



PHYSICAL CONDITIONS IN PRIMARY SCHOOLS IN SOME MIDDLE EASTERN COUNTRIES – A COMPARATIVE STUDY

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Abstract:

The study aims to identify the physical conditions of primary schools in the Middle East. The sample of the study consisted of five countries: Turkey, Iran, Saudi Arabia, Egypt and Syria. Countries were selected through the sample of intent, and the studier adopted the descriptive analytical approach in making comparisons between countries by relying on the examination of information from all available sources to form a broad and reliable database in order to reach the goal of the study. By covering four objects: safety, health, services and the aesthetic aspect. Turkish primary schools have achieved fairly acceptable results in terms of health, services and public safety, while there have been some shortcomings in the aesthetic and organizational aspect of schools. The level of public safety was poor in Iranian schools, and aspects of services, health and aesthetic did not produce satisfactory results. In the same context, Egyptian primary schools have not achieved good standards of safety, health and aesthetic, in the same time, there have been shortcomings in terms of public services. As for Saudi schools, rented schools have been the weak point in the Saudi school structure, as these schools do not meet the physical requirements for school construction. Syrian primary schools have faced deficiencies in aspects of public services.

Keywords: physical conditions, primary school, Middle east

1. Introduction

According to the World Bank, education systems in the Middle East are facing one of the challenges. Incompatibility between old schools and the use of modern curricula in teaching. With the increase in the budget allocated to education in the Middle East, average spending has risen to 5.3%. Although these expenditures may be counted well

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compared to Latin American countries, it still reveals a larger gap compared to developed countries. (The World Bank, 2019)

In the UNESCO report (2015), it shows that the largest expenditure was in favor of secondary education at the expense of primary education, The average expenditure per primary school pupil in 2002 was \$1,530, while the average expenditure per secondary school pupil was \$1,945 per year. Conversely, if most of the expenditure on primary education were allocated, it would have benefited a wider portion of students (UNESCO, 2015).

These expenses should be in line with the requirements of the school's physical environment in terms of school buildings, equipment and educational tools. With the development of educational theory, adapting the school environment to new educational needs and modern trends has become a necessity for those who want to make progress. It is also necessary to adapt the school environment to new educational needs and future goals (Salminen et al., 2014).

The educational environment is also an entry of the school system and interacts with each other with other inputs. Therefore, it is difficult to separate the physical environment of the school from the student. The study of childhood and its attention to it is one of the most important approaches to the progress and development of society, as the interest in childhood is in fact an interest in the future of the whole nation (Doidar, 1991). In his utopia, Plato emphasized the need for healthy, physically and mentally healthy children, and Froebel, Jean-Jacques Rousseau and John Dewey acknowledge the importance of childhood and the need to take care of it because today's child is the man of tomorrow. The school has educational functions, most notably helping the student to grow integrated from all aspects of physical, mental, social, emotional and spiritual to the fullest (Mustafa, 2005).

Many studies focused on the concept of the physical environment and its impact on students, including the Bursiq (2015) study, which aimed to know the physical environment of the classroom in the concept of self among primary school students. Atiyah's (1996) study, which aimed to identify the components of the learning environment as recognized by the students of the preparatory stage, and the study found the possibility of contributing the classroom environment to the educational achievement. Nasser (2019) also conducted study on the suitability of the physical environment for educational functions at the Baghdad Preparatory School and talked about the shortcomings in this environment. And in the works of Houli and Alnabahain (2000) School buildings have many shortcomings in terms of location, buildings, laboratories and other elements. Al-Muqrin (2008) recommended that the design level of school buildings be reviewed based on the age and curriculum of students (Bursiq, 2015; Atiyah, 1996; Nasser, 2019; Houli & Alnabahain, 2000; Al-Muqrin, 2008).

The necessary conditions must be met in order to develop this environment and to ensure that modern education is in line with its goals. Comprehensive quality standards (Total Quality Management) on the one hand, in accordance with the local conditions of each society, on the other hand, follow the developments at the level of

education and reveal the importance of flexible the physical environment of the school (Husayn, 2018 & Al miqren, 2008).

Quality standards must have two values: first, a permanent value that represents an unchanged minimum. The meaning of this school buildings are safe structures to sanitation, clean water supply, light and ventilation and earthquakes resistant. On the other side, there are elements related to temporary values, the education process and development (Al sallum, 2017).

The World Health Organization describes the physical environment of the school as a place that accommodates robust physical structure, strong infrastructure, furniture, existing chemical and biological elements, convenient location, fresh air, clean water and quality materials. In the same definition, dangerous elements for children are also defined. (The World Health Organization, 2003). This study aims to compare the physical conditions of primary education in the Middle East with Turkey, Syria, Egypt, Iran and Saudi Arabia. It also highlights the physical environment surrounding the student, which affects his studies, health and psychology. However, what level is the physical conditions of primary schools in the Middle East?

2. Literature Review

The development of the physical environment of education is guided to meet the following requirements such as:

- When building the physical environment of the students, the psychological and physiological characteristics of the students should be taken into account. It refers to the school building in accordance with the age of students and physiological-motor characteristics. Robert Duterns said the situation includes "*ward school*," a long-time complaint, because it includes a regular education that is incompatible with progressive education, what we believe in, to gain a sense of responsibility. "*There is no doubt that this situation is a murderer of talent*". Russell J. Davies added: "*Having enough space to work can increase the sense of security and the ability to focus. However, it is difficult to predict the small relationship between physical structure and learning process*" contributed to the. At the same time, criteria such as color, light, general quality level, success and psychological health, student comfort play an important role in the success of students (Saad, 2006).
- Design a school building that develops mental abilities by providing elements that give students a sense of success and self-awareness that is vital. It is a science that focuses on ergonomic social science, psychology and architecture that are interested in these issues and make statements to them. In addition, it tries to perform the following functions:
 - To evaluate the school's working conditions and its impact on students in terms of ways of learning.
 - To find out how much students adapt to their school environments and succeed or fail.

- Evaluating and reforming school buildings in order to improve students' relationships and provide a creative environment in growth (Arab Educational, Cultural and Science Organization, 1989, p. 11-16).
- At the same time, (work environment standards) are interested in studying the criteria associated with the learning environment. Such as: light, temperature, noise and furniture dimensions.

Think of the existence of an education system that encourages students to learn spontaneously in a rich and knowledgeable environment. In this case, students can learn without feeling it. Not only does the presence of water, trees and flowers at school not only give students pleasure, but also motivates them to love learning, wander and take advantage of nature's components. *"If a school is where students, teachers and other school staff work, the only thing that can be done to make this place beautiful is to ensure the satisfaction of the work of students and school staff, protecting mental health and productivity is an effort to succeed."* (Makarios, 1974).

It is necessary to diversify the school size according to the variety of educational activities. The school is no longer a place where knowledge is theoretically passed from teacher to student; it is a multidimensional space with a wide variety of events. In the meantime, what we need is new buildings that fit new programs and methods imposed by the technological revolution. Therefore, the buildings to be built should have the potential to meet all requirements in education. Komis, describes this situation with the words *"First we build buildings, and then buildings build ourselves."* (Komis, 1971, p. 189).

The school's environmental openness should be reflected in school construction: The school building should be designed to meet the needs, trends and needs of the local community. There should also be no big differences between the building and the environment. Because the fact that the school building is consistent with the environment, and the impact of education is strong. The school's environmental openness should be reflected in the construction of the school: the school building should be designed to meet the needs, trends and needs of the local community. Nor should there be significant differences between the building and the environment in order to achieve a successful education.

By presenting the above, it deals with the main dimensions of the work and school environment.

- Public Health: general health index, lighting level, ventilation of classrooms, adequate size of classrooms for the number of students, the width of the space provided for students and teachers, the appropriate size of the queues for students ergonomics (engineering of the human working environment) means people interested in the science of the classrooms.
- Public Services: drinking water adequacy, enough taps, access to water in toilets, water hoses, there are enough toilets and laundry rooms for the number of students.
- Public Safety: if public safety in the school is not adequately met, there is a possibility of dangerous situations for students. It includes the safety of students

attending school, safety of the road leading to school, fire and earthquake safety, and the location of the school close to health centers.

- Regulation and Aesthetics: in education facilities or classrooms, how regularly the teaching tools are located, the presence of frescoes and types of decorations, ensuring a comfortable and beautiful environment, as well as the presence of gardens. (Adolescent, 1986; Maluli, 2010; Almabrouk, 2018; Baker & Bernstein, 2012).

3. Material and Method

This study is a comparative education study, Based on the descriptive analytical approach. In this regard, the elements are arranged according to the vertical method. Accordingly, the study examined the physical conditions of primary schools in Middle Eastern countries (study sample).

3.1 Sample

The study countries were selected through the intention sample, and the sample consisted of five countries selected from geographical regions of the Middle East, where the largest country was selected in terms of population and area. These are Turkey, Iran, Syria, Egypt and Saudi Arabia. The current Middle East points to the old world. In other words, the Middle East region, which houses many countries, consists of three main regions. These are called the Persian region, Arab region and Turkish region respectively⁽ⁱⁱ⁾.



Figure 1: Middle East Capex, 2019

ⁱⁱ Note: In the Arab countries, the Arab region within the Middle East is divided into four sections:

1. Arabian Peninsula (the largest country Saudi Arabia)
2. Sham region (the largest country Syria)
3. Nile region (the largest country Egypt)
4. Rafidain Region (Iraq only) Raid, 2012

3.2 Data Collection Tools

In this study a large number of data were surveyed from different sources to achieve the validity and reliability of the study. Accordingly, the data used in the study are the websites of ministries of education, articles and study, official newspapers, websites, official books and reports.

4. Material and Discussion

4.1 Physical Conditions of Primary Schools in Syria

With the war and poor security situation in Syria, many schools and infrastructure activities have been out of service and many schools have been partially or completely destroyed. These schools are no longer suitable for education in this case. The schools that are intact are occupied by warriors and used as headquarters. Some schools have also been turned into shelters by people who have emigrated because of the war. A UNICEF survey in 2018 highlights that one in three schools in Syria is unavailable (the total number of schools in Syria is 24,000 (UNICEF, 2018). According to Maluli, environmental factors are of quality ranging from 55 percent to 75 percent (classrooms, buildings and health safety) (Malouli, 2006).

In terms of public safety, in the years before the war, Syria has experienced a huge increase in the construction of new schools, especially primary schools. It is possible to say that all primary schools in pre-war Syria do not pose a threat to students. The results obtained by the Ministry of National Education on the environmental reality of primary schools (1997-1998) are around 75 percent of the level of public safety in primary schools (all provinces in the study sample) shows (Syrian the Ministry of Education, 1997-1998). However, many old schools were able to survive with renovations. Some schools have become completely unusable. Al-Maalouli says the safety of buildings and equipment is 52 per cent. The location of the school, the concrete floors and the lack of fire extinguishers in schools are the biggest threats to the safety of children. In addition, the lack of first aid kits is another deficiency that can be considered negative for student safety. As for the state of the classroom, there are complaints in some schools for the lack of adequate classrooms and the lack of comfortable desks in the current classes. While the not safe of some school desks is a problem in itself, the fact that it is not constant poses a risk for students to fall to the ground (Maluli, 2010)

Here are some of the risks a student is exposed to:

- The presence of mobile telephone stations and power plants near many schools.
- No shelters for students to take shelter in case of an emergency.
- In the same context, many schools in rural areas complain of the presence of stone and iron fragments in schools. These substances pose a threat to the safety of students while playing games (Hanoun, 2016).

In terms of public health, schools in Syria pose many risks to children. In some schools, especially in schools in villages, drinking water tanks are located away from the school building and these tanks are not adequately maintained. At the same time, in most

schools dirt accumulates around water taps, as most water taps are old or disabled. In addition, it is difficult for young children to access water taps. Although many village schools are considered useful in terms of providing plenty of room for play and movement, it should not be overlooked that there may be significant risks for children, with lack of care some empty areas becoming a hotbed of dirt (Mahmoud, 2019).

Children in most schools complain of inadequate toilet cleaners. This leads to many diseases. Cleanliness in schools, especially classrooms, is a must. At the same time, students clean their schools on their own. Schools in Damascus have the best elements in terms of health conditions. Adequate ventilation of the classroom, width of student space in the classroom, and the adequacy of the distance between the first student and the blackboard, these schools also take one step forward from schools in other areas (Hanoun, 2016).

In terms of public services, most schools face a lack of services in general. Students go behind distant walls or to their homes to meet the needs of the toilet. In this case the city schools are more efficient than schools in rural areas, but the downside is that they do not have enough room to play for the large number of students (Mahmoud, 2019).

In the study conducted by Maloli (2010), the level of drinking water supply was measured, at 63.6 per cent. In terms of the adequacy of the water taps for students, 90 per cent of schools did not have enough taps to drink water, A water tap must be provided for every 40 students. Also, 86.4 per cent of school toilets are inadequate to meet the needs of students, and 68.9 per cent do not have enough water. A tap drops for every 40 students. 86.4 percent of school toilets are insufficient to meet students' needs, and 68.9 percent do not have enough water (Malouli, 2010).

According to Darwish (2006), the school environment in the eastern region of Syria is not very satisfactory in reality: in addition to the lack of classrooms and per capita space in school buildings, there were some problems with drinking water, such as lack of hygiene and lack of water. At the same time, schools were not equipped with libraries, laboratories and meeting rooms. There are no halls and spaces within the building that provide social activities for children. Also, the absence of educational and recreational theatre halls is another disadvantage (Darwish, 2006).

In terms of regulation and aesthetics, schools, especially primary schools, should be beautiful enough to attract children's attention to education. Having a green garden at school increases the child's activity and work interest. It also provides more space for the implementation of school activities. Schools in Syria are large in size, but lacking organization, arrangement and aesthetic. Although teachers in primary schools have been sensitive about the cleanliness of classrooms and school courtyards to make the school look better; cleaning, reforestation and gardening activities are observed to be inadequate (Hanoun, 2016). As long as they don't have organized gardens, it's inevitable that school courtyards will become filthy places. Most teachers are interested in decorating classrooms and corridors, so we find most elementary classrooms embellished, which is the individual interest of teachers and students. Sometimes the school administration grows trees in collaboration with students and expands them with

individual activities that are not supported by the official authorities. In addition, there are lapses between teachers and students in terms of attention to the beautification and decoration of schools. Only 16% of schools are of high quality aesthetics and organization in Syria (Malouli, 2010).

4.1.1 Commentary

As a result, in light of studies and data on the physical environment in primary schools in Syria, it is possible to achieve the following results:

Schools in eastern Syria suffer from a significant shortage of public services and school buildings, unlike inland areas, due to the negligence of the authorities. This leads to a lack of education and a lack of development in general, leading to increased illiteracy. On the other hand, despite the modest capacity of the Syrian economy, the Syrian economy covers a large part of the school services in the interior, and it can be said that the physical environment in schools is fairly good for children in terms of school space, ventilation, light and heating, according to officials in the Ministry of Education. However, the design of school buildings is still traditional and not aesthetically sufficient. Young children like an attractive and enjoyable environment and school buildings don't work. The prevailing mentality in education in Syria is the military mentality. Therefore, we see that the structure of school buildings resembles military barracks. The biggest problem facing children at school is the lack of hygiene in the toilets. This is because there are a small number of servants in schools. Schools in Syria are large in general and student numbers are also high. However, each school has only one server.

4.2 Physical Conditions of Egyptian Primary Schools

Schools in Egypt are divided into two types in terms of physical conditions:

- Private schools: The quality in these schools and the material elements required for students are good to some extent.
- Public schools: Unlike private schools, most public schools do not have the efficiency of the physical environment (National Education Quality Assurance Authority, 2014).

The problem of school buildings in Egypt is an important educational problem. Because many schools in Egypt are not qualified for education, do not meet quality standards and do not have the capacity to cope with the growing number of students (Mahdi, 2000). Education management should focus on the elements and components of the work environment by creating an environment that helps productivity and enables achieving goals. Accordingly, it is necessary to ensure physical conditions for primary schools in order to encourage students to go to school (Bayoumi, 1993). According to Husayin (2018), educational institutions in Cairo, especially primary schools, do not meet the standards set for the design of educational buildings (Husayin, 2018).

In 1990, the first design standards of primary school buildings were established in Egypt. These standards have become an important reference point in the Arab geography in this area for that period. During this period, the concept of "*sustainable school buildings*"

emerged to achieve greater success in the education process (Abdul Majid, 2013). The Ministry of Education has intensified its efforts to improve the education system and restructure schools. Within the Ministry's plan in 2018, a total of 22,500 classrooms were built with a cost of 4 billion EGP and 300 million EGP to reduce the number of students in classrooms (Abdul Latif, 2013). When developing existing schools or designing new schools, it is necessary to propose standards that meet the requirements and quality of education around Egypt (Pazz, 2018).

A report by The Daily Telegraph on the quality of 28,503 private and state primary schools stated that only 1,500 schools were of sufficient quality. So only 5 percent of schools meet standards (Abdullah, 2016).

Dr. Mahmoud Kamel Al-Naqa, a professor at Ain Shams University and president of the Egyptian Education Association, said that the General Authority for Egyptian Schools does not meet the quality requirements of the Ministry of Education, and that schools are too old, even student activities and playgrounds have been converted into classrooms (Abdul Ifattah, 2012).

About 20 per cent of schools are too bad to be corrected by renovations and are not suitable for quality education, according to the quality director at the Wiley Directorate. Despite the qualifications of quality by the National Education Quality Assurance Authority in cooperation with UNICEF, implementing health and safety standards in schools still presents greater challenges (National Education Quality Assurance Authority, 2014).

In terms of public safety, The Egyptian Authority for Educational Buildings replaces the stadiums with asphalted concrete floors that do not meet international standards. (School safety factors and legal standards through buildings with floors, ventilation, light, toilet, sports equipment and playgrounds). In many schools, concrete or poorly designed ground slips students or falls on this floor, causing various injuries. These negative characteristics of the physical environment lead to violence in schools (Mekanani, 2019).

Many school buildings in Egypt are in poor condition and 2,300 districts suffer from lack of schools. Some of the public schools are very poor in terms of facilities and rent buildings that are not suitable for the education process. In terms of school places, most of them are extremely dangerous. Although a special education building has been built, the risks associated with the location of the school continue to exist, according to media reports. These risks can be examined in two articles in general: these are risks on the roads or in access to the school, and the risks surrounding the school building (Abdullah, 2016). This threatens the lives of students and negatively affects the progress of the schooling process. Here are some of the risks associated with the school site:

- Long walking distances to reach the school.
- The need to pass through canals and sewers to reach the school.
- The need to cross the railways to reach the school.
- Need to cross crowded highways to reach the school.
- The need to pass through agricultural and secluded areas to reach the school.

- The need to use unsafe means of transportation to reach the school (Mahdi, 2000; Abdul Latif, 2013).

In terms of public health, the risks surrounding the school are: risks associated with factory waste (industrial workshops and factories), risks to the surrounding social environment (garbage collection, cafes). In primary schools in Egypt, toilets are not clean enough and there is not enough equipment for clean drinking water. In addition, students face difficulty sitting down. A lot of desks are incompatible with students' bodies. In addition, classrooms lack lighting and ventilation. Especially in winter, students are exposed to diseases (Saad, 2006).

And there is a big problem that most Egyptian schools suffer from in crowded areas it is humidity; humidity causes chest diseases for young children and respiratory problems. One of the problems of awareness experienced by children in public schools is the lack of clean drinking water and this leads to poisoning among children. There are problems with the lack of toilet hygiene, as well as the accumulation of dirt in schools.

As for foods, through the responses of some students, many foods in schools are cooked with refined and unhealthy oils (Abdullah, 2016).

In terms of public services, classrooms have been allocated a lot of space in some newly built schools. A classroom is capable of hosting an average of 100 students. Another problem in these schools is the allocation of more than 30 percent of the building to services, which is a negative situation for the school's educational goal. Some classrooms allegedly do not have doors to facilitate student monitoring. In terms of wood desks, traditional black wood still uses, and some rows are still old models. Egyptian public schools suffer from poor maintenance, as well as serious deficiencies in toilets and taps (Zakaria, 2011).

In addition, there is a significant shortage of social and recreational functioning rooms within the building. There is also a shortage of laboratories, gyms and playgrounds in schools. Many units such as libraries, dining halls, music and visual instruments workshops, meeting rooms and ceremonial halls are also not located in these buildings (Mekanai, 2019).

According to Abdul Fettah, the status of classrooms in schools is evaluated according to the number, density, quality of equipment and services in schools although the number of classrooms has increased, some classrooms still have 60 students in some schools. Another problem in newly built schools is that the existing furniture is old. In some places factory furniture is still used in the 1960s (Abdul Fettah, 2012). There is a serious problem in the case of facilities, especially in drinking water facilities and toilets inside the school buildings. There are some schools that prevent students from using toilets and only keep open for the use of teachers and school administrations. One of the main characteristics of the quality of school buildings is the presence of a garden inside the school. About 3% of schools have gardens in Egypt, the ministry is interested in expanding the construction of classrooms at the expense of areas dedicated to gardening, afforestation and gardens (Saad, 2006).

In terms of regulation and aesthetics, most public schools do not have an aesthetic, and the exterior walls are not painted. In terms of the colours of the classrooms from the inside, dismal colors that do not bring joy are often used. The presence of old wooden furniture in the classroom reminds us of imprisonment. There are shortcomings in terms of trees and ornamental plants in schools and a lack of gardens as well. Schools are working to address this shortfall by running reforestation campaigns from time to time. However, these campaigns are not continuous and are not based on a fixed work plan. It is mostly the product of an individual effort made by school administrations and students (Baz, 2018). Public schools suffer from unregulation. Irregular corridors in terms of entrances and exits; playgrounds and gardens are not regulated. Some schools in crowded and poor areas of Cairo's neighborhoods and large cities resemble abandoned buildings, and are never attracted to education (Zakariya, 2011).

4.2.1 Commentary

After all, according to previous data and studies, it is possible to say that public schools in Egypt, especially schools in crowded places, are unsafe and have major problems in terms of services and hygiene. This is due to many reasons, most importantly, the poor economic situation and the corruption of responsible bodies. In addition, government policies are trying to reduce the burden on the state by supporting private schools against public schools. People, most of them middle and upper class in Egypt, do not want to send their children to public schools due to poor care and neglect.

4.3 Physical Conditions of Saudi Arabian Primary Schools

Saudi Arabia's education budget is 25 per cent of GDP (General Statistical Foundation, 2017). With all these expenses, Saudi Arabia's education sector, particularly in rented buildings, does not enjoy adequate material conditions. (Bagarach & Ansi, 1996).

The issue of rented school buildings is one of the most important issues of the Ministry of National Education and continues to exist. Minister of National Education Dr. Ahmed al-Issa announced the ministry's project to build 600 training buildings to dispose of rented buildings at the Saudi Budget Conference 2019. Al-Issa said 600 buildings to be built will not be able to completely eliminate school rentals, but 11.65% of them will meet the need. Rental schools are actually temporary rental houses and buildings. The Ministry of National Education rents such buildings and allocates them to education until it builds real schools with the necessary facilities and elements for a healthy school environment (Hamid, 2017).

In terms of public safety, the results of some studies in Saudi Arabia show that school buildings are not suitable for education, most schools are small in size, poorly designed and inadequate, suffer from shortages, equipment and safety activities, as well as poor maintenance. (Al-Bakhit, 2018). However, we can add to the safety problems of the lack of fire fighting equipment and the lack of first aid boxes. In addition, the lack of emergency exit doors and the absence of a fire make the school an unsafe environment (Al-Tayashin, 2009; Buhlifa, 2011; Al-Shahri & Al-Ajemi, 2013). Some schools have deep

cracks in the walls and ceilings where they pose a threat to the safety of students. In addition, existing school buildings have become unable to meet the need because they were not built to achieve future education, in addition to converting already limited function rooms into classroom (Al-Maysan, 2012).

In a study conducted by the College Room and The School of Dammam and Al Khobar at Imam Abdul Rahman Bin Faisal University in cooperation with the Ministry of Education a study on the safety of primary schools and safety plans and evacuation and emergency exits. As a result of this study, Aramco schools have been identified as the highest quality at 99 per cent. Public schools are second at 60 per cent; charter schools are last with 30 per cent (Al-Sulayman, 2018; Al-Saleh, 2018).

In terms of public health, a report by Saidi (2018), on the reality of schools in Medina according to witnesses, where classrooms are very dense in terms of the number of students, some schools are closed and toilets are insufficient in schools (Saidi, 2018).

However, in connection with the age, approaches, ventilation conditions and the different location of the school, the design of the school buildings must be reviewed. It is also imperative to pay attention to educational opportunities to serve the environment and society and to develop various models that meet the needs of different environments that vary depending on environmental conditions (Baghazer, 2017; Saad, 2011).

According to Ajami (2013) some of the problems of the physical environment are: classrooms and corridors in some schools are small and ventilation is not enough. This negatively affects the education process. In addition, schools built near factories, busy streets and highways affect students. (Al-Ajami, 2013).

In terms of public services, the classrooms in primary schools in Riyadh are crowded with students, there is a shortage of physical equipment, a lack of electronic services, as well as the narrow classrooms. In addition, the lack of classrooms, playgrounds, gyms and suitable squares that prevent students from conducting their activities properly. In addition to poor lighting, the old and inadequate conditioners also make training difficult, especially in the summer months (Al-Muqrin, 1992; Zamil, 2008). According to Al-Fefi (2017), border schools in Yemen face poor conditions, such as water shortages and lack of toilets (Al-Fefi, 2017). In the annual report by the Building Development Authority in 2018, buildings completed in primary schools reached 72.7% across the country. In Saudi Arabia, the lowest completion rate in school construction is 6.2 per cent, and the completion rate in the capital, Riyadh, is 100 per cent. The completion rate of construction, maintenance and cleaning services allocated to education in 2018 reached 18.2 percent nationwide; the proportion of schools completed repairs and rehabilitation in the same year was 21.1 percent. (Structures -Development Authority, 2018).

In terms of regulation and aesthetics, Al-Taher's study (2007) confirmed that the buildings built by the state and Aramco did not meet de McCleary's standards, as well as the buildings built by Saudi Aramco were better (Al-Tahir, 2007). In identifying educational problems related to the area and physical conditions of the chartered school building, comparing public primary schools managed by the Educational Institution,

problems arising from chartered education buildings in Saudi Arabia; In terms of both students and teachers, it was concluded that it was higher than government buildings. In recent years, many new schools have been built and many charter schools have been replaced with normal schools. In addition, many schools have been made in accordance with international standards through renovations (Al- Zuabir, 2005; Boualea, 2017).

The report (Jabri, 2008) stated that the current classrooms failed to respond to the increasing number of students and therefore decreased productivity in education. As a solution, a reorganization of the physical environment has been proposed. In the result the physical environment of primary schools should be further improved and appropriate (Jabri, 2008).

4.3.1 Commentary

As a result, according to previous studies and data, we see that charter schools in Saudi Arabia do not have high standards despite the allocation of a large budget for education. These schools do not provide a physical environment suitable for students because most school buildings are not actually designed as schools. Government policy suggests a lack of land for school projects and does not allow school construction in villages or regions with fewer than 100 students.

Poor planning and mismanagement exacerbate educational conditions. Some of the projects initiated by investors cannot be completed either because of corruption or mismanagement. On the other hand, some officials attribute the negative impact of charter schools to the rapid increase in the number of students.

4.4 Physical Conditions of Iranian Primary Schools

"What about our schools?" the Iranians expressed their deep dissatisfaction with their government's announcement of its intention to restore some of the schools destroyed by the war in Syria (Rizai, 2020). According to the last census carried out by the Ministry of National Education's Human Resources and Information Technology Center in 2020, the total number of public primary schools and private primary schools reached 61,346 (Ministry of National Education, 2020).

In terms of public safety, it would be wrong to say that schools in Iran lack the simplest services. About 70 percent of Tehran's 4,000 schools are well below the standards, according to administrators. The governor of Tehran says 827 schools in the city are in danger and new schools must be built urgently. In Baluchistan, students are forced to go to school despite flooding and building collapse (Mohammad Rizai, 2020). The vice president of the Nozazi Foundation said that 26,610 schools are very weak in terms of construction. The government's ability to provide as much as \$100 million to the Government has been achieved. It is also reported that 5,000 schools are rented (People's Mojahedin Organization of Iran, 2019 & Mohammady, 2020).

According to the Masud (2018), one million students from all over the country are starting classes in thousands of schools and classrooms without the slightest safety measure. These old schools can sometimes be at the level of "cottage". In addition,

according to the Deputy Minister of Education, 30 per cent of the country's schools were old and threatened to fall. According to teachers, there are 121 schools in Isfahan province. Unfortunately, only 27 are usable, and more than 5,000 students must study in these schools under the minimum safety requirements. Remote border provinces even rely on dilapidated buildings, with camp education continuing in these areas (Masud, 2018). According to People's Mojahedin Organization of Iran (2019) report, there are 700 classrooms made of clay and stone in Iran, and more than a million students are studying in schools in Iran that lack safety standards. In the same context, inadequate safety situation in recent years has led to many accidents and the deaths of many students (People's Mojahedin Organization of Iran, 2019).

In terms of public health, many schools in crowded areas are exposed to poor health conditions such as of moisture, lack ventilation and lighting, according to Rizai (2020), School buildings, most of which are old, do not meet the health conditions required for children. Despite the government's efforts to rehabilitate old schools and provide students with a healthy environment, the facts do not reflect the government's effort (Rizai, 2020).

According to Karimi (2017), students are unable to study comfortably in the classroom due to overcrowding and lack of warmth and ventilation in schools in the capital and major cities. With regard to charter schools, the situation is even worse. Students suffer from health problems due to small and crowded classrooms, and do not see enough sun and small windows not enough to enter the sunlight. In addition, Students in mountain schools in winter complain about the coldest classrooms. Heating is not enough to protect students from the cold (Karimi, 2017).

In terms of public services, there is a lack of classrooms in the province of Sistan and Baluchistan. "*Jabhar needs 2,000 new classrooms to reach the minimum level of education per capita in the country and state,*" according to a member of the regime council for the city of Jabhar (Karimi, 2017).

According to Human Right Watch (2019) report, there are 120,000 classes in Iran that experience a lack of heaters and air conditioning in summer and winter. In the same context, Iranian parliament member Resul Khadri says that "*98.5 percent of the Ministry of Education's budget is spent on paying salaries, in return 1.5 percent of the budget is used for construction projects and the reconstruction of schools*". In addition, children with disabilities who go to school face many physical disabilities and eventually leave school. These include a lack of classrooms, toilets and gardens for the disabled. The government should provide suitable facilities for children with disabilities to get the support they need in classrooms and school buildings (Human Rights Watch, 2019).

Support processes are expected to provide assistive devices such as hearing aids, "Braille" or audio recording devices. Poor facilities in schools force children with disabilities to leave school, go to a school away from home, or even go to a "private" boarding school away from their families and society. According to state statistics, 75,000 children with disabilities enrolled in private schools in the 2018-2019 academic year and were separated from other students. In recent years, the Iranian government has made a

significant increase in the education budget to ensure children with disabilities have access to education and have taken measures to facilitate the use of newly built or renovated school buildings (Iranian the Ministry of Education, 2018-2019). Some support for children with disabilities going to public schools has also been increased by providing materials accessible, including the use of Braille writing or audio recordings (Karimi, 2017; Muhammad Shekhzad, 2019).

Contrary to what Iran needs, traditional designs are still more widely used in school construction. So, schools are built in the form of crates (Radwani, Shaani & Barshadt, 2019).

Until this time, some schools in the villages still do not have any electricity connections, asphalt roads, drinking water tanks and even a landline or mobile phone connections. Worse, school buildings are quite old structures built of mud and stone. The appropriate classroom environment in these schools is not yet available. It is not so easy to understand the difficult conditions these children are experiencing. Some schools use daylight or candles to illuminate the classroom (Bahlul, 2018).

Iranian media focus on new schools every New Year, but photos accessed through photos and cameras show that there are 53,000 students studying in tents and hay houses. Given the design of schools in Iran, in the past three years, school designs have begun to vary according to climate diversity across the country. But this applies only to very few schools. Although the quality of teachers and materials has increased in recent times, the buildings are still more poor (Irvani, 2010; Bahlul, 2018).

In terms of regulation and aesthetics, the school environment is the second environment in which a child spends his or her time after home. Because the child spends a lot of time in school, which affects his psychology, behavior and thoughts. For this reason, many specialists focus on providing a comfortable environment for a child's health and psychology. This environment will help to ensure psychological and intellectual stability ostensibly, and this is not available in many Iranian primary schools (Bahlul, 2018).

Latifi said "*There is a failure on the part of the government to beautify and improve the school environment*". Many primary schools do not use cheerful colors to draw schools. On the contrary, one color is used for the internal interface, but the exterior is not adequately painted. In terms of ornamental plants and gardens, there is a significant shortage of school reforestation and plant cultivation. The school looks like monochrome concrete or a sandy area (Latifi, 2020).

A report by Rajaai (2018), focuses on children's hatred of school and their inability to adapt to poor school conditions (Rajaai, 2018). In their work on the material conditions in primary schools in Iran, Mahmoudi and Tahula (2011), they showed that schools are not well cared for, with the exception of some schools in high-level areas (Mahmoudi & Ataolah, 2011).

4.4.1 Commentary

After all, from previous studies and data, it can be said that the biggest problems of the physical environment in primary schools are: Schools are not robust and safe due to construction conditions. The weakness of school buildings is due to the following reasons:

- 1) The focus of the Iranian education system on central areas leads to a lack of service in extremist areas.
- 2) The budget for improving the physical environment of schools is inadequate because of the mismanagement and corruption of the responsible authorities.
- 3) Excessive focus on religious education leads to neglect of public education, particularly improving the physical environment of schools.

4.5 Physical Conditions of Turkish Primary Schools

The quality of the physical conditions of schools is of great importance for students to have a positive school experience and to ensure that they are good. The material conditions, which are of interest to educators and students, are that we have a garden, library, laboratory and a suitable gym. Classrooms should be widely evaluated, which extend to size, quality and sufficient number of them according to standards. In addition to hygiene, public health and other things that attract the child to school (Barker, 1982; Baker, 2008).

Between 2015 and 2016, the number of students in public primary schools decreased, while the number of students in private schools increased by 14 percent. The number of students in public schools decreased by 2 percent; The number of private primary schools has increased by 15 percent and the number of primary schools has decreased by 15 percent in total. In terms of formal education, 15 percent of students and parents prefer private schools. These statistics show that there is a problem in the education system or services (Turkish Ministry of Education- Construction and Real Estate Department, 2016).

According to Yilmaz (2010), in primary schools, it is absolutely necessary to move away from the same model, because the important thing is to increase the patterns of construction projects in school buildings and make them compatible with learning processes and their objectives. Educational building plans are needed that correspond to today and the future (Yilmaz, 2010). According to Yilmaz's study, in primary schools in Afyon Karahisar, school buildings do not provide adequate physical conditions (Yilmaz, 2012). An inappropriate environment can be a haven for the emergence of failure, fatigue, irritability in students and can create a mismatch in the student's psychological and physiological personality (Jabok, 2006).

In terms of public safety, a study on the physical environment of primary schools in Turkey revealed that a large proportion of teachers in Van do not find school buildings environmentally appropriate. Some schools are reported to be under the renovation plan. It is part of the 2015-2019 Strategic Plan published by Ministry of Education in 2015. Other

information that stands out is that 17% of the school buildings that have been identified as strengthening were earthquake resistant in 2014 (Akbaba & Turhan, 2016).

In addition, in 2015, due to conflict and curfew conditions in some provinces of south-eastern Anatolia, extremely negative conditions that did not serve children's rights were observed, such as the lack of school damage assessment centers, a teachers' centers from provincial schools, the failure of parents to send their children to school, or the lack of safety of life for students who could come to school. In this context, education is provided through compensation to ensure that children living in the area do not separate from education.

According to the current data shared by the Ministry of Education, a total of 77 schools were severely damaged due to the conflicts, including 44 in Sirnak, 26 in Mardin and 7 in Diyarbakir. A total of 12,524 students from Diyarbakir, 12,524 students from Sirnak, 10,168 from Sirnak, were compensated during the break. A total of 672 volunteer teachers were assigned to these programs (Isikoglu, 2007).

In terms of public health, it is possible to say that the heat and lighting are sufficient. The installation of the heating system has been established in all primary schools in recent years. Classroom windows are available at 6 windows per class according to new standards. According to Akbaba & Turhan (2016), the canteens of the schools in Van province are not healthy enough in terms of capacity and hygiene. In some schools, environmental pollution is observed to be very high. Primary schools are in better shape than before, thanks to improvements made in schools at heating, lighting and ventilation points. On the one hand, toilets are not clean enough and lack of soap leads to many diseases (Akbaba & Turhan, 2016). In some schools, classrooms are a busy place, leading to respiratory problems. In addition, according to Sarisik and Dushun (2016), 6 out of 10 children who participated in the study said the toilets were not clean enough. Some of the children say there is no soap in the toilets, while others even say they don't go to the bathroom in their school unless they have to (Sarisik & Dushun, 2016).

In terms of public services, the school environment is very important in the child's school life and in the education process. At this stage, a small child is accustomed to the conditions of care for the family. This is why it is important to provide basic requirements in schools.

According to Yilmaz (2012) there is an acceptance view of the physical environment of primary schools, especially in terms of school construction. More criteria such as geographical conditions, gender changes, increased number of students and student deficiency, external and internal conditions, students with disabilities, technological equipment, environment-circle-neighborhood, distance and proximity should be considered during the construction of schools (Yilmaz, 2012).

In addition, some schools suffer from a shortage in areas such as libraries, gyms, computer rooms and laboratories. According to Sarisik and Dushun (2016), students complain of cold in the classrooms. In addition, they have problems cleaning toilets. At the same time, the Ministry of National Education strives to increase the number of

gymnasiums and libraries, to make buildings suitable for children with disabilities, to strengthen schools and to provide internet services (Sarisik & Dushun, 2016).

"Fatih" project was also launched to bring tablets and smart boards together with schools. According to the standards of the Ministry of Education, each school has a garden large enough to equal 65 percent of the school area. In one study, 83 percent of students expressed satisfaction with the presence of a large garden at school. Of these, 87 percent of them are first four graders. When we look at students' opinions in terms of the gym, the proportion of primary school students is as low as 34 per cent. According to the study, the school library had a positive perspective of primary school students at 55.5 per cent. The proportion of children who say their school is not well warmed up is 41% in schools that provide dual teaching. The most up-to-date data on these physical conditions is included in the 2015-2019 Strategic Plan published by the NME in 2015. Accordingly, as of 2014, the proportion of schools with gyms was only 8.4%. The school rate with a multi-purpose hall/conference hall is 36%, while the school with a library is 39.2%. 43% of the school rate suitable for the use of students with disabilities and 35% of the school rate completed within the scope of Fatih Project internet infrastructure/tablet and board distribution (Sarisik & Duskun, 2016). In terms of services for disabled people in schools, many improvements have been made and continue to be made so far. Ramps that provide entry and exit facilities for children with disabilities, audiovisual and tactile education tools are some of them. However, there are also schools that are deprived of these services. Some schools in Van are examples of this situation (Bashar, 2003).

In a study Akkar and Sadiq (2003) on the comparison of educational schools between 2000 and 2000 and beyond, they found that school buildings in primary school were better since 2000 and then in terms of indoor and outdoor buildings, lighting, furniture, clean garden, entrances and exits. In addition, equipment and school structure are more harmonious to education. In addition, problems such as toilet cleaning equipment, lack of green space, inadequate toilets for the number of students, lack of internal and external laboratories are also experienced (Akar & Sadiq, 2003).

As of 2000, 147,326 new classrooms were needed with the Catch-Education project of the Ministry of National Education, and 83,843 of them have been completed in the last four years. 63,483 classrooms are already needed. The area covered by the school building with the arrangements made after 2000 was set at 10,000 square meters for primary schools and closed 7,200 square meters of this area; It has been decided to have 2,800 square meters open. It is observed that the size of the classroom sat at an average of 71.6 square meters and an average of 26 students fell for each classroom. Each semester has 6 windows, but random, one-style colors are used to paint schools. After 2000 the replacement of large seats began to be seen as individual seats. Natural gas heaters have been installed in many schools to ensure that their schools are warmed. Each school has four doors for entrances and exits. The number of women in the national police force is 12.5 per 1,000. In addition, large, green gardens are needed instead of concrete playgrounds (Akar and Sadiq, 2003).

In the study entitled "The Possibilities and Problems of Yippo in Hakkari Province", conducted by Isikoglu (2007), it was reported that only science and computer laboratories were found in schools, and there were also no laboratories and workshop halls. The results were found to be that there were no multi-purpose halls and facilities in schools, school gardens lacked aesthetic touch, green spaces were inadequate, toilets in schools were limited, and toilets and sinks per capita were inadequate (Isikoglu, 2007).

In terms of regulation and aesthetics, the color of the school is important so that the school can become a center of attraction for students, teachers and the entire staff. With regard to the internal and external colors of schools, primary schools have been particularly limited in recent years. Yellow and salmon color are used from the outside, and are used for green and white corridors, and the double or white color of classroom.

At the same time, it has been stated that there are major deficiencies in the gardens of schools. In all three schools in the sample, it was noted that the garden was covered with concrete or different materials, and the construction of open sports stadiums such as volleyball and basketball was not completed. On the other hand, infrastructure works for environmental regulation and reforestation have not been completed (Halis, 2000).

According to data obtained from Ahmed's study, there is no difference between the two school groups sampled in terms of cleanliness, the overall form of classrooms and the school yard. Also, the colors used in the internal and external paint of primary school buildings should be carefully selected (Cabuk, 2006). Although primary schools around the world prefer more yellow and pink colors and cheerful colors in their buildings (Parker, 1982) yellow and salmon in primary schools are still the most commonly used in Turkey (Akar and Sadiq, 2003). The colors used inside and outside the classrooms in primary schools in Van are not compatible with the mental health of children, so most schools do not have enough green space. It is also possible to say that the existing playgrounds are also inadequate, and it is possible to say that most of the patios in schools are concrete (Akbaba & Turhan, 2016).

4.5.1 Commentary

As a result, according to previous data and studies, the surrounding buildings and primary schools in Turkey are in a fairly acceptable position in the areas of safety, health and public services. Accordingly, responsible agencies are considered to have a significant interest in improving the physical environment. In addition, there is a degree of autonomy for educational and school principalities. On the other hand, it is important to remember that some schools are still more overcrowded. Most schools also suffer from deficiencies in terms of gardening and reforestation, as well as a lack of aesthetic touch.

5. Recommendations

In this regard, we can make some proposals based on previous results:

- The formation of specialized committees in all countries concerned with the problems of school buildings and their treatment.

- Adapt cooperation with UNICEF and Save The Children organization to help find solutions

6. Conclusion

In general, we can say that primary school buildings in the study countries do not provide physical conditions significantly. Also, according to previous data, there is a disparity in the availability of physical conditions in schools. The school structure in Turkey achieved a good rate in providing physical conditions, with the exception of the cosmetic aspect where there was a shortage, followed by Syria with a medium degree in terms of the provision of physical conditions in school buildings. In addition, the lack of services has become more apparent. The biggest problem facing school buildings in Saudi Arabia is rented buildings in general, as the reality of the physical environment in primary schools does not match the large amount of spending. As for Egypt's public schools, physical conditions have not been met in all areas of health, safety, services and aesthetics. As for the situation in Iran, the results were uncomfortable, according to previous data, and many Iranian schools did not meet the material requirements in terms of safety and services in particular and in other areas did not meet the material requirements in general. Therefore, we can say that the current reality of primary schools does not take into account the characteristics of children and their psychological and health aspects.

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