

American University in Cairo

## AUC Knowledge Fountain

---

Theses and Dissertations

Student Research

---

2-1-2017

### Efforts for improving buildings conditions in public schools in Egypt : SWOT analysis of two governmental renovation programs

Nagwa Ibrahim

Follow this and additional works at: <https://fount.aucegypt.edu/etds>

---

#### Recommended Citation

##### APA Citation

Ibrahim, N. (2017). *Efforts for improving buildings conditions in public schools in Egypt : SWOT analysis of two governmental renovation programs* [Master's Thesis, the American University in Cairo]. AUC Knowledge Fountain.

<https://fount.aucegypt.edu/etds/644>

##### MLA Citation

Ibrahim, Nagwa. *Efforts for improving buildings conditions in public schools in Egypt : SWOT analysis of two governmental renovation programs*. 2017. American University in Cairo, Master's Thesis. AUC Knowledge Fountain.

<https://fount.aucegypt.edu/etds/644>

This Master's Thesis is brought to you for free and open access by the Student Research at AUC Knowledge Fountain. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of AUC Knowledge Fountain. For more information, please contact [thesisadmin@aucegypt.edu](mailto:thesisadmin@aucegypt.edu).



**THE AMERICAN UNIVERSITY IN CAIRO**

**School of Global Affairs and Public Policy**

**Efforts for Improving Building Conditions in Public Schools in Egypt:  
SWOT Analysis of Two Governmental Renovation Programs**

**A Thesis Submitted to the Public Policy and Administration  
Department in partial fulfilment of the requirements for the degree of  
Master of Public Administration**

**By**

**Nagwa Ibrahim**

**Supervised by**

**Dr.Khaled Abdelhalim**

**Assistant Professor, Public Policy & Administration Department, AUC**

**December 2016**

The American University in Cairo  
School of Global Affairs and Public Policy

**Efforts for Improving Building Conditions in Public Schools in Egypt:  
SWOT Analysis of Two Governmental Renovation Programs**

A Thesis submitted by  
**Nagwa Ibrahim**  
to the Department of Public Policy and Administration  
FALL16  
In partial fulfilment of the requirements for the  
Degree of Master of Public Administration  
has been approved by

Dr.Khaled Abdelhalim \_\_\_\_\_  
Thesis Adviser  
Affiliation \_\_\_\_\_  
Date \_\_\_\_\_

Dr. Shahjahan Bhuiyan \_\_\_\_\_  
Thesis First Reader  
Affiliation \_\_\_\_\_  
Date \_\_\_\_\_

Dr. Ghada Barsoum \_\_\_\_\_  
Thesis Second Reader  
Affiliation \_\_\_\_\_  
Date \_\_\_\_\_

Dr. Shahjahan Bhuiyan \_\_\_\_\_  
Public Policy and Administration Department Chair  
Date \_\_\_\_\_

Ambassador Nabil Fahmy \_\_\_\_\_  
Dean of GAPP  
Date \_\_\_\_\_

The American University in Cairo  
School of Global Affairs and Public Policy  
Department of Public Policy and Administration

**The Buildings Conditions of Public Schools in Egypt: A SWOT analysis  
of two governmental programs**

Nagwa Ibrahim

Supervised by **Dr.Khaled Abdelhalim**

**ABSTRACT**

The buildings conditions of public schools are a key component of Egypt's education reform plan. Recently, the Ministry of Education introduced a number of reforms to improve the public schools conditions. These reforms include renovation programs focusing on solving all the damages inside public schools and make them safe for the students. This study relies on qualitative research methods through structured and semi-structured in-depth interviews with several ranks in the education sector for schools improvement .Interviews covered those people involved in two governmental renovation programs, which are the One Hundred Schools Development Program and the National Renovation Program including supervising engineers, managers of the programs as well as teachers and contractors involved in both programs. This study applied the SWOT analysis technique to analyze the two programs effectively. Findings demonstrate that both programs had many strengths and opportunities which are mainly in renovating schools buildings, providing technology tools and following strategic planning; however, there are serious weaknesses and threats that should be avoided in any coming school development program such as the limited number of labors and the insufficient budget. The study recommends having good time management, well developed strategic plan, regular documentation, depending on institutions and regular maintenance of the renovated buildings.

## **Acknowledgment**

First of all, I would like to express my gratitude to Almighty ALLAH for enabling me to complete this thesis and giving me the strength and courage to accomplish my targets and overcome any circumstances.

Also, I want to extend my deep thanks to my beloved parents : my father Dr.Mansour Gamal and my mother Elham Saleh who are always beside me in every stage in my life and they encouraged me a lot to reach this stage and finish my master's degree. Their endless love and great support were my strong motivation to accomplish my dreams and overcome any obstacles.

In addition, I would like to thank my supervisor Dr.Khaled Abdelhalim for his guidance during the whole master's courses and during the thesis work. Your support and guidance were the light for me to work hard and finish my thesis.

Finally, I want to thank my readers: Dr. Shahjahan Bhuiyan and Dr. Ghada Barsoum for their support during the whole study. They helped me a lot in my academic work and also had a great impact on my inner personality by their unforgettable advices and great support.

## Table of Contents:

Table of Contents: .....	5
<b>I-Chapter One</b> .....	7
Introduction .....	7
I -Introduction: .....	7
A-Statement of the problem: .....	10
B-A brief description of the One Hundred Schools Development Program: .....	11
C-A brief description of the National Program for Public Schools Renovation:.....	13
D-The Research Question:.....	16
<b>II-Chapter Two</b> .....	17
Research Flow and Background .....	17
A-Research Flow:.....	17
B-Background about the buildings conditions of public schools: .....	20
1-Challenges: .....	20
2-Negative Consequences of these Challenges: .....	21
1-Life threats:.....	21
2-Student attendance is affected: .....	22
3-Health Hazards: .....	24
4-Psychological problems: .....	25
D-Government efforts in building new schools: .....	27
E-School Maintenance: .....	28
<b>III-Chapter Three</b> .....	30
Literature Review .....	30
A-International experiences towards improving the buildings conditions of public schools: ..	31
1-Singapore PRIME program for the improvement of public schools buildings:.....	32
2- India School Infrastructure and Strengthening of Secondary and Higher Secondary Education program:.....	33
3- China the Wenchuan Earthquake Recovery Program:.....	35
4- Madrasati program in Jordan:.....	36
5-Opinions supporting the development of public schools buildings:.....	39
<b>IIII-Chapter Four</b> .....	42
Research Methodology .....	42

A- A brief description on SWOT analysis:.....	43
B-Data Collection:.....	44
C-Limitations of the study: .....	45
<b>IV-Chapter Five</b> .....	46
SWOT analysis of the two governmental programs.....	46
1-The Strengths of the One Hundred Schools Development Program: .....	48
2-Weaknesses of the One Hundred Schools Development Program:.....	57
3-Opportunities of the One Hundred schools Development program: .....	61
4-Threats to the One Hundred Schools Development program: .....	64
1-The strengths of the National program for Public Schools Renovation: .....	69
2-Weaknesses of the National program: .....	74
3-Opportunities of the National program: .....	80
4- Threats of the National program.....	81
5-Discussion on the SWOT analysis:.....	85
<b>V-Chapter Six</b> .....	87
<b>Conclusion and Recommendations</b> .....	87
Conclusion: .....	87
Recommendations: .....	94
Bibliography:.....	99

# I-Chapter One

## Introduction

### I-Introduction:

Education is a key component for the development of any nation and the students are the coming builders for the society. Education environment and students' performance are affected by many factors and the buildings conditions of public schools are one of the major problems facing the education system in Egypt" (Baradei, & Baradei,2004) .

The public schools buildings are suffering from physical educational problems since 1990s which are insufficient school buildings, inadequate school buildings and inadequate infrastructure. Also, the public schools are suffering from high class density, low qualifications of teachers, construction problems and low quality of schools buildings (ibid).

According to the World Bank report, a safe school is a learning community that is aware of any risk that can happen to any student and there is a plan for coming problem that can happen. Schools conditions and construction must be safe for the students and any problem is facing the building must be solved immediately (World Bank report, 2016). Also, the report showed the impact of safe school on the students 'safety and performance which means if the student is feeling safe and comfortable inside the school, this will result in his/her high performance and attendance (ibid).

A safe school includes the structural location, building design, infrastructure, capacity building, health care and resource mobilization (ibid).



The government is aware of the problems facing the public schools buildings since 1990s and worked on presenting several development programs through the Ministry of Education. In the 1990s, the Ministry vision was called “A Look at the Future” (Human Development report, 2000). It draws a detailed picture of the educational system for Egypt and considered it a national security concern which included teacher training, the upgrade of buildings and facilities and presenting technological tools to students (ibid).

The governmental development programs are very important in the upgrading of public schools and since the 1990s till now; these programs are working on managing educational system , make the learning system attractive to students , teachers’ development , infrastructure of schools , health care to students , safety to students inside schools and presenting technological tools to them (MOE report , 2008).

The development programs are working on upgrading schools and solving the problems such as infrastructure, expanding number of classes, have health care and have functional bathrooms, stairs and fences (ibid).

On the other hand, there are several problems that are facing the development programs in their implementation and this resulted in having more problems inside the public schools buildings as these obstacles negatively face the programs in reaching their goals (Saleh, 2014).

This thesis attempts to analyze the public schools buildings conditions through presenting two programs : The One Hundred Schools Development Program and the National Program for Schools Renovation; the thesis will show the problems that faced and still

facing the two programs and how this have a negative impact on both programs and on public schools buildings conditions.

Additionally, this thesis depends mainly on using qualitative techniques in collecting data. There are several interviews done with different people worked on both programs from different age, position and different background to examine both programs from different perspectives and different point of views.

Also, the researcher used the SWOT analysis technique in order to analyze both programs and mention the weaknesses and threats that are affecting them. The SWOT analysis helped in examining deeply both programs and conclude the main obstacles that faced them to build on in the recommendation section .The conducted analysis showed that both programs have strengths and opportunities points, however, they have also some weaknesses and threats that should be taken inconsideration.

Therefore, the last chapter will provide some recommendations which may help the Egyptian government in facing and improving these problems quickly and to avoid their pre-presence in their coming development programs.

#### A-Statement of the problem:

Despite the presence of development programs since the 1990s till now, the schools buildings problems are increasing and many schools till now are suffering from serious problems .These problems led to the death and injury of many students inside the schools (Essiouy, 2014).

Some of the schools buildings are still suffering from the high density of students in classes, the absence of health care, the unsafe stairs and fences of the schools, the unhealthy school environment and the non-functional bathrooms (ibid).

A newspaper article based on reports and statistics stated that 16 million students' face threats due to the problems inside public schools. The threats can lead to death or severe injury to students due to the bad conditions of public schools buildings (Marsad, 2014).

In addition , the both development programs that will be discussed in details in the coming chapters achieved many renovation efforts to have better schools buildings, but there are weaknesses and threats faced the achievement of safety in all Egypt's schools. The main weaknesses were in the maintenance of the renovation efforts and also internal problems within the implementation of the program. These major points affected negatively the sustainability of the programs and the sustainability of the renovation efforts to have safe schools. This will be illustrated in more detailed way in the data analysis section.

As a result, there are many problems that still face the public schools buildings and face both programs .Therefore, the researcher will examine both programs effectively, analyze them and build on in the recommendations section.

## B-A brief description of the One Hundred Schools Development Program:

The program started in July 2006 and there was no specific time planned for the program to end until it achieves the reform of the public schools, but it ended in 2009 (Marquer, S., 2009).

The vision of the program was improving all the buildings conditions of public schools all over Egypt, solving all the problems occurred and pushing the education field forward. The mission was to improve one hundred public schools in three governorates which are Cairo, Giza and Luxor in each phase (Ragab, 2009).

The scope of the program was moving towards five fields of school development, which are:

First scope was the infrastructure and development of buildings conditions , second scope was the teachers trainings sessions, third scope was upgrading the technological infrastructure in conjunction with the Ministry of Communication as technology contributes an essential role in improving the educational service (ibid). Fourth scope was health care and the environment are in conjunction with both the Ministry of Health and the Ministry of State for Environmental Affairs. Then, final scope was the focus on the boards of trustees, which are one of the most important themes. The program was based on involving a group of ladies volunteers (usually the wives of businessmen who can contribute to the project, or active women in the development field) who oversee the schools after the development to ensure the efficiency of performance, continuity and the introduction of diverse activities from sports, art and music, environmental activities

(ibid) .Also, be sure to enter the spirit of citizenship among students and develop libraries and laboratories (ibid).

Regarding the management and the supervision of the program, the program had started under the supervision of Heliopolis Association, who's Chairperson was the previous Egyptian First lady, Suzanne Mubarak. This association was working on the development programs serving Egypt and one of their programs was the development of one hundred schools (Ezzat, D., 2006).

The General Authority for Educational Buildings was the institution responsible for locating the schools that need improvement and for setting the procedures of improvement. The authority was setting the budget for each school improvement (Giza Governorate report, 2009).

The strategic plan of the program was done by Heliopolis Association (ibid). The strategic plan included significant strategic goals which are the school development and maintenance of buildings and turning them into a valid educational institution to uphold the education and knowledge of values, and to transform classrooms into more attractive environment to students by motivating them through presenting activities (ibid).

Also, health clinics are to be furnished with medical devices, and training of doctors and health visitors on the new technology in the Department of Labor (ibid). Then, curriculum development and the introduction of information and communication technology are meant to go beyond the traditional teaching methods (ibid). The final strategic goals are expanding number of classes to absorb the high number of students

and focusing on the school atmosphere, the removal of occupancy, lighting, paving and improving the environment surrounding the school (ibid).

The program moved into three phases. The first phase was from 2006 to 2007, the second phase was from 2007 to 2008 and the third phase and the last phase was from 2008 to 2009 (Ragab, 2009). In each phase, one hundred schools were renovated in Cairo, Giza and Luxor governorates which is a total of 300 renovated schools in the three governorates (ibid).

#### C-A brief description of the National Program for Public Schools Renovation:

A newspaper article based on reports with the program staff stated that it began in 2014 and supposed to end in summer 2016, but they are still working on it (Wafd, 2016).

The program began during the presence of the last Prime Minister, Ibrahim Mahleb (ibid). The program began after the death of a child in 2014 due to the fall of the school gate above him. As a result, the previous Prime Minister, gave his orders to begin a renovation program to fix all the problems inside the public schools buildings and this program named the national program (Bahat, 2014).

The vision of the national program is to renovate all the public schools in all governorates to ensure the safety of each student in every public school (Ministry of Education report, 2015). The mission is to renovate first the schools that have extremely dangerous problems, then the schools that have less dangerous problems and finally the schools that need minor renovations (ibid).

The scope of this program is covering five fields of intervention which are:

First scope is working on the infrastructure of the schools by locating the schools that need infrastructure and need immediate interference. Second scope is renovating the destroyed gates, destroyed stairs and improving bathrooms to be safely functional for students. Third scope is improving the health clinics and giving new medical equipment. Fourth scope is working on introducing technological tools to students such as computers and scientific labs. Fifth scope is providing trainings to teachers to improve their performance (ibid).

Regarding the management and supervision of the program, the program is under the supervision of the Ministry of Education (Abd Rahman, 2015).

The General Authority for Educational Buildings is responsible for analyzing the schools that will be included in the program and classifying their level of danger (ibid). The targeted schools are classified into four categories. First, schools that have extremely dangerous problems and these schools need immediate interference. Second, schools that have dangerous problems, but are less danger than the first category. Third, schools that need many renovations, but the renovations are not serious as the first and the second categories and fourth, schools that need few renovations (ibid).

The total number of public schools in Egypt is 50,443 schools (Badawy, 2014). The targeted schools in the program are 433 schools that are extremely in danger condition, 10438 other schools that just need few renovation efforts and 5208 of them are given to contractors to start working on the renovation process. So, the total number is 16,089 public schools are in the process of renovation (ibid).

The strategic plan of the program included their seven strategic goals which are:

The first goal is offering equal learning opportunities to all target groups, make sure that schools services are of high quality and are accessible to all students (Ministry of Education report, 2015). Second, the Ministry of Education will always supervise the services offered to students and make sure of its high quality (ibid). Third, improving enrollment rate among students especially in primary stages that is suffering from the low students' attendance and fourth goal is improving the internal and external environment of the schools administration (ibid).

Fifth goal is the efficiency of remedial courses for students' to improve from their learning skills (ibid). Sixth goal is focusing on the technological tools to be the equipment for students' learning and the final goal is expanding the number of classrooms within the schools to make sure the number of students per classroom allows them for receiving the data and not being distracted by the high density inside classes (ibid).

The program moved into two phases. The first phase was implemented under the previous Prime Minister Ibrahim Mahleb and the second phase is still being implemented under the current Prime Minister Sherif Ismail (Sabah 2014).



#### D-The Research Question:

What are the strengths, weaknesses, opportunities and threats that faced the One Hundred Schools Development Program and the National Program for Public Schools Renovation?

The secondary research questions that the research is trying to answer are:

1. What are the features of each program? And how do their objectives, implementation mechanisms compare to each other?
2. What are the results of each program?
3. What factors can be taken into consideration in future school renovation programs as lessons learnt from the two programs?

## II-Chapter Two

### Research Flow and Background

#### A-Research Flow:

The researcher analyzed the main challenges that are still affecting the students in public schools and the result was that the main challenges are affecting negatively their safety and health, their attendance and affect negatively the environment around them.

The government is aware of the seriousness of the problem and their actions were moving towards two fields of intervention, which are building new schools and renovating the existed schools. There were continuous efforts done to minimize the challenges, but they were intensified in two national programs of schools renovation.

The two significant programs are the one hundred schools development program and the national program for public schools renovation. The researcher used the SWOT analysis to analyze them effectively. The development of one hundred schools program had several points of strengths and opportunities, but also had weaknesses and threats that were not taken in consideration and led to the unsustainability of the program results.

The national program is still being implemented. So, the researcher analyzed the strengths and opportunities that can be used effectively to renovate the public schools and highlighted also the weaknesses and threats to avoid the unsustainability or obstacles that can face the program.

From the data analysis, the researcher built on the recommendations through a suggested model that presents several points for the Ministry of Education to solve the problems

facing the national program and avoid the weaknesses points that faced before the one hundred schools development program.

**Buildings Conditions of Public Schools in Egypt:**

**The Challenges:**

- Non -functional bathrooms
- Non-functional stairs
- Low number of classes
- Sewage and unclean water.



**The negative consequences of the challenges:**

- Life threats
- Health Hazards
- Psychological problems
- Student attendance is affected



**Government policy for educational reform includes:**

- Building new schools
- Renovating the existed schools.

**Government Action:**

- Schools development and renovation programs



**One Hundred Schools Development Program:**

- Started in 2006
- Ended in 2009
- its target was to improve the schools conditions in: Cairo, Giza, and Luxor.



**5-National Program for Public Schools Renovation:**

- Started in 2014
- Was supposed to end in summer 2016, still current
- Its main target is to renovate all public schools in Egypt.



**SWOT analysis on the two governmental programs:**

- Strengths
- Weakness
- Opportunities
- Threats



**The result of the analysis and the Recommendations:**

A proposed model for renovating public schools buildings

## B-Background about the buildings conditions of public schools:

### 1-Challenges:

According to a study conducted by the British council, the study pointed out that there are major problems facing public schools in Egypt. Some schools do not have functional bathrooms, do not have functional stairs, presence of sewage water for students' to drink and limited number of classrooms (British Council report, 2014).

Also, some schools classrooms and corridors are very narrow which will adversely affect the educational process, some schools are located between residential buildings causing the block of air and light as well as poor air ventilation and lighting in the classroom, making the educational process difficult, especially in the summer time (ibid).

The study showed also the presence of cracks in the walls and ceilings having a risk to the safety of students and lack of safety standards such as some schools do not have fire extinguishers usable (ibid).

Another article showed that some public schools in Alexandria suffer from garbage that surround the schools from every place and also some classrooms do not have doors , windows , chairs or boards. This of course has a negative impact on the education system and the safety of the students' (Mahdy, 2014).

## 2-Negative Consequences of these Challenges:

### 1-Life threats:

Al-Ahram newspaper published that several students are exposed to injuries or even death due to the bad conditions of some public schools; unsafe schools surroundings lead to disasters to students (Tarek, 2013).

During the last few years, there were many accidents inside schools buildings. One of them was that three students got severely injured in Tahrir Primary School in Bulaq Dakroul in Giza after the fall of the ceiling fan on them (Hazeq, 2014).

Another accident that happened in 2014 was the death of a student in a public school in Cairo in Mataryia area as a result of the falling of a window suddenly on his head while attending a class and caused his death on the spot (Frag, S., 2014).

The Ministry of Education reacted to this horrible accident by suspending the manager of the school and suspending the teacher of the class. Also, the changing of the window glasses action was taken to avoid any other accidents (ibid).

Another accident in Fayoum, a student was exposed to an electric circuit that led to the cut of his hands off and his father plead to help other students' not to be exposed to what happened to his son (Mahdy, 2014).

In addition, there is a school in Fayoum Governorate named Al Ahram that is suffering from the absence of fence, uncovered electricity wires and unsafe stairs. One of the parents mentioned that “the stairs are falling under the feet of the children every day and rebar became visible as the sun and infused with rust” (Mahdy, 2014, P.1).

The same school had seen several accidents to students due to the absence of fence and many students were attacked by street dogs and got severely injured (ibid).

All the above accidents are cases of death and injuries among students' in public schools due to the absence of safety, security for them inside public schools buildings and also due to the bad infrastructure conditions and destroyed equipment and building elements inside the schools.

## 2-Student attendance is affected:

There are many factors that affect student attendance in any school which are noise and density of classrooms (Woolner, 2014).

Many students in public schools in Egypt are exposed to these factors. “ The majority of the occupants are thermally uncomfortable for most of the time, the majority of the occupants are visually uncomfortable for most of the time and less than 25% of the occupants reported that the classrooms acoustics are poor” (Gado, T., Mohamed, M., Unwin, S., 2005, P.7).

The authors in this study discussed a survey and analysis of several numbers of students in public schools in Egypt that suffers from high density inside classrooms (ibid).

The high density in classrooms affects students' health negatively as it causes the feeling of being uncomfortable, suffering from noise, lack of concentration and poor students' performance (Gado, T., Mohamed, M., Unwin, S., 2005, P.7).

There was another article published in Al-Ahram Weekly discussed the main problems with public schools buildings all over Egypt. The authors discussed the high density in

classes and that one classroom can have more than 70 students that resulted in the low performance of students (Shahine, G., & Gebba, W., 2015).

The students' attendance is decreasing in several schools due to the lack of basic services and needs which are access to good surrounding environment and safety issues. The students' in public schools have fear from attending classes due to high density and noise surrounding them (OECD report, 2015).

Another survey of noise levels was conducted in 9 schools in Cairo Governorate showed that "the average noise measured over whole month during the school day was ranged between 73-78 dB" (Kamal & Abd Rahman, 2010, P.8).

This means that most schools exposed to noise are the ones located close to the main roads due to the presence of high traffic. This survey showed that noise inside classrooms affect the performance of students and lower their attendance (Kamal & Abd Rahman, 2010).

The above articles proved that over-density inside classrooms and noise pollution are major factors affecting the schools conditions and low from the percentage of students' attending their classes which is a major problem in the education sector.



### 3-Health Hazards:

Many students suffer from health hazard due to drinking unclean water, non-functional bathrooms and the meals in the schools are unhealthy and unclean (OECD report, 2015).

Drinking water contaminated with sewage is a serious problem in many public schools. The manager of a school in Bahira governate pointed out that many schools suffer from the absence of clean water and the water served to the students is contaminated with sewage. Also, he added that the "the bathrooms are not suitable for human use" and that in the future will affect their health negatively (Shamy, 2016, P.1).

In addition, the human rights report has been monitoring 857 cases of violation of the rights of children in educational institutions, where the violations ranged from food poisoning through school feeding and infectious diseases (Marsad, 2014).

Also, there is a girls 'school in Sharkia governorate named Tazmnt that suffers from the absence of functional bathrooms .The school has more than 500 girls and there is no bathroom for them , besides the overcapacity in classrooms, is a serious problem facing this school. This led to the absence of girls or being forced to go to a restaurant in front of the school to enter its bathroom and being sexually harassed in the streets (Mahdy, 2014).

All the above data clarify that the unclean water, unclean food and non-functional bathrooms spread the diseases among students' and cause health hazards among them.

#### 4-Psychological problems:

A report was conducted about Arab world education system and building safety stated that less than 40 percent of students in public schools feel safe inside the building which is a very low percentage (Faour, M., 2012, P.7).

This percentage proves that students are not feeling safe inside the school buildings and that it will have a negative impact on their performance (ibid).

This study also showed that the psychological state of students' in Egyptian public schools are affected negatively due to density in classrooms , exposure to noise , unclean water and unclean food. Also, most public schools in Egypt are not attractive to students alike due to their construction problems, unsafe issues and absence of playgrounds and activities for students (ibid).

Another major factor that affect the students' psychological state negatively and cause their drop out from schools , is the high distance walking from schools to their homes due to the presence of only one school in a large area. (Salah, 2015)

“According to the HIECS 2012/2013, families spend approximately 11 percent of their education budget on transportation alone. If families live within walking distance of their school, then the cost of transportation falls to zero and the stress students experience traveling is reduced”. (Salah, 2015, P.2)

Another study done by Tadamun which is an initiative (project) for documenting urban issues from a rights-based perspective conducts that many students in public schools are

suffering from long distance walking to reach their schools and go back home especially in slums areas. The study conducted also that this is a major reason for the drop- out of the students (ibid).

The above articles show that psychological problems among students' in public schools are increasing due to all the above problems which are life threats, health hazards and dropping out from schools because of commuting distance.

#### C-Background about the government's educational reform policy:

The government has several objectives and a long educational reform policy stated in its 2030 plan which include:

First, the government should work on reducing the illiteracy rate to zero, improve gross enrollment ratio for kindergarten 4-6 up to 80 percent, Egyptian universities should be included in the best 500 universities in the world and become among the best 20 universities in research (Egypt 2030, 2015).

Gender equality improvement is an important target in the education field and Egypt is planning to be from the best 20 countries in the rate of Gender equality improvement in education (ibid).

Improving the public schools buildings conditions is an aim in Egypt's 2030 plan such as improving infrastructure, sorting out health care and safety issues inside the schools (ibid).

Another article stated more objectives of the government policy for education reform that states that:

The government is working on restructuring education system, improving the competitiveness of the educational system and to promote lifelong learning. Also, the

government works on reducing the dropout rate from basic education and as well as the advancement of education technical systems pre-university and provide education for every child in Egypt (Emara, 2016).

#### D-Government efforts in building new schools:

The government is working now on building new schools to cover all the students all over Egypt. The program is called the National program for Public Schools Buildings, 200 new schools were built within the first phase of the program. The Ministry of Education is working in the coming phase on building other 202 schools in Egypt's governorates (Abd-Maksoud, 2016).

The goal of the Ministry of Education in this program is to build schools to increase the share of public language schools and solve the problem of availability of schools, and reduce the density of the classroom. This can be achieved through the involvement of the investment of private sector, in order to create a set of similar schools official language schools (MOE, 2016).

The Minister of Education Helal El Sherbiny pointed out the importance of organizations in serving the society and mentioned that the government and Misr Kheir Organization will work on building schools in Fayoum governorate.

Also, Misr Kheir program will work on renovation of industrial education schools students in Fayoum, the development of the petrochemical schools, the development of hospitality education in Cairo schools projects, and the development of reading and writing skills for students of technical education schools (Dotmsr, 2016).

Another program was done under the supervision of Ministry of Education for building 1668 classes in existing public schools. The fund of 400 Million Egyptian pounds came from United Arab Emirates government and the classes were built in Cairo, Damietta, Sinai, Assiout and Menoufya governorates (Helmy, 2014).

#### E-School Maintenance:

The government is aware of the problems inside schools as the current Minister of Education Helal El Sherbiny stated several times that the governmental schools need renovation to solve the problems that they are facing (Awad, 2016).

The Minister of Education stated recently that “the existence of irregularities in the maintenance of schools file and many schools still need improvement” (Awad, 2016, P.1).

Then, the government began to move towards actions to solve the problems by presenting several actions that are being applied now which are:

The government is working on increasing the governmental budget on improving schools, maintenance rewards to schools to support their quality working harder on the National program for school renovation, working on renovation and improvement programs (ibid).

“Facing the irregularities inside schools is the Ministry of Education main aim” (ibid).

This quote shows that the Ministry of Education is working on the maintenance of schools and working on facing the irregularities to have safe schools and is aware of the problems and irregularities inside schools.

The General Authority for Educational Buildings pointed out its main goals concerning schools improvement and renovation.

The authority is working on studying and developing the scientific planning of the renovation programs, design models for educational buildings for the different stages of education, taking into account the specific requirements (Giza Governorate, report, 2015).

Also, the authority assigns the educational buildings construction to qualified contracting companies and supervise the implementation of plans in accordance with the established requirements, as well as conforming to the specifications until the schools are delivered administratively (ibid).

The authority works on subtraction, and supervision of the whole renovation process, follow-up and monitor the establishment of public schools in accordance with the standards and requirements for the authority and maintenance of computers to different educational buildings, maintenance of machinery and technical tools (ibid).

This chapter presented a clear conceptual framework that clarified the challenges that are facing the public schools buildings and the negative consequences of these challenges that lead to the injuries and death of many students. Also, this chapter exposed the government actions in building new public schools and renovating them to highlight the government educational reform policy in the coming period.

## III-Chapter Three

### Literature Review

Development of public schools buildings is a highly essential issue all over the world. Most of the opinions are supporting the renovation of public schools on regular basis. A study was conducted by the World Bank showed that the importance of renovating schools as the bad conditions of schools buildings affect negatively the students' performance in schools (World Bank, 2004). Another OECD study included that the comfortable environment, clean school, safety inside schools and regular renovations affect positively the performance of students (OECD, 2002). Also, the study showed that the drop-out of students from schools is decreased by having safe and clean school environment (ibid).

In addition, all the reviewed studies expressed favoring renovating existing schools rather than building new schools; it is believed that the renovation solves the problems in existing schools, which the building of new schools would not solve.

The literature section will focus on two main streams of research. First, the researcher will discuss the international experiences in applying development programs for schools buildings renovation. Second, the researcher will present the opinions supporting the renovation of schools buildings rather than building new schools.

## A-International experiences towards improving the buildings conditions of public schools:

Many countries attempted to improve the buildings conditions of public schools. According to a research study conducted by the OECD, it clarified that there is no ideal or fixed model for renovating the public schools buildings; the model or renovation efforts done depend on each country and on each school circumstances and the seriousness of the problem (OECD , 2012).

Another study that was conducted by the Wallace Foundation, which is a knowledge center that supports the development of knowledge and analysis from multiple sources. The study gave a framework to be used in public schools buildings renovation which is based on three factors, supporting the students' skills and activities, offering trainings to teachers and building classes and having enough capacity for all the students (Wallance Foundation, 2014).

In this section, the researcher will discuss various examples of development programs for improving the buildings conditions of public schools such as Singapore PRIME program, India school infrastructure program, China Wenchuan Earthquake Recovery Program and Madrasati program in Jordan.

All these programs are development programs that worked on developing the buildings conditions of public schools though following specified goals to have safe schools for students.



## 1-Singapore PRIME program for the improvement of public schools buildings:

Singapore has experienced an overall change in its education sector since 1960s. During that time, Singapore has worked on having a plan each five years to improve the education level in all its aspects (World Bank, 2006). The five year plan work on improving the curriculum and the buildings conditions of all public schools (ibid).

Since the 1990s till now, Singapore has experienced a rapid success in improving its public schools buildings and in its education system (MOE, 2010). Singapore government aim is providing each student with a safe school and appropriate education (ibid).

One of the most significant programs in Singapore was the program for rebuilding and improving existing schools, PRIME program (Gwee, 2013).The program launched in May 1999 and ended in 2005 and its main goal was to develop the public schools to the latest standards (ibid).

The main problem in Singapore public schools was the absence of information technology (IT) in many schools (Mokhtar,2007).So, the program strategic goals were providing these schools with technological tools, computer laboratories, resource libraries, IT learning resource rooms, fitness rooms. Teachers and students should have bigger classrooms and more interaction areas (MOE, 2016).

Also, the program worked on construction works for the public schools that need so. The renovated schools were remained on site during the renovation efforts and some schools moved to temporary holding schools until the renovation was finished (ibid).

By 2005, the program achieved several achievements which offered 222 public schools with technological tools and upgrading the construction of 192 schools.

The budget was depending on the government budget that was 4.46 billion dollars and all were invested on having schools with high technology to be used to improve the skills of both students and teachers (ibid).The Singapore government believed that the well-educated students and teachers and their abilities to use and access high technology tools will teach them to keep the good conditions of their schools and help in renovation by their good behavior inside the schools buildings (ibid).

## 2- India School Infrastructure and Strengthening of Secondary and Higher Secondary Education program:

India has witnessed a development in its education sector since the 2000s. The education sector in India succeeded in expanding secondary education and improving education quality in its Twelfth National Development Plan that started in 2012 and planned to be finished in 2017 (British Council report,2014).

India succeeded in increasing the enrollment of students in public schools and is working on having better public schools conditions in comparison with private schools (ibid).

According to a study conducted by Ernest&Young (EY), which is an international financial company, clarified that India now has “25.9 million students enrolled in more than 45,000 degree and diploma institutions in the country ,expected to have 35.9 million students in higher education institutions in 2017” (EY report ,2012, P.1).

The above study also showed that India is moving forward in its education field and expected soon to be from the top countries in the education field (ibid).

India School Infrastructure and Strengthening of Secondary and Higher Secondary Education program (RMSA) started in 2009 and ended in 2010 (Ministry of Human Resource Development report,2014). The program aim was improving infrastructure for public schools that face serious problems regarding that issue; RMSA is a national program that reach all the public schools that need renovation (ibid).

The goals of the program were:

First, the renovation of the schools regarding infrastructure, school building to take the high number of students, have functional bathrooms and have bigger play grounds (ibid).

The program goals also were renovating the campus buildings, fences, walls, conservancy services, and desks and chairs of both the students and the teachers (ibid).

The Indian Ministry of Education was locating the schools according to four categories (Ministry of Human Development report, 2011) :

-Poor school location.

-Improper campus design and lay-out.

-Schools that need construction treatment.

-Health issues such as sanitation and non-functional bathrooms in schools.

-Lacking fire safety emergency.

The budget of this program depended on public private partnership and one of the main reasons behind the success and improvement of the education sector in India is the dependence on public-private partnership in its development programs (Ministry of

Human Resource Development report, 2014). The aim of using public private partnership method is to cover the high expenses of the programs (ibid).

The program succeeded in building 15546 additional classrooms, building 7757 science labs, building 5750 computer rooms, renovating 6205 bathrooms and improving drinking water in 4128 schools (Ministry of Human Resource Development report, 2016).

In addition, the program succeeded in offering trainings sessions to 36220 teachers in different public schools and 2585 schools had construction efforts done (Ministry of Human Resource Development report, 2014).

### 3- China the Wenchuan Earthquake Recovery Program:

China pays attentions to the buildings conditions of public schools. The Chinese Ministry of Education is always working on not having dangerous schools conditions, every classroom has a desk and a chair for each student. Every school must have walls, functional bathrooms and potable water (UNESCO, 2013).

Many of the Chinese public schools were damaged and destroyed after the earthquake in Sichuan City in 2008 (World Bank, 2012). There were serious damages as 7,000 schools were destroyed, and 46.25 million people were affected by death or severe injuries (ibid).

The Wenchuan earthquake recovery program (WERP) started in 2009 and ended in 2014 (ibid). The Chinese government worked on that program for renovating the damaged schools though investing 410.6 billion Yuan from the government budget, private

investment is about 10.5 billion Yuan and donations of 10.8 billion Yuan (UNESCO, 2013).

The achievements of the WERP were:

- Construction of 110 km of roads, one hundred km storm water pipelines, 93 km of sewers in Sichuan damaged schools (World Bank, 2012).
- Reconstruction and expansion of health center inside schools (ibid).
- Construction of 31 civil works (infrastructure investments in buildings, roads, water and sanitation (ibid).
- Facilities are now upgraded to conform to environmental standards and ultimately decrease pollution (ibid)
- Renovating the schools buildings in consideration with the cultural heritage (ibid).

#### 4- Madrasati program in Jordan:

Madrasati program (My school program) started in 2008 and the program main goal focuses on repairing and restoring schools to make them safer, better equipped and better learning environment (Queen Rania Foundation , 2016).

Madrasati program can be considered a national program that target all the public schools in Jordan that need renovation in its building (ibid).

The strategic goals of the program are painting classrooms, fixing destroyed stairs, fixing damaged walls and fences. In addition, the strategic goals include the providing of

classrooms to fight the density problems and maintenance of all renovation efforts (UNFPA report, 2012).

The program is under the supervision of Queen Rania, the Queen of Jordan. Madrasati brings together communities, businesses, non-governmental organizations, and private investors; this is in addition to the Ministry of Education (ibid). This combination of students, business people, parents, administrators, and teachers has a common target goal, which is the renovation of education quality and public schools buildings for Jordan's children.

Madrasati has 140 partners from the public, private and civil society sectors (Queen Rania Foundation report, 2016).

The program yielded great achievements in the education sector:

1- Decreasing the drop-out of students :

The program worked on having clean and healthy environment for the children by the presence of the activities, big play grounds, art and music sessions. Also, the program provided the schools with musical and sports equipment to easily facilitate the activities inside the schools (UNFPA report, 2012).

2- Renovating public schools from serious disasters :

The program worked and is still working on fixing dangerous problems which are the infrastructure of schools, fixing destroyed windows, fixing destroyed stairs and fixing the destroyed fences (ibid). Also, the program built additional classes for the schools that

suffer from high density and worked on offering trainings to teachers to improve their skills (ibid).

### 3- Providing technological tools to schools :

The program provided computers and also worked on renovating the libraries inside the schools to ensure the access of all students to technological tools. Also, the students are encouraged to use the computers in doing their studies and assignments (ibid).

### 4- Environment suitable for all students :

The program worked on having removing wastes from schools, students have access to clean drinking water and raising the awareness among students and teachers on the importance of having clean environment of the schools (ibid).

### 5- Civic engagement and participation :

The program main aim was the working on the civic engagement between private investors, NGOs and public sector. Also, the civic engagement includes the participation of students, parents and teachers in achieving the goals of the program (Queen Rania Foundation report, 2016).

### 6-Competitions among students:

Every year there is a big competition among all Madrasati schools on having the best three ranks and the prizes are really impressive. Some of them are money certificates, trips outside Jordan and unique equipment (ibid).Competitions are not only educational competition, but also musical and talents competition. The private partners offer musical instruments for the students to learn how to use them and giving the students tutorials on

the use of the creative talents such as drawing and acting on school theaters. All these competitions are considered as a tool to encourage students to love going to school, discover their talents and work on projects to improve their standards (ibid).

#### 5-Opinions supporting the development of public schools buildings:

A study was conducted by the 21<sup>st</sup> Century School Fund in the United States that is concerned with public schools facilities development clarified that class size is a very essential factor in the education performance of the students (21<sup>st</sup> Century School Fund). The study included that over-capacity classrooms lead to low education level of students, high rate of teachers attrition ,reduced learning time , distraction from learning low ability to meet special needs of the students , lack of technological proficiency (ibid). In addition, over-capacity in classes can lead to serious health problems for teachers and students and less supervision of students' behavior (ibid).

Another study clarified the importance of renovating the public schools buildings. The renovation of schools help in reducing noise, over-capacity in classes and in encouraging the students to attend the classes (Wright, 2010). The study showed that several students are not encouraged to attend their classes because of the lack of facilities and equipment. Also, some students are not encouraged to go to their schools because of the unsafe of critical equipment inside the schools (ibid).

In addition, there is a major problem which is the drop-out of students from schools due to the old schools that are not renovated. As a result, these schools suffer from destroyed stairs, fences and ceilings and also the students suffer from health problems and critical injuries (Carvhlo, 2012).



An article supported the renovation of current public schools. The article justified this argument by clarifying that the school that suffer from bad conditions must be renovated because if the problems are not tackled and solved. Then, the problems will occur also in the new buildings (ACEF report, 2010).

Also, the article mentioned some factors to show the importance of renovating schools:

1- Renovation takes less time :

Renovation efforts takes less time because the site has been prepared. Walls are up, roads and basic equipment have already been.

2- Renovation costs less :

Renovation of schools is more cost effective, since it preserves the building stock in the educational sector and hence reduces the need to build new schools replacing the existing ones.

3- Property values may increase with renovation:

Renovating schools attracts private investors to contribute in renovating schools because the renovation cost is less (ibid).

4- Renovation and high quality materials:

Schools built in the early 20<sup>th</sup> century are perfect for renovation due to its durable materials, strong infrastructure and strong equipment (ibid).

5- Renovation creates more job opportunities :

More labors are needed in renovation of schools which is considered a perfect way to hire labors instead of being unemployed (ibid).

The literature review chapter presented the international experiences of Singapore, India, China and Jordan in the renovation of public schools buildings and these experiences were effective in improving the education sector. Also, the chapter highlighted the importance of renovating schools in presenting safety for students inside the schools and in the education reform of any country.

## III-Chapter Four

### Research Methodology

This study depends on qualitative techniques and secondary data in order to illustrate the findings in a logical and integrated way. The qualitative data depends on collecting data through interviewing people and analyzing data effectively to draw a clear picture of the data analysis of the topic (Marshall & Rossman, 2009).

The researcher conducted in-depth structured and semi-structured interviews with different people who are involved in the two governmental development programs. Moreover, the investigator selected an indicative sample of different persons working in the programs as well as being impacted by the two programs from different age, positions, sex and work place to present different varieties of people involved in both programs. The sample included three engineers, two managers and one teacher from the One Hundred Schools Development Program. Another three engineers, two managers, contractor and two teachers from the National Program for Public Schools Renovation in order to apply triangulation concept which facilitates validation of data through cross verification from different sources. The respondents have been selected purposefully to assure that the validity and reliability of the research have been accomplished.

Also, the investigator used SWOT analysis in order to evaluate the two development programs. This analysis stands for strengths, weaknesses, opportunities and threats that face the two governmental development programs. The applying of the SWOT analysis helped the researcher in determining and focusing on each section separately.

#### A- A brief description on SWOT analysis:

SWOT analysis is a major technique which identifies both the internal and external environment of a program (Colbert, 2004). The strengths and weaknesses are the internal environment of the program while the threats and the opportunities are the external environment of the program (ibid).

Applying the SWOT methodology, the analysis provides information about both programs that helps in understanding the strengths of the system to benefit from in any coming development program .Also, the SWOT analysis helps in highlighting the weakness and threats of both programs to avoid in implementing any coming program.

The researcher used SWOT technique in order to analyze the two significant development programs of renovating the buildings conditions of public schools in terms of their strengths, weaknesses, opportunities and threats in order to point out the changes required in the coming development programs for public schools buildings.

## B-Data Collection:

First, the researcher started the data collection process by requesting the approval of Institutional Review Board (IRB) at the American University in Cairo. After getting the approval in July 20, 2016. The researcher conducted the interviews in the same month. The interviews included some questions that covered different areas of investigation. The answers of these questions helped in answering the main research question of the study. The answers showed the views of the engineers and the managers about the achievements of both programs, the challenges and the solutions to overcome the challenges.

Some questions were descriptive to show each program goals, show the achievements and the challenges of each program .The descriptive questions helped in describing what is going on in both programs and analyzing both programs effectively.

Other questions measure the impact of implementing both programs on the public schools conditions and on the students' safety inside the schools. For example, it examined the schools conditions after the renovation and the maintenance on the renovation efforts and also shows the opinions of different engineers, managers and teachers on the achievements that occurred and the problems that are still facing the schools conditions and facing the implementation.

### C-Limitations of the study:

The first limitation was the limited number of research or studies about the buildings conditions of public schools in Egypt and about the two development programs. The researcher conducted several interviews with different people involved and being impacted by the two programs and by the schools conditions to put a highlight on the importance of this topic.

Also, the process of reaching different people from different positions, background and age was not an easy task and it was very important to show reliability and validity of the study.

The researcher used some secondary data that had same results with some of the conducted interviews that was a challenge faced the researcher.

## IV-Chapter Five

### SWOT analysis of the two governmental programs

In this chapter, the researcher will discuss and analyze the collected data from the structured and semi-structured in-depth interviews conducted with different and purposive interviewees along with some secondary resources.

The data was triangulated and connected to the literature of this study and the researcher used SWOT analysis as a tool to analyze the findings of the study.

The data analysis chapter is divided into three sections. The first section will discuss the strengths, weaknesses, opportunities and threats of the development of one hundred schools program.

The second section will discuss the strengths, weaknesses, opportunities and threats of the National program. The last section will be a discussion on the SWOT analysis and summarizing the two programs.

Then, the findings of the two programs will be presented in the table indicating the four different categories of strengths, weaknesses, opportunities and threats.

The One Hundred Schools Development Program:

<b>Strengths</b>	<b>Weaknesses</b>
1-Time Management	1- Reliance on the Patronage of a Political Figure
2-Organization of goals	2- Absence of maintenance committees
3-The working team aware of vision, mission and scope	3- Implementation of the program in some governorates only
4- Effective supervision	4- The unsustainability of the program
5-Public sector, private investors and NGOs are involved	
6-Successful renovation efforts	
7-Presenting technological tools	

<b>Opportunities</b>	<b>Threats</b>
1-Media Campaigns and good reputation	1-The unstable political situation
2-Community values	2-Competition threat
3-Financial resources	3-Deficiency of the budget before and after the revolution era
	4-Mistrust between the citizens and the old regime



## 1-The Strengths of the One Hundred Schools Development Program:

In a SWOT analysis, the strengths are considered the internal environment of the program (Colbert, 2004). So, the researcher in this part will present the internal environment of the development of one hundred schools program through analyzing the strengths points of the program.

### **1-Time Management:**

One of the greatest point of this program was the well-organized time management (interview with a manager, August 2016).To illustrate, the program moved into three phases and each phase was for one year ;each phase was accomplished on time and the schools were renovated in a professional way (interview with a manager, August 2016).

An interview was conducted with a manager involved in the program  
stated that:

“Each phase took one year, and one hundred schools were renovated in Cairo, Giza and Luxor. Time management was a major factor in the mission statement and we had no problems in finishing on time”

(A manager, August 2016)

This quote clarified that time management was a major factor in the program mission statement .Also, the above words matches the saying of the manager that 300 schools were renovated in Cairo, Giza and Luxor in three years.

## **2- Organization of goals:**

The respondent noted another positive outcome of the program was the organization of goals in each phase (interview with an engineer, July 2016). The first phase started in 2006 and ended in 2007; it focused on locating the schools that need immediate renovation .For example, the schools that have non-functional bathrooms, destroyed stairs, destroyed buildings, need infrastructure and do not have access to clean water (ibid). It is clear now that the first phase was concerned with renovating the schools that need immediate interference and suffers from dangerous problems.

The second phase was focused on adding the technological tools inside schools, improving libraries and working on improving the social arts inside the schools (interview with an engineer, August 2016). The second phase was concerned with the IT inside public schools and make the students able to work and study with the technology tools (Ragab, 2009).

The third and last phase worked on offering trainings to teachers, expanding number of classes and extra classes to the students that have low performance in their education level (ibid). The last phase was working on fighting over density inside classrooms and high performance skills of the students and the teachers (interview with an engineer, August 2016).

### **3-The working team aware of the vision, mission and scope:**

The Ministry of Education and Heliopolis Association worked on developing the vision, mission and scope of the program before starting working on the program (interview with a manager, August 2016). The program vision was concerned with developing all public schools all over Egypt and the mission of the program was achieved by renovating 300 schools in Cairo, Giza and Luxor (Ragab, 2009).

A quote taken from the interview with a manager in the program pointed out:

“All the staff who worked on that program was aware of the vision and mission of the program. There was a regular meeting with the managers and the engineers to make sure that everything is moving towards the fulfillment of the vision and the mission”

(A manager, August 2016)

The researcher analyzed during the interview with the above manager and during interviewing some of the team members in the program that they are all aware of the statements of the vision, mission and scope. Also, they worked on the program by following the three statements by renovating 300 schools and by focusing on the main serious problems to the least renovation efforts needed.

A study conducted by the Journal of economics , business and management stressed on the importance of following a clear vision , mission and scope in implementing a program which is a key factor in the success of any program (Papulova, 2014).

This proves that the team followed the three statements was of course a great strength factor in the development of one hundred schools program.

#### **4- Effective supervision:**

The strict supervision on the working team during the implementation of the program was a great tool in renovating 300 schools in three years (interview with a manager, August 2016). The highest authority was for Heliopolis Association and its board of trustees; they were responsible for collecting funds and donations, responsible for hiring the managers, determining the budget for each school and supervising every detail in the program years (interview with a manager, August 2016) (Giza Governorate report, 2009).

The second authority was for the managers who hired the engineers to renovate the schools and gave regular reports to the board of trustees (interview with a manager, August 2016). The third authority was for the engineers working on the renovation of schools who supervise the workers while renovating the schools (Giza Governorate report, 2009).

An engineer who was working in the program supported the above words by saying:

“I remember once, I went to buy some food from far place and left the school without a permission that I will be late. Then, When I came back, my manager was waiting from me and deducted two weeks from my salary. From this time on, I never moved from the school...”

(An engineer, August 2016)

This was an example on how the supervision was strict and is a good example that the managers used to visit the schools and check the attendance of the working team. Also, the penalty was a lesson for each worker in order not to leave the work for a long time without permission.

Another strength point was discussed by a responded clarifying that the renovation of the schools depended on having external contractors to finish the hard work such as fixing the ceilings, stairs, windows and have workers to do the infrastructure work. The contractors sign a contract to finish the school in certain duration and are supervised by the managers and the board of trustees or otherwise they will pay a huge amount of money as penalty (interview with an engineer, July 2016).

A manager tackled this topic by saying:

“The contractors were accurate in their timing and in the quality of the presented work due to the high supervision of Heliopolis association”

(A manager, August 2016)

The above words connect with the engineer explanation on the high supervision of the Heliopolis Association and the managers’ supervision on the engineers, workers and contractors presenting decent renovated schools. The high penalty applied on the contractors if they were late in finishing the schools, encouraged them to work hard and finish on time.

##### **5- Public sector, private investors and NGOs were involved:**

The development of one hundred schools program depended on the contribution of the public sector with the private investors and NGOs in one program (interview with a manager, August 2016). The program was successful due to the joining of different sector in its establishment and the budget was sufficient for the program due to the donations of private investors (interview with a manager, August 2016).

In 2006, civil society organizations and businessmen were invited to contribute to the national initiative to develop the one hundred schools in the neediest neighborhoods to spread the culture of volunteerism and the mobilization of domestic resources to meet the needs of the most vulnerable social groups (Giza Governorate report, 2009).

The previous Egyptian First lady mentioned to Al-Ahram Newspaper that:

“The development of one hundred schools program costing 120 million Egyptian pounds made by donors, and businessmen”

(Al-Ahram report, 2006).

The above quote clarified the amount cost of the program and pointed out that the whole expenses were from the contribution of donors and businessmen. The role of private investors is important in developing the education buildings in Egypt as it can shape the education future in the coming phases.

A manager pointed out:

“During the implementation of the program, the Ministry of Education worked on getting more businessmen donors to sign the protocol on renovating schools included in the program ”

(A manager, August 2016)

The businessmen , businesswomen and civil society organizations involved in the program used to sign a protocol with the Ministry of Education including the amount of money will be donated and the schools that the donations will go for.

The donor chooses from the schools that are presented to him/her from the Ministry of Education. This protocol was like a contract between the Ministry of Education and the donor (Mustafa, 2009).

#### **6-Successful renovation efforts:**

The program achieved great results regarding the renovation efforts. The high rate of students' attendance among students inside the renovated schools, the success rate in the elementary stage increased about 1.8% compared to the previous years. The success rate in the preparatory stage increased 3.81 % compared to the previous year which was 2.5 % (Giza Governorate report, 2009).

A teacher working in a school that was renovated in Cairo governorate stated that:

“There were trainings sessions offered for us as teachers.

I used to take over-time money for attending the classes and it helped me a lot in using technological tools and work harder on having better work experience”

(Teacher, August 2016)

The teacher pointed out several important points. First, she mentioned during the interview that she suffers from financial problems and she wishes that now the government can give the teachers additional sessions. She believed that the trainings

sessions are supporting the teachers academically and are improving their academic skills. So, the training sessions was from the great strengths of the program.

Other important point about the strengths of the program was mentioned by a manager:

“All the renovated schools had shown high attendance rate among students of different educational levels due to the diversity of the school activities and the availability of encouraging surrounding atmosphere”

(A manager, August 2016)

The manager mentioned that the surrounding environment is important for the performance of the students by having different school activities and building new classes to take the huge number of students inside public schools (ibid). The high density inside classrooms causes the low performance of students, noise pollution. Also, the high density causes severe health hazards (ibid). So, the program worked on building one hundred of classrooms in the target schools (interview with a manager, August 2016)

#### **7-Presenting technological tools:**

The program was concerned with presenting technological tools to students and improved the IT inside public schools. The government depended on establishing a program named "Egypt Computer Program" that has many private investors and they program the schools under the reform program or outside the program with technology tools (UNESCO, 2007).

"1,929 preparatory schools have been provided with computer labs and full Internet connectivity, the environment for good governance has been set up successfully and the



Egypt Computer Programme has been extended to include students, teachers and professors" (UNESCO, 2007 , P.10) .

The above data added value of the program to the public schools regarding the technological tools and the IT.

An engineer mentioned:

“The students were happy by the computers and the technological tools. they were more encouraged to attend their classes and visit the school library and do all their homework on time”

(An engineer, August 2016)

The above quote explained the strength of presenting technology to several schools and the happiness of the students by the use of the computers and technological tools. Also, the above quote showed that having IT inside schools encourage more the students to attend their classes and work harder on their studies.

## 2-Weaknesses of the One Hundred Schools Development Program:

In a SWOT analysis, the weaknesses are considered the internal environment of the program (Colbert, 2004). So, the researcher in this part will present the internal environment of the development of one hundred schools program through analyzing the weakness points of the program. For example, what are the drawbacks and the challenges faced the program? Why the program did not sustain?

### **1- Reliance on the Patronage of a Political Figure:**

The program faced a serious weakness was the depending on the previous Egyptian First lady (interview with an engineer, July 2016). An online newspaper discussed the main reason behind the end of the development of one hundred schools program. The program ended due to the rise of the 25<sup>th</sup> of January, 2011 revolution and the mistrust in previous Egyptian First lady (Youm7 report, 2015).

A manager mentioned a very important point:

“The fourth phase of the program was supposed to be implemented in late 2010 and was not implemented due to the low credibility of the old regime and ending any program under their name”

(A manager, August 2016)

This quote tackled a very serious point of weakness was in the program because any program should depend on institution and not on a certain person in order to maintain its long success and sustainability.

An article conducted by the American Indian development report clarified that for any program to sustain there is a very important element that is the involvement of all people from all parts of the community. This happens by creating opportunities for participation, communicate openly, educate and inform the community (American Indian development report, 2010).

The report named the depending on only one person as one-man show which means the whole dependence on one person and by the removal of that person, the program ends immediately (ibid). That was the case with the development of one hundred schools program.

## **2-Absence of maintenance committees:**

Another weak point in the program was the absence of maintenance committees. Their role is to monitor the renovated schools and fix any error that happens to them on the long term. As a result, many schools returned to a worse condition (interview with an engineer, August 2016).

This weakness point was discussed in details by the teacher who worked in a renovated school in Cairo:

“Our school now suffers from problems more than before. The stairs are destroyed causing the injuries to many students and many windows are falling on the heads of our students. What was the purpose of renovation?”

(Teacher, August 2016)

The teacher was very anger while talking about this weak point. She kept shouting and repeating what was the purpose of renovation for four times. She said that her school is suffering from critical and dangerous issues and she made a very important argument; the

renovation must be maintained to have a safe school. She added that her school was renovated and then returned to a worse situation due to the absence of maintenance. Then, all the renovation efforts were done was a waste of time and money to the government (ibid).

### **3-Implementation of the program in some governorates only:**

The program was implemented in Cairo, Giza and Luxor public schools only (Ragab, 2009). Therefore, there are many public schools that did not gain benefits from the program renovation efforts (interview with a manager, August 2016).

The teacher being interviewed discussed the inequality of having public schools healthy environment in Egypt's rural and Upper Egypt governorates by saying:

“Well, I have my friends teaching in Upper Egypt in Qena and Suhag. They used to complain that most of the development programs are concentrating on Cairo governorate and neglecting us. They were telling me that their wish during the implementation of the program, that it could reach all schools In all over Egypt”

(Teacher, August 2016)

The above words pointed out a serious weakness in the program which was not reaching all Egypt governorates. From the teacher words, it was clear that some teachers in Upper Egypt felt sad about not giving the attention to them and their problems through the program. The program indirectly created a sense of anger and inequality among teachers in other governorates.

#### **4-The unsustainability of the program:**

The most significant weakness point in the program was the unsustainability of the program because the program was supposed to continue its fourth phase in late 2010, but the mistrust in the old regime, depending only on the name previous Egyptian First lady and the absence of maintenance committees led to the unsustainability of the program (interview with a manager, August 2016).

An engineer involved in the program stressed on the above weakness by saying:

“It was not our fault; the board of trustees should have worked on the weakness of the program. The working team was upset that a great program like this ended suddenly...I say it clearly unsustainable of any program is a failure to achieve its main target”

(An engineer, July 2016)

The above words are essential to show that the unsustainability of the program was a serious weakness to its main goal or target. The engineer was discussing this point with a voice tone full of sadness that a program that has several achievements did not sustained. In other words, sustainability is an issue that must be planned well before and during the implementation of any development program.

### 3-Opportunities of the One Hundred schools Development program:

In a SWOT analysis, the opportunities are considered the external environment of the program (Colbert, 2004). So, the researcher in this part will present the opportunities of the program and how the government used them.

#### **1-Media Campaigns and good reputation:**

The program had a great opportunity during its launch was the great attention of media on the program (interview with a manager, 2016).

A manager stated that:

“The program during its launch was discussed by the media presenters and also TV campaigns helped in attracting the investors’ attention and encouraged the engineers who worked in that project to move forward in their work quality and efforts. Also, there were many other efforts for education development such as renovating Alexandria library, Heliopolis Library and fighting illiteracy in Upper Egypt”

(A manager, 2016)

The above words clarified that the program was among an educational reform framework in the Egyptian education system. In addition, the government gained benefits from the opportunity of having media focus on the program by attracting donors to invest and create a good word of mouth about the program aim. Media power opportunity was used for the benefits of the program (interview with an engineer, July 2016).

## **2-Community values:**

The program had many working female team members which was a great opportunity to the program in convincing the female teachers to attend the trainings sessions and encouraging them to contribute in achieving the aims of the program (Ragab, 2009).

A manager stressed on the above idea by saying:

“Look, several Egyptian citizens are conservative people who prefer to deal with others from their community and gender. In Luxor especially, it was easier to deal with teachers through female workers and deal with men through male workers. This action facilitated in convincing them to have their training sessions”

(A manager, August 2016)

The above quote highlighted the community values opportunity which means reaching the mind sets of each group through similar people. The female teachers preferred talking with female workers about the program. On the other hand, men and especially old men teachers in schools preferred dealing with male workers in their training sessions.

### **3-Financial Resources:**

The donations of private donors and investors were a great opportunity towards the program. The program had sufficient budget and attracted more funds in the three phases more than several profit organizations who worked on the educational reform due to the investors' belief that the program was performing well (interview with an engineer, July 2016). Also, the investors believed that the financial resources were used effectively to reach the neediest schools.

The teacher interviewed pointed out that:

“I remember well that during the implementation of the programs, many donors visited our schools and were telling the teacher that we prefer to invest in a public program more than any other program and they are sure that their donations will be used for having better schools buildings”

(Teacher, August 2016)

The teacher clarified that the donors vision that their money are being used effectively in the renovation of public schools buildings was a great opportunity in attracting several donors to invest more money and the program was the best program among the other programs done during that time by the profit organizations (interview with a teacher , 2016).



#### 4-Threats to the One Hundred Schools Development program:

In a SWOT analysis, the threats are those imposed by the external environment of the program (Colbert, 2004). So, the researcher in this part will present the threats that faced the program and how the government reacted to these threats.

##### **1-The unstable political situation:**

The program fourth phase was planned to renovate other one hundred schools in Cairo, Giza and Luxor. The threat was the unstable of political situation and especially after the 25<sup>th</sup> of January revolution that resulted in the end of the program and not working on the fourth phase that was supposed to be implemented in late 2010 (Youm7 report,2015).

The conditions of the country were hard for the working team to enter the schools and renovate (interview with an engineer, August 2016).

An engineer being interviewed confirmed the above words by saying

“Well, the government did not deal immediately towards the problem and this threat was not planned or expected before. The negative response was the end of the program and not even working on the maintenance”

(An engineer, 2016)

The above words showed a critical issue which was not planning for a solution for this coming threat and not using a SWOT analysis in the program’s plan. Also, the response of the government was being silent, end the program and do not work on movements or trying to maintain the renovation efforts done (interview with an engineer, August 2016).

## **2-Competition threat:**

One of the critical threats that the Ministry of Education was aware of was the unstable political situation and the mistrust of citizens in the government .As a result, the chances were given to profit and non-profit organizations to attract donors for their educational programs rather than the public sector (Interview with a manager, August 2016).

The conducted interviews clarified during the period of the 25<sup>th</sup> revolution, donors were attracted more to invest in non-governmental programs because they were affected by the citizens anger. Also, the conducted interviews highlighted the rise of the program was impossible after the private competitors and private organizations great effect on the donors and on the market. So, the government action to this threat also was silent.

## **3-Deficiency of the budget before and after the revolution era:**

The budget deficiency was a threat determined by the Ministry of Education and this threat appeared during the preparation for the fourth phase. Moreover, there was no action taken to solve this serious threat (interview with a manager, August 2016).

A manager supported the budget deficiency threat by saying

“The Ministry of Education and the government was trying to solve the inner political problems rather than working on the threats of the program believing that the inner political problems were much serious. So, the budget deficiency was a neglected threat”

(A manager, 2016)

#### **4-Mistrust between the citizens and the old regime:**

Another threat was the mistrust between the citizens and the old regime. Some of the parents and some of the students inside schools refused the entrance of the working team to work on the program fourth phase (Masress, 2010). Several teachers also had a negative impact on not allowing the workers to continue their fourth phase because they refused to attend the training sessions and encouraged the students not to attend the classes.

This weakness was identified by an engineer, who mentioned;

“After the rise of the 25<sup>th</sup> revolution, I went to a school in Giza to do some renovation work and some of the parents insulted me saying you are from the old regime.. My answer was I am not the old regime, I am an engineer who wants to do his work”

(An engineer, 2016)

This is also reflected in the words of the manager:

“I stayed in my home for 3 months as I was not allowed to go to the schools as the parents attacked any outsider visitor.. It is not about being against the old regime , unfortunately it is the bad behavior of some people”

(A manager, 2016)

The above two quotes proved that the mistrust of some citizens with the old regime that was working on the program caused the attack of some parents on the working team.

Also, this shows another important weakness that the program should have delivered a serious message while implementing the program which was the program is for the benefits of Egyptians, not for the benefits of any political regime.

The above words was confirmed with the engineer who also mentioned during the interview that the board of trustees and some of the working team failed in delivering the message that the program is not benefiting anyone except Egyptian students (interview with an engineer , August 2016).

The above words showed that the threats were well known by the government, but the concentration was on solving the inner political situations. Unfortunately, the result was the end of the program that had several achievements and successful renovation efforts.

The National Program for Public Schools Renovation:

<b>Strengths</b>	<b>Weaknesses</b>
1-Renovating the schools suffering from serious problems	1- The conflict of two successive Ministries position over the program
2-Presenting technological tools	2-The conflict between two authorities
3-Fighting the over-density inside classes	3-Weak-punishment for contractors
4-The program is reaching all Egypt governorates.	4- The Insufficient technical staff at the program
	5-Time Management

<b>Opportunities</b>	<b>Threats</b>
1-The current stability in the government	1-Hard schools to renovate
2-Increase the investment opportunities	2-Lack of maintenance committees
3-Enhance the trust between the government and private investors	3-Budget deficiency
	4-Sustanbility of the program

This coming section will focus on the strengths, weakness, opportunities and threats facing the National Program for Public Schools Renovation. The researcher will tackle the program significant issues through applying the SWOT analysis technique.

## 1-The strengths of the National program for Public Schools Renovation:

### **1-Renovating schools suffering from serious problems:**

The program has a very important strength point which is the renovation of 5208 public schools that were suffering from dangerous problems (Abd-Rahman, 2015).

The renovation efforts include renovation of bathrooms, renovation of the schools buildings conditions, presenting technological tools, building strong fences, rebuild stairs that are destroyed (ibid). Also, the good building envelope designs are major element in renovation such as efficient windows, proper lighting, improve air quality in and around the school by filtration system (interview with a manager, September 2016).

An interview conducted with an engineer who is working on the National program mentioned that:

“There was a school in Fayoum governorate that suffered from absence of gate and the spread of dogs. As a result, many students were injured and the National program built a safe gate for the school and saved the lives of many other students”

(An engineer, August 2016)

An engineer is working on the National program said:

“There are several schools in Qena that had no access to clean water and the program saved the students their lives by solving the sewage the sewage problem and inserted clean water for drinking and for the usage of the students”

(An engineer, August 2016)

The above data show that the national program succeeded in renovating several schools and is focusing on the schools that suffer from critical issues such as the absence of clean

water, and the absence of safe environment to the students. The program saved many lives of students.

From the perspective of a teacher who is enrolled in a renovated school also added that:

“The school is totally different as before the students and teachers cannot ever enter the bathrooms because they were in a totally bad conditions and many students were crying from that problem. Now, the school bathrooms are functional and the surrounding environment is better”

(Teacher, October 2016)

The program had positive efforts in renovating school that was suffering from having non-functional bathrooms. This problem can lead to the serious health hazards to the students and the working staff inside the schools if it was not solved rapidly (John, 1998).

## **2-Presenting technological tools:**

Another strength point of the program is the insert of computers and several technological tools for students inside public schools (interview with a manager, September, 2016).

The renovated 5208 schools were supplied with technological tools such as computers, training sessions for teachers about using technology, renovation of libraries and trainings sessions for students about the use of technology (interview with a manager, September 2016).

From the opinion of a teacher who is working in a renovated school included in the National program pointed out

“Well, I was unable to use the computer at all. Then, there were trainings sessions for teachers about the use of computer... I was not interested at the beginning, but many friends encouraged me. I finally learned the use of computers and that was added to my C.V and can help me in my coming career”

(Teacher, October 2016)

The teacher pointed out a very important aspect which is the program strength point in addressing the technological tools such as the computers in schools. Also, this helped in improving the performance of teachers and students. This will have a positive impact on the education process.

### **3-Fighting the over-density inside classes:**

The National program worked on trying to solve the problem of over-density inside some classes by building new classes .There are 19 thousands of classes that are built inside public schools to overcome the problem of over-capacity (Dotmsr, 2015).

The over-density inside schools is a very dangerous problem because it causes the low performance of teachers, the low performance of students and the spread of noise inside the classroom (interview with an engineer, September 2016).



A teacher added:

“Imagine teaching 70 students inside one class, can you imagine!  
really, I was unable to concentrate or deliver the message of the  
lessons until 20 classes were built in the school”

(Teacher, October 2016)

The teacher showed the serious problems of over-density inside classes. The over-density cause the disturbance of teachers and low from their teaching performance. As a result, the students will not be able to learn well and will affect their performance negatively.

In addition , the Ministry of Education confirmed the above words in its report by clarifying that the renovated schools have additional classes (Ministry of Education report, 2015).The students and teachers performance is a great issue that need high attention as teacher performance need to be pushed forward to enhance from the students’ performance (ibid).

#### **4-The program is reaching all Egypt governorates:**

Interviews showed that the program is reaching all public schools in Egypt and showed also the positive reactions towards this point.

From an interview with an engineer involved in the National program stated:

“While renovating some schools in Aswan, students and teachers helped us in renovating the schools and their positive attitude was the most important issue. The most interesting point was their feeling of being treated equally and the government is keen about reaching them and solving their problems”

(An engineer, August 2016)

In addition, he claimed:

“In Sinai, there was a feeling of great happiness among the staff in the renovated schools. They kept telling me that we were about to feel that the government forgot us and now we knew that our problems is the aim of the Ministry of Education”

(An engineer, August 2016)

This interview clarified that reaching the neediest schools in all over Egypt was accepted positively by the working team in several schools in different governorates. In Aswan, the teachers and students had more confident in their government and also in Sinai, the working staff felt satisfied by renovating their schools. Aswan and Sinai are from the most governorates that need attention from the government as interviewee mentioned that some teachers in Sinai were losing hope in solving their problems until the National program reached them (interview with an engineer, August, 2016).

## 2-Weaknesses of the National program:

### **1-The conflict of two successive Ministries position over the program:**

The program started in 2014 by the previous Prime Minister Ibrahim Mahleb and continued till now by the current Prime Minister Sherif Ismail (Hussein, 2016).

The program was supposed to end in summer 2016, but it did not finish renovating all the target schools (Abdallah, 2016). There are many schools were not renovated and were supposed to finish by the last government. The article showed some number of schools suffering from dangerous imminent and schools that need urgent maintenance and simple renovation are 25700 schools and these schools were supposed to be renovated by the last government (ibid).

From an interview with a manager mentioned:

“The program faced a serious problem was the different ministries implementation. The last government launched a huge program and failed to continue it due to the lack of facilities and now the government should work on finishing it despite the lack of financial and human resources”

(A manager, September 2016)

He added:

“The last government was informing the working team that we are about to finish the program and now the new government is saying that the program did not achieve except few percentage of renovation”

This is a serious weakness point is facing the program. Now, the last government was informing the working team that the program is about to achieve its main goal and have safe schools in all over Egypt. The current government and current working team are still working on the program and saying the total opposite that the program achieved a few

results in renovating schools. This creates a sense of conflict among the working team and to the Egyptian citizens.

A manager in the current government mentioned:

“The renovated schools are only 8 percent which is a problem facing the current government”

(Abdallah, 2016)

This is a few percentage of renovating schools. The program was supposed to end in summer 2016 and till now 8 percent only of the schools are being renovated. This conflict of opinions and conflict between the two Ministries sayings created a conflict between the working which was clear from the conducted interview.

An engineer supported the above words by saying:

“Now, many of the working team are confused due to our vision that the government was about to finish and unfortunately it needs much more time to reach its goal. There is a great conflict to us and the words are contradicting each other”

(An engineer, September 2016)

The picture is clear now that the working team are suffering from conflict of words and this will affect negatively their performance. Also, they might lose trust in the results of the program because of the conflict among them.

## **2-The conflict between two authorities:**

Another significant weakness that is facing the program is the conflict of roles between the General Authority for Educational Buildings and the Ministry of Education, which means that classifications of the schools that need renovation is different than the classification of the Ministry of Education (Sobhy, 2016).

A manager claimed:

“The General Authority for Educational buildings do classifications to determine which schools need urgent or simple renovations. Sometimes, the classifications of the Ministry of Education are different. For example, The Ministry classified 50 schools in Suhag that need few renovations and the authority classified them as urgent interference is needed. Here is the conflict”

(A manager, September 2016)

He continued:

“Well, this caused the spending of a lot of money on different classifications and setting huge budgets for schools that might need only simple renovation efforts instead of spending them on the neediest schools”

The above words analyzed the conflict between two authorities can cause the program to spend a lot of money on different classifications and invest money on schools that need few renovations and neglect the neediest schools. The program budget can be saved by investing on the right schools and by following one accurate classification. Also, the time can be saved on doing one accurate classification.

### **3-Weak-puishment for contractors:**

Another serious weakness is the current weak punishment system for contractors; as there are no strict punishment regulations in the new program such as high penalty against the contractors who are late in finishing the renovation efforts (Tarbeshy, 2016). The deputy governor of Alexandria visited some schools that are enrolled in the National program and pointed out that that contractors who have been assigned the construction of some schools did not complete work on time before the start of the school year, and there is no over maintenance work despite the start of the study (ibid). This had a negative results against the students as many students are being injured due to the bad conditions of the schools. This weakness point shows the low performance of some contractors and the absence of maintenance work on some schools before starting the academic year (ibid).

A manager stated:

“Everyday, we face disasters because of the lateness of some contractors in finishing their work .Also, some contractors do not do all the renovation efforts which cause the existence of problems inside the schools”

(A manager, September 2016)

On the other side, one of the contractors stated the totally opposite

“Well, I am not supposed to pay from my pocket on the renovation process, the prices are getting higher and the budget given is not enough. If I will not take the money needed for renovation; I will not continue and leave the school as it is ”

(A Contractor, September 2016)

The above words created argument between the contractor and the manager. The manager mentioned that some contractors are late and do not finish all the renovation efforts. On the other side, one contractor mentioned that the money given are not sufficient to do all the renovation efforts and he will leave the school unless he have the money needed to solve all the problems inside the target schools.

#### **4- The Insufficient technical staff at the program:**

The program is in need for more engineers to be involved in the National program due to the high number of schools being renovated (Ismail, 2015) .The authority hired some engineers last year and is still calling for more engineers to finish the renovation as soon as possible; 300 engineers are needed during this time to achieve the goals of the program (ibid).

This has been identified by a manager:

“The program is covering all Egypt governorates and this need sufficient number of human resources to cover all the schools and now the program is in need for more engineers and workers to renovate schools”

(A manager, September 2016)

The renovation of public schools needs huge number of engineers and workers. Also, the renovation of schools in all Egypt governorates is a huge responsibility and need human resources to cover all the areas. As there are still 42% of public schools need more workers and more renovation efforts (Hussein, 2016).

## **5-Time Management:**

The program was supposed to finish summer 2016 and till now the program did not finish; this will affect negatively the program reputation among donors or investors to participate in it or in the coming governmental programs (interview with a teacher, October 2016).

Time management is a key success to any program. It presents the efficiency of the program, the effectiveness of the work presented and the reputation of the program (Chapman, 2012).

Then, the lateness in finishing the program within the time-frame is a serious weakness in the program and might threaten the success of it.



### 3-Opportunities of the National program:

#### **1-The Current stability in the government:**

Now, Egypt has stability in its current regime and government (Fakhry, 2016).

The government can benefit from this stability in working hard on renovating schools and giving accurate data to the working team and citizens about the performance of the program (interview with an engineer, August 2016).

The Ministry of Education can encourage private investors and international organizations to donate for the program through showing the stability of Egypt's government and showing their hard work in renovating schools (interview with a manager, September 2016).

#### **2-Increase the investment opportunities:**

The Ministry of Education is calling for private investors as the program is depending mainly on the governmental budget and there is a need for civil society contribution and private investors' funds for the program (Yehia, 2016).

This is a great opportunity to the program as the encouragement of the Ministry for the private investors and civil society is an excellent movement to increase the program budget, solve the budget deficiency issue and allow the contribution of private investors and civil society in public programs (ibid). This can also encourage the donors to contribute in other public development programs (ibid).

### **3-Enhance the trust between the government and private investors:**

As illustrated in the above section, the involvement of civil society and private investors in the program is a great opportunity to the program (ibid).

The improvement of communication between the Ministry of Education, civil society and private investors will have a great impact on building a strong relationship among them and will add to the opportunities and benefits of the program.

### 4-Threats of the National program:

#### **1-Hard schools to renovate:**

First serious threat is the presence of schools that are difficult for working team and engineers to enter called charter schools because these schools need to obtain the consent of the owner of the land for the maintenance and renovation and usually the owner rejects (Abd-Rahman, 2015).

The above threat is very dangerous because some of the charter schools need immediate interference to avoid accidents that might happen to the students (interview with a manager, September 2016).

One of the famous accidents that happened recently inside some schools was the death of two children that passed away in the beginning of 2016 academic year in Sharkia governorate. The reason for their death is the fall of the school fence on them and another

student in the same school passed away due to his fall in the sanitation sink in front of the school (Abd-Hamid, 2016).

These accidents are a threat to the reputation of the program and the most important these accidents prove that the program is not achieving its main goal in having safe schools all over Egypt. Accordingly, the Ministry should avoid the presence of such accidents again. Hence, this will threaten the success of the program.

## **2-Lack of maintenance committees:**

The committees for regular maintenance in the program are responsible for re-checking the renovated schools to make sure of the maintenance of the renovated efforts done in the schools. Now, these committees are facing problems which are the resign of many engineers inside these committees and the lack of performance of some engineers. The action is the investigation of the low performance of these engineers and taking serious action with them (An interview with a manager, September 2016).

The above threat must be taken in consideration that the program is facing serious problems in maintaining the renovation efforts. Then, if this threat is not solved, it will negatively affect the program.

### **3-Budget Deficiency:**

Another threat is the need for more budgets to cover the expenses (interview with a manager, September 2016).

A manager mentioned:

“We need 50 billion Egyptian pounds to repair and resolve all school problems”

(Sherouk Newspaper, 2014, P.1).

Then, another manager said:

“The current budget for the National program is 900 Million Egyptian pounds”

(Abd-Rahman, 2015, P.1).

The above quotes show the conflict of words regarding the budget needed. Also, the program need more money to renovate schools as the budget available for the program is very low compared to the budget needed.

From the conducted interview with the managers, they claimed that the administration was late in finishing the program on time because more budget is needed. This confirms with the above two quotes as he added that the program has critical duties towards students and their schools conditions and investment is needed to accomplish the program (interview with a manager, September 2016).

#### **4- Sustainability of the program:**

The program did not finish yet to measure to discuss its sustainability, but all the three above threats negatively affect the sustainability of the program.

Furthermore, being unable to renovate schools that suffer from dangerous problems, lack of maintenance committees and lack of time management are negative threats that might lead to the end of the program.

So, the Ministry of Education must take inconsideration the above threats and work on avoiding the failure of the program or the end of the program before accomplishing all its targets .The Ministry can take in consideration the end of the one hundred schools development program due to the neglecting of the threats.

## 5-Discussion on the SWOT analysis:

The two development programs have several strengths points which were considered as successful factors to the programs. These strengths had a great impact on the renovation of many schools and make them safe for the students. Also, these strength points will lead to positive future opportunities. Therefore, the Ministry of Education should focus on these opportunities to have safe schools in all over Egypt.

Most of the strengths in the one hundred schools development program focused on renovating schools from serious problems that were threatening students' lives, presenting technology tools to public schools and the organization of goals, timeframe and the overall strategy of the program.

On the other hand, the program faced serious weaknesses and threats. Most of them were due to political factors such as the attention on the previous Egyptian First lady and by the rise of the 25<sup>th</sup> of January, 2011 revolution. As a result, the program ended without completing its fourth phase because of the political factors and the mistrust in anything related to the old regime.

The working team of the program failed to benefit from the threats that were facing the program. The working team was aware of some of the threats, but failed to do some reactions to solve them.

The national program for public schools renovation strengths points were similar to the one hundred schools development program as it focused on renovating schools that are facing critical situations. In addition, it presented technological tools to some schools and reaching all the schools in Egypt.

The weaknesses and threats that are still facing the program are mainly administrative problems. For example, the conflict between two successive Ministries of Education were tackling the programs and the low administrative actions to punish the late work from contractors and in offering the sufficient resources needed for the program.

The threats of the program will have negative consequences on the program; if they are not solved rapidly. The government should work on managing the resources and work within a fixed timeframe to accomplish the program and save students' lives from dangerous buildings conditions.

Then, the application of SWOT analysis provided an answer to the research question which is concerned with strengths, weaknesses, opportunities and threats of both governmental programs.

## V-Chapter Six

### Conclusion and Recommendations

#### Conclusion:

Public schools buildings conditions play a significant and essential role in Egyptian students' daily life. The public schools buildings problems have been increasing since 1990s and the government applied several development programs to improve their conditions. The two significant programs were the One Hundred Schools Development Program and the National Program for Public Schools Renovation that worked on having better public schools buildings and have better lives for the students due to the high rate of injuries and death between students as a result of damages and building and infrastructure defects. Therefore, the Egyptian government has the improving public schools in its agenda and till now is working on the National program to achieve its main goal to have safe schools in all governorates; however, the National program is facing serious problems and the government efforts did not reach yet its main goal.

In Egypt's sustainable development strategy and plan for 2030, one of its main goals is to have better schools conditions and safe schools for all the students in Egypt. Therefore, the main purpose of this thesis is to address the main research question: What are the strengths, weaknesses, opportunities and threats that faced the One Hundred Schools Development Program and the National Program for Public Schools Renovation?



In order to address the research question, the researcher used the SWOT analysis technique in order to analyze the two programs strengths, weaknesses, opportunities and threats .Also, a qualitative approach was used in the form of in-depth structured and semi-structured interviews that were conducted with a purposive indicative sample.

The analysis showed that the two programs had several strengths and opportunities points and solved many of the problems that occurred inside the public schools. However, the two programs have some problems in the implementation and sustainability, affected negatively in reaching some of their goals, and caused the existence of serious problems inside the schools. It is highly recommended that the Ministry of Education should deal with these obstacles as soon as possible to save the lives of the students inside the schools.

In chapter five, the researcher discussed and showed the details of the applied SWOT analysis. Below is a summary of the main strengths, weaknesses, opportunities and threats of the two governmental programs.

The One Hundred Schools Development Program:

**Strengths:** The program had a fixed time management for each phase which was one year and the phases were three. The goals were organized as each phase has certain goals to achieve. The working team was aware of the vision, mission and scope of the program, and the effective supervision on the working team was a strong point in the program. In addition, the public sector, private investors and the NGOs were involved in the program budget and the program succeeded in decreasing the drop-out of students from schools and encouraging them to perform much better. The final strength was the impact of presenting technology tools on increasing the performance of students in public schools.

**Weaknesses:** The program faced serious weaknesses such as the total reliance on the previous Egyptian First lady. Also, the absence of maintenance committees to check regularly the schools. The final weaknesses points were the unsustainability of the program and the focus on three governorates only which are Cairo, Giza and Luxor.

**Opportunities:** One of the significant opportunities of the program were the media coverage campaigns and good reputation which means the great attention given to publicity that helped the program to gain more donors and compete with the profit organizations supporting similar programs during that time. The community values of the working team were a great opportunity to the program that focused on dealing with the female teachers with females from the working team of the program and also male

teachers were dealing with male workers. The last opportunity was the financial resources as the program had great donations that helped in renovating 300 schools in Cairo, Giza and Luxor.

**Threats:** The program team was aware of the threats of the program and did not react to avoiding or solving them .As a result , the program was not able to continue its fourth phase that was about to be implemented in late 2010. The four threats were the unstable political situation, competition threat, deficiency of the budget before and during the revolution era and mistrust between the citizens and the old regime as the 25<sup>th</sup> of January, 2011 revolution. The revolution was the main focus of the government and neglected the program. This led to the competing of the private organizations with the public sector and attracting donors to them and in the fourth phase, the budget was facing critical crises due to the unstable political situation and the absence of donors during the last period of the program.

The National Program for Public Schools Renovation:

**Strengths:** The program was able to renovate schools that were suffering from critical problems such as fixing destroyed stairs, offering clean bathrooms and clean water to the students. Also, the program presented technological tools to several schools that improved the performance of many students and teachers. The program helped in building new classes to try to solve the over-capacity inside classes. The program is reaching all Egypt's governorates and did not focus on certain areas like the One Hundred schools development program. The program is led by the Ministry of Education, and that demonstrated its implementation capacity, which give potential for continuing the program if resources are made available.

**Weaknesses:** The conflict between two successive Ministries on their position of the program was a weakness in the program because the plan and sayings of the two Ministries of the previous Prime Minister Ibrahim Mahleb and the current Prime Minister Sherif Ismail created a sense of conflict among the working team. Also, the conflict between the Ministry of Education and the General Authority for Educational Buildings is a weakness point as it caused the classifying the level of danger of schools differently. This is causing the wrong consuming of the time, budget and human resources. The weak punishment on contractors lead to being late in finishing the schools renovation as well as the low number of work labor in the program are serious weaknesses that might cause negative consequences.

**Opportunities:** Egypt now is having current stability in its government. So, the program team can benefit by encouraging investors to donate for the program. Also, the government is calling for the civil society and private investors to contribute to the program which is a great opportunity that can increase from the program budget. In addition, the involvement of the civil society and the private investors will enhance the trust between the government and the private investors.

**Threats:** The program is facing threat of being unable to renovate some schools due to the refusal of the land owners of the schools and this will have a negative impact on having schools that need renovations and the government will not be able to reach the schools. The lack of maintenance committees to supervise on regular basis the renovated schools and the budget deficiency are another serious threats. As a result, the sustainability of the program renovation efforts can be affected negatively by the above threats mentioned.

This last chapter, the researcher provided some recommendations that may help the Ministry of Education to avoid the problems that faced the two development programs.

After illustrating the weaknesses and problems that faced the two development programs and explaining how it affects public schools negatively and led to the death and injury of many students, a set of recommendations will be listed in this chapter.

These recommendations are in a form of a **suggested model** for the Ministry of Education to follow. This model will reflect the view of the author on how the Ministry of Education can try to solve the problems and weak points rapidly facing the National program and avoid the challenges faced the development of one hundred schools program.

Also, the Ministry of Education may find some benefits from the listed recommendations before the implementation of their any new coming development program. To illustrate, the suggested model will depend on several factors that will be discussed below.

## Recommendations:

### **1-Agree on a strategic planning process:**

The Ministry of Education should have a meeting with the General Authority for Educational Buildings top ranking officials, skilled engineers and external stakeholders and agree on clear strategic planning for the development program. The strategic plan should depend on understanding what strategic planning is, agree on common vision, mission and goals and know the costs and expenses of this program during developing the strategic plan. The plan should be based on clear and transparent database of the schools, their conditions and the prioritization of action in renovating them.

### **2-Have a short plan and a long plan within the strategic planning:**

The Ministry of Education should have a short evaluated plan and a long evaluated plan which means the program can have a short plan for each phase of renovation to evaluate it and make sure that the effort taken meets the vision, mission and achieve the required goals .In addition, the long plan is the a longer duration for the evaluation of the program.

**3-Time Management should be taken in consideration:**

The program should have a fixed time to accomplish and this time is determined according to the resources, budget allocation and efforts taken to solve the problems in public schools. The suggested model should have different phases to renovate several schools in different governorates. Each phase should have a time-frame and the whole program also should have a fixed time-frame. Time management helps in organizing and setting deadlines to achieve the required goals.

**4-Involve civil society, NGOs' and private investors:**

The program budget should not depend only on the government budget; it should depend on several sources from private investors' funds and donations and civil society should be enrolled in the program to release a national governmental program that depend on several stakeholders and unite different communities in the society. A clear framework for this partnership should be provided in terms of a clear contract, publicity for donors and incentives in terms of tax deduction and others.



**5-Make it institutionalized program, not one-man show program:**

The program should involve different communities and institutions. The program should depend on the public sector, private investors and stakeholders, civil society and NGOs'. The total dependence on certain person or certain institution is a wrong aspect in any program implementation.

**6- State in the strategic plan the role of every institution to avoid conflict of roles:**

The program should be organized in disturbing the roles and stating its definition. For example, if the General Authority for Educational Buildings is responsible about evaluating the conditions of public schools and classifying each school conditions. Then, the Ministry of Education is the supervisor on their evaluation and not do different classifications' or evaluations. The two authorities should collaborate together to reach the same goals. In addition, the roles of the private investors' and civil society should be determined which means that each role of each contributor in the program should be determined and known.

**7- Supervision on the contractors and engineers and apply financial penalty to the low performing ones:**

Hard penalties should be applied on the engineers and contractors that are not working well or finish their work late. The penalty can be a financial one by signing a contract or a form that obliges the engineer or contractor to pay a financial penalty if he did not meet the required issues needed from him.

#### **8- Regular maintenance of the renovated schools:**

There should be an annual maintenance on the schools that need immediate interference and face serious problems and another 5 years maintenance plan on all the renovated schools in all Egypt governorates' that need simple renovation efforts. The maintenance committees' should include high skilled engineers and high supervision from the managers.

#### **9- Do a "SWOT" analysis to the program in different stages:**

A SWOT analysis is determining the strengths, weaknesses, opportunities and threats facing the program. The strategic plan of the program should include any external and internal factors that can face the program. The external factors can be political issues, economic trends or community values inside the public schools; the internal factors can be the human resources, financial resources and the outputs of the programs. The opportunities are the external environment affecting the program positively and the program can benefit from. On the other hand, the threats are any coming problems and threats can face the program.

The SWOT analysis is a very beneficial in any development program and being applied in any coming development program will clarify many internal and external aspects.

#### **10- Save Data on a regular basis:**

The data of the program should be kept in a computerized form and any records should be kept in soft copies to make sure that everything is recorded and if any change

happened in the team members or the administration or government, it will not affect negatively the program.

**11- Finalize a written strategic plan that summarizes the results and decisions of the strategic planning process:**

Each phase should have a written strategic plan that evaluates its outputs and make sure that progress is moving towards goals and objectives and use of strategies is monitored regularly. The Ministry of Education should have a critical role in reviewing the progress and assign evaluation units for the program.

All the above steps are ways to present a developed suggested model for the Ministry of Education to follow and take inconsideration while implementing other new development programs for better public schools buildings.

## Bibliography:

- Abd-Rahman, S. (n.d.). Chief of educational buildings: Billion pounds.. School maintenance bill. Retrieved 2015, from <http://www.daralhilal.com.eg/show-6937.html>
  
- Abd-Maksoud, O. (2016). Education: 200 new school the first phase of the national project to build schools. Retrieved from <http://www.shorouknews.com/news/view.aspx?cdate=24082016&id=bd38f51c-a8cf-4c0a-8471-16e05d24fdf2>
  
- ACEF report. (2010). Financial Benefits of Renovating a School. Retrieved from <http://online.tarleton.edu/ACEF/RenovateSchoolFacilities201418/RenovateSchoolFacilities2014186.html>
  
- Ahran Newspaper. (2006). 120 million pounds cost of developing percent school project by voluntary contributions from businessmen. Retrieved from <http://www.ahram.org.eg/Archive/2006/12/17/EGYP2.HTM>
  
- ABD-HAMID, A. (2016). HEIDI AND HICHAM... LAST VICTIMS OF "NEGLECT" SCHOOLS EGYPT. RETRIEVED FROM <http://www.alarabiya.net/ar/arab-and-world/egypt/2014/03/11/هايدي-وهشام-آخر-ضحايا-الإهمال-بمدارس-مصر.html>
  
- Abd-Rahman, S. (n.d.). Chief of educational buildings: Billion pounds.. School maintenance bill. Retrieved 2015, from <http://www.daralhilal.com.eg/show-6937.html>
  
- Abdallah, M. (2016). Loving Rafii... Minister in a coma. Retrieved from <http://www.albawabhnews.com/1427923>
  
- Baradei &Baradei, (2004).Needs Assessment of the Education Sector in Egypt. Retrieved from [http://www.zef.de/fileadmin/webfiles/downloads/projects/el-mikawy/egypt\\_final\\_en.pdf](http://www.zef.de/fileadmin/webfiles/downloads/projects/el-mikawy/egypt_final_en.pdf)
  
- Bahat, M. (2014). The death of a student after the fall of the school gates it in Matrouh. Retrieved from <http://www.elwatannews.com/news/details/579627>

- Badawy, Y. (2014). Numbers.. publish annual statistics for the number of schools and students in Egypt in 2014 after being approved by the Minister. Retrieved from <http://www.elbalad.news/843337>
- British Council report. Indian School Education System. (2014). Retrieved from [https://www.britishcouncil.in/sites/default/files/indian\\_school\\_education\\_system\\_-\\_an\\_overview\\_1.pdf](https://www.britishcouncil.in/sites/default/files/indian_school_education_system_-_an_overview_1.pdf).
- Council, British. & Waseela for training, W. (n.d.). Low quality of primary education in public schools. Retrieved 2014, from <http://canyamakan.org/wp-content/uploads/2016/03/3-التعليم-مقترح-السياسات.pdf>
- Carvhlo, A. (2012). Benefits of Modernizing School Facilities. Retrieved from [http://bondsforschools.dadeschools.net/Files/Benefits\\_of\\_Modernizing\\_School\\_Facilities.pdf](http://bondsforschools.dadeschools.net/Files/Benefits_of_Modernizing_School_Facilities.pdf)
- Colbert, F. (2004). *Definition of a SWOT Analysis*. Retrieved from <http://smallbusiness.chron.com/definition-swot-analysis-43274.html>
- Chapman, S. (2012). [Http://www.fcs.uga.edu/docs/time\\_management.pdf](http://www.fcs.uga.edu/docs/time_management.pdf). Retrieved from [http://www.fcs.uga.edu/docs/time\\_management.pdf](http://www.fcs.uga.edu/docs/time_management.pdf)
- DOTMSR. "EDUCATION": THE CONSTRUCTION OF NEW SCHOOLS IN COOPERATION WITH THE "GOOD OF EGYPT." (2016). RETRIEVED FROM <http://www.dotmsr.com/details/>
- Ezzat, D. (2006). Teaching teachers. Al Ahram Weekly. Retrieved from <http://weekly.ahram.org.eg/Archive/2006/821/eg7.htm>
- Egypt 2030 Objectives and performance indicators. (2015). Retrieved from <http://www.mop.gov.eg/Vision3.pdf>
- Emara, M. (2016). "Egypt's vision 2030": Access to education for every child and put the country on the international map. El-Watan. Retrieved from <http://www.elwatannews.com/news/details/781108>
- EY report (2012). Twelfth Five Year Plan (2012–2017) and beyond. Retrieved from <http://www.ey.com/in/en/industries/india-sectors/education/higher-education-in-india--twelfth-five-year-plan--2012-2017--and-beyond>

-Frag, S. (2014). Education: Separating director rain school after the death of the "baby glass" accident. Dostor. Retrieved from <http://www.dostor.org/697541>

-Faour, M. (2012). THE ARAB WORLD'S EDUCATION REPORT CARD. Carnegieendowment. Retrieved from [http://carnegieendowment.org/files/school\\_climate.pdf](http://carnegieendowment.org/files/school_climate.pdf)

- Fakhry, A. (2016). Egypt is stable, state will not renounce economic reform plans: PM. Retrieved from <http://www.dailynewsegypt.com/2016/08/22/israel-responds-gaza-rocket-series-airstrikes-artillery-shelling/>

- Governorate, Giza report. (2015). Educational building authority. Retrieved from <http://www.giza.gov.eg/Companies/Buildings/Activity.aspx>

-Gwee, J. (Ed.). (2013). *Case studies in public governance: building institutions in Singapore*. Routledge.

- Gado, T., Mohamed, M., & Unwin, S. (2005). THE ENVIRONMENTAL PERFORMANCE OF CLASSROOMS: A CASE STUDY FROM EL-MINYA GOVERNORATE, EGYPT. Retrieved from <http://www.irbnet.de/daten/iconda/CIB10672.pdf>

- Human Development Report (2000). Egypt Human development report. Retrieved from [http://hdr.undp.org/sites/default/files/egypt\\_1998\\_1999\\_en\\_1.pdf](http://hdr.undp.org/sites/default/files/egypt_1998_1999_en_1.pdf)

-HELMY, F. EDUCATION BEGINS IN THE IMPLEMENTATION OF THE GRANT TO BUILD THE UAE SCHOOLS FUNDED BY \$ 290 MILLION. RETRIEVED 2014, FROM <http://www.masress.com/dostor/174854>

-HAMZA, M. (2016). AFTER THE FALL OF TWO SCHOOLS WITHIN ONE MONTH FROM THEIR INCEPTION DOCUMENTS: 20 MILLION POUNDS BILL FOR CORRUPTION «EDUCATION». RETRIEVED FROM <http://www.elsaba7.com/NewsDtl.aspx?Id=142000>

-Hussein, M. T. (2016). Education Minister discusses the educational buildings plan to reduce the density of student chapters. Youm7. Retrieved from <http://www.youm7.com/story/2016/3/29/-الكثافات-التعليمية-انتقل-الكثافات-وزير-التعليم-يناقش-خطة-الأبنية-التعليمية-لتنقل-الكثافات-2650821/الط>

-ISMAIL, M. (2015). EDUCATIONAL BUILDINGS ": THE ELIMINATION OF DENSITY IN THE CHAPTERS BY THE END OF 2030. RETRIEVED FROM <http://www.almalnews.com/Pages/StoryDetails.aspx?ID=212608>

-John, J. (1998). Safety and health. Retrieved from [https://www.osha.gov/pls/oshaweb/owadisp.show\\_document?p\\_table=INTERPRETATIONS&p\\_id=22932](https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=INTERPRETATIONS&p_id=22932)

-Kamal, M., & Abd-Rahman, R. (2010). Evaluation of Noise Levels affecting Schools in Cairo - Egypt. Retrieved from [http://www.eea.gov.eg/portals/0/eeaareports/air/Noise/final Paper of El Azhr-.pdf](http://www.eea.gov.eg/portals/0/eeaareports/air/Noise/final%20Paper%20of%20El%20Azhar-.pdf)

MARSAD. (2014). NEGLIGENCE SCHOOLS THREATENS THE LIVES OF 16 MILLION STUDENTS. RETRIEVED FROM <http://elmarsad.org/ar/-16-يهدد-حياة-16-مصر-الاهمال-بالمدارس-يهدد-حياة-16-مليون>

-Marquer, S. (2009). The Business of Education. American Chamber of Commerce in Egypt. Retrieved from [http://www.amcham.org.eg/resources\\_publications/publications/business\\_monthly/issue.asp?sec=4&subsec=The Business of Education &im=10&iy=2009](http://www.amcham.org.eg/resources_publications/publications/business_monthly/issue.asp?sec=4&subsec=The%20Business%20of%20Education%20&im=10&iy=2009)

-Ministry of Education report, The National plan for Education. (n.d.). Retrieved 2015, from [http://planipolis.iiep.unesco.org/upload/Egypt/Egypt EFA Plan.pdf](http://planipolis.iiep.unesco.org/upload/Egypt/Egypt%20EFA%20Plan.pdf)

- MAHDY, A. (2014). GOVERNMENT SCHOOLS. DILAPIDATED AND RUBBISH DUMPS AND BURROWS SNAKES BUILDINGS.. EDIFICES EDUCATIONAL GOVERNORATES IN THE GRIP OF NEGLECT. AND DIRECTORATES: "IT'S ALL COMPLETELY."YOU7. RETRIEVED FROM <http://www.youm7.com/story/2014/9/6/-ثعابين-وجور-ثعابين-المدارس-الحكومة-مبان-متهالكة-ومقالب-قمامة-وجور-ثعابين-1851761/الصروح-التعليمية>

- MOE. (2016). Participate for our children future. Retrieved from <http://www.moe.gov.eg/npbs/index.html>

- Ministry of Human Resource Development. GUIDELINES FOR SCHOOL INFRASTRUCTURE AND STRENGTHENING (CIVIL WORKS). (2014). Retrieved from [http://rmsaindia.gov.in/images/School Infrastructure and Strengthening.p](http://rmsaindia.gov.in/images/School_Infrastructure_and_Strengthening.p)

- Ministry of Human Resource Development. Environment Management Framework. (2011). Retrieved from [http://rmsaindia.gov.in/images/Environment Management Framework.pdf](http://rmsaindia.gov.in/images/Environment_Management_Framework.pdf)

- Ministry of Human Resource Development. Achievements under RMSA. (2016). Retrieved from <http://rmsaindia.gov.in/images/files/how-do-i-find/Achievements%20under%20RMSA.pdf>
  
- Marshall, Catherine, and Gretchen B. Rossman. "Designing qualitative research." (2009)
  
- Mustafa, G. (2008). Suzanne Mubarak, announces the launch phase the second project to develop one hundred schools in Giza. Retrieved from <http://www.ahram.org.eg/Archive/2008/3/31/EGYP1.HTM>
  
- Newspaper, Sabah. (2014). We need 50 billion pounds to repair and resolve all school problems. Retrieved from <http://www.shorouknews.com/news/view.aspx?cdate=24082014&id=4f8fcffe-eb90-4c2f-ac97-84df51efcaae>
- OECD Programme on Educational Building. (2002). Retrieved from <https://www.oecd.org/edu/innovation-education/1939935.pdf>.
- OECD report. EVALUATION AND ASSESSMENT FRAMEWORKS FOR IMPROVING SCHOOL OUTCOMES. Retrieved 2012, from <http://www.oecd.org/edu/school/46927511.pdf>
- Papulova, Z. (2014). Journal of Economics, Business and Management. Retrieved from <http://www.joebm.com/papers/90-A00009.pdf>
  
- Queen Rania Foundation report. MADRASATI. (n.d.). Retrieved 2016, from <http://www.qrf.org/initiative/madrasati>
- Rafeai submit to the Prime Minister a report on the problems of education in Egypt. (2015). Dotmsr. Retrieved from <http://www.dotmsr.com/details/-الرافعي-يقدم-تقرير-احول-المشكلات-الرئيسية-التي-تواجه-العملية-التعليمية>
  
- Salah, M. (2015). Inequality and Underserved Areas: A Spatial Analysis of Access to Public Schools in the Greater Cairo Region. Retrieved from <http://www.tadamun.info/2015/09/08/inequality-underserved-areas-spatial-analysis-access-public-schools-greater-cairo-region/?lang=en#.VzzGEfl97ct>
  
- Singapore Ministry of Education, MOE .PRIME. Retrieved 2016, from <https://www.moe.gov.sg/education/education-system/prime>.
- 21<sup>st</sup> Century School Fund .For generations to come. (2004). Retrieved from [http://www.21csf.org/csf-home/documents/organizing\\_manual.pdf](http://www.21csf.org/csf-home/documents/organizing_manual.pdf)



- (2016, July 25). Interview with an engineer in the development of one hundred schools program
- (2016, August 1). Interview with an engineer in the development of one hundred schools program
- (2016, August 6). Interview with a manager in the development of one hundred schools program
- (2016, August 7). Interview with a manager in the development of one hundred schools program.
- (2016, August 15). Interview with an engineer in the development of one hundred schools program.
- (2016, August 15). Interview with a teacher in the development of one hundred schools program.

- (2016, August 25). Interview with an engineer in the National program
- (2016, August 28). Interview with an engineer in the National program
- (2016, September 15). Interview with an engineer in the National program
- (2016, September 20). Interview with a contractor engineer in the National program
- (2016, September 25). Interview with a manager in the National program
- (2016, September 26). Interview with a manager in the National program
- (2016, October 1). Interview with a teacher in the National program
- (2016, October 4). Interview with a teacher in the National program



