An-Najah National University

Faculty of Nursing

" Effect of physical school environment on student educational performance in Nablus city schools"

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Outline

Abstract:

Is there relation between physical school environment and student development and educational performance? And what are the dimensions of this influence?

This is what study search, which explores the effect of these physical characteristics on the student achievement in Nablus public and private schools, Study reflect cross sectional random sample that include (270) student distributed on (8) schools. This sample was taken by chance, from the classes and face to face interacts using questionnaire involve three parts knowing that there are several studies show the significant link between the school environment and student achievement and developing. Based on the ideal characteristics, that should be Exists in the schools. Data collected through this (8) schools and analyzed by statistical package of social science (SPSS), the result of student attitude toward the effects of the school environment on the scientific achievement due to the variable of school, math average, English average and general student average reject the search hypothesis and show the clear relation between school physical characteristics such as" class size, indoor quality, cleanness of school ,seating and other characteristics that include 14 paragraph treat in study questionnaire" and student satisfaction toward educational achievement .

Chapter 1

Introduction:

The school is the important setting after home in all psychological, educational and physical respects that children spent much of time in it and each school day the student will be in several areas such as playground to art room , chemistry laboratory to class room ,that mean several health and satisfying issue will be taken arise over air quality, building materials, water quality, and chemical use .

A healthy physical environment contributes to a favorable learning environment for children and better productivity for teachers and staff (nasn, 1998).
So maintains healthy school environment is critical to the success of students and to have well educational performance. Also help student to develop in balance manner that will form positive child's personality and thus ensure that he or she will become effective person in the community.

No two schools are alike. Schools, just like the people within them, have different characteristics. So this study attempted to tie school characteristic and student outcomes. Data base of study developed in multiple measures of school characteristics and student performance in 4 schools across 3 month which show the schools variables and student performance.

1.1. Background:

Word health organization (WHO) defines a health-promoting school as "one that constantly strengthens its capacity as a healthy setting for living, learning and working" .That mean the students need all learning setting and living factors in the school that provide that strengthens to maintain a healthy physical and psychological calm for the students, teachers and leaders in the school that reflect full health promoting & development related all aspects, based on definition of health" complete physical, psychological, social, emotional, economic and intellectual will being and integrity" and the health is the major role that promotes educational performance & development of the student in all educational & intellectuals aspects (WHO, 1948).

One of these factors is healthy school physical environment that is critical components of school environment, which are physical and aesthetic surroundings, the psychosocial climate and culture of the school. That also constitutes the biggest factor in the school design which determine the quality of the school related its desire objectives .so good school physical environment and design will help leaders team to achieve goals which support student educational performance and personal development.

When we are talking about physical school environment, we are talking about ideal characteristics that distributed in many areas which are major keys to enhance learning process and promote student performance in the schools that shouldn't be forgotten .

Some of important areas in the school are class room and its design, because it is where students & teachers spend most of their time in, and where the learning process takes place, so the good class climate helps teachers and student to make professional interact that support student developing and promote good educational performance with good school development. That also includes several keys as lightening, number of student and free from noise, there are also many important factors that concern school design and its sanitations, cleanliness of schools, Temperature and indoor climate (Berry,2002).

There are several studies that take a more comprehensive approach. In a study, Berner (1993) found that the condition of school buildings in Washington, DC was predictive of students' achievement scores. Berner's model looked at how parental involvement predicted the condition of school buildings, which in turn predicted academic achievement. One limitation of this study, however, was the lack of control of other variables that could also have an impact on achievement. Maxwell

(2007) found that the quality of a classroom's physical environment affects preschool children's cognitive competence. In classrooms that were rated higher on physical characteristics related to attributes such as control, privacy, complexity, etc., children scored higher on a measure of cognitive abilities than peers in classrooms with lower ratings.

1.2. Problem statement:

There is deficiencies of studies that show the relationship between physical schools environment and school development related to student performance in our educational institutions .That carry us to think about and to select search this relation in our schools by comparison between the ideal characteristic & our schools body.

In addition to that we noticed lack in schools physical characteristics and significant reduction in the levels of student educational achievements in studies done by Palestinian ministry of education so we think to ask Is there relation between physical school environment and student development and educational performance? And what are the dimensions of this influence?

We search the link between school physical environment and its effect on

students educational performance in Nablus city schools, and we look to support the idea of the importance effect of school characteristics on student and school development in official and public consideration that need to advance understanding the complex relation between school characteristics and student achievement. And how it will provide effective and professional persons help the community to develop in the future which reflect the majors schools goal in the educational institutions.

1.3. Purpose of study:

The Palestinians are living under the occupation that affects all life areas including the educational institutions and economic status that effect physical school characteristics and other school environmental issues.

In addition to that there is significant reduction in the educational levels of students, dropping out from schools, that is due to several factors including the economic deterioration, family's conditions, security conditions and occupation, also due to the shortage in number of schools, classes and other materials (qadomi, 2008). Other studies that are done by the General Palestinian Department for Educational Planning (2005) concludes that there are (4348) Dropouts from school of the year of 2004//2005.and so this is another prove of the reduction of the

educational domain and institutions.

Over all there is clearly deterioration in educational development and student performance, on other hand there is lake in physical schools factors with shortage in studies that investigate the link and the effect of this weak physical environment and the negative result during this status in our schools such as high student dropping out proportion.

This study looks to investigate the link between the physical school environments and its influence on the student educational achievement also to attract officials and public to these important problem.

1.4. Objectives:

This study aims to achieve these goals:

1.4.1 First goal:

To clarify the relation between school physical characteristics and student educational performance. That will improve the perception of the schools structure importance and commitment to ideal characteristic in our schools body which reflect well student development and performance in all life aspects that is the

mainly goals we look to show.

1.4.2 Second goal

To ensure that ideal school physical environment will promote good student educational and developmental performance. That is what we seek to publish this study and attract the officials and public attention to these issues.

1.5. Hypothesis:

There is no statistical correlation at the point of (0.05) between physical schools environment and student educational achievement.

Chapter 2

Literature Review

Introduction:

Quite a bit of research has been done to identify the influence of school characteristics on student performance that Direct, measures have been used to describe school characteristics fall into three categories: building and physical environment, principal leadership, and school social structure. So this chapter describes the ways in which school characteristics have been represented in the literature and the predominant methods and technical considerations associated with studying the effect of school characteristics on test score outcomes.

Physical School characteristics:

Physical environment refer to conditions in schools around the world that challenges planners and teachers to rethink the way schools are designed and maintained (WHO, 1997). The levels of school factors which include environmental meaning as, school walls, toilet, floor, etc, have significant affect on student educational development and reflect the tie between these variables and score outcome (Narucki, 2008). Another study that done in Virginia Polytechnic

Institute and State University also show that there are specific relationships between school characteristics, including aggregated student and classroom characteristics, and student academic performance by used Early Childhood Transitions Project (Moscoso,2000).

So poor school physical characteristic will affect student performance and provide clear negative development with bad class room behaviors. James et al (2000) conducted study indicates that poor school lacking educational recourses and that also reduce educational performance resources. And there results indicate that resources are associated with a school district's socioeconomic characteristics and that resources are associated with student outcomes.

O'Neil and Oates (2001) investigated the impact of school facilities on student achievement, behavior, attendance, and teacher turnover. The authors found a positive relationship between building condition and achievement on standardized tests. Student achievement was higher in newer buildings and in buildings with higher condition ratings. This study however, was limited in that it relied on school principals' reports as a measurement of the condition of the school facilities and in that its analyses were correlation. In her study of Milwaukee public schools, Lewis (2001) found that facility condition impacts student performance even when

individual differences, such as SES, attendance, ethnicity, truancy and suspension rates are controlled.

Some study suggest that there is affect from class size on score outcome, Keil & Partell (1997), search the effect of class size on to aspect include student performance and student retention which indicate that there are strong negative

relation between class size and those tow aspect so the class size is significant factor influencing both of these aspects

Also the school size may plays role in score outcome in addition to location of the school, Aidla, & Vadi (2008) showed that school administration attitudes, school's size and location effect positively on student achievements that large size have opportunity to large campuses, Cradock AL et al (2007) show that Larger school campuses, school buildings, and play areas (per enrolled student) are associated with higher levels of physical activity in middle school students. And Kids who are physically active and fit are likely to have stronger academic performance and good classroom behavior (Howard T, 2005). In the area of self-concept, Bowers and Burkett(1989) concluded that self-concept scores on the Piers-Harris Children's Self-Concept Scale of students in a modern facility were significantly higher than the student scores of those housed in an older facility. Maslow and Mintz (1956) studied student attitudes in "ugly, neutral and beautiful" rooms

finding significant differences corresponding to room quality in the responses

.These researchers revealed that the mean rating given by the subjects in

the beautiful room was in the range defined as "energy" and "well-being" while the

mean of the ratings given by subjects in both the average and ugly rooms was in

the range defined as "fatigued" and "displeased". Furthermore, the students

placed in the beautiful room expressed feelings of "comfort, pleasure, enjoyment,

importance, energy and a desire to continue their activity". Thus, if

children have positive attitudes and look forward to attending school, it stands to

reason they will do better in their classes (Christopher, 1988).

On other hand, other study indicate that high schools with more than 1000

students may experience diminishing returns; that is, student performance and

school services appear to decline relative to increasing inputs (e.g. the number of

teachers, administrators and support staff),(Andrews et al., 2002).

Student attitudes are shaped to some extent by the structures (facilities) through

which they are mediated (Ferreira, 1995). In fact, building conditions can directly

affect the attitudes of students or the attitudes of teachers and parents which in turn

affect student attitudes. Proshansky (1970) referred to physical settings and

attitudes as follows: Physical settings-simple or complex-evoke complex human

responses in the form of feelings, attitudes, values, expectancies, and desires, and it is in this sense as well as their known physical properties that their relationships to human experience and behavior must be understood.

There is a body of research in the area of school facilities and their relationship to student and teacher attitudes. Stockard and Mayberry (1992) found that the quality of a physical plant or environment is related to non-cognitive outcomes, such as better attitudes toward school and good performance. These outcomes may eventually relate to higher academic achievement. Also High quality in day care is described as the practices directly or indirectly affecting the social, emotional, physical and cognitive development of the children & their ability to learn efficiently (Lamb, 2000).

 Christopher (1988) concluded that human nature makes people feel better about themselves when their surroundings are pleasant. Students who have better attitudes usually learn more and work harder. McGuffey (1972) conducted a study investigating pupil attitudes toward their school buildings in the elementary level. He found that students housed in newer school buildings which were fully carpeted and air-conditioned showed more positive attitudes than students housed in older buildings.

Other study completed by Lovin (1972) in Middle Georgia explored the behaviors of elementary children who had moved from a traditional school to an open-space school. It was shown that the children were keenly aware of their school building and responded positively to bright and comfortable surroundings. In fact, these children's performance were directly related to their physical surrounding. Chan (1982) compared student performance toward the physical environment of a school opened in 1980 and that of two older schools: one built in 1923 and the other in 1936. The main finding of this study indicated that pupils housed in a modern school buildings have significantly more positive attitudes toward school than do pupils housed in a much older building. Likewise, Cramer (1976) studied selected Junior High Schools in the Bibb County School District of Georgia. He contended that pupils housed in newly renovated school facilities showed more positive attitudes.

The school cooperation leads to school climate and good student educational outcomes which reflect significant affect on score outcome , Opdenakker, & Damme (2005), explained in their study that school characteristics include school context, student composition and school leadership are important part in student educational outcomes .also found that school size positively affects school

outcomes and that its effect is mediated by school practice characteristics like the amount of cooperation between teachers, which affects school climate and outcomes. Other wise Teachers' attitudes are also directly related to the school facility. Several studies have been conducted in the area of open-space classrooms and their effect on teacher attitudes. Lewis (1976) examined the influence of open-space classrooms and closed-space classrooms on the attitudes of teachers toward the school building. It was found that teachers housed in open-space classrooms showed more positive attitudes. Likewise, Jones (1974) concluded that teachers' attitudes toward their students in open-space classrooms improved significantly. Mills(1972) agreed with Jones' findings when he concluded that teachers in open-space areas exhibited behaviors that allowed greater pupil freedom and self-direction. These teachers displayed behaviors which were more permissive, supportive, warm and sympathetic toward students. As one can see, not only does the physical environment of a school affect children, teachers are also affected by the design of a school building. And so, school architects, educators and facility planners must take into consideration the impact that the design of school buildings has on student and teacher attitudes.

Child care global quality has important implications for children's development and their later success in elementary school (Hansen, 2006). Also, major long term

impacts of childhood education on children including less need for special

education, less grade retention, better achievement test scores are found out by

other researchers (Lazar, Bekman, 1982).

Developmentally a appropriate practices to be provided at adult school should

focus on meeting the needs and interests of children at the education setting. This

covers a comprehensive process including the physical conditions, educational

program and program administration. Adult school educational setting should

establish and maintain a safe, healthy, learning environment where an interesting,

secure and enjoyable surrounding encourage children to explore, learn and play

(Hohman et al, 1983)

Chapter 3

Methodology

3.1 Introduction

The research problem associated with this study is to identify and test the effect of school characteristics on academic performance, the general approach was to use available data to identify school characteristics and variations of it to test the effect of this variations on outcome. This reflects the differences across the schools and outcome associated with differences in school characteristics.

So this chapter describe and discus the methods that use to carry out this task by describing the study design and variables concluded technique that use in data collection and analysis . The data of this study collect from secondary school students from Nablus city included 8 public and private school.

3.2 Population:

Study population is Secondary school students from public and private schools in Nablus city, who are aged about fifteen to eighteen years old. From male and female which divided to 50% male and 50% female based on the nature of Palestinian society as it is divided into 49.1% women and 50.9% men

(escwa,2003). The Students was taken from eight schools that is Al-Salaheya, Al-Asheyah, Kamal Jonblat, Qadri Toqan, Al-Malek Talal, Al-Tala'e, Al-Eslameyah and Al-Fatemyah secondry schools which contain branches of scientific, literary and commercial.), Because these schools are the biggest and the most important schools in Nablus city, since they represent almost all regions in Nablus city.

3.3 Setting of the study:

This study took place in Nablus city for ease of sampling and transportation in addition to reducing cost, Nablus city is one of the largest Palestinian cities, populous and the most important sites. Are the economic capital of Palestine and the headquarters of the largest Palestinian university, which located at the crossroads of main roads, which stretches from Nazareth and Jenin in the north to Hebron in the south and west as far as Jaffa bloody bridge to the east. Away from Jerusalem about 69 km and 114 km from Amman and 42 km from Mediterranean Sea.

About the climate, prevail in Nablus, a mild Mediterranean climate, with hot

and dry summers, cold winters and rainy. The population of 134.116 inhabitants of Nablus, in mid-2006, young people constitute a large portion of the population of Nablus, Nearly half of the population aged younger than 20 years Percentage of the

population under the age of 10 years, in 1997, 28.4% and 20.8% for those aged

between 10 and 19 years, 17.7% for those between the ages of 20 and 29-year,

18% between 30 and 44 years, 11.1% between 45 and 64 years, and 3.7% for those

aged up to more than 65 years. And the gender distribution was the rate of 50.92%

(50.945 people) for males and 49.07% (49.089) people for females (according to

the Central Bureau of Statistics Palestinian, 2007).

3.4 Study design:

This study designed as a cross sectional method that compatible with this

descriptive study and its objectives involve observation of some subset of a

population of items all at the same time, in which, groups can be compared at

 different ages with respect of independent variables so this non experimental

study tested the relations between school and class variations related student

outcome, using questionnaire technique, describe school, classroom and student

attributes.

 Study takes private and public schools those differences between schools

characteristics reflect the student outcome changes through the schools, also the

student performance level in every schools will taken in to account in addition to

other school variations to test variables of school, classroom ,and student . The

study questionnaire reflect the study technique and data collection through the variables that divided to three part, the first reflect student demographic data, the second part is school and class room variables that reflect the physical school scale from(50-100%) ,and third part test. the students considerations of student related to their outcome and to school factors By this technique the relation between school characteristics and student outcome related to school differences and student consideration tested. So the study includes the following variables:

3.4.1 Independent variables:

1- Sex: This has two levels (male and female)

2- School: This has two levels (public and private)

3-Class: with three levels (10th, 1 st secondary and Tawjehi).

4-School average: which has six levels (less than 50, from 50-59, from 60-69, from 70-79, from80-89 and more than 90)

5-Math average: which has six levels (less than 50, from 50-59, from 60-69, from 70-79, from80-89 and more than 90).

6-English Language average: which has six levels (less than 50, from 50-59, from 60-69, from 70-79, from80-89 and more than 90).

7- Student's satisfaction about achievement: This has two levels (yes and no).

3.4.2 Dependent variables:

The means for the responds of the study sample on its questions about

Student attitude to their school physical environment

3.5 Sampling

Sample was taken as simple random sample from eight Schools that the school was

chosen because it is the largest secondary schools and present the city, whether

government or private and contain three branches of scientific, literary and

commercial.

Classroom was taken randomly by chance in all eight schools where chosen tow

class from each school by chance and we take (270) random samples from the

eight schools, where students are selected by snapped one student from every four

students in order in all schools, Noting that the all students are from the tenth grade

students, the first secondary and second secondary divided to 50% male and 50%

female based on the nature of Palestinian society as it is divided into 49.1% women

and 50.9% men (escwa,2003).

Data was collected during three consecutive days where the samples were as

Follows, (30) from Al-Asheyah school, (30) from Al-Fatemyah school, (30) from

Kamal Jonblat School, (30) from Al-Asalheyah school, (30) from Al-Malek talal School,(30) Qadri Toqan school, (45) from Al-Tala'e school and (45) from Al-Eslamyah School.

3.6 Study tool:

Questionnaire for collecting information has been developed after surveying some previous studies dealing with the same subject and Arbitration from supervisors to search and research group. The questionnaire consisting of three parts as the following:

3.6.1 Part One:

Includes the introduction, several elements which emphasize the target of the study, kind of data that the researchers need to collect from the study sample in addition to a paragraph aims in order to encourage the targeted individuals to respond frankly on the study questions after satisfying the tested people that the information will be secret and will not be used except for the scientific research only.

3.6.2 Part Two:

Includes general information dealing with the independent variables of the study like sex, kind of school, class, school average, Math average, English Language average and the student's satisfaction about the achievement .

3.6.3 Part Three:

Includes 14 paragraphs dealing with the questions that the students in the schools will response to, and include the school physical school characteristics items which reflect student satisfaction of school environment

3.7 Credibility:

The study tool was subjected for the test by experts who recommended for its validity for the achieving of the study purposes.

3.8 Reliability:

Was tested by using Khronapach Alpha test which was (0.85). And this result is acceptable for the study purposes.

Chapter 4

Results

4. Introduction:

This chapter deals with the study method, community and sample, in addition to the tool, credibility, reliability, variables, procedures and statistical processes. Surveying, descriptive and analytic method was used for its suitability for the study purposes that show the relation between physical school environment and student achievement related to study hypotheses. Study community includes secondary school students from public and private schools in Nablus city. Include (270) student that selected randomly from the schools.

4.1 Statistical processing:

After gathering the responds, they have been codified, entered the computer and statically processed by using the statistical package for social science (SPSS)

The statistical procedures used in the study are:

- Frequencies, means, standard deviations and percentages.

- Kronpach Alpha test.

- T- test for two independent samples.

- One Way Anova test.

4.2 distribution of study sample:

Table (1):   Distribution of the study sample according to sex.

Sex	No.	Percentage
Male	135	50.0
Female	135	50.0
Total	270	100%
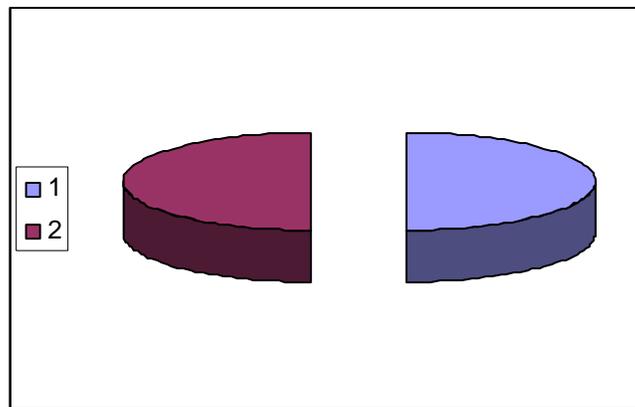
Table (2): Distribution of the study sample according to schools

The school	No.	Percentage
Public	181	67.0
Private	89	33.0
Total	270	100%
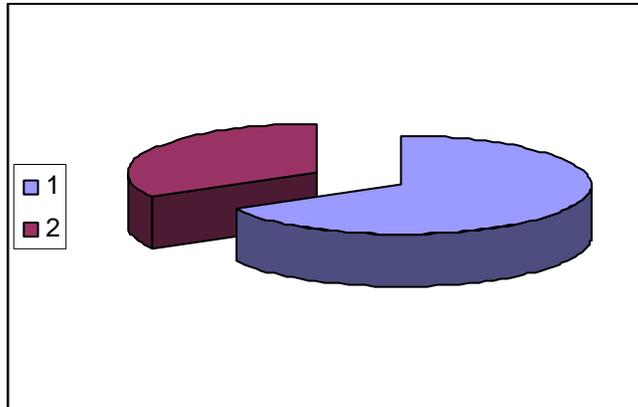
Table (3): Distribution of the study sample according to class:

Class	No.	Percentage
10 th class	56	20.7
1 st secondary class	80	29.6
Tawjehi	134	49.6
Total	270	100%
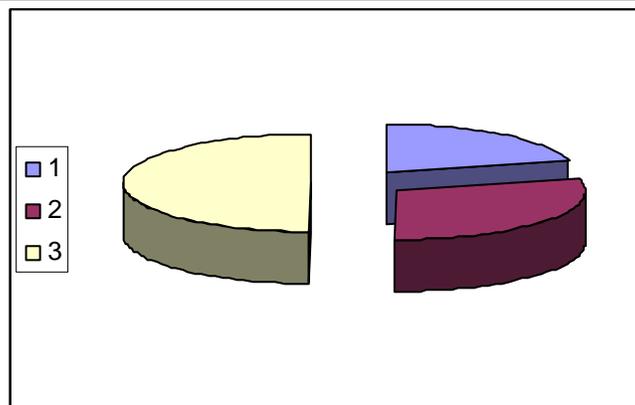
Table (4): Distribution of the study sample according to average.

Average	No.	Percentage
Less than 50	4	1.5
From 50-59	4	1.5
From 60-69	16	5.9
From 70-79	70	25.9
From 80-89	96	35.6
More than 90	80	29.6
Total	270	100%
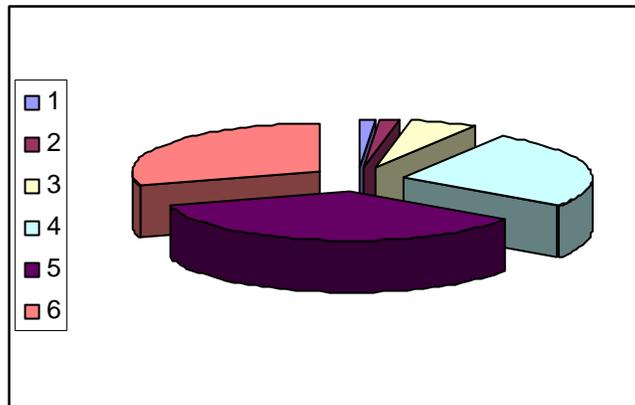
Table (5): Distribution of the study sample according to Math average.

Math Average	No.	Percentage
Less than 50	____	____
From 50-59	11	4.1
From 60-69	37	13.7
From 70-79	61	22.6
From 80-89	94	34.8
More than 90	67	24.8
Total	270	100%

____
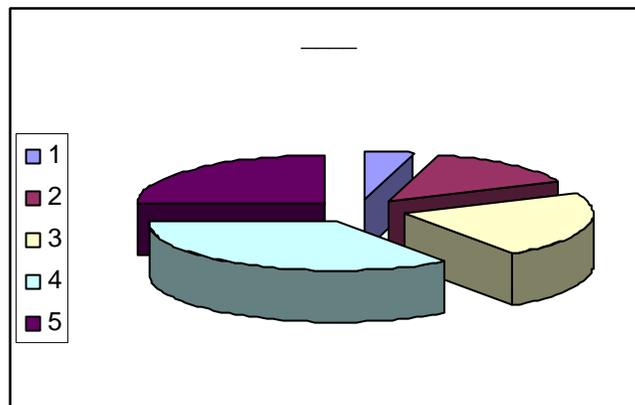
Table (6): Distribution of the study sample according to English average.

English Language average	No.	Percentage
Less than 50	6	2.2
From 50-59	12	4.4
From 60-69	21	7.8
From 70-79	71	26.3
From 80-89	82	30.4
More than 90	78	28.9
Total	270	100%
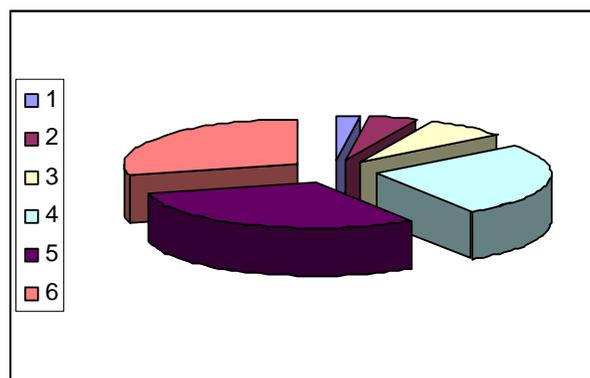
Table (7): distribution of study sample according to satisfaction about the

achievement.

Satisfaction about the achievement	No.	Percentage
Yes	119	44.1
No	151	55.9
Total	270	100%
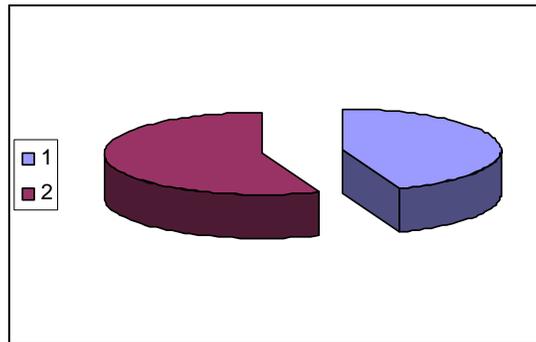
Chapter 5

Hypotheses results

5.1 Introduction

This study aims at identifying the students" attitudes towards the effects of the school environment on the scientific achievement   due to several factors that reflect the physical school environment affect on students educational performance. Also it aims at identifying several study variables like sex, kind of school, class, school average, Math average, English Language average and the student's satisfaction about the achievement which deal with study question .

To achieving study purpose that questionnaire consisting of (14) paragraphs has been developed, distributed among of (270) individuals of study sample, gathered, codified, entered the computer and statistically processed by using the statistical package of social science (SPSS).

5.2 results:

In the first, the results of the study question which is:

What are the students" attitudes towards the effects of the school environment on the scientific achievement? Reflect the relation between school physical environment and student achievement.

To achieve question purpose, means and percentages for each paragraph (physical school characteristic questions) were used so the paragraphs means were given the following scale:

- Less than 50% is low

- Between 50-75% is medium

- More than 75% is high.

And the following table shows the study results about its questions:

Table (8): means, standard deviations, percentages and the study degree for the study questions:

Paragraph No.	Paragraph	Mean	Standard deviations	Percentages	Response Degree
1.	Class room ventilation	2.81	0.84	70.25	Medium
2.	Class room lighting row	2.87	2.87	71.75	Medium
3.	The size of the classroom	2.89	0.82	72.25	Medium

4.	Satisfaction on the number of class	2.81	0.90	70.25	Medium
5.	Classroom building	2.85	0.85	71.25	Medium
6.	Class room condition	2.32	0.98	58.00	Medium
7.	Class room seating	2.43	0.98	60.75	Medium
8.	Noise from outside the classroom	2.59	1.01	64.75	Medium
9.	School restrooms	2.45	0.98	61.25	Medium
10.	School Cleaner	2.88	0.88	72.00	Medium
11.	The school grounds	2.86	0.74	71.50	Medium
12.	School security system	2.57	1.03	64.25	Medium
The Total Degree		2.69	0.54	67.25	Medium

It has shown from the previous table that the response degree was from low to high and result is:

1. All the paragraphs have gotten medium degree.

2. There are no paragraphs have gotten neither high nor low degree.

Finally, the total degree was (67.25%) which refers to medium degree.

Table (9) : shows question 13 about the school follow – up and the maintenance of the school facilities

the school follow – up and the maintenance of the school	No.	Percentage

facilities		
Yes	187	69.3
No	83	55.9
Total	270	100%
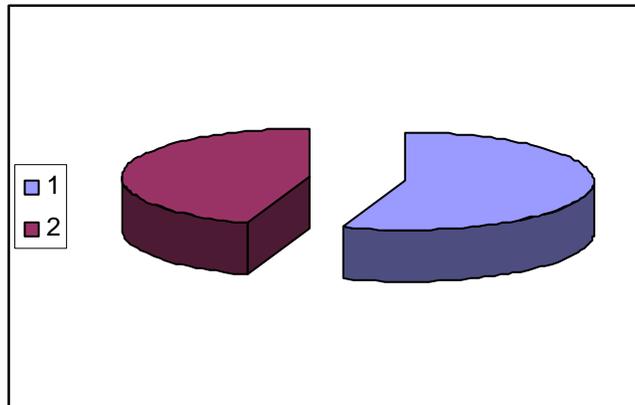
Table (10): shows question 14 about the school facilities shortage :

the school facilities shortage :	No.	Percentage
Yes	137	51.7
No	133	49.3
Total	270	100%
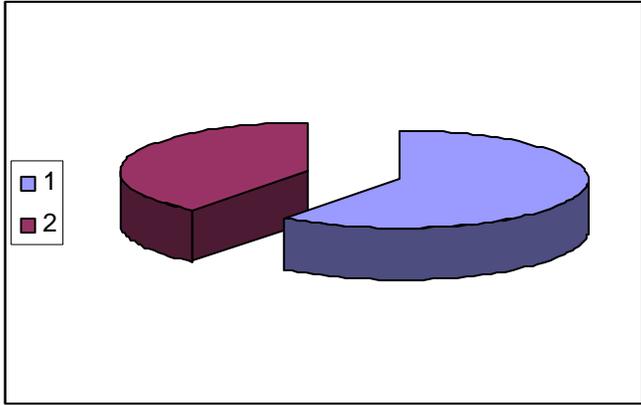
Hypothesis (1):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of sex."

For achieving this hypothesis, t-test for two independent samples was used .The results were as the following:

Table (10): Shows t- test for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of sex

student				T	Sig.
Male (n=135)		Female (n=135)			
means	s.deviation	means	s.deviation		
2.61	0.53	2.78	0.54	-2.464	0.014*

From the previous table It has been shown that there are significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of sex.

The significant was (0.014) which is lower than (0.05) and that means there are differences between the males and females towards the questions of the subject...

These differences are for the females on the males. The means of females were (2.78). On the other hand, the means of the males were (2.61)

Hypothesis (2):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of kind of school."

For achieving this hypothesis, t-test for two independent samples was used .The results were as the following:

Table (11): Shows t- test for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of the kind of the school

school				T	Sig.
Public (n=181)		Private (n=89)			
means	s.deviation	means	s.deviation		
2.48	0.47	3.12	0.40	-10.913	0.000*

From the previous table It has been shown that there are significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of kind of school The significant was (0.000) which is lower than (0.05) and that means there are differences between the public and private schools towards the questions of the subject...

These differences are for the private schools on the public ones. The means of private were (3.12). On the other hand, the means of the public were (2.481)

Hypothesis (3):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of class."

For achieving this, One Way Anova Test was used, and table (12) shows it:

Table (12): shows the results of One Way Anova for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of class

	Sum of squares	D f	Mean square	F	Sig.
Between groups	1.370	2	0.685	2.333	0.099
Within groups	78.355	267	0.293		
Total	79.725	269			

From the previous table It has been shown that there are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of class

The significant was (0.099) which is higher than (0.05) and that means there are no differences between the different levels of the class towards the subject.

Hypothesis (4):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of the school average."

For achieving this, One Way Anova Test was used.

Table (13) : shows the results of One Way Anova for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of school average

	Sum of squares	D f	Mean square	F	Sig.
Between groups	11.788	5	2.358	9.162	0.000*
Within groups	67.937	264	0.257		
Total	79.725	269			

From the previous table It has been shown that there are significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of school average The significant was (0.000) which is lower than (0.05) and that means there are differences between the different levels of the school average towards the subject.

For knowing these differences, LSD test for distance comparisons has been used:

Table (14): shows the results of LSD test for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of school average

Average	Less than 50	From 50-59	From 60-69	From 70-79	From 80-89	More than 90
Less than 50	***	03125	0.1823	0.00416	-0.1667	-0.4583
From 50-59	***	***	-0.1302	-0.3083	-0.4792	-0.7708*
From 60-69	***	***	***	-0.1781	-0.3490*	-0.6406*
From 70-79	***	***	***	***	-0.1708	-0.4625*
From 80-89	***	***	***	***	***	-0.2917*
More than 90	***	***	***	***	***	***

From the previous table it has been shown the following results:

- That there are differences between from 50-59 and More than 90. These differences are for More than 90.

- That there are differences between from 60-69 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

- That there are differences between from 70-79 and More than 90. These differences are for More than 90.

- That there are differences between from 80-89 and More than 90. These differences are for More than 90.

Hypothesis (5):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of the Math average."

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For achieving this, One Way Anova Test was used, and table (15) shows it:

Table (15): shows the results of One Way Anova for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of math average

	Sum of	D f	Mean	F	Sig.

	squares		square		
Between groups	9.591	4	2.398	9.060	0.000*
Within groups	70.134	265	0.265		
Total	79.725	269			

From the previous table It has been shown that there are significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of math average. The significant was (0.000) which is lower than (0.05) and that means there are o differences between the different levels of the math average towards the subject.

For knowing these differences, LSD test for distance comparisons has been used:

Table (16): shows the results of LSD test for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of math average

Average	From 50-59	From 60-69	From 70-79	From 80-89	More than 90
From 50-	***	-0.2185	-0.3156	-0.5053*	-0.6940*

59					
From 60-69	***	***	-0.0971	-0.2869*	-0.4756*
From 70-79	***	***	***	-0.1897*	-0.3785*
From 80-89	***	***	***	***	-0.1887*
More than 90	***	***	***	***	***

From the previous table It has been shown the following results:

• That there are differences between from 50-59 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

• That there are differences between from 60-69 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

• That there are differences between from 70-79 and More than 90. These differences are for More than 90.

• That there are differences between from 80-89 and More than 90. These differences are for More than 90.

Hypothesis (6):

"There are no significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of the English Language average."

For achieving this, One Way Anova Test was used, and table (17) shows it:

Table (17): shows the results of One Way Anova for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of English Language average

	Sum of squares	D f	Mean square	F	Sig.
Between groups	13.412	5	2.682	10.697	0.000*
Within	66.312	264	0.251		

groups					
Total	79.725	269			

It has been shown from the previous table that there are significant references at (α =0.05) level about the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of English Language average

The significant was (0.000) which is lower than (0.05) and that means there are o differences between the different levels of the English Language average towards the subject.

For knowing these differences, LSD test for distance comparisons has been used:

Table (18): shows the results of LSD test for the students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of English Language average

Average	Less than 50	From 50-59	From 60-69	From 70-79	From 80-89	More than 90
Less than 50	***	0.3611	0.2718	0.1688	-0.0196	-0.3269

From 50-59	***	***	-0.0892	-0.1923	-0.3808*	-0.6880*
From 60-69	***	***	***	-0.1030	-0.2915*	-0.5987*
From 70-79	***	***	***	***	0.1885*	-0.4957*
From 80-89	***	***	***	***	***	-0.3073*
More than 90	***	***	***	***	***	***

It has been shown from the previous table the following results:

• That there are differences between from 50-59 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

• That there are differences between from 60-69 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

• That there are differences between from 70-79 and from 80-89 and More than 90. These differences are for from 80-89 and More than 90.

- That there are differences between from 80-89 and More than 90. These differences are for More than 90.

Chapter 7

Discussion:

The school is the important setting after home in all psychological, educational and physical respects and one of school factors is healthy physical environment that is critical components of school environment, which are physical and aesthetic surroundings, the psychosocial climate and culture of the school. This study was show the relation between these components of schools and student performance related their satisfaction to school characteristics. Study questionnaire which represent study tool Analyzed by (SSPS) to test study hypothesis and treat study question.

The attitude of student toward the effects of the school environment on the scientific achievement due to the variable of sex show the deferent between male schools and female school for female by mean (2.78) and (2.61) for male and the significant (0.014) which also show the deference between male and female attitude (see table 10) . This result supports the relation between physical school environment and performance that also reflect female satisfaction in school. And this lead to think that female have more satisfaction and acceptance related to physical characteristics, so All of that is benefit for their education performance

unlike male those have acceptance less than female related their performance, over all ,there are clear relation between student attitude toward school characteristics.

On other hand the deferent between private school and public school studded to prove relation between environment and performance related to student satisfaction, by mean (3.12) to private school and (2.48) to public school and the significant was (0.000) (see table 11), which is lower than (0.05) and that means there are differences between the public and private schools towards the questions of the subject that mean private school have better physical environment related to student performance Regardless other factors which may effect this result such as social level ,family income and psychosocial calm so the poor school environment will affect the student performance that also conducted by James et al (2000) and indicates that poor school lacking educational recourses and that also reduce educational performance resources.

The students" attitudes towards the effects of the school environment on the scientific achievement due to the variable of school average show the clear relation between average of student and physical school variables by significant of (0.000) (see table 12). Also the same result analyze from math and English average that significant of Math average came less than (0.05) which is (0.000) (see table 15) so

the hypotheses reject and there are clear relation between physical school characteristics and student performance that tested by math average .also English language significant came less than (0.05) which is (0.000) (see table 17) that reject the hypotheses.

So the study hypotheses which is "There is no statistical correlation at the point of (0.05) between physical schools environment and student educational achievement." Reject and mean there is relation between physical school characteristics and student performance that include indoor quality, class size, school facilities and other factors which mention in this study tools and used in analysis to show the affect of school characteristics and student performance which also what search in other and previous study that support this study outcome , the levels of school factors which include environmental meaning as, school walls, toilet, floor, etc, have significant affect on student educational development and reflect the tie between these variables and score outcome (Narucki, 2008) other study that done in Virginia Polytechnic Institute and State University also show that there are specific relationships between school characteristics, including aggregated student and classroom characteristics, and student academic performance by used Early Childhood Transitions Project (Moscoso,2000). And this is what approves in this study.

Student satisfaction toward their achievement reflect the behavior changes that also affected by physical school factors that (55.9) of student not satisfied (see table 7) and If we look at the nature of the rates in general we found that do not need to this percentage of Dissatisfaction (see table 4), from previous result and Ignore other factors as social stress and nature of courses there are good relations between student satisfaction in the school and school environment away from their performance . that what support by previous researches , Proshansky (1970) referred to physical settings and attitudes as follows: Physical settings-simple or complex-evoke complex human responses in the form of feelings, attitudes, values, expectancies, and desires, and it is in this sense as well as their known physical properties that their relationships to human experience and behavior must be understood. Also Christopher (1988) concluded that human nature makes people feel better about themselves when their surroundings are pleasant. Students who have better attitudes usually learn more and work harder. McGuffey (1972) conducted a study investigating pupil attitudes toward their school buildings in the elementary level. He found that students housed in newer school buildings which were fully carpeted and air-conditioned showed more positive attitudes than students housed in older buildings.

From this result we can noted the clear relation between school characteristic include all facelifts of school and student performance, satisfaction and behaviors, and therefore need more attention to our schools to improve the scientific level of students and behaviors toward school, teachers, themselves and all life aspect that school characteristics have medium mark in result of study reflect student satisfaction toward the subject, the mean of degree of study physical characteristics questions are (2.69) that reflect (67.25%) ,that student suffering from lack of appropriate class room conditions that mean came (2.32) reflect (58%) also class seating as the largest that mean (2.43) reflect (60.7%) (See table 8). In addition to student feel toward shortage of school facilities in general that (49.3%) of student feeling it (see table 10).

That support the significant reduction in the educational levels of students, dropping out from schools, that is due to several factors including the economic deterioration, family's conditions, security conditions and occupation, also due to the shortage in number of schools, classes and other materials (qadomi, 2008) Overall there are significant relationship between school physical characteristics and student performance that what we found in other study in addition to shortage in our school physical characteristics in general that concentrate in public school which are originally in the main city so how is the case in the suburbs and villages of the city.

Chapter 8

Recommendation:

A healthy physical environment contributes to a favorable learning environment for children and better productivity for teachers and staff (NASN, 1998) so maintains healthy school environment is critical to the success of students and to have well educational performance. Also help student to develop in balance manner that will form positive child's personality and thus ensure that he or she will become effective person in the community. that mean student and teacher comfort is indicated as the most important aspect of any school environment. If students are comfortable, then learning becomes much easier. Being comfortable is a combination of several different factors; adequate usable space, noise control, lighting, temperature and climate control, and sanitation.

 In this study it was observed that there is a close relationship between physical characteristics of school and student educational performance also our schools suffer from shortages in general, and therefore we hope to Applied this recommendation and to give more attention to it:

1- Improved ventilation. This involves designing a ventilation system with improved air exchange. The system may be based on mechanical or

hybrid/natural ventilation principles. Utilization of natural driving forces, as well as easy operation, maintenance and use, should be emphasized.

2- Improved lighting. This includes using high efficient lighting for energy savings and improved visual qualities. It also involves utilizing daylight to replace artificial lighting for energy saving and improved indoor environment, as well as occupancy controls.

3- Water saving measures. This includes installing water saving equipment such as low flush toilets and reduced flow showerheads. It may also include reuse of grey water for irrigation, etc.

4- Reduction of heating energy needs. This includes adding thermal insulation to the building envelope and replacing the windows with better insulating windows. The amount and type of insulation is to be decided based on technical/economical and architectural considerations. This will reduce the thermal losses through the envelope, reduce draft, and improve the thermal comfort. Care needs to be taken in order to avoid moisture in the construction and to ensure sufficient ventilation. Also, the heating system needs to be improved by using more efficient equipment, cleaner fuel, and efficient controls.

5- Visible environmental design and installations. The Norwegian environmental school projects shows that using environmental design as a

means for expressing and teaching the students and the general public about the environment, is an important success factor.

6- Improved thermal comfort. This involves preventing high indoor temperatures by applying effective solar shading (e.g. exterior movable) and nighttime free cooling.

7- Improved waste management. This involves having a strategy for collecting, sorting, and disposal of waste, including the provision of space and information programs.

8- Cleanliness of schools is also an important aspect of school environments. Clean schools not only lower the threat of the spread of illness, but also convey a caring message to the students and teachers. Cleaning and maintenance of schools is vitally important and is often underemphasized and underperformed. Students feel better going to clean classes and sitting in clean desks and surroundings. Sanitation in schools is important because young children face unique health hazards, especially respiratory infections, asthma attacks, skin disease, and diarrheal outbreaks.

9- A school environment should be one in which every student feels safe. We find promotion of safety by the increased installation of cameras and monitoring devices throughout the school. Many schools today work with

local law enforcement agencies to put security officers in schools. The

presence of security officers often gives students a sense of safety & security

10- Technology is at the center of the modern educational process,

especially for mathematical and analytical skills. Computers in classrooms

are very important. Tools, such as the Internet, allow the smooth exchange

of information between student and machine, but must be positioned and

used in environments that do not cause distraction. Increasingly, students

can learn through virtual classrooms when no teacher is available.

Comfortable surroundings aid in this form of learning.

Chapter 9

References:

1. Aidla, A & Vadi, A. (2008). Relation between attitudes of school Administration toward school performance Criteria and the national examination result in Estonian school. *University of Tart.* DOI: 10.3176/tr.2008.1.05. (Excised: 10/7/2009)

2. Narucki, D.V. (2008).School building conditions, school attendance and academic achievement in New York City public school. *Journal of environmental psychology*. Volume 28.issue 3.278_286.

3. Opdenakker, C.M & Damme, V.J. (2005). Do school context, student composition and school leadership affect school practice and outcomes in secondary education*? British Educational Research Journal*. Vol. 33, No. 2. pp. 179–2.

4. Howard, T. (2005). Physical Activity & Student Performance at School. *MD Journal of School Health* . vol. 75, no. 6 edition of Journal of School Health.

5. Andrews, M., Duncombe, W& Yinger, J. (2002). Revisiting economies of size in American Education: are we any closer to a consensus? *Economics of Education Review*, 21, 246–262.

6. Berry, A.M. (2002). Healthy school environment and enhance educational performance. *Carpet and rug institute*. www.carpet-rug.com. (Accessed: 24/6/2009, 3 pm)

7. Moscoso, R.Y. (2000). The effects of school characteristics on student academic performance. *Virginia Polytechnic Institute and State University*. www.vt.edu (existed 26/6/2009 at 5 pm)

8. Unnever, D.J., Kerckhoff, C.A. & Robinson, J.T. (2000). District variations in educational resources and student outcomes. *Economics of Education Review*. 19 (2000) 245–259.

9. WHO (1948), health for all. www.who.com. (Existed: 24/6/2009)

10. Keil, J & Partell, P. (1997). The Effect of Class Size on Student Performance and Retention at Binghamton University. *Office of Budget & Institutional Research Binghamton University*. www2.binghamton.edu.(Accessed: 10/7/2009).

11. Chan, T.C. (1979). The impact of school building age on the achievement of eighth grade pupils from the public schools in the state of Georgia. *University of Georgia, Athens*. www.uga.com. (Accessed: 5/3/2010)

12. Christopher, G. (1988). The aesthetic environment and student learning. *School Business Affairs*, 54(1), 26-27. www.ed.gov. (Accessed: 9/3/2010)

13. Cramer, J.R. (1976). Some effects of school building renovation on pupil attitudes and behavior in selected junior high schools. *University of Georgia, Athens*. www.uga.com. (Accessed: 5/3/2010)

14. Ferreira, M.M. (1995). The caring of a suburban middle school. *Indiana University, Bloomington: Center for Adolescent Studies*. (ERIC Document Reproduction Service No. ED385011)

15. Lovin, J.C. Jr. (1972). The effect of the school's physical environment on the self-concepts of elementary school students. *the University of Georgia, Athens*.

16. Lewis, F.E. (1977). The influence of open-space classrooms and closed-space classrooms on teachers' attitudes toward the school building. *The University of Georgia, Athens*. www.uga.com. (Accessed: 5/3/2010)

17. Stockard, J. & Mayberry, M. (1992). Effective educational environments. Oregon (ERIC Document Reproduction Services No. ED350674).

18. Lovin, J.C. (1972). The effect of the school's physical environment on the self-concepts of elementary school students. *the University of Georgia, Athens*. www.uga.com. (Accessed: 5/3/2010)

19. Maslow, A.H. & Mintz, N.L. (1956). Effects of aesthetic surroundings: Initial effects of three aesthetic conditions upon perceiving, "energy", and "well-being" in faces. *Journal of Psychology*, 41, 247-254.

20. Mills, F.M. (1972). A comparison of teacher performance and attitudes of teachers performing independently in self-contained classrooms and teachers performing cooperatively in open instructional areas. *Arizona State University*. www.asu.edu. (Accessed: 9/3/2010)

21. Proshansky, H.M. (1975). Environmental psychology: Man and his setting. *New York: Holt, Rinehart, and Winston, Inc.*

22. Hones, W.L. (1974). Comparison of cognitive and affective change of ninth grade students in open-space and closed-space classes. *Arizona State University.* www.asu.edu. (Accessed: 9/3/2010)

24. قدومي,س.(2008).وضع التعليم في مدارس القدس العربية للعام الدراسي 2008/2007م . *www.mohe.gov.ps.* (بتاريخ 2009/6/26)

25. الادارة العامة للتخطيط التربوي.(2005) . ظاهرة التسرب من المدارس الفلسطينية.الأسباب، الإجراءات الوقائية والعلاجي (بتاريخ 2009/6/26).www.mohe.gov.ps .

26. المراه الفلسطينيه والمنظمات السويه الفلسطينيه في المجتمع الفلسطيني.//www.phrmg.org (بتاريخ2009/7/15)

27. Andera, J. Shelton. (2008). An Examination of Public School Safety. Measures Across Geographic Settings. Vol(79), No(1). *American School Health Association*

28. Tonij, M. K., Brener, D. N., Kann . L., JAMES G. R, (2007). Methods: School Health Policies and Programs Study 2006. Vol. (77), No.(8). *American School Health Association*

29. Kimberly, L. H . (2009). Academic Achievement and Adolescent. Drug Use: An Examination of Reciprocal Effects and Correlated Growth Trajectories. Vol (80)*,* No(1) *American School Health Association*

30. Kann. L,. (2006). Health Education: Results From the School Health Policies and Programs Study 2006. Vol. (77), No. (8). *Journal of School Health*

31. Murray, N. J. (2007). Coordinated School Health Programs and Academic Achievement: A Systematic Review of the Literature. November 2007, Vol. (77), No. (9). *Journal of School Health*. (589-600)

32. Jones, Sh, E. (2007); Healthy and Safe School Environment, Part I: Results From the School Health Policies and Programs Study 2006. October 2007, Vol. (77), No. (8). *Journal of School Health .* (522-543)