, do, and use research to solve problems of practice (6th ed.)*. Boston: MA: Pearson.
- Garcia, M. (2014). Transition from Preschool to First Grade Primary School in Mexico: The Perceptions of Teachers, Headteachers and Parents . University of York.
- Hirsh, R. (2010). Creativity: Cultural Capital in the Mathematics Classroom. *Journal of Creative Education, 1*(3), 154-161.
- Janus, M., Lefort, J., Cameron, R., & Kopechanski, L. (2007). Starting kindergarten: Transition issues for children with special needs. *Canadian Journal of education, 30*(3), 628-648.
- Kelly, J. (2010). The First Day of Kindergarten: Examining School Readiness Advantages And Disadvantages Across Multiple Developmental Contexts. University of Illinois.
- kipspreschool.com. (2017). *About*. Retrieved February 4, 2017, from <http://www.kipspreschool.com/>
- Lash, A., Bae, S., Barrat, V., Burr, E., & Fong, T. (2008). Full-day kindergarten and student achievement: A literature review. A REL West Technical Assistance Response.
- Lee, M. (2015). Teaching Tools, Teachers' Rules: Scratch Jr in the Classroom. Tufts University.
- Lee, M. (2015). Teaching Tools, Teachers' Rules: ScratchJr in the Classroom. Tufts University.
- Lynch, M. (2015). More Play, Please The Perspective of Kindergarten Teachers on Play in the Classroom. *American Journal of Play, 7*(3), 347-370.

- Malhotra, N. K. (2007). *Marketing Research: An Applied Orientation, Fifth Edition*. India: Pearson Education.
- Mext. (2010). *A Collection of Exemplary Design of Kindergarten Facilities* . Ministry of Education, Culture, Sports, Science and Technology.
- Ministry of Education . (2001). *The Turkish education system and developments in education*. Turkey: Ministry of National Education.
- Ondrejko, R. (2013). Kindergarten teachers' consideration for sensory-motor difficulties in early years. University Oslo.
- Pearson, E. (2008). *Overview of the School Function Assessment*. Pearson Education, Inc.
- Powell, K. (2012). Kindergarten Teachers' Knowledge and Perceptions of Early Learning-Related Skills and Their Relationship to Academic Achievement. Georgia State University.
- preschooltr.com. (2017). *International Preschool*. Retrieved February 22, 2017, from http://preschooltr.com/?page_id=54
- preschooltr.com. (2017). *Who we are*. Retrieved February 22, 2017, from http://preschooltr.com/?page_id=54
- Ratliff, S. (2014). A Study of Kindergarten Teachers' Ability to Teach the Kindergarten Informational Text Common Core Standards in Fifteen West Virginia School Districts. Marshall University.
- Sackes, M., Trundle, K., & Bell, R. (2013). Science Learning Experiences in Kindergarten and Children's Growth in Science Performance in Elementary Grades. *Journal of Education and Science*, 38(167), 114-127.
- Saunders, M. N., Thornhill, A., & Lewis, P. (2009). *Research Methods for Business Students* (5th ed.). Rotolito, Italy: Pearson Education Limited.
- Shaoming , Z., & Huifen , F. (2011). International Marketing and Emerging Markets: An Introduction to the AIM Volume 21. *International Marketing*, 21.
- Smith, F. (2006). How do teachers influence children's emotional development? University College London.

- Stucker, M. (2008). MISSOURI KINDERGARTEN TEACHERS' PERCEPTIONS OF EARLY CHILDHOOD EXPERIENCES . University of Missouri-Columbia .
- Şahin, B. E., & Türkün Dostoğlu, N. (2012). The Importance of Preschoolers' Experience in Kintergarten Design. *METU JFA*, 29(1), 301-320.
- Tezuka, A. (2007). Fuji Kindergarten case study. Fuji .
- Thirkill, L. (2015). Exploring the Impact of Kindergarten Scheduling on Children's Physical Activity and Classroom Behaviour . Laurentian University.
- UNESCO. (2007). Turkey Early Childhood Care and Education (ECCE) programmes. United Nations Education, Scientific and Cultural Organization.
- Unicef. (2013). Integrating Early Childhood Development (ECD) activities into Nutrition Programmes in Emergencies. Why, What and How. Unicef.
- USC. (2015). The Science of Classroom Design. University of Southern California.
- Victoria. (2016). About Kindergarten. Victoria State Government.
- Wade, M. (2016). Visualizing 21st-Century Classroom Design. Edutopia.
- Weaver, L. (2000). Learning Landscapes: Theoretical Issues and Design Considerations for the Development of Children's Educational Landscapes. Virginia Polytechnic Institute and State University.
- Zain, S. M., Basri, N. E., Basri, H., Elfithri, R., & Tazilan, A. S. (2011). The Enhancement of Sustainable Humanitarian Mind Model by UKM Lestari Program. *Journal of Social and Behavioral Sciences*, 18, 666-673.

APPENDIX

SURVEY QUESTIONNAIRE

Name: _____ **Age:** _____ **Gender:** _____

Religion: _____ **Marital Status:** _____ **Qualification:** _____

Designation: _____ **Department:** _____

5-LIKERT QUESTIONNAIRE

KINDERGARTEN DESIGN CONSIDERATIONS

Questions	Extremely Disagree	Disagree	Neutral	Agree	Extremely Agree
	1	2	3	4	5
There is implementation of strategies Kindergarten design consideration that develops the children psychological consistently.					
We have developed intellectual and learning environment for children that create the new ideas and psychological development.					
Our existing classroom design and interior integrate the learning environment.					
Colorful classroom design and interior develop the children psychological development, socially and cognitively.					

We have adopted favorite color scheme in school furniture / interior design.					
We provide the efficient child development learning environment.					
We ensure safety of children that ensure the effective learning environment.					
We follow the ISO standards in material quality and safety system.					
We introduce new functions and resources for the level of kindergarten education.					
We integrate the new functions of technology with reliable classroom learning environment.					