



A field study of the reality of kindergartens gardens in Al-Hillah city

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Abstract

Recently, in Al-Hillah city, the number of Public and Private kindergartens have increased because it is the most important periods in human life because it is the first seed in human life, start from kindergarten, This study was conducted in 2018 to study the reality of kindergartens in Al-Hillah city and the extent of interest in it where considered a recreational and scientific environment suitable for children, making recommendations for the development of kindergartens in line with the social and scientific development in the world. Where 100 questionnaires were distributed to the teaching staff in kindergartens, 50 of which were for public kindergartens and 50 for private kindergartens. The main results of the research were that the building in the public kindergartens was designed according to the qualitative specifications, where it was given a percentage of 80%. The results showed that 20% of the buildings were residential buildings, while the park in the buildings gave a percentage of 100%. In terms of the results of Private kindergartens show that the used buildings as kindergartens are not designed according to the specifications of quality, where gave a percentage of 60%, while in terms of type of used building, the use of the residential buildings gave the highest percentage of 54%, Regarding the presence of the garden in the building, it was found that the percentage of 60% of the opinions confirmed the existence of gardens and about the using children for gardens which gave the percentage of 100% in terms of their use.

Keywords: kindergarten gardens, playgrounds, al-Hillah city, kindergarten

1. Introduction

There is no doubt that the human life starts from kindergartens and this stage is considered one of the most important periods of human life. Therefore, the interest in the establishment of schools for pre-school children is important and has been called kindergartens, it is an educational institution has an important role in the upbringing of the child and imparting the art of life as considering its role that extends to the role of the family. The kindergarten provides the child with care for all its forms, achieve the demands of his growth and saturation its needs and provide him opportunities to play diverse to discover himself and know his capabilities and work on their development and imbibes the culture of his society, He lives happily with himself and his community. The kindergartens are the most important stages of breeding and education for the future generation because it is the first step to complete his study path later and it has an impact on social education and in cooperation with the family at home. The interest of the civilized world in this stage increased to its educational and social importance. In Japan, in 2010, the Ministry of education, Culture, Sports, Science and Technology developed a curriculum and a guide to the design of kindergartens and curricula that are given to them in line with social changes where education at this crucial time from age of human, helps children to develop their scientific, cultural and social abilities (Ministry of Education, Culture, Sports, Science and Technology-Japan, 2011) ^[4], where kindergartens and games for children must meet the following requirements:

1. Develop social, sensory, sports and cognitive abilities.
2. Develop the desire of children to mix with each other.
3. Develop the child's sense of beauty.
4. Spaces should be secure and easy to connect (Collyer,

2013).

Mahmood and Amin (1989) ^[4] mentioned that the benefits of green spaces are

1. Breeding children and teaching them to maintain and care and enjoy the various plants and increase their love for them.
2. Help children to pay attention to and know the available numbers of plants surrounding them.
3. Creating a more moderate location atmosphere.

Hajjuz, (2011) mentioned that the interest is increasing with intermittent compliment in educating the younger generation at various levels, health, culture and socially, through the establishment of infant incubator and kindergartens equipped with various means of entertainment and education, as well as private gardens that are created and designed specifically for them in line with their age and movements. Al-Chalabi, (1990) ^[2] mentioned that children's games should be carefully studied in proportion to their finite thinking and muscle strengthening.

Kindergarten Gardens

The garden in the kindergarten is not a separate place from the activity room. There are many outdoor activities that need shaded places that offer some privacy and protect children from sun heat in hot areas or rain and cold in cold and rainy places most of the year. These activities include sand, water, training, carpentry, scientific experiments in nature and other activities that are practiced every day. The most important components of kindergartens are; Trees, shrubs, paved areas, Green spaces, Sand spot, Water basins, walking corridors, Fences and doors, Games, Guiding signs, Garden furniture includes, Seating seats. B - Rocks. C -

Wood.

Playgrounds and Gardens

There is no a kindergarten free from a large yard, Part of it is covered with green grass and the remainder is covered with clean sand for the construction of large gaming equipment. It is advisable to shade the devices to protect them and protect the children from the heat of the sun in the summer months and rain in the winter and there is no need to multiply the devices where It is enough, a climbing device and another ski and perhaps add to them a device for attachment and swing. The garden is a place where children start to dig in the ground using the real tools. They build private cottages from twigs or light wood plates, build their own world, demolish what they build and rebuild in an innovative way. They need large open spaces that do not limit their movement or imagination or provide them with things that are ready and that they should only use them, especially that modern housing, especially in the cities, has narrowed its size and no longer has a place for running, jumping and playing without fear of colliding with objects or walking on the planting ponds, if presence. It is preferred to provide a climbing device only when there is no tree for children to climbing it. Natural things are much better than their industrial alternatives. This is what Rousseau Vrubel, Montessori and other pioneers in the field of child breeding said. It is therefore preferable to have trees in the garden of the kind that children can sit on its branches and build small nests on it because they are a source of happiness for children and develop their imagination. It is also recommended to provide the garden with tires and ropes to climb children or they play it as they wish (Tina Bruce, 2011) ^[10, 11].

When designing gardens in kindergartens, must make in consider the following thing

1. Cultivation of green areas and the need to choose plants with a short integrated growth and non-cultivation of vine plants so as not to cause children to stumble when running or walking
2. Noting the non-fertilization or coverage of areas planted with animal organic fertilizers because some of these fertilizers are a source of infection so as not to cause the transmission of diseases to children.
3. Avoid placing curbstone from reinforced concrete or other at the edges of the surfaces so as not to hurt the children when they fall on them while playing, and the edges of the surfaces should be slightly inclined towards the walking corridors.
4. Cultivating some deciduous leaves trees to benefit from the sun rays. Because the child prefer to wide places so do not plant some large trees in the middle of Green landscapes, preferably at the end of the garden, circles are cultivated by some shrubs and flowering plants.
5. Avoid the cultivation of poisonous or succulent plants that excreted a substance of structure or toxic or irritant such as Nerium and Datura. Avoid the cultivation of plants with thorns such as cactus.

6. In some places, trees are cultivated with large and canopy trees to sit under its shadow accompanying these children.
7. Avoid cultivating flowers with high individual value in the play areas so as not to be tampering by children.
8. Avoid the establishment of deep prominence in playgrounds and kindergartens to protect them from exposure to injury and can create a barrier is not deep (15 cm) surrounded by seats seating to satisfy the desire of children with playing.
9. Equipping the playgrounds or the park with some necessary facilities such as sitting and rest seats, shaded to wait for the children's parents and supervisors, and providing courses of water and drinking water (Al-Khathayla, 2000) ^[1].

In a report by the Academy of Pediatrics on the importance of playing in the development of children's health and maintaining their family ties. The report said that playing is the best way to develop children, so this paragraph is therefore distinguished in the United States Human Rights Charter. Where playing helps children to develop their imagination, care, health, and awareness and strengthen their emotions, the playing develops children's brains and increases their interaction with the world around them. It helps to develop their skills to close and explore, develop their self-confidence and increase the flexibility to deal with the challenges of the future that will confront them as well as help them learn how to work together, resolve problems, defend themselves and their decision-making skills, and are the best way to overcome obesity (Collyer, 2013). The sources differed in determining the optimal area allocated for each child in the games. VINO, (2011) ^[8] stated that the optimum space allocated to a child in the open space is 4.5 m² for children over 3 years and 5.5 m² for children under 3 years of age. In the typical Stasuki Yotsukaidu kindergarten in Japan, the area allocated to the child was 20 m². Al-Chalabi (1990) ^[2] stated that the optimum area allocated to a child is 10-15 m², Hjos (2011) 10 m² and Bader *et al.*, (2003) ^[5] 8 m² per child. Jasim (2004) ^[6] reported that the minimum area allowed for a child aged 2-5 years is 3.5 m² and 8.5 m² for 5-10 years. Field study: The field study included visits to a number of kindergartens (Public and private) in Al-Hilla city, and a questionnaire on the teaching staff through the distribution of 50 forms for public kindergartens and 50 forms for private kindergartens, where the form was prepared, which included a set of questions and as shown in Appendix (1), and Data were then collected and analyzed using frequencies, percentage and Chi-squared test. The field study also discussed the findings and finally the conclusions and recommendations of the study. Table (1) shows that the building in the public kindergartens is designed according to the qualitative specifications, where it gave the percentage of 80%. As for Private kindergartens, it is clear that the buildings used as kindergartens are not designed according to the specific specifications, which gave the percentage of 60%.

Table 1: The suitability of the building

Building Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	40	80%	10	20%	50	25	16.6	3.84 There are significant differences
Private	20	40%	30	60%	50	25		
Total	60		40		100	50		

Table (2) shows that 40% of the buildings were residential. As for the type of building used in private kindergartens, the use of the residential buildings gave the highest percentage

of 54%. This indicates the importance of the residential buildings, which must be taken care of and designed with modern designs.

Table 2: Type of building

Type of Building Type of Kindergarten	Residential Building	Architecture	Apartment	Another building	Total	Percentage	X ² calculated	X ² Tabulated
Public	20	20	9	1	50	25	3.44	7.81 There are no significant differences
Private	27	13	10	0	50	25		
Total	47	33	19	1	100	50		

Table (3) shows that 100% of the opinions confirmed the existence of gardens in the governmental and private kindergartens buildings. This indicates that kindergartens

are of importance, which requires care and design according to modern designs.

Table 3: The existence of a garden in the building

Having a garden Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	50	%100	0	%0	50	25	0	3.84 There are no significant differences
Private	50	%100	0	%0	50	25		
Total	100		0		100	50		

Table (4) about the use of children for gardens, the percentage was 100% in terms of use of them in both

kindergartens Private and public because the garden is an aesthetic part for the kindergarten.

Table 4: Use the garden

Use the garden Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	50	%100	0	%0	50	25	0	3.84 There are no significant differences
Private	50	%100	0	%0	50	25		
Total	100		0		100	50		

As for the area of the garden Table (5), where it gave the highest percentage of 20-30 m and the percentage was 60%

for Public kindergartens, As for Private kindergartens, the area 40-50 m gave the highest percentage of 70%.

Table 5: The area of the garden

Area of the garden Type of Kindergarten	20-30 m	%	40-50 m	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	30	%60	20	%40	50	25	9	3.84 There are significant differences
Private	15	%30	35	%70	50	25		
Total	45		55		100	50		

In terms of cultivated plants, Table (6), Where trees gave the highest percentage with amount of 58% followed by shrubs, with percentage of 48% and then ornamental plants, with percentage of 44% for Public kindergartens, while the

results of private kindergartens gave the highest percentage for ornamental plants, the highest percentage for cultivated plant where their percentage was 42% followed by shrubs with percentage of 28%.

Table 6: Cultivated plant

Cultivated plant Type of Kindergarten	Trees	%	Shrubs	%	Ornamental plants	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	20	%40	15	%30	15	%30	50	25	5.15	5.99 There are no significant differences
Private	10	%20	19	%38	21	%42	50	25		
Total	30		34		36		100	50		

Table (7) shows that the area of the garden gave a percentage of 100% in terms of its accommodating for children compared to accommodate them for Public

kindergartens, and The results showed that the garden area in the private kindergarten is insufficient to accommodate children, which was with percentage of 62%.

Table 7: Accommodating the area of garden for children

Accommodating of area for children Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	50	%100	0	%0	50	25	44.8	3.84 There are significant differences
Private	19	%38	31	%62	50	25		
Total	69		31		100	50		

Table 8 shows the sustainability of plants in Public kindergartens garden, the percentage was 98%, and in terms of garden sustainability, where gave the percentage of sustainability 54%. Because of its aesthetic importance and

improve the attitude of children and their view towards agriculture, which requires more attention and provide the necessary requirements.

Table 8: Sustainable the garden

Sustainable the garden Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	49	%98	1	%2	50	25	26.2	3.84 There are significant differences
Private	27	%54	23	%46	50	25		
Total	76		24		100	50		

Table (9) shows that the organization of student trips to parks and parks was present and gave the percentage of 100% to both types of kindergartens (Public and private).

This contributes to increasing access to education by attracting children to kindergarten.

Table 9: Organize trips

Organize trips Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	50	%100	0	%0	50	25	0	3.84 There are no significant differences
Private	50	%100	0	%0	50	25		
Total	100		0		100	50		

Table (10): The results of the study showed that the activities practiced by children in Public kindergartens are represented by skating, with percentage of 60% followed by running, with percentage of 50% followed by eating and gathering with percentage of (38% and 30 %), respectively.

As for the activities conducted by children in the private kindergartens, skating gave the highest percentage of 50%, followed by the activities of the gathering by 32%, running and eating with percentage of 12% for both, and agricultural work with percentage of 6%.

Table 10: Activities conducted by children

Type Activities Type of Kindergarten	Running	skating	Eating	Agricultural work	Cultivation of seedlings	Total	Percentage	X ² calculated	X ² Tabulated
Public	10	14	15	10	0	1	50	10.8	11.07 There are no significant differences
Private	6	20	6	15	3	0	50		
Total	16	34	21	25	3	1	100		

Table (11) indicates that the presence of ornamental plants inside the building and the halls where the results showed in the Public kindergartens there are a few of them, While gave the lack in these places with percentage of 70%. In terms of its presence at the entrance to the building and the external

walk, it gave a percentage of 60% for its existence. While the results showed in Private kindergartens that the percentage of 98% of the Canopy plant and ornamental plant exist within the halls in addition to the presence in the walks and corridors.

Table 11: The presence of ornamental plants

The presence of ornamental plants Type of Kindergarten	Yes	%	No	%	Total	Percentage	X ² calculated	X ² Tabulated
Public	30	%60	20	%40	50	25	21.4	3.84 There are significant differences
Private	49	%98	1	%2	50	25		
Total	79		21		100	50		

2. Conclusions

1. Rest and recreation and access to freedom of the most important goals that must be achieved for children in their places of residence.
2. Availability of trees, shrubs and other ornamental plants in the gardens, while there is no Canopy plants throughout the building.
3. Conducting the service operations for the gardens in terms of removing the thicket and control and fertilization in addition to the sustainability of cultivated plants and care to it.
4. Sustainability operations in the gardens carried out by specialized farmers in addition to some of the people from the educational staff located in those kindergartens.
5. Diversity of activities in kindergartens as well as set up

6. recreational trips for children, which contribute to activating the role of children in society and increase their desire to love life.
6. Lack of structural components in gardens such as fountains and statues, as well as the availability of corridors and the main and sub- walks.
7. There is a high percentage prove that the Public kindergartens designed according to the qualitative specifications, while the buildings for Private kindergartens are not within the required specifications.
8. The total area of used buildings as kindergartens is sufficient.
9. To accommodate the garden area for children in Public buildings. While in the private kindergartens, gardens were not enough for the number of children.
10. Lack of educational staff specialized in the agricultural

aspect in kindergartens, as well as the lack of education of children some simple agricultural things.

3. Recommendations

1. Giving a large area of importance to the garden in kindergartens because of its psychological and social impact on everyone who enters the kindergarten, whether children or educational staff or visitors.
2. The building plan should be adapted with the current developments and Preferably in the building provides a light and warmth and cooling in summer and winter, preferably to cover the floor of the kindergarten with a shock absorber easy to clean non-flammable as well as the possibility of carrying out non-classroom activities and attention to gardens and playgrounds within the kindergarten to be a building attraction and motivation for children rather than be dull, It is unreasonable that kindergarten is like a prison that lacks a garden and playground.
3. The building should achieve the characteristics of the child's growth, the most important of which is the child's sense of security and the psychological comfort of the proximity of kindergarten facilities.
4. Provide an intercom in all kindergarten facilities, as well as covering the openings and switches of electricity if they are at the level of children to ensure their safety and security.
5. Conducted educational sessions for educational staff on the environment and health and the importance of the garden and the need to pay attention to them.
6. Organizing campaigns to clean up kindergartens, maintain sanitary facilities and bury the swamps inside and outside the kindergarten in cooperation with the health services and the municipal council as part of the campaign to address the diseases and epidemics that spread due to neglect of the park.
7. Conducting annual competitions for the most beautiful garden in the Directorate of Education through the selection of a number of kindergartens in the province as well as at the level of Iraq.
8. Interest in plants and increase numbers as well as interest in the cultivation of Canopy plants, and the introduction of structural components as a source to attract visitors in addition to aesthetic importance.
9. Teaching children how to create and nurture the garden and encourage them to produce and consume vegetables and fruits with green leaves rich in nutrients.
10. Provide active education by linking gardens with other topics such as mathematics, reading and writing.
11. Continuous environmental detection of kindergartens from the special administrative people. Kindergarten preferably in a quiet and healthy place away from noise and factories.
12. The car parks should be at least six meters away from the entrance to the kindergarten and colored barriers should be put in place to prevent the entry of cars in order to protect the safety and security of the children.
13. Additional entrance and exit are required to ensure child safety.
14. Set industrial bumps to ease the speed in the streets around the kindergarten to ensure security and safety.

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