

PHYSICAL ENVIRONMENTAL CONDITIONS OF A SAMPLE OF TYPICAL PRIMARY SCHOOLS AT ALSHU'LA DISTRICT

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ABSTRACT

Objective: The study aim to evaluate physical environmental conditions of a sample of primary schools and compare these conditions with the national standards of school environment.

Methodology: cross- sectional study conducted in Alshu'la district/Baghdad Gov./Iraq on a sample of typical primary schools, for the period from the 1st of July 2015 and up to 1st of November 2015. The sample included 4 typical primary schools (Alshu'la, Alshfaq, Alahwaz and Alqastal). Data was collected by self – reporting of previously designed questionnaire. Statistical analysis was that used in descriptive study including frequency and percentage to find the association between variables. **Results:** The findings of the study present a "Good" evaluation scale regarding "the building status" and

"very good" evaluation scale concerning "the surrounding environment" and "the field" of the school. **Recommendations:** The study recommends the following of the national and WHO standards in creating healthful physical environment and corecting the alreadyexisting problems in the physical school environments.

KEYWORDS: Evaluation, typical primary schools, physical environmental conditions.

INTRODUCTION"

Today's children are the tomorrow's adults. So They have the right to have a well guarded and a healthy world. "There is no task more important than safeguarding their environment." The importance of this mission was assured by the Healthy Environments for Children Alliance

(HECA), which pay a high consideration for the "school environment" as one of the most important roles that must be played for maintaining and developing the children's environmental health.^[1]

The term of "a health-promoting school" as explained by the WHO is a "school that constantly strengthens its legitimacy as a healthy place for living, learning and working." (5). The American pediatrics academy defines a "healthful school environment" as "school that safeguard pupils and school personnel against prompt physical harm or illness and encourage the development of the preventive activities and behaviors against already identified hazards that may cause disease or disability in the future."^[6]

a fundamental Component of a Health-Promoting School that look into a wide scope of environmental conditions that present in a different school environments, this is how the American pediatrics academy identified the physical environment of the school. It also should provide long term plans to promote the verdure, schooling and improvement of children, families and society members and aims to help societies to perceive, control and avert physical, chemical and biological hazards that could be present in or near their schools.^{[2] [3]}

The physical school environment includes both physical and aesthetic surroundings of the school buildings. Factors that might be involved in the physical environment of the school include the school structure (its age and architecture) and its surroundings which also consider the presence of both biological or chemical agents that are harmful to health; factors include other physical conditions such as temperature, noise and lighting.^[4]

METHODOLOGY

A cross – sectional study with a period of Data collection that continued from 1/7/2015 to 1/11/2015, The study was carried out at (Alshu'la, Alshfaq, Alahwaz and Alqastal) primary schools that located at Alshu'la district at Baghdad governorate, The sample selection was convenient sample, the data collection was done by self – reporting of previously designed questionnaire that included these items:

[The environment of the neighborhood of the school, The building status of the school ,The garden status of the school, The field status of the school, The classroom status of the school, Drinking water and water cycles of the school, The fire distinguishers, Waste disposal, Electricity of the school, Methods to prevent and eliminate rodents and insects, The service

workers (staff) of the school.], The sample was unrandomized, and consists of 4 primary schools (alshu'la, alshfaq, alahwaz and alqastal), Statistical analysis was that used in descriptive study including frequency and percentage to find the association between variables.

RESULTS

Table (1): Relationship between The surrounding environment and school.

School		The surrounding environment		Total
		Good	Very good	
Alshafaq	No.	1	0	1
	%	25.0%	.0%	25.0%
Alahwaz	No.	0	1	1
	%	.0%	25.0%	25.0%
Alshu'lla	No.	0	1	1
	%	.0%	25.0%	25.0%
Alqastal	No.	0	1	1
	%	.0%	25.0%	25.0%
Total	No.	1	3	4
	%	25.0%	75.0%	100.0%

T-test=11.00, P-value=0.02, C.S= H.S [P-value <0.01]

Table(1) shows that 25% of the " surrounding environment" result was "good" while 75% was "very good". This result shows high significant Relationship between The surrounding environment and school as p value was less than 0.01

Table(2): Relationship between The building status and school.

School		The building status			Total
		Bad	Good	Very good	
Alshafaq	No.	0	0	1	1
	%	.0%	.0%	25.0%	25.0%
Alahwaz	No.	0	1	0	1
	%	.0%	25.0%	.0%	25.0%
Alshu'lla	No.	1	0	0	1
	%	25.0%	.0%	.0%	25.0%
Alqastal	No.	0	1	0	1
	%	.0%	25.0%	.0%	25.0%
Total	No.	1	2	1	4

T-test=9.815, P-value=0.02, C.S= H.S [P-value <0.01].

Table(2) shows that 25% of the " building status" result was "bad", 50% was "good", while 25% was "very" good. This result shows high significant Relationship between The building status and school as p value was less than 0.01.

Table (3): Relationship between The garden status and school.

School			The garden status			Total
			Bad	Good	Very good	
Alshafaq	No.	0	1	0	1	
	%	.0%	25.0%	.0%	25.0%	
Alahwaz	No.	0	0	1	1	
	%	.0%	.0%	25.0%	25.0%	
Alshu'lla	No.	1	0	0	1	
	%	25.0%	.0%	.0%	25.0%	
Alqastal	No.	1	0	0	1	
	%	25.0%	.0%	.0%	25.0%	
Total	No.	2	1	1	4	
	%	50.0%	25.0%	25.0%	100.0%	

T-test=2.191, P-value=0.116, C.S= N.S [P-value >0.01].

Table(3) shows that 50% of "The garden status" result was "bad, 25% was "good", while 25% was "very good". This result was no significant.

Table(4): Relationship between The field status and school

School			The field		Total
			Good	Very good	
Alshafaq	No.	1	0	1	
	%	25.0%	.0%	25.0%	
Alahwaz	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Alshu'lla	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Alqastal	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Total	No.	1	3	4	
	%	25.0%	75.0%	100.0%	

T-test=8.878, P-value=0.003, C.S= H.S [P-value <0.01]

Table(4) shows that 25% of "the field status" result was "good", while 75% was "very good". This result shows high significant Relationship between The field status and school as p value was less than 0.01

Table(5): Relationship between The classes and school

School			The classes		Total
			Good	Very good	
Alshafaq	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Alahwaz	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Alshu'lla	No.	1	0	1	
	%	25.0%	.0%	25.0%	
Alqastal	No.	0	1	1	
	%	.0%	25.0%	25.0%	
Total	No.	1	3	4	
	%	25.0%	75.0%	100.0%	

T-test=20.201, P-value=0.00, C.S= H.S [P-value <0.01].

Table(5) shows that 25% of "The classes" result was good, while 75% was "very good" This result shows high significant Relationship between The class and school as p value was less than 0.01.

Table(6): Relationship between Drinking water and water cycles and school

School			Drinking water and water cycles			Total
			Bad	Good	Very good	
Alshafaq	No.		1	0	0	1
	%		25.0%	.0%	.0%	25.0%
Alahwaz	No.		0	1	0	1
	%		.0%	25.0%	.0%	25.0%
Alshu'lla	No.		1	0	0	1
	%		25.0%	.0%	.0%	25.0%
Alqastal	No.		0	0	1	1
	%		.0%	.0%	25.0%	25.0%
Total	No.		2	1	1	4
	%		50.0%	25.0%	25.0%	100.0%

T-test=3.922, P-value=0.29, C.S= H.S [P-value <0.01]

Table(6) shows that 50% of "Drinking water and water cycles" results was "bad", 25% "good". while 25% was "very good". This result was significant.

Table(7): Relationship between Fire distinguishers and school.

School			Fire distinguishers		Total
			Bad	Good	
Alshafaq	No.		1	0	1
	%		25.0%	.0%	25.0%
Alahwaz	No.		0	1	1
	%		.0%	25.0%	25.0%
Alshu'lla	No.		1	0	1
	%		25.0%	.0%	25.0%
Alqastal	No.		1	0	1
	%		25.0%	.0%	25.0%
Total	No.		3	1	4
	%		75.0%	25.0%	100.0%

T-test=1.00, P-value=0.391, C.S= N.S [P-value >0.01]

Table(7) shows that 75% of "Fire distinguishers" results was bad, while 25% was good. this result was no significant.

Table(8): Relationship between Waste disposal and school.

School			Waste disposal		Total
			Good	Very good	
Alshafaq	No.		0	1	1
	%		.0%	25.0%	25.0%
Alahwaz	No.		0	1	1
	%		.0%	25.0%	25.0%
Alshu'lla	No.		1	0	1
	%		25.0%	.0%	25.0%
Alqastal	No.		0	1	1
	%		.0%	25.0%	25.0%
Total	No.		1	3	4
	%		25.0%	75.0%	100.0%

T-test=9.798, P-value=0.002, C.S= H.S [P-value <0.01].

Table(8) shows that 25% of "waste disposal" results was "good", while 75% was "very good". This result shows high significant Relationship between waste disposal and school as p value was less than 0.01.

Table(9): Relationship between The electricity and school.

School			The electricity	Total
			Bad	
Alshafaq	No.		1	1
	%		25.0%	25.0%
Alahwaz	No.		1	1
	%		25.0%	25.0%
Alshu'lla	No.		1	1
	%		25.0%	25.0%
Alqastal	No.		1	1
	%		25.0%	25.0%
Total	No.		4	4
	%		100.0%	100.0%

T-test=1.00, P-value=0.391, C.S= N.S [P-value <0.01].

Table(9) shows that 100% of "the electricity" results was "bad". This result is no significant.

Table(10): Relationship between The anti rodents and insects methods and school.

School			The anti rodents and insects methods	Total
			Bad	
Alshafaq	No.		1	1
	%		25.0%	25.0%
Alahwaz	No.		1	1
	%		25.0%	25.0%
Alshu'lla	No.		1	1
	%		25.0%	25.0%
Alqastal	No.		1	1
	%		25.0%	25.0%
Total	No.		4	4
	%		100.0%	100.0%

T-test=2.828, P-value=066, C.S= N.S [P-value <0.01].

Table(10) shows that 100% of " between The anti rodents and insects methods" results was "bad". this result is no significant.

Table(11): Relationship between The working staff The working staff and school.

The working staff		The working staff			Total
		Bad	Good	Very good	
Alshafaq	No.	0	0	1	1
	%	.0%	.0%	25.0%	25.0%
Alahwaz	No.	1	0	0	1
	%	25.0%	.0%	.0%	25.0%
Alshu'lla	No.	0	1	0	1
	%	.0%	25.0%	.0%	25.0%
Alqastal	No.	1	0	0	1
	%	25.0%	.0%	.0%	25.0%
Total	No.	2	1	1	4
	%	50.0%	25.0%	25.0%	100.0%

Table(11) shows that 50% of " the working staff" result was "bad", 25% was "good", while 25% was "very good".

Table(12):t- Test.

	T	P-Value	C.S
N	11.000	.002	P<0.01(HS)
B	9.815	.002	P<0.01(HS)
G	2.191	.116	P>0.05(NS)
F	8.878	.003	P<0.01(HS)
C	20.201	.000	P<0.01(HS)
W	3.922	.029	P<0.05(S)
A	1.000	.391	P>0.05(NS)
D	9.798	.002	P<0.01(HS)
E	1.000	.391	P>0.05(NS)
S	2.828	.066	P>0.05(NS)
I	0.000	-	-

DISCUSSION

The Physical School Environment: An Essential Component of a Health-Promoting School focuses on the physical environment of the school and is complemented by the document Creating an Environment for Social and Emotional Well-being.

According to "the surrounding environment" the study showed a "very good" level, this study has agreement with [Physical Environment and Student Safety in South Georgia Schools.^[7]

When the study about "the building status" revealed a "good" level in the schools and this supported by [School Climate and Classroom Management.^[8]

Regarding to "the garden status" the study had "bad" level, the study disagree with [National curriculum framework,^[9] due to lack of regular appropriate use and maintenance of the garden areas of the schools in the study.

When the study about "the field status" revealed a "very good" level, this results of the study agree with [The future of the physical learning environment.^[10]

According t the "classroom status", the study had a "very good" level, this supported by the [School Climate and Classroom Management.^[8]

Regarding to "fire distinguishers" and "drinking water and water cycles" the study had a "bad" level, this disagree with [The Impact of School Environments,^[11] due to the absence of availability and regular maintenance of the fire distinguishers, lack of appropriate and hygienic water tap and the presence of drinking water fecal contamination in half of the sample.

According to "the waste disposal" the study had results with "very good" level, this study has agreement with [a Guide for Schools. Wisconsin Department of Natural Resources.^[12]

When the study reveals a "bad" level regarding to "electricity" and "anti rodent and insect methods", this is supported by [The assessment of school health programs Missan governorate.^[13]

RECOMMENDATION

following the national and WHO standards in creating a healthful physical school environment.

Correct the already existing problems in the physical school environment that affect the physical, emotional and psychological health problems of the students and the school personnel, as well as the educational output of the school and the student.

Strictly ensure the presence of adequate and safe drinking water supply and water cycles.

Periodical checkups of the building status and start a repairing campaign to any structural

defect, as well as ensure the presence of appropriate space for each student.

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