



USAID
FROM THE AMERICAN PEOPLE



EVALUATION

“JSP: A Transformational Change”

Evaluation of the Jordan School Construction and Rehabilitation Project

[May 2013]

This publication was produced at the request of the United States Agency for International Development. It was prepared independently by **ASK** for Human Capacity Building

JSP: A TRANSFORMATIONAL CHANGE

EVALUATION OF THE JORDAN SCHOOL CONSTRUCTION AND REHABILITATION PROJECT

[May 17, 2013]

[Project Number; AID-278-C-13-00002]

DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

ACKNOWLEDGEMENTS

Without the immense contributions and cooperation of many entities, this evaluation of the Jordan School Construction and Rehabilitation Project (JSP), a pioneer educational project of an enormous and invaluable sustainable positive impact on the lives of thousands of Jordanian school community members, especially students and their communities, would not have been possible.

The evaluation team would first like to extend its thanks to the United States Agency of International Development (USAID) whose invaluable contributions to the development of Jordan's human capital has been evident across Jordan, through tangible and sustainable development projects, especially in the field of education; ultimately contributing to the advancement of Jordanians' socio-economic wellbeing.

It would also like to thank Jordan's Ministry of Education for its continuous efforts and commitment to advance Jordan's education and for showing high levels of collaboration throughout the duration of this evaluation. Moreover, it expresses its gratitude to the Ministry of Public Works and Housing whose officials generously made themselves available for interviews and questions. The evaluation team also wishes to thank the Vice President and Chief of Party from the main Engineer Camp Dresser &McKee International and the participating construction and furniture contractors who cooperated fully and provided indispensable information. The team is also grateful to the representatives of the Community Mobilization Project who were also helpful in sharing their experiences and their expertise.

Most importantly, the evaluation team would like to extend its sincere gratitude to all students, teachers, principals, parents, local community members, field directorate staff and neighboring schools for actively taking part in this participatory-focused evaluation. By cooperatively giving us access to their schools, they voiced their invaluable insights on how JSP influenced their learning environment and impacted their lives. In addition, the evaluation team would like to thank each member of the school community for embracing the opportunity to participate in this evaluation, which we believe shapes the improvement of the Jordanian educational system.

May the efforts of all those involved in the education reform be rewarded with quality education for the current and future generations of Jordan; securing them a more prosperous and fulfilling life.

PREFACE

We have the great pleasure of introducing this nationwide evaluation study of the Jordan Schools Construction and Rehabilitation Project (JSP) to the United States Agency for International Development (USAID/Jordan) and to all those engaged in the task of reforming education in Jordan for a knowledge-based economy.

The evaluation study was initiated by USAID/Jordan and commissioned to **ASK** for Human Capacity Building Consortium in February 2013. This evaluation report attempts to provide USAID with findings, conclusions and recommendations on the project's achievements, impact and contribution to achieving targeted results that will help USAID learn lessons from completed interventions and consider options for improving similar future interventions.

ASK's Consortium includes **ASK** for Human Capacity Building as the educational expert, in addition to the architectural and engineering firms: ID Interior Design & Architecture as the Architecture experts, NEA & Partners as the Cost Value Engineering experts, and Scope MEP Design Studio as the Electro-Mechanical experts.

The consortium was required to evaluate the JSP through a sample of 16 schools (10 new schools and 6 rehabilitated ones) spread across Jordan. The evaluation was conducted and completed within 75 days and covered all areas of Jordan (North, Middle and South). The consortium implemented a participatory evaluation approach which focused on the insights, feedback and active involvement of those with a stake in the program including: students, teachers, principals, parents and local community members, field directorates, Community Mobilization Project, Construction Contractors, Furniture Contractors, Ministry of Education, Ministry of Public Works and Housing, Camp Dresser and McKee International and USAID. All in all, the total sample of the population in the study consisted of 1,463 individuals.

The evaluation areas which this study addresses are divided into higher level goals, school design and planning, school construction, school occupancy and utilization, community involvement and impact, gender impact, and cost and value. The finding and conclusions made were heavily dependent on the insights of the end-users and further complemented by the expertise of the **ASK** Consortium.

The **ASK** Consortium continuously reported back to USAID/Jordan with the progress of the evaluation through weekly progress reports which also highlighted adjustments required and recommendations. The evaluation team sent a first draft of the report, which both USAID and MOE provided feedback on (Annex XXII). Where applicable and when data was accessible, the evaluation team adjusted the report accordingly. Nevertheless, due to time constraints and data available certain areas require further future study and research.

The evaluation team genuinely aspires that this study will go a long way to strengthen similar future interventions. Most importantly the evaluation team hopes that this project will be replicated to ensure that similar transformational JSP role model schools will become more available across Jordan providing the suitable physical climate that creates an enriching educational culture to nurture individuals for a knowledge-based economy.

Amin Amin, PhD
Team Leader, Evaluation Team
ASK for Human Capacity Building
May, 2013

PROJECT SUMMARY

In August 2006, the United States Agency for International Development (USAID)/ Jordan launched the four-year Jordan School Construction and Rehabilitation Project (JSP) to support the Ministry of Education's (MOE) efforts to enhance the learning environment and increase access to schools. This took place as part of the Government of Jordan (GOJ) led Education Reform for the Knowledge Economy (ERfKE) initiative. JSP's primary focus has been to reduce overcrowding in public schools, replace rented and double-shifted schools and provide a safe and more suitable school environment to respond to the needs of the MOE's reform efforts. The project started with a budget of US\$50 million with the target to construct and furnish 28 new public schools and to rehabilitate 100 existing ones. Over the course of implementation and due to the economic crisis and increases in prices of construction materials, the project budget was increased to US\$199 million and the time for performance was extended to December 2013. The project began with the award of a four-year Architect and Engineering (A-E) Design Services contract to Camp Dresser and McKee International (CDM), hereinafter referred to as the Engineer, for a total of approximately US\$6.7 million, which eventually increased to US\$11.4 million.

After the contract was awarded to the Engineer, and in close coordination with the MOE, it started the school selection process and established design guidelines for the new schools to respond to the vision of ERfKE. The school selection and design guidelines were completed by the Engineer and approved by the MOE and USAID at an early stage of the program.

The new schools were grouped into multiple design and construction phases:

- Phase I – 3 new schools in Aqaba and 14 school rehabilitations in Aqaba Governorate
- Phase II – 13 new schools split into five construction packages
- Phase III – 18 school rehabilitations in three construction packages
- Phase IV – 12 new schools in four construction packages
- Phase V – 68 school rehabilitations in 14 construction packages

While the school designs and construction supervision were implemented by the Engineer under a direct USAID contract, the construction contracts, for a total of approximately US\$172 million, were implemented through multiple construction contracts under the Ministry of Public Works and Housing (MoPWH). Finally, the school furnishing contracts, for a total of approximately US\$15 million, were implemented through local furniture contractors under the MOE. As of today, 27 new schools and 32 rehabilitated schools have been completed.

The objectives of the JSP include:

- Reduce overcrowding in classrooms
- Reduce rented facilities
- Reduce double-shifting schools
- Provide the capacity for improved enrollment rates for basic education for the growing population
- Improve the design and quality of educational architecture so as to enhance the relationship of the students with their place of learning and to increase their learning performance

CONTENTS

- Acknowledgements** ii
- Preface** iii
- Project Summary** iv
- Acronyms** viii
- Glossary** ix
- Executive Summary** x
- Evaluation Purpose & Evaluation Areas** 1
- Project Background** 2
 - National Context 2
 - Education Context 3
 - Development of Problem 3
- Evaluation Methods & Limitations** 6
 - Evaluation Team 6
 - Evaluation Methodology 6
 - Limitations / Constraints 7
 - Sampling 8
 - Analytical Approach 9
- Findings, Conclusions & Recommendations** 10
 - Findings 10
 - 1. Higher Level Goals 10
 - 2. School Design and Planning 12
 - 3. School Construction 16
 - 4. School Occupancy and Utilization (according to the users) 22
 - 5. Community Involvement and Impact 29
 - 6. Gender Impact 31
 - 7. Cost and Value 32
 - Conclusions & Recommendations 36
 - High Level Conclusions 36
 - High Level Recommendations 38
 - Specific Recommendations 40
- Lessons Learned** 45
- Annexes** 47
 - Annex I: Map of JSP Intervention for NS and RS 48
 - Annex II: Evaluation Statement of Work 50
 - Annex III: Disclosure of Any Conflicts of Interest 54

- Annex IV:	Data Collection Tools Development	67
- Annex V:	Data Collection Tools	73
- Annex VI:	Sources of Information	121
- Annex VII:	Evaluation Schedule	126
- Annex VIII:	Pictures From the Field	128
- Annex IX:	Higher Level Goals: Detailed Impact on the NS/RS on Neighboring Schools.....	135
- Annex X:	Functionality of School Areas	138
- Annex XI:	Architectural Feedback on Materials	141
- Annex XII:	Cost Analysis and Comparisons	143
- Annex XIII:	Construction Cost and Variations	156
- Annex XIV:	Comparison of Structural and Architectural Works	158
- Annex XV:	School Occupancy and Utilization Indicators	163
- Annex XVI:	Electricity Bills for Directorates	184
- Annex XVII:	Sample of Completed Data Collection Tools	194
- Annex XVIII:	Regional Workshops Attendance Records	230
- Annex XIX:	Architecture Report	240
- Annex XX:	Cost & Value Report	254
- Annex XXI:	Electro-Mechanical Report	271
- Annex XXII:	USAID and MOE Feedback on Draft Report	281

LIST OF TABLES

TABLE 1	NAMES AND CONTACTS OF THE EVALUATION TEAM	6
TABLE 2	RELIABILITY FACTOR FOR TESTED TOOLS	7
TABLE 3	IMPACT OF THE NS AND RS ON NEIGHBORING SCHOOLS	10
TABLE 4	STUDENT OCCUPANCY OF NS SCHOOLS	12
TABLE 5.1	CONSTRUCTION DELAYS FOR THE NS COST	18
TABLE 5.2	CONSTRUCTION DELAYS FOR THE RS	18
TABLE 6	COMPARISON BETWEEN JSP AND MOE FUNDED SCHOOLS	21
TABLE 7	COMPARISON OF CONSTRUCTIONAL WORKS BETWEEN JSP AND MOE FUNDED SCHOOLS	21
TABLE 8	SUMMARY OF THE AVERAGE AGREEMENT FOR SUB-EVALUATION AREAS FOR NS AND RS	23
TABLE 9	SUGGESTIONS TO REDUCE CONSTRUCTION COST	33
TABLE 10	ELECTRICITY BILLS COMPARISON FOR SCHOOLS IN AJLOUN, QWEISMAH AND AQABA DIRECTORATE	35

LIST OF FIGURES

FIGURE 1.1	NS EVALUATION SCHOOL SAMPLE - ACCORDING TO GENDER, LOCATION AND PHASE	8
FIGURE 1.2	RS EVALUATION SCHOOL SAMPLE - ACCORDING TO GENDER, LOCATION AND PHASE	8
FIGURE 2	MARKET PRICE VERSUS ACTUAL SCHOOL CONSTRUCTION COST	19
FIGURE 3.1	NS AGREEMENT FOR SCHOOL LAYOUT, SPACES AND FUNCTIONS	24
FIGURE 3.2	RS AGREEMENT FOR SCHOOL LAYOUT, SPACES AND FUNCTIONS	25
FIGURE 4	NS AGREEMENT FOR FURNITURE AND EQUIPMENT	27
FIGURE 5	JSP: A TRANSFORMATIONAL CHANGE	46

LIST OF UNITS

m ²	Squared Meter(s)
m ³	Cubic Meter(s)
m	Meter (s)
cm	Centimeter(s)
mm	Millimeter(s)
yr	Year(s)

ACRONYMS

ASK	ASK for Human Capacity Building
BCA	Base Contract Amount
BOQ	Bills of Quantities
CDM	Camp Dresser and McKee International
CDD	Civil Defense Directorate
CMP	Community Mobilization Project
DUNS	Data Universal Numbering System
EAC	Estimate at Completion
ERfKE	Education Reform for the Knowledge Economy Program
ERSP	Education Reform Support Program
FD	Field Directorate/s
FFE	Furniture, Fixtures and Equipment
FIDIC	Fédération Internationale Des Ingénieurs-Conseils
GAM	Greater Amman Municipality
GF	Ground Floor
GIS	Geographic Information System
GOJ	Government of Jordan
GTD	Government Tendering Directorate
GBD	Government Building Directorate
IFCE	International Federation of Consulting Engineers
JD	Jordanian Dinars
JEA	Jordan Engineers Association
JSP	Jordan School Construction and Rehabilitation Project
KfW	Kreditanstalt für Wiederaufbau/ German Government Development Bank
KG	Kindergarten
KW	Kilowatts
MEP	Mechanical, Electrical and Plumbing
MOE	Ministry of Education
MOF	Ministry of Finance
MOP	Ministry of Planning & International Cooperation
MOU	Memorandum of Understanding
MoPWH	Ministry of Public Works & Housing
M&E	Monitoring & Evaluation
NS	New (Constructed) School/s
RFP	Request for Proposal
RS	Rehabilitated School/s
SAM	System for Award Management
SPSS	Statistical Package for Social Sciences
UNDP	United Nations Development Programme
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
USAID	United States Agency for International Development

GLOSSARY

Engineer	The awarded Architect and Engineering (A-E) Design Services firm for Jordan School Construction and Rehabilitation Project contract
Construction Contractors	The construction contractors who constructed or rehabilitated the schools under the supervision of the Engineer
Owner	The Ministry of Education, as the end owners of JSP's output (28 New Schools and 100 Rehabilitated Schools)
Employer	Ministry of Public Works and Housing

EXECUTIVE SUMMARY

The evaluation team asserts that the Jordan School Construction and Rehabilitation Project (JSP) is a strong example of a transformational change development project in Jordan. The JSP promoted a holistic approach to education reform accompanied with progressive social changes in the school community; it fostered collaboration and innovation and most importantly it offered educational breakthroughs in the public schooling system in Jordan.

EVALUATION PURPOSE AND EVALUATION AREAS

The purpose of this evaluation was to provide conclusions and recommendations on JSP's achievements, impact and contribution to achieving its targeted results and to improve similar future interventions. Specific areas of the evaluation consisted of:

1. Higher Level Goals
2. Design & Planning
3. School Construction
4. Occupancy & Utilization
5. Community Involvement & Impact
6. Gender Impact
7. Cost & Value

PROJECT BACKGROUND

JSP responds to a large-scale educational reform in Jordan the Education Reform for the Knowledge Economy (ERfKE) and ERfKE II. The Government of Jordan (GOJ) launched the ERfKE in 2003 in coordination with the Ministry of Education (MOE). This reform was supported by several international donors including the United States Agency for International Development (USAID), Kreditanstalt für Wiederaufbau/ German Government Development Bank (KfW), European Union (EU), Canadian International Development Agency, Arab Fund, European Investment Bank (EIB) and the Islamic Bank. The overarching goal of ERfKE is to strengthen Jordan's human resources to support its transition into a knowledge-based economy and a hub for technology in the region. The four ERfKE components encompass: reforming education policy objectives and strategy; transforming education programs and practices; supporting provision of quality physical learning environment; and finally promoting learning readiness through early childhood education. JSP was created to spearhead the third component by building 28 new schools and rehabilitate 100 existing ones. These physical learning environments aimed at upgrading the educational landscape in Jordan were targeted to reduce overcrowding, replace rented and double-shifted schools, increase physical educational capacity for growing student enrollment, and provide safer and more suitable school environments by establishing new school design concepts that improve school layout and design all ultimately meeting the evolving educational needs of Jordan. The JSP implementation was allocated US\$199 million over seven (7) years.

EVALUATION DESIGN, METHODS, AND LIMITATIONS

To effectively address each of the seven evaluation areas, **ASK** for Human Capacity Building as the education expert formed a consortium with architectural and engineering firms including ID Interior Design & Architecture, NEA & Partners, and SCOPE MEP Design Studio. Since emphasis was made in the Request for Proposal (RFP) to focus on deriving conclusions and recommendations from end users'

insights, the evaluation team employed a participatory evaluation methodology with a clear focus on gathering insights, perspectives, and decisions of the most affected end beneficiaries and involved stakeholders. As such, the evaluation methodology employed a mixed method participatory approach through extensive document review, 883 student and 248 teacher questionnaires; 16 structured principal interviews; high-level stakeholder meetings with the MOE, Ministry of Public Works and Housing (MoPWH), the Engineer- Camp Dresser and McKee International (CDM), USAID and Community Mobilization Project (CMP); meetings with 10 Field Directorates (FD), five construction contractors and three furniture contractors; three regional workshops; and 16 direct site observations. As requested by USAID, relevant data collection activities were conducted in 16 schools (10 New Schools (NS) and six (6) Rehabilitated Schools (RS)), which were selected by the evaluation team with consideration to their location, gender and construction phase. Based on the above data collection activities, quantitative data was analyzed using frequency statistics and percentages while qualitative data provided further clarification, elaboration and justification.

The evaluation was constrained by a number of limiting factors, mainly time limitation which prevented the evaluation team from retrieving longitudinal monitoring data for school utilization, availability of data, and the discrepancy in the size of the construction intervention between NS and RS, which limited the amount of data available for the RS.

Nevertheless, the evaluation team was able to gather adequate data to generate findings, conclusions, recommendations and lessons learned. As such, the evaluation team regards the JSP as a novel project and a significant educational intervention that led to transformational change in the lives of current and future school community members across Jordan.

FINDINGS AND CONCLUSIONS

Based on the insights and responses received from key project stakeholders and school principals the evaluation team concludes that the JSP did succeed in achieving its higher level goals of reducing overcrowded, double-shifted, and rented schools, responding to increased enrollment rates and positively impacting the community. However, due to limited access to the necessary data, the evaluation team also concludes that an additional nationwide comparative evaluation should be conducted to study the extent to which the JSP achieved its higher-level goals with considerations to demographic changes and influx of refugees over the lifespan of the project to date (7 years).

The evaluation team also confirms that the JSP succeeded in positively impacting the overall school community, and in particular the NS had a noticeable positive effect on teachers' and students' perception of their new school. In the NS 96% of the students, 91% of teachers and 100% of the principals had a positive perception of their NS.

In terms of school design and planning, it was evident that serious efforts were made to involve all key stakeholders with special attention given to the MOE. However, the MOE expressed serious concerns that their level of involvement was insufficient being the owners of the project's outcomes. There was evident collaboration between the Engineer and the MOE in terms of the school site selection process, which can be described as being effective. At the same time the overall design concepts reflected the objectives of ERfKE, and in the majority of cases they responded to the needs of the MOE. The selection of construction material was of high quality; however, additional supervision was needed to ensure better quality of the final finishing. NS Principals' satisfaction with the materials and finishing was only 63%.As for the school construction process, although overall successful, there were challenges faced in terms of delays in completion schedules.

For school occupancy and utilization, the school community was generally very satisfied and content with the new facilities and equipment in their schools. They expressed gratitude and commitment ensuring that these new facilities are further enhancing their educational environments. Nevertheless, few concerns were highlighted in regards to receiving the furniture, equipment and technology on time, limited training on electrical and mechanical systems, and dissatisfaction in terms of maintenance procedures. As such, NS and RS students and teachers expressed relatively low satisfaction in regards to the furniture and equipment; with 79%, 74% and 62% and 67% levels of satisfaction respectively. Moreover, the issue of maintenance and operation system was raised by the principals where only 45% of NS principals expressed their overall satisfaction with it.

The JSP had an obvious positive impact on the school community, especially in NS schools. Almost all NS principals (95%) confirmed that the NS contributed to enhancing students' positive attitudes and behaviors towards their school. NS teachers shared similar sentiments (89%) agreed that the NS positively impacted the attitudes and behaviors of their colleagues and students. Moreover, aside from offering communities better educational opportunities for their children, the nature of the NS with the clear community clusters strengthened the relationship of the school with its community, despite the fact that in some schools, access to these facilities was inconvenient due to their location. Nevertheless, the presence of these facilities, and the new NS model reinforced a relationship of reciprocal support and collaboration between the local community and the school, which had a positive impact on the whole school environment.

The overall project was gender conscious, and attempted to strike a balance between gender-equality and gender sensitivity. In terms of equality, the JSP created better educational opportunities for both genders and both types of schools received the same quality and quantity of equipment and furniture. However, there were 28% more female NS and 20% RS than male schools with no further available data to elaborate on the reason behind this distribution. In terms of gender-sensitivity, it was evident in the school design, by offering female schools nurseries and having guest bathrooms that accommodated for both sexes. However, end-users raised some concerns that additional attention should be made in terms of separating grades one to three bathrooms for each gender, raising the height of surrounding walls in female schools for privacy reasons, the paint used and the layout and equipment in vocational labs.

As for the cost and value aspect of the project it was addressed on two levels. The first level focused on evaluating the cost of constructing the school based on market rates at the time of tendering. The second level focused on comparing the cost of constructing a NS from the JSP with a MOE constructed school.

It was concluded that the construction prices at the time of tendering were within the market range when employing local construction contractors. However, an increase of 15 - 25% in prices was evident when hiring international construction contractors. In comparison to the MOE constructed school, the construction of JSP school cost is considered to be on the high side; 50% of this increase is attributed to the high quality product and systems that are not available in the other public schools, and the other 50% is attributed to increased cost due to utilizing Grade I construction contractors instead of Grade 3 used in MOE projects.

Based on all of the findings, the JSP proved to be a successful project with an invaluable impact on the lives of thousands of school community members, with some areas that can be improved. As in any other construction project, improvements and adjustments on the design and the planning of the project can contribute to reducing the cost of construction, and increasing its effectiveness. As such, the

evaluation team proposes several recommendations that may lead to cost-effectiveness and enhance the overall implementation of similar future interventions.

These areas of improvement are a result of new practices, standards and requirements that the JSP brought with it to all involved key project stakeholders and end beneficiaries. As a project that induces transformational change, the JSP introduced all involved parties to new sets of roles, responsibilities and behaviors which can be further improved over time, with additional capacity building components, more thorough initial planning, higher levels of onsite construction supervision, further enhancement of the sense of ownership towards the JSP and the development of selection criteria for the school faculty in new and rehabilitated schools.

Finally, the evaluation team believes that the impact achieved by the JSP cannot be measured instantaneously. The 'time-factor' is an integral component of transformational change, and as such, of the JSP. The JSP currently succeeded in creating the suitable climate to support modern educational standards and practices, however, *time* is necessary to ensure that this climate is internalized and turned into a permanent culture that fosters student-centered learning.

Venturing into the complex and dynamic world of education, in a country where the human capital is the primary resource for its economical development, is a risk that not many development agencies are willing to embark on. As such, the success of the JSP as a transformational change development project should be disseminated across the region and beyond. The impact of the JSP extends way beyond the construction and rehabilitation of the 128 schools; it is a catalyst in upgrading the educational system in Jordan.

EVALUATION PURPOSE & EVALUATION AREAS

EVALUATION PURPOSE

This report covers the ‘Evaluation of the Jordan School Construction and Rehabilitation Project’ (JSP) under contract number AID-278-C-13-00002. The purpose of this evaluation is to provide conclusions and recommendations on the project’s achievements, impact, and contribution to achieving the targeted results. Results from the JSP evaluation should provide the United States Agency for International Development (USAID) with lessons learned and recommendations for improving similar future interventions in the education sector in Jordan.

The JSP is reaching its final stages, and with considerations to launch similar future interventions, it is essential that key stakeholders further investigate the impact of the JSP on end beneficiaries, the successes it achieved, and the challenges that were encountered throughout the duration of the project. This evaluation is an attempt to highlight the main practices that proved to be effective and beneficial and to identify areas that need to be revisited or reconsidered to ensure more successful and efficient implementation for similar future interventions. The evaluation derives these conclusions, recommendations and lessons learned from the most affected end-users and stakeholders to ensure that their perspectives and viewpoints are translated into the design and planning of similar future interventions.

Jordan’s existing educational reality, with the growing number of students and educational reform efforts, creates both a demand for upgrading the physical educational infrastructure and increasing the number of schools available in the country. Since the JSP responded to both of these realities, and since they remain to be prevalent in Jordan, it is inevitable that similar projects will be replicated in the future to respond to these educational needs. Therefore, the findings, conclusions and recommendations derived from this evaluation, will be helpful to an array of stakeholders and key players who are concerned with the educational reform taking place in Jordan and beyond. These stakeholders and key players in the field of education and social development include the Government of Jordan (GOJ) from the Ministry of Education (MOE), the Ministry of Public Works and Housing (MoPWH), and the Ministry of Finance and the Ministry of Planning who are involved in overseeing, implementing and/or managing educational projects that contribute to the advancement of Jordan’s educational systems.

This report will attempt to provide USAID/Jordan and other USAID agencies with insights on how to further improve the implementation of similar projects across the globe. Other international development agencies will also find this report beneficial, shedding light on key areas within educational construction projects that require high levels of attention. Finally, other developing countries, which share Jordan’s educational challenges with the need to upgrade their educational system and increase accessibility to schools, can consider this report as a baseline for future similar educational interventions.

EVALUATION AREAS

Seven evaluation areas were identified in the 'Statement of Work' (Annex II) in an attempt to cover all aspects of the JSP. The seven evaluation areas are:

1. Higher Level Goals
2. Design & Planning
3. School Construction
4. Occupancy & Utilization
5. Community Involvement & Impact
6. Gender Impact
7. Cost & Value

PROJECT BACKGROUND

NATIONAL CONTEXT

The Hashemite Kingdom of Jordan is a country located in the Middle East, a region known for its politically charged conditions, and more recently for the Arab Spring. Although located at the heart of dynamic socio-political changes, Jordan has succeeded in remaining a relatively stable country while hosting a growing influx of refugees, which strains already-scarce natural resources. In response to the limited natural resources and the rapidly increasing population, His Majesty King Abdullah II views the human capital as the number one resource for advancing the country as a whole. As a result, the GOJ has invested and continues to expand social development initiatives and education reform efforts that contribute to building the human capital. This reform process was accelerated under His Majesty King Abdullah II in early 2001 with a vision to make Jordan the regional technology hub and an active player in the global economy. This, in turn, has yielded significant strides in expanding universal primary education, achieving high literacy levels and reducing gender disparities in basic and secondary education as defined in the United Nations Development Programme (UNDP) Millennium Development Goals.¹ Strategically elevating the national human resources to meet the demands of an evolving knowledge economy is the hallmark of Jordan's development. Jordan has prioritized improved educational quality and relevance as well as engaging parents and local communities to create linkages to employment opportunities for Jordan's youth.² As a result, Jordan is faced with both opportunities and challenges in its education system.

Data published by Jordan's Department of Statistics in 2011 estimated 2.2 million of the population should be enrolled in schools.³ This number represents approximately one-third of the nation, which

¹ *Millennium Development Goals updated 20 March 2013*. UNDP Jordan 2010, 22 March 2013, http://www.undp-jordan.org/index.php?page_type=pages&page_id=390&templatelD=0

² USAID/Jordan Education, 21 March 2013 <http://jordan.usaid.gov/en/OurWork/ProgramAreas/Pages/Education.aspx>

³ *Jordan Statistical Yearbook 2011*, Department of Statistics, Primary and secondary school age (5-19 years old), Table 2.5 Estimated Population of the Kingdom by Sex and Page Group at End of 2011.

illustrates a significant youth prominence in the national population. School reforms required to address the rapidly shifting youth demographics is one critical component of reforming the education system. Another, equally pressing issue is matching skills and knowledge gained in Jordanian schools with the evolving job market and the 21st century skills needed today.

EDUCATION CONTEXT

To ensure basic education to all school-age children, the GOJ provides a public school in every community.⁴ As mandated by education legislation of 1994, the education system is built around three elements:

1. Two-year pre-school (optional);
2. Grade 1 through 10 of compulsory primary education; and
3. Grade 11-12 of optional secondary school.

When public school students complete Grade 10, they select one of two tracks: academic or vocational. Upon completing the coursework, students are required to sit for the Tawjihi (General Secondary Education Certificate) to earn their academic diploma. Likewise, students who successfully complete the vocational track earn a Certificate of Completion, which similar to the Tawjihi, is required for enrollment in community colleges and universities in Jordan.

Three authorities are coordinated to provide access to education with respect to their educational jurisdiction based on school level, location, gender, and residency/refugee status. These authorities include, in the order of the largest coverage, the Ministry of Education/ Public Schools, private education and United Nations Relief and Works Agency for Palestine Refugees in the Near East (UNWRA).

DEVELOPMENT OF PROBLEM

Problem Statement

Jordan's competitive advantage depends on enhancing the competencies of its population, and as a result, it is directly related to the educational opportunities available. The growing youth population necessitates expanding the number of educational facilities with enhanced innovative learning practices, so that students are well equipped to enter the knowledge economy. The MOE recognizes the need to prepare youth entry into the global knowledge economy by integrating problem solving, teamwork, critical thinking and information technology skills into the national schooling system. In 2003, the MOE launched an ambitious program 'Education Reform for the Knowledge Economy Program' (ERfKE) with support from the World Bank, the USAID, German Development Bank: Kreditanstalt für Wiederaufbau (KfW), European Union (EU), Canadian International Development Agency (CIDA), Arab Fund, European Investment Bank (EIB), Islamic Bank and more, which signified its commitment to renovating educational institutions through updating data-supported decision-making processes and constructing modern physical learning environments.⁵ As a result, the GOJ is investing in ambitious educational

⁴ The minimum number of students in each remote village or community is ten (10) school age children, 21 March 2012, <http://www.kinghussein.gov.jo/resources3.html>

⁵ World Bank Project Appraisal Document, *Report No. 25309-JO April 2003*, 2 April 2013

reform efforts to both upgrade the educational standards and regulations of the MOE, and to create equitable access for all students, both female and male in rural and urban areas, to schools that provide quality educational opportunities.

USAID Intervention in Response to Problem Statement

As such, the GOJ through the MOE took on a mission to revamp Jordan's educational system through ERfKE. ERfKE was built on the 2002 Vision Forum for Future Education in Jordan. It was designed to realize the 2020 Jordan vision: *"The Hashemite Kingdom of Jordan has the quality competitive human resource development systems that provide all people with lifelong learning experiences relevant to their current and future needs in order to respond to and stimulate sustained economic development through an educated population and an educated workforce."*⁶

Education Reform for Knowledge Economy

In 2003, the MOE implemented ERfKE in partnership with key international donors including the USAID, in a ten-year endeavor executed in two phases. ERfKE I focused on four components:

1. Reorienting education policy objectives, reforming governance and administrative systems
2. Transforming education programs and practices to achieve knowledge economy relevant learning outcomes
3. Supporting provision of quality physical learning environments
4. Promoting learning readiness through expanded early childhood education⁷

Based on the success of the above objectives and the conviction that this reform is positively contributing to the advancement of Jordan, ERfKE II was developed. ERfKE II aimed to strengthen and institutionalize the reforms introduced under ERfKE I, with a particular focus on school level implementation and teacher quality. It focused on strengthening the institutional capacity of MOE in policy, strategic planning and monitoring and evaluation, and on improving teacher employment, utilization and professional development policies and implementation.⁸

Jordan School Construction and Rehabilitation Project

The JSP came in response to ERfKE, and its implementation extended into ERfKE II. Under ERfKE component three, which focused on creating quality physical learning environments with enhanced school facilities, USAID embarked on an ambitious intervention to address, support and invest in the MOE schools' physical infrastructural needs through the JSP. Launched by USAID in August 2006, the JSP extended its support to the GOJ/MOE by setting out to construct 28 new schools and renovate 100 existing ones in the areas in most need nationwide. This project is deeply rooted in USAID's belief in equality in education, and it was a successful attempt to create better quality educational opportunities in the most challenging areas across Jordan.

<http://jordan.usaid.gov/en/OurWork/ProgramAreas/Pages/Education.aspx>

⁶ The Hashemite Kingdom of Jordan Ministry of Education Vision: <http://www.MOE.gov.jo/en/MenuDetails.aspx?MenuID=40>

⁷ World Bank Project Appraisal Document, *Report No. 25309-JO April 2003*

⁸ World Bank Project, 22 January 2013 <http://go.worldbank.org/N28XWLFWT0>

Objectives

The overall objectives of the JSP were to construct 28 new public schools and rehabilitate 100 existing ones to reduce overcrowding, replace rented and double-shifted schools, increase physical educational capacity for growing student enrollment, and provide safer and more suitable school environments by establishing new school design concepts that improve school layout and design; ultimately meeting the evolving educational needs of Jordan. This was achieved by selecting the regions in most need that were facing the highest levels of student overcrowding, double-shifting and rented schools. The intersection between design concepts and educational needs was a significant aspect of the JSP. USAID highlighted the importance of developing school designs that responded effectively to the contextual needs of Jordanian schools, while maintaining a forward-looking vision, anticipating future educational trends, such as integrating the use of technology and student-centered learning.⁹

Collectively the objectives of the JSP were to build and renovate schools that are designed to create new learning realities for Jordanian students and contribute to enhancing their relationship with their learning environment to ultimately improve academic achievement. The school structures also serve to support the ERfKE goal of creating student-centered learning environments that will become community centers for life-time learning.

Implementation

USAID awarded the Architect and Engineering (A-E) Design Services contract to Camp Dresser and McKee International (CDM), hereinafter to be referred to as the Engineer, to provide oversight for the development of 28 newly constructed schools (NS) and 100 rehabilitated schools (RS) nationwide. The Engineer was responsible for the assessment, planning, design, and supervision of the construction and rehabilitation of all selected schools. Contracting construction contractors was under the responsibility of the MoPWH and furnishing contractors were selected through the MOE. Accordingly, the Engineer worked very closely with the MOE (the final owner) to conduct a series of exposure visits to public schools to gain a deeper understanding of the Jordanian context and the realities of its educational systems. The Engineer's role extended beyond the oversight of the construction of the schools, dedicated efforts were made to align between the needs and requirements of the Jordanian context/MOE, international standards and USAID standards. The Engineer worked very closely with the MOE and the Ministry of Public Works and Housing (MoPWH) in various phases of the project. For site and school selection, the MOE provided the Engineer with an initial list of schools. Then it adopted a rigorous and thorough selection approach in which they verified, cross-examined, and confirmed the need for a new school or rehabilitation in the area. The JSP was a nationwide intervention covering all regions of Jordan (North, Middle and South).

⁹ JSP purpose summarized from RFP No. SOL-278-13-000001

EVALUATION METHODS & LIMITATIONS

EVALUATION TEAM

The evaluation team constituted of a consortium led by **ASK** for Human Capacity Building. The consortium included four specialized entities made of leading organizations and engineering firms:

1. **ASK** for Human Capacity Building as the Educational Expert
2. ID Interior Design & Architecture as the Architecture Expert
3. NEA & Partners as the Cost Value Engineering Expert
4. Scope MEP Design Studio as the Electro-Mechanical Expert

The following table details the names of the evaluation team members and their contact details.

Table 1: Names and Contacts of the Evaluation Team

Name	Organization	Email
Amin Amin, PhD	ASK for Human Capacity Building	aamin@ask-arabia.com
Mohammad Hourani, PhD	ASK for Human Capacity Building	mhourani@ask-arabia.com
Ibrahim Mahfooz	ASK for Human Capacity Building	imahfooz@ask-arabia.com
Ghassan Koteit, PhD	ASK for Human Capacity Building	gkoteit@ask-arabia.com
Samar Akhu Zahieh	ASK for Human Capacity Building	sakuzahaiea@ask-arabia.com
Deema Al-Alami	ASK for Human Capacity Building	dalam@ask-arabia.com
Sarya Sok	ASK for Human Capacity Building	saryasok@gmail.com
Rama Akel	ID Interior Design & Architecture	rama@id-firm.com
Susan Abdel Kadir	Scope MEP Design Studio	suzan_aq@yahoo.co.uk
Danka Tibor	Scope MEP Design Studio	jubehd@orange.jo
Dana Azzam	NEA & Partners	yousef.alsadi@nea-consultants.com
Yousef Al Sadi	NEA & Partners	dana.azzam@nea-consultants.com

EVALUATION METHODOLOGY

The evaluation team employed a mixed-method participatory approach using quantitative and qualitative methodologies that consisted of:

1. Document Review
2. Development & Validation of Data Collection Tools
3. Refining Data Collection Tools
4. Regional Workshops & Focus Group Discussions
5. Teacher & Student Questionnaires
6. Key Stakeholder Meetings
7. Structured Interviews
8. Direct Site Observations

USAID approved the evaluation team's proposed a work plan. The mixed use of quantitative and

qualitative data collection offered in-depth insights of stakeholders', principals', teachers' and students' attitudes and perceptions towards the JSP.

To ensure that the used quantitative data collection tools adequately addressed each evaluation area, the evaluation team checked the validity and reliability of students and teachers' questionnaires and principal's structured interviews. Following the 'expert agreement methodology' to validate the tools, eight experts and USAID representatives reviewed the tools which were later adjusted accordingly. Reliability of the tools was verified through testing them on students, teachers and principals in both NS and RS outside the evaluation school sample. After data entry, the Reliability Coefficient (Cronbach Alpha) was calculated through the Statistical Package for Social Sciences (SPSS).

According to international studies¹⁰, the reliability coefficient is considered a good indicator or reliable if it is .80 and over.

The table below summarizes the Reliability Coefficient for each tested data collection tool.

Table 2: Reliability Factor for Tested Tools

Type of JSP School	New Schools			Rehabilitated Schools		
Data Collection Tool	Student Questionnaire	Teacher Questionnaire	Principal Interview	Student Questionnaire	Teacher Questionnaire	Principal Interview
Reliability Factor	0.90	0.87	0.86	0.83	0.90	N/A

After calculating the Reliability Coefficient, and based on the feedback received, the tools were finalized receiving USAID's approval (Annex IV and Annex V). Accordingly, the evaluation team conducted data collection activities through a regional approach within the thirty days allotted for data collection.

Through analysis of the data collected, the evaluation team embarked on a genuine attempt to develop a comprehensive understanding and analysis of the JSP within a short timeframe, to conclude recommendations and lessons learned for similar future interventions.

LIMITATIONS / CONSTRAINTS

The results of this evaluation were constrained by a number of limiting factors including:

- Time Limitation: the assigned time that was allocated for the evaluation prevented the evaluation team from retrieving longitudinal monitoring data for school utilization, which evaluates the impact of the NS and RS on the school community over an extended period of time for the purpose of comparison. Consequently, the evaluation team resorted to a cross-sectional approach, which evaluates the impact of an intervention at one specific time.
- The difference in the size of construction intervention between the NS and RS which impacted the amount of data retrieved for the RS
- Although the scope of the evaluation includes the 100 RS, in reality only 32 were completed and 62 are under bidding

¹⁰ Denise & Beck, *Essential of Nursing Research*, Liddincott Williams & Wilkins Publishing, 2000, p. 374

- Documentation for the project is spread across a multitude of key project stakeholders making the process of retrieving this data rather complicated and inaccessible in some cases.

SAMPLING

As requested by USAID, the evaluation team selected 16 JSP schools (10 NS and 6 RS) for the evaluation sample in two stages. First, the team sampled schools based on random clusters with respect to geographical region, gender and construction phase. Next, the evaluation team conducted a simple random selection to finalize the list of schools included in this evaluation. Due to the variance of design and construction for RS, the evaluation team added criteria taking into account the extent of their rehabilitation intervention. Wherever possible, purposive sampling of schools with the most expansive renovation was included in the pool of the RS specific sample.¹¹ The figures below are the schools sampled for the JSP evaluation.

Figure I.1: NS Evaluation School Sample - According to Gender, Location and Phase

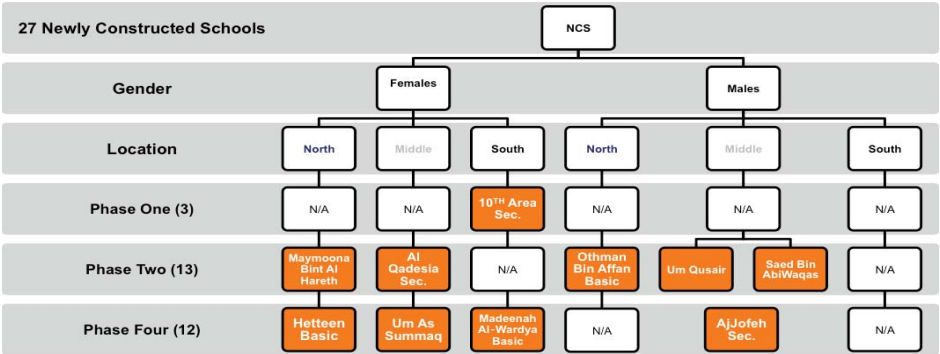
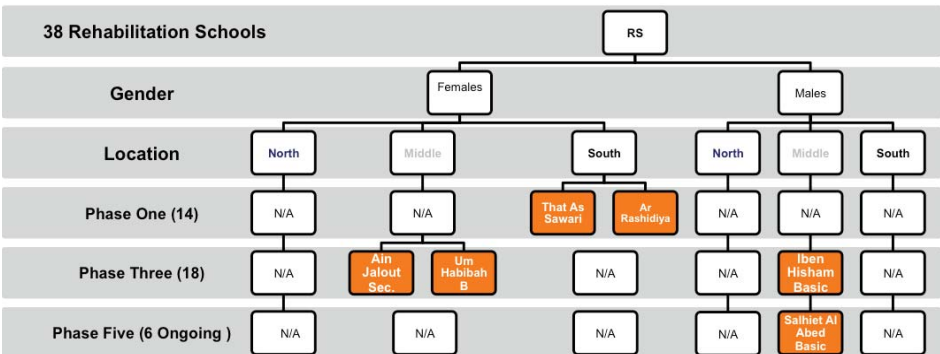


Figure I.2: RS Evaluation School Sample - According to Gender, Location and Phase



From this sample, the evaluation team conducted 883 student questionnaires, 248 teacher questionnaires, 16 structured interviews with principals, 16 site observations, and three regional

¹¹ This purposeful sampling is based on the assumption that any findings associated with the largest interventions also apply to schools where renovations were less extensive.

workshops. Ten (10) meetings with Field Directorates (FD)¹² were conducted in addition to five meetings with construction contractors who were selected based on regional coverage and the size of their intervention in both NS and RS, and all three furniture contractors. Meetings with key stakeholders were also conducted with the MOE, MoPWH, USAID, CMP and 3 meetings with the Engineer.

ANALYTICAL APPROACH

Quantitative data was entered and analyzed using the Statistical Package for Social Sciences (SPSS) while qualitative data was triangulated through various inputs from educational and engineering experts. The evaluation results focus on patterns that emerge from concerned JSP stakeholders' insights and complemented by the evaluation's team analytical lens, which aims to provide objective conclusions, lessons learned and project recommendations. Findings and analysis are presented according to the evaluation framework defined in the request for proposal (RFP) and organized into two tracks specific to NS and RS as needed. The below section presents the 'Findings, Conclusions and Recommendations' based on the data retrieved from the relevant data collection activities in addition to the evaluation team's analysis.

¹² FD's who participated in this evaluation include: Al Shounah Al Janoubiah, Na'ur, Ain Al Basha, Ramtha, Ajloun, Irbid, Qweismah, Aqaba, WadiMousa, Amman 4th.

FINDINGS, CONCLUSIONS & RECOMMENDATIONS

FINDINGS

The discussion of findings weaves together insights, responses and feedback collected directly from all key project stakeholders and most importantly the end users through meetings, interviews, questionnaires, regional workshops and documents review. The findings for each of the seven evaluation areas are presented collectively for NS and RS, and separated when necessary.

I. Higher Level Goals

a. Impact of the JSP on: overcrowding, double shifted and rented schools, addressing enrollment needs and overall impact on school community

Based on the insights and responses received from key project stakeholders and end beneficiaries the evaluation team concludes that the JSP did succeed in achieving its higher level goals of reducing overcrowded, double-shifted, and rented schools, responding to increased enrollment rates and positively impacting the community. (Due to limited access to official data on the number of neighboring schools that the JSP impacted, the below data is an approximation on how the 16 sample schools contributed to the higher level goals). Based on the data retrieved from school principals the 16 school sample approximately contributed to reducing overcrowding in 53 neighboring schools, eliminated three double-shifted schools and replaced seven rented ones. As such, during interviews with principals 90% agreed that the NS schools contributed to the reduction of overcrowding and that the schools helped meet the growing number of students in their community. All RS principals and 71% of teachers confirmed that new classrooms helped alleviate overcrowding. Despite the above, certain unforeseen factors had a limiting impact on the degree to which these goals were achieved. These factors include changes in demographics over the past seven years, influx of refugees (both Iraqi and Syrian), and the economical crisis which forced parents to transfer their children from private to public schools. Based on evidence gathered¹³ on the school sample, the below findings represent an approximate estimation of the extent to which the higher level goals that were achieved. (Annex IX).

Table 3- Impact of the NS and RS on Neighboring Schools

School Type	Reduced Overcrowding in # of Schools	Reduced Double Shifting in # of Schools	Replaced # of Rented Schools
New School	40	1	7
Rehabilitated School	13	2	0
Total	53	3	7

FDs confirmed that the NS, not only contributed to achieving each of the higher level goals (reducing the number of rented, over-crowded, and double shifted schools), but also directly responded to the population growth and served the community in an exceptional way. The FDs’ opinions resonated with nearly every NS principal and teacher; they agreed that the NS model positively impacted the parents

¹³ Data retrieved mainly from NS and RS principal interviews. Data was not available from other sources.

and local school community.

As for JSP's impact on the school community, it had a positive one on the majority of school community members. It enhanced positive feelings, attitudes and behaviors towards the schools. It also contributed to creating educational environments, which support the delivery of modern teaching/learning methods. This was achieved by offering more spacious and well-equipped school facilities including classrooms, labs and outdoor spaces. In the regional workshops, students pointed out that the differences between their NS and their previous schools were easy to distinguish. They now can play in spacious playgrounds, work in specialized labs; use the school garden and library, which in some cases were not available in their previous schools. This positive impact also extended beyond the school premises as it also responded to the needs of the surrounding local community members by offering access to better school environments for their children as well as modern facilities to be used for activities such as the multi-purpose halls, libraries, and computer labs.

It is worth noting however, that this impact varied between the RS and the NS. For the RS the impact was more limited to offering an improved physical space that helped in accommodating the growing number of students and introducing the school community to more advanced facilities and equipment, such as science and computer labs.

However, for the NS, the impact on the school community was much larger and more tangible. This is most likely due to the fact that the new school structure was complemented with a capacity building component under the Education Reform Support Program (ERSP) and the CMP that enabled the school stakeholders to better understand, utilize and positively respond to the NS functions. The professional development component combined with the substantial construction intervention, which included new diverse facilities, and the classroom size restriction of a maximum of 36 students per classroom created more positive attitudes, and enhanced the sense of commitment and ownership towards the schools. This also created the suitable environments for the school to engage in and adopt more student-centered enriching practices and activities. It enabled teachers to demonstrate their creativity and variety in modern teaching pedagogies and it encouraged the principals to invest beyond students' academic performance. Extracurricular activities that enhance creativity and further develop students' socio-emotional growth were present in the schools. Nevertheless, this did not prevent some teachers from developing negative sentiments as a result of the additional load of work that they had to carry out in the NS, with no financial incentive.

Beyond the school premises the NS increased enrollment demands for these schools, and the relationship between the school and the local community was strengthened, contributing to a more positive and solid relationship between them.

b. Impact of the NS on Teacher and Student Attitudes and Behaviors *

**Data not applicable for RS*

Students, teachers, principals and FDs agreed that the NS were role model schools that fostered a positive shift in attitudes and behaviors in both students and teachers due to the improved learning environment that the new facilities and equipment offered. The majority of the students (88%) confirmed that they look forward to going to school and feel happy there. The NS provided them with access to technology, outdoor and indoor facilities that enriched their learning and subject-based classrooms, which did not always exist in their previous schools. Teachers shared similar sentiments towards the NS where 89% of them agreed that they witnessed a positive impact of the NS on the attitudes and behaviors of their students and colleagues. This was further confirmed by 95% of the principals who emphasized that the NS contributed to the enhancement of students' positive attitudes and behaviors towards their schools.

2. School Design and Planning

a. School Selection Process and Outcomes

The approved and used selection process was effective and showed high levels of sensitivity to the project's main goals, in which the overcrowding, double-shifting, and rented schools topped the list. The MOE provided the Engineer with an initial school list who then proceeded with a thorough and rigorous screening process to select the areas in most need. This process incorporated three levels and it facilitated the prioritization of areas with the most urgent needs for NS and RS. The levels comprised USAID's criteria, MOE needs and feedback, geographical considerations, cost effectiveness and maximum usage. The first level included 'the highest weighing established by the USAID criteria, the second screening consisted of criteria determined through the GIS computer application, and the third screening was determined through actual visits to the site for a final determination of eligible sites.'¹⁴ Based on our site visits and interviews with the FDs and principals, the outcomes of the site selection proved to be successful for two main reasons. The first is that the majority of the NS evaluation sample schools were either fully utilized or reaching their full capacity (see Table 4) and secondly, throughout all three regional workshops, principals raised the issue of their 'long waiting-lists' for students enrollment as an additional indicator for the high demand for these schools. Nevertheless, evaluating the appropriateness of the 128 selected sites requires a national study for the year 2013 to identify the areas in most need while factoring in the issue of demographic growth and influx of refugees into the country over the past 7 years.

Table 4: Student Occupancy of NS Schools

School Name	Phase	Yr of Operation	Existing # of Students	Maximum Capacity of Students/School	Students Occupancy %
10th Region Sec. Co	1	Sept 2010	1,058	1,058	100%
Um Qsir Basic Boys School	2	Sept 2011	829	828	100%
Othman Bin Affan Basic Boys School	2	Sept 2011	780	792	98%
Saed Bin Abi Wakas Basic Boys School	2	Sept 2011	840	864	97%
Al-Qadesiah Sec. Co. School	2	Sept 2011	950	1,022	93%
Maymounah Bint Al Harith Basic Co School	2	Sept 2011	675	770	88%
Hettien Basic Co. School	4	Oct 2012	623	734	85%
Um As-Somaq Sec. Girls School	4	Sept 2012	706	914	77%
Al-Jofah Sec. Boys School*	4	Feb 2013* (2 nd Term)	510	864	59%*
Al Madeena Al Wardyah Basic Co. School*	4	Nov 2012* (Mid of 1 st Term)	240	529	45%*

*Occupancy of these schools are below 60% due to the fact that they started operating either in the second term or half way through the first term, making it difficult and inconvenient for parents to transfer their children.

b. Design Concept Soundness

The design concept succeeded in achieving the ambitious vision for public schools in Jordan in response to the vision of ERfKE, the MOE's need and USAID's requirements. In turn, the design concept was very daring and distinctive from that of the typical Jordanian public school. The new physical structure had implications on the overall educational culture of the school and, as such, this newly introduced educational climate, at times, seemed to be challenging for school community members. The new

¹⁴ *Planning & Design Manual*, CDM, 2006

designs caused a shift in perceptions and attitudes in regards to how a school functions, by introducing subject-matter classrooms/rotation system for students, computer labs, science labs, and providing community access to the school. In addition to offering learning opportunities, this transformational change in design created both resistance and challenge among users. Despite this resistance, these new design standards elevated users overall reference for public school construction in terms of size, design, teaching methods, IT facilities, and outdoor spaces.

c. Responsiveness to the MOE and Users' Needs

To a large extent the school designs were responsive to the needs of both the MOE and the users. On the MOE level, the designs responded to the MOE's reform objectives while taking into consideration the existing requirements of the Jordanian educational system. Moreover, predetermined involvement and approval from the MOE on the designs was required prior to the start of construction. Approval was required at 30%, 60%, 90% of the design's submission process and at 100% design documents. This, in turn, provided ample opportunity for the MOE to give insights on designs and for the Engineer to incorporate them accordingly. However, the MOE had some concerns in regards to their involvement in the design phase, as the Owner of the final product, they expressed the importance of being continually informed and actively involved in all aspects of the design phase.

As for responding to users' needs, in the early stages of the project, the Engineer invested efforts in retrieving insights on school designs from school community members. This was achieved through one workshop, as mentioned above, targeted at extracting insights and feedback on school designs from the school community. Nevertheless, this involvement proved to be insufficient as found in the three regional workshops that were conducted by the evaluation team. The community members expressed their desire to have a more active role in the design and planning phases since they are ultimately the final and direct users of the schools.

d. School Size, Layout and Components

NS area standards have been developed while taking into consideration MOE standards with amendments to accommodate for their new educational vision they aimed to accommodate. Their overall size, layout and components are suitable for modern teaching pedagogies and for fostering school community activities, with minor areas that need to be revisited:

- The increased size of the classrooms in NS is a substantial step forward in the design of public school classrooms. The current NS classroom size (1.4 sm²/student) is relatively larger than the MOE standards (which is between 1.2-1.3 sm²/student), designed as such, to accommodate for a more student-centered classroom environment. However, due to the nature of the new flexible furniture in the NS- the issue of classroom size was raised in several schools. Typical public school furniture is restricted to a 'desk and a bench' that fits two students next to each other or a chair with a writing pad, while the new furniture in the NS, is made up of individual tables, and chairs taking up more space. As such, it was often perceived, especially in secondary classrooms, that the size of the classroom is not spacious enough to accommodate this furniture and the number of students occupying it, especially when fully occupied (36 students).
- Outdoors spaces are distinctive additions in the NS that can accommodate for an array of activities and events within the school. However, additional attention should be invested in the design/size of outdoor spaces which are primarily used for schools' 'morning assembly'. The current designs follow the MOE standards of 0.5 sm² per student. As such, several schools have tight outdoor spaces which do not effectively accommodate to the number of students or the activities of the morning assembly (e.g. Hetteen School, Al Madeenah Al-Wardya School, Umm As Summaq School). Morning assemblies host all students at once, in one area, and as such the design of future outdoor spaces should take into account the maximum student population in each school. This leads to the issue of

the school's entrances to the main building. Since all students enter the school at the same time, wider school main entrance or an additional entrance would improve outdoor space layout.

The overall layout of the schools addressed original school design concepts. It is clearly reflected in most layouts that the school design process did take into consideration the following elements to remain within the original concept boundaries:

- **School clusters** were evident in all layouts of the schools, which supported the implementation of students' rotation from one class to the next.
- **Community clusters** have separate access and are detached from the remaining main school functions. However, in some schools there was a missing separation between the community cluster and the remaining school facilities for example in Al Madeenah Al-Wardya School, Al Qadesiah - Ein Al Basha, and Saed Bin Abi Waqas School.
- **Kindergarten** access should be separate with a drop-off area and a separate playground. An exception to this rule is the access to the KG cluster in Al Qadesiah Secondary School – Ein Al Basha in which the entrance opens directly to one of the classes.
- **Science labs** have to be in one cluster at the ground level with outdoor access for safety issues. Two schools that did not fulfill this requirement are Al Qadesiah Secondary School – Ein Al Basha and Saed Bin Abi Waqas.
- **Resource areas** are designed to be integrated into classrooms' clusters and have an adjacent teacher's room to supervise the activities taking place there. This was evident in most of the schools, with an exception in Al Jofeh School and Al Qadesiah Secondary School – Ein Al Basha. An interesting observation was made in the 10th Area School for Girls in Aqaba, where the principal built an additional room next to each cluster, to have more control over students' circulation within the cluster, and all other activities that take place there.

e. Functionality, Reasonableness and Cost*

**Cost will be covered in Evaluation Area: 7. Cost & Value*

The overall functionality of schools goes in line with the design concept, layouts and components of the project (Annex X). Some areas that need to be revisited include:

- The height of the **boundary** walls of the schools is not always suitable for the safety of students or the privacy of female schools.
- A major issue that reoccurred in all schools is the odor from **toilets** at the end of corridor, which may be due to misuse or poor maintenance.
- In high slope schools, site access designated for disability **ramps** occupy a significant portion of the outdoor spaces (e.g. Al Qadesiah Secondary School – Ein Al Basha).
- The new schools' designs do not provide adequate **book storage** space to accommodate for all the ministry textbooks received annually for all students in the school.
- The size of the school's **main entrance** is tight to accommodate for the capacity of students' entering the school, especially in the morning assembly when they all enter at the same time.
- Schools' **entrances** are too exposed to the outside with no intermediate space that can provide **air-lock** to maintain the school temperature.
- Most schools have locked fire exit doors to have better control over students' access in and out of the school which compromises safety.
- Many of the **gardening areas** in outdoor facilities are either not accessible or totally isolated from the overall outdoor spaces making their use and maintenance challenging. For example, Hetteen School.

- **Science labs** do not have a storage area that can be used to store toxic material or other scientific equipment. This was evident in Al Qadesiah Secondary School – Ein Al Basha, Um Qusair and Saed Bin Abi Waqas Schools.
- All schools do not have storage rooms for **vocational** and **art labs**.
- The size, design and location of **canteens** in schools do not accommodate for the number of students who share the same recess time (with the exception of 11th and 12th graders).
- The size of **teachers' lockers** is inadequate in accommodating their belongings.

f. Overall Quality and Constructability of the Design Documents

Based on our assessment and the feedback we received from the construction contractors, the quality and constructability of the design documents are of a good quality. The technical drawings and design documents were comprehensive and of good standards. Construction contractors transformed the design concepts into physical realities, with limited variations.

g. Are the Final School Designs in Line with the Design Concepts?

The school concept was implemented in all designs with no mentionable variations. Integrating the areas mentioned in the Functionality, Reasonableness and Cost section into future designs will further contribute to limiting any deviation from original design concepts.

h. Selection of Material and Systems, Impact on Operation and Maintenance

Selected and used materials and systems for the project are generally durable with reference to high standards and serve the purpose they were selected for. However, and based on site visits, end users' feedback and local factors, the following issues need further attention or re-consideration. (Annex XI)

- Porcelain floor tiles are very difficult to clean and stain easily.
- The indoor paint, which is not suitable for the high volume of student traffic gets dirty easily and is difficult to clean. In addition, the multiple different colors of paint within each school affect future maintenance costs.
- Toilets sink mixers are not practical, easily misused, costly and not readily available in the local market.
- Additional attention should be given to the aluminum window locks and their tightness.
- The wood material used for doors is not durable enough to keep door handles in place, and therefore they get easily detached.
- The plastered sides of the internal staircases need to be prepared to withstand cleaning with water and high student traffic.

The specified and installed electromechanical material in the NS and RS conformed to the high standards in the country. Using high quality systems contribute to reducing operation and maintenance cost; however, the introduction of new systems, such as the CCTV, intruder alarm, fire alarm, PABX, and data network necessitates the need for more advanced and effective training and maintenance. The majority of the visited schools suffered from dysfunctional systems due to the fact that the school principals did not know how to operate them.

- Telephone System: The specification of the PABX in the schools is too advanced for the needs of schools. Due to the complexity of operating such a system, it is not yet programmed in the majority of the visited schools.
- Data Systems: The data system is well designed, but the network needs programming in some schools. This may be due to the fact that these schools are not connected to the internet due to the absence of telephone land lines.

- CCTV System: When computers were available and the program was installed, this system proved to be useful. However, an issue was noted in the schools whereby the monitor screen is located outside the principal's office preventing them from having continuous follow up on school activities.
- Fire Alarm System: The design and specification of the fire alarm system were quite suitable. However, due to misuse and insufficient training, the system was turned off in several NS and RS.
- Security System: The system has proved to be beneficial except for the magnetic contacts on the Fire Exit Doors. These contacts were not efficient as they were already broken in several locations due to misuse. This made the principals switch off the whole system as they do not know how to silence the alarms. The doors should be equipped with contacts that will work in conjunction with the fire alarm system. This way, the doors shall remain closed and would only open in fire alarm incidents.
- Elevators: The specified elevators had their motors housed in a dedicated room on roof, which takes up space and requires relatively high levels of maintenance.
- Lightning Protection System: It has been noticed that the lightning protection system was used as a generic design requirement for all NS. In several locations, this system was unnecessary due to the location of the school (such as Al Madeenah Al-Wardya School).
- Paging System: The currently specified systems in the NS are not programmed properly, preventing the principals from effectively using them. Another feedback received was the fact that principals were unable to control the paging area. Every time they used the pager the whole school was disturbed. Moreover, principals suggested that the system should be located in a place overlooking the outdoor assembly area, since the current systems do not reach that area.

3. School Construction

a. Construction Contracting Approach and Procedures

The procurement approach was based on a tendering procedure by the MoPWH and based on the Tender Documents prepared for each phase and its corresponding package. The conditions of the contract were based on FIDIC 1987, which is an old version of the FIDIC, in addition to particulars prepared for the JSP. The observations from both reviewing the documents and the information gained during the interviews were the following:

- The front end documents are well prepared and address all contractual obligations for both the Employer and the Construction Contractors.
- The documents are based on an unfamiliar FIDIC version (FIDIC 1987) to the local market causing some difficulties and contributing to many disputes during the construction phase. Construction contractors did not account and/or price for the risks associated with such contracts. For example some construction contractors were surprised to know that the circulars in regards weather conditions' time extensions issued by MoPWH were not included; and that only selected materials would be compensated for- if their market cost changes.
- All tenders were prepared using the same document with minor changes to the following parameters:
 - Amount of tender security
 - Time for substantial completion
 - Time to complete the work including Punch List Items
 - Amount of liquidated damages
 - Minimum amount of Interim Payment Certificate
- The amount of liquidated damages per day is on the high side and could negatively affect the tender value. The same is applied to the limit of liquidated damages, which is 15%. Those increased figures will most likely be embedded into the tendered value by the bidders causing an increase to the tender prices. Liquidated damages were not applied in many of the tenders although considerable unjustified delays took place.

- Clause 48.2 in the Conditions of Particular Application related to the Handing Over of Sections or Parts was deleted, although this clause would have facilitated the process of handing over of individual schools as soon as their construction was completed.
- Clause 52.3 in the Conditions of Particular Application related to Instructions for Variations, in particular those that are in excess of USD 100,000, need USAID's prior approval. Although it is normal for capping the amount of variations that need the Employer's approval, it is evident from the interviews that the Variation process was complicated and did not follow the procedure as stipulated in the conditions of the contracts, in addition to a considerable amount of open variations to date. This process has negatively affected the construction contractors and should be addressed in future contracts.

b. Timeliness of Implementation

During the interviews it was stated that there were delays in the construction completion of schools and in the tendering of the FFE items. The majority of the interviewed construction contractors (both local and international) stated that requests for time extensions are currently under discussion and review with MoPWH/MOE. The below list represents some of the most repeatedly stated reasons for the delays as collected from the interviews and meetings:

- Delays of receiving GAM permits caused substantial delays, since the work cannot commence on site without this document. It was noted that work was scheduled to commence 30 days from the issuance of notice. Some construction contractors claimed for additional time and cost due to this delay.
- Delays in issuing 'Occupancy Permits' caused delays in connecting the schools to the water, electricity, telephone and sewage grids, preventing full testing of some electrical and mechanical systems.
- Delay in completing the A&E designs which were supposed to be completed in year two of the project, however were only completed in year six.
- In some cases there were construction delays due to the authority approvals process in issuing the required permits.
- Some construction contractors reported experiencing delays from the Engineer when responding to their queries, RFI's, material approvals, design issues, and variation order.
- Preparation of the required documents such as workshop drawings, and quotations was delayed
- Delays in approval, procurement and need to re-tender of FFE items.
- The custom and tax exemptions process is lengthy causing delays in implementation.
- International construction contractors take longer than the local ones to secure construction permits, approvals, registration and other required documents according to the MOE meetings.

Based on the Engineer's cost reports, the below tables present the delays in both construction of the sampled NS and RS.

Table 5.1 Construction Delays for the NS

Phase	Pkg	School	Construction Contractor	Days for Substantial Completion	Actual Days for Substantial Completion	Approved Days Extension	Unjustified Delay (days)	% Of Unjustified Delays
I	1	10th Area Secondary Co Girls	International	480	597	72	45	8.2%
II	2	Um Qusair Basic Boys	Local	580	644	64	0	0.0%
II	3	Othman Bin Affan Basic Boys	Local	490	629	134	5	0.8%
II	3	Maymoonah Bint Al Hareth Girls	Local	490	629	134	5	0.8%
II	1	Saed Bin Abi Waqas Al Hashmee Shamalee	Local	365	600	233	2	0.3%
II	5	Al Qadesiah Sec. Co. Girls	Local	580	665	85	0	0.0%
IV*	1	Hetteen Basic Co. Girls	International	365	523	32	126	31.7%
IV*	2	Um As Summaq Secondary Girls	International	365	499	34	100	25.1%
IV*	2	Aj Jofeh Secondary Boys School	International	365	510	16	129	33.9%
IV*	3	Al Madeenah Al-Wardyia Basic Co. Girls	International	365	504	12	127	33.7%

* Delays for Phase IV construction projects are still under review and discussion.

Table 5.2 Construction Delays for the RS

Phase	School	Construction Contractor	Days for Substantial Completion	Actual Days for Substantial Completion	Approved Days Extension	Unjustified Delay (days)	% Of Unjustified Delays	
I	That As-Sawari Secondary Comprehensive Girls	International	180	358	27	151	72.9%	
I	Ar-Rashediah Secondary Comprehensive Girls	International	180	358	0	178	98.9%	
III	Ain Jalout Secondary Girls	Local	120	278	102	56	25.2%	
III	Um Habibah Basic Co. Girls	Local	150	360	110	100	38.5%	
III	Iben Hisham Basic	Local	180	488	276	32	7.0%	
V	Salhiet Al Abed Basic Boys School	Local	On-going Construction					

c. Cost Reasonableness

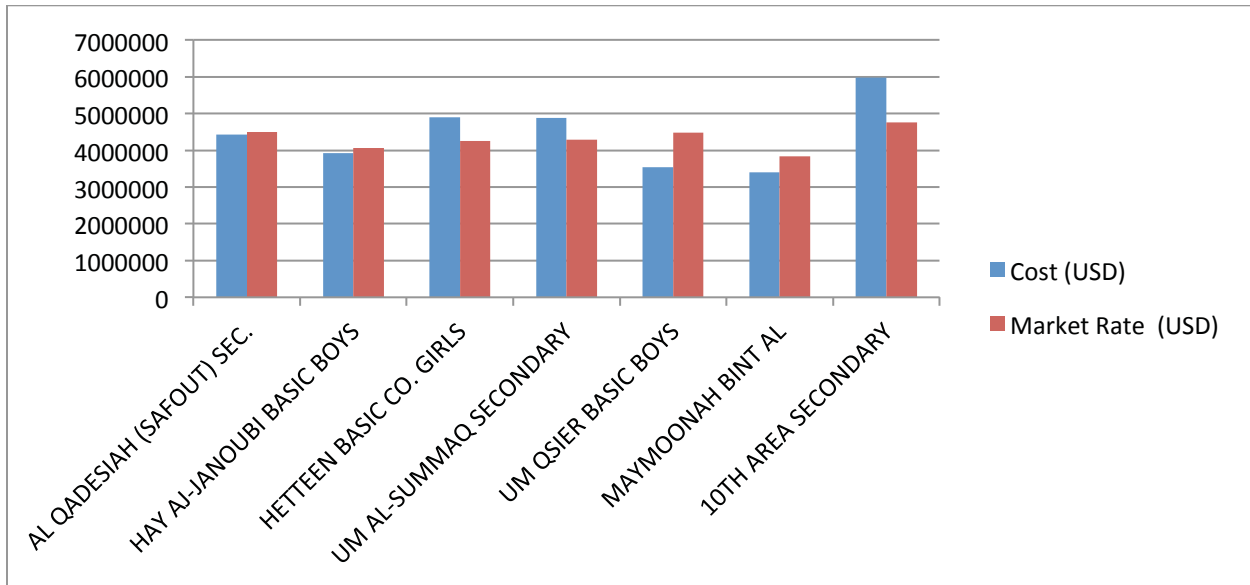
The evaluation area of 'Cost Reasonableness' was addressed on two levels. The first level focused on evaluating the cost of school construction based on market rates at the time of tendering. The second level, focused on comparing the construction cost of an NS Othman Bin Affan School in Irbid, with Al Zarqa'a Al Hadaeqyeh School constructed directly through the MOE.

Level One: Construction Cost of JSP Schools versus Market Price

To analyze the cost reasonableness of the school construction the evaluation team evaluated the priced BOQs as per the market rates during the time of tender. The comparison identifies that the cost of this project was reasonable and within market rates at the time of tendering when using local construction contractors, however the cost is increased by 15-25% when using international construction contractors

(Annex XII). This increase is within the normal range; however it can be avoided since competent local construction contractors are available in the market. Nevertheless, it should be noted that these local construction contractors should be selected based on a rigorous competent-based selection criteria to ensure effective completion of the project.

Figure 2 Market Price versus Actual School Construction Cost



In the early stages of the project, as per regulations of USAID, any contract that exceeded the amount of **USD 5 million** was only open for international construction contractors, however, this was later waived to allow competent local construction contractors to bid for the works and as a result reduced the cost.

The variations that occurred due to design changes were minimal in value and, in most cases, decreased the total value of the project. (Annex XIII)

Level Two: Construction Cost of JSP Schools versus Other MOE Schools

After comparing the BOQ's of the NS Othman Bin Affan School in Irbid, with Al Zarqa'a Al Hadaeqyeh School constructed directly through the MOE, it was concluded that the NS cost was approximately double the cost of the MOE School. Some of the reasons behind the differences in cost are listed below:

- The NS was constructed using high quality materials and therefore of higher prices in comparison to Al Zarqa'a Al Hadaeqyeh School (MOE funding) contributing to an increase of at least USD 35/m².
- All schools were constructed by local construction contractors. However, the NS was constructed by a Grade 1 construction contractor, while the remaining two schools were constructed by Grade 3 construction contractors. This explains why Al Zarqa'a Al Hadaeqyeh School (MOE funding) unit rates were on the low side in comparison to the JSP and as a consequence of lower overheads and profit.
- The NS implemented many electrical and mechanical systems that are not available in the Al Zarqa'a Al Hadaeqyeh School (MOE funding), contributing to an increase of at least USD 55/m² such as CCTV, alarm, fire alarm and heating systems.
- The NS design included an elevator to accommodate for the disabled, which added USD 15/m².
- The NS design is larger in size. The increase in size was from the average MOE classroom area of 1.25 to 1.4 (sm²/student) contributing to an approximate increase of 12% on the overall cost.
- The cost difference between the NS and the Al Zarqa'a Al Hadaeqyeh School (MOE funding) in terms of amount of concrete is almost nil. However, the steel reinforcement in the NS is approximately 50% more, contributing to an increase in cost of US \$56/m². The remaining difference is attributed to the difference in unit rates of Concrete works, which seem to be priced on the very low side in MOE School. Table 6 provides comparisons of some of the structural works between the schools.

The tables below represent the cost of construction for each of the schools and the comparison in structural works. See Annex XIV for more details.

Table 6 - Cost Comparison between JSP and MOE Funded Schools

	Name	Hay Al Janoubi basic Boys School (USAID funding/JSP Schools)		Al Zarqa'a Al Hadaeqyeh (MOE funding)	
	Location	Irbid		Al-Zarqa	
	BUA	5230m2		4261m2	
	Area of external asphalted land	380m2		6200m2	
Item No.	Description	Amount/ (USD)	USD/m2	Amount/ (USD)	USD/m2
1	Preliminaries			6,500	2
2	Site Construction	444,327	85	302,444	71
3	Concrete Works	1,191,377	228	437,471	103
4	Masonry Works	104,390	20	100,890	24
5	Metal Fabrication	72,721	14	90,579	17
6	Wood & Plastics	70,655	14	110,311	26
7	Thermal and Moisture Protection	139,330	27	39,276	9
8	Doors and Windows	246,310	47	94,032	22
9	Finishes	496,945	95	252,048	59
10	Specialties	30,020	6	13,879	3
11	Special Construction	48,600	9	14,479	3
12	Conveying system	80,000	15		
13	Mechanical Works	429,175	82	76,490	18
13	Electrical Works	428,517	82	95,483	22
	Total Cost	3,782,367	723	1,633,881	380

Table 7- Comparison of Constructional Works between JSP and MOE Funded Schools

Description	Hay Al Janoubi basic Boys School (USAID funding)	Al Zarqa'a Al Hadaeqyeh (MOE funding)
Reinforced Concrete ratio/school area	0.64	0.60
Steel Reinforcement / cubic meter of reinforced concrete	127	85
Concrete Grade	Grade 17.5 – Blinding Grade 30 –sub structure Grade 30 – Superstructure works	Grade 15 – Blinding Grade 20 – slab on grade Grade 30 – sub structure Grade 35 – Superstructure works

d. Obstacles and Challenges Faced By the Construction Contractors

During the interviews with the construction contractors it was evident that the following obstacles and challenges affected their work:

- Delay in commencement of works after notice to proceed.

- As mentioned earlier, delays in issuing ‘Occupancy Permits’ caused delays in testing some Electrical and Mechanical systems, which affected other works or the operation of the school.
- Response from the Engineer’s site engineers was at times slow and some urgent matters could not be resolved on site.
- Long process to get the custom and tax exemptions.
- In some cases delays in approving the shop drawings and processing variation notices and approvals was a lengthy.
- Some specified brands did not have local agents, such as bathroom fixtures.
- Some spare parts are available locally, but were expensive.

e. Responsiveness of the Construction Contractors during the Defects Liability Period

The Appendix to Tender called for 30 days to complete the punch (snag) list of items. It was noted through interviews with the Engineer that the construction contractors did not complete the full punch list during the 30 day contractual duration. The MoPWH visited the schools three times to complete the de-snagging process and issued the Handing-Over Certificate.

During the Defects Liability Period, two types of damages were present. The first was due to construction contractor workmanship. The second was due to the misuse of end users. Most construction contractors did visit the schools and attended to the first type of damages, while they left the replacement of broken items till the end of the Defects Liability Period.

Additionally, it was noted that the process for maintenance was lengthy. Maintenance forms had to be filled by the schools and then sent to the FDs. The FDs forwarded the form to the various departments of the MOE who then sent them to the MoPWH. After, the MoPWH would contact the construction contractor accordingly. Thereafter, a site visit would be conducted to evaluate the damages and finally the construction contractor was notified. In some cases this process took approximately between two to three months.

f. Quality of the Final Products

It was evident that the specified and installed materials were of high standards. The specified materials were intended to ensure safe and efficient operation and unnecessary continuous maintenance. However, an implementation problem is clear in some construction areas.

The following is a highlight of the quality issues that should and can be avoided in future construction:

- Finishing at most of the junctions is poor i.e. tiling around doorframes, plastering at exposed edges, stone coping cutting and alignment.
- Many sampled schools had major problems with insulation. The architectural details and specification for roof insulation is sufficient however, leakage problems from roofs in many schools were evident (e.g. Um Summaq School). The implementation of this part of the construction should be supervised with high levels of attention, and tests should be carried out to ensure water tightness prior to occupying schools.
- Exterior spaces’ slopes have problems and do not drain towards the grilles or manholes. (E.g. Hetteen School).
- Final finish of interlocking tiles is generally poor and not leveled which creates drainage problems.
- Metal doors and external handrails rust easily.

4. School Occupancy and Utilization (according to the users)

The findings are based on data collected directly from the students, teachers, and principals’ questionnaires and insights collected from the regional workshops. This evaluation area covers twelve sub-evaluation areas:

1. General Perceptions
2. Furniture and Equipment
3. School Layout, Spaces and Functions
4. Safety
5. Technology and New Educational Environment
6. People with Disabilities
7. Electrical and Mechanical Systems
8. Sense of Ownership
9. Materials and Finishing
10. Operation and Maintenance
11. Outdoor Spaces
12. Things that Worked Well and Things that Did Not Work Well

The end user questionnaires explored each sub-evaluation area with a series of indicators. As such, the presentation of findings below begins with the overall *average agreement* among each end user in the sub-evaluation areas. The average level of *agreement* was calculated by combining ‘Strongly agree’ and ‘Agree’ together and the average level of *disagreement* was calculated by combining ‘Strongly Disagree’ and ‘Disagree’.

Under each sub-evaluation area, findings are presented only for indicators, which received an agreement level of greater than or equal to 75% by each of the end users and followed by the level of disagreement that is greater than or equal to 25% according to each end user. In cases where the evaluation team found indicators that are valuable for discussion, but did not meet the $\geq 75\%$ level of agreement and/or the $\geq 25\%$ level of disagreement, these indicators are covered under the heading “Additional Indicators.”

The table below summarizes the levels of agreement in each applicable evaluation area for the NS and RS school community members. The sub-evaluation areas in the NS, where school community members agreed over 75% included: general perception, electrical and mechanical systems; outdoor spaces; and safety.

Table 8 - Summary of the Average Agreement for Sub-evaluation Areas for NS and RS

Evaluation Areas	New Schools			Rehabilitation Schools		
	Students	Teachers	Principals	Students	Teachers	Principals
General Perception	96%	91%	100%	*	*	*
Layout Spaces & Function	74%	71%	73%	63%	64%	86%
Technology & New Environment	56%	81%	96%	39%	69%	50%
Electrical & Mechanical	*	*	88%	*	*	94%
Materials & Finishing	*	*	63%	*	*	94%
Outdoor Spaces	87%	80%	80%	*	*	*
Furniture & Equipment	79%	74%	71%	62%	67%	86%
Safety	87%	76%	75%	65%	66%	100%
People with Disabilities	*	*	90%	*	*	*
Sense of Ownership	74%	85%	100%	*	*	*
Operation and Maintenance	*	*	45%	*	*	*

*Sub-evaluation area not applicable

For the detailed table for all indicators, refer to Annex XV.

a. General Perception of the New Schools¹⁵

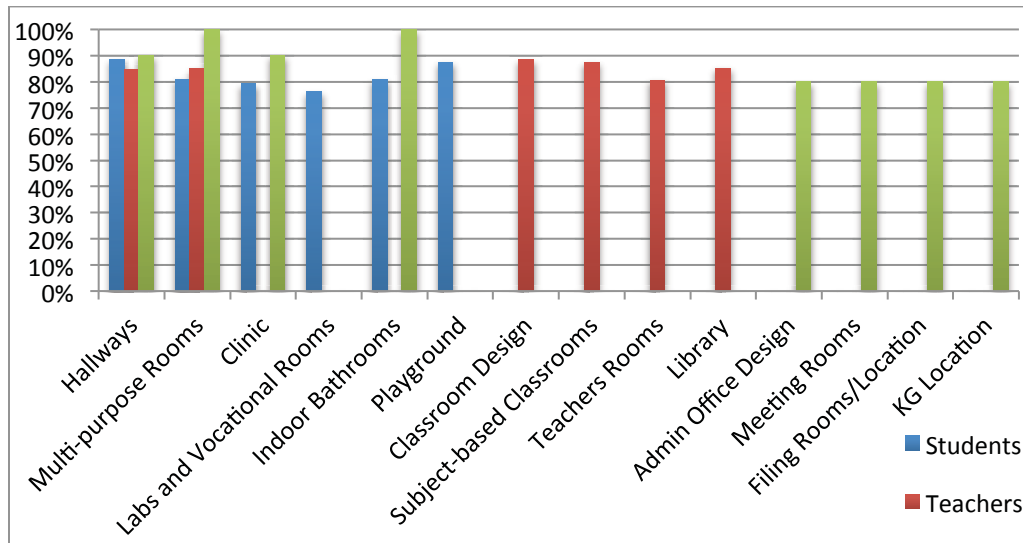
Students, teachers and principals from the NS had a “positive perception of the school” with agreement responses ranging between 96%, 91%, and 100% respectively. During the regional workshops, they all spoke highly of their schools and how the new infrastructure allowed for a more active-learning environment.

b. School Layout, Spaces and Functions

The school community expressed their satisfaction with the school layout, spaces and functions as follows; NS students, teachers and principals by 74%, 71%, 73% respectively; and RS students, teachers and principals by 63%, 64%, and 86% respectively.

≥ 75% level of agreement: In the NS, students, teachers and principals found that the wide **hallways/corridors** made movement between classrooms fluid and enabled teachers to display students’ work. They also found that the **multi-purpose rooms** allowed for more school activities to take place. Principals and students expressed high levels of agreement with how the school **clinic** and indoor **bathrooms** catered for their needs. Students expressed their satisfaction with the **outdoor playgrounds**, which allowed for more activities and the **vocational and science labs**, which enhanced their learning. The teachers expressed their satisfaction with the design of **subject-based classrooms**, which improved the classroom environment. They were also satisfied with the **teachers’ rooms**, which enhanced communication between the teachers as well as the **library**, which enhanced the teaching-learning process. As for the principals, they found that the design of their **administration office**, availability of **meeting rooms**, and location of **filing rooms** supported the nature of their work. Finally, principals were satisfied with the **KG** in terms of its location and proximity to the play area, bathroom and kitchen. The figure below illustrates where there are levels of agreement among each NS school community member for various indicators related to school layout, spaces and functions.

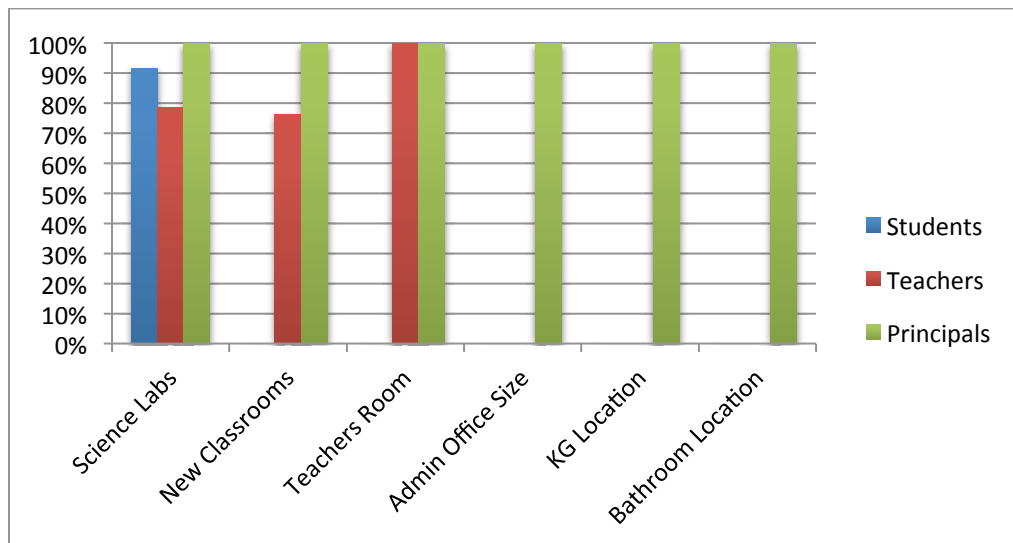
Figure 3.1 - NS Agreement for School Layout, Spaces and Functions



¹⁵ Sub-evaluation domain not applicable for RS

In the RS, students, teachers and principals were satisfied with the availability and size of the **science labs**. The principals and teacher expressed satisfaction with the new **classrooms**, which improved the teaching-learning process and the space of the **teachers' room**. As for the principals, they found that the space of the **administration office** and the **location of the KGs and bathroom** to be suitable for the intended uses. The figure below illustrates where there are levels of agreement among each RS school community member for various indicators related to school layout, spaces and functions.

Figure 3.2 - RS Agreement for School Layout, Spaces and Functions



≥ 25% level of disagreement: NS students and principals expressed dissatisfaction with the inaccessible location of the school **canteen**. Students in the regional workshops explained that it gets extremely crowded around the canteen since all students share the same recess time (with the exception of 11th and 12th graders). Principals and teachers did not agree that **planning rooms** enriched the teaching-learning process. In the workshop, they explained that planning usually took place in the Teachers Room rather than planning room. Principals also indicated that they would have preferred that the **administration office** to be located at the forefront of the school, so that parents and visitors encounter their office first. Although not a core function of the NS, the size of the nursery in female schools received high levels of disagreement from principals because it was often inadequate for the needed capacity. Principals also stated that the **stationary room** and the **book storage** were small in size. They explained further in the workshops that additional space was needed to accommodate all the MOE text books the schools receive bi-annually.

Both RS teachers and principals found that the new **computer labs** were too small in size and were not functional because computers were not delivered; this was the case for Phase 3 schools for almost two years. This was the case in some schools Students found that the new **bathrooms** were inaccessible and clarified in the questionnaire's comment box that the odor of bathrooms was quite strong and due to misuse often clogged, which prompted teachers and principals to lock them. The teachers also disagreed that the new **classrooms** enabled them to implement diverse educational activities. Principals disagreed that the location of the new administration office helped them monitor the school.

Additional Indicators:

It is worth mentioning that, in the workshops, NS students elaborated on **library** utilization by stating that it was not fully activated by teachers and there were no books in it. NS students also added that the **resource areas** were not activated. Meanwhile NS principals believed that the **resource areas** did foster educational activities. The resource areas are designed and constructed to serve a new instructional approach, where students are given the freedom to enhance their sense of ownership towards their learning process. The resource areas have not been fully utilized so far, because this paradigm shift in the instructional approach is still underway, and it did not fully materialize yet.

c. Technology and the New Educational Environment

The school community expressed their satisfaction with the technology and the new educational environment available as follows; NS students, teachers and principals by 56%, 81%, 96% respectively; and RS students, teachers and principals by 39%, 69% and 50.0% respectively. (Note: None of the RS indicators reached the agreement or disagreement threshold).

≥ 75% level of agreement: NS students and teachers expressed satisfaction with the **interactive white boards** as they enhanced the learning environment by making the lessons fun and exciting. Teachers expressed satisfaction with having their own **computers, library computers** and **Data Show** equipment in classrooms because they facilitated the preparation for and implementation of educational activities. Principals expressed satisfaction with the availability of **diverse technology** in their schools, especially **computers** in their offices, **internal and external announcement systems** and **surveillance cameras**.

≥ 25% level of disagreement: The only disagreement was expressed by the NS students who did not find the Internet to be helpful in completing their tasks because of its lack of availability. Schools in Phase IV have not yet received IT equipment in addition to the lack of connectivity in most of the NS schools.

Additional Indicators: NS students responded 'Not Applicable' for availability of student laptop and internet access.

d. Electrical and Mechanical Systems

The principals expressed their satisfaction with the electrical and mechanical systems as follows, 88% NS and 94% RS.

≥75% level of agreement: Both NS and RS principals expressed their satisfaction with the ventilation and lighting systems in their schools. The NS principals expressed satisfaction with the presence of **fire** and **heating systems** and distribution of **electrical outlets** throughout the school.

≥25% level of agreement: NS principals, expressed dissatisfaction with the emergency doors due to misuse and defects. On the other hand, RS principals expressed dissatisfaction with the electrical floor boxes in computer labs which made cleaning with water difficult.

e. Material and Finishing

The principals expressed their satisfaction with the construction materials and finishing as follows 63% NS and 94% RS.

≥75% level of agreement: All NS principals found the **height of classroom windows** suitable for the age of students and that the **thickness of windows** helped to offer a safer school environment. They also found that the **doors** in the school were suitable for students' use.

≥25% level of disagreement: NS principals expressed high levels of dissatisfaction with the type of tiles

used for **indoor flooring** and **paint** used in the schools, since they both get dirty easily, and are very difficult to clean. They added that paint peels off easily due to humidity. They expressed dissatisfaction with the **bathroom equipment**, which students are not accustomed to using, such as spray hoses and sink mixers. They also found that **classroom doors** were not practical due to poor durability.

f. Outdoor Spaces¹⁶

NS students, teachers and principals expressed their satisfaction with the outdoor facilities available in their schools by 87%, 80% and 80% respectively.

≥75% level of agreement: Students, teachers and principals found that **outdoor facilities** contributed to additional implementation of a variety of educational activities. Principals expressed satisfaction with the **KG play area**, space of the **car parks** and the **outdoor gates**.

≥25% level of disagreement: Principals expressed dissatisfaction with the **location of the gardening areas**, which were inaccessible in some schools.

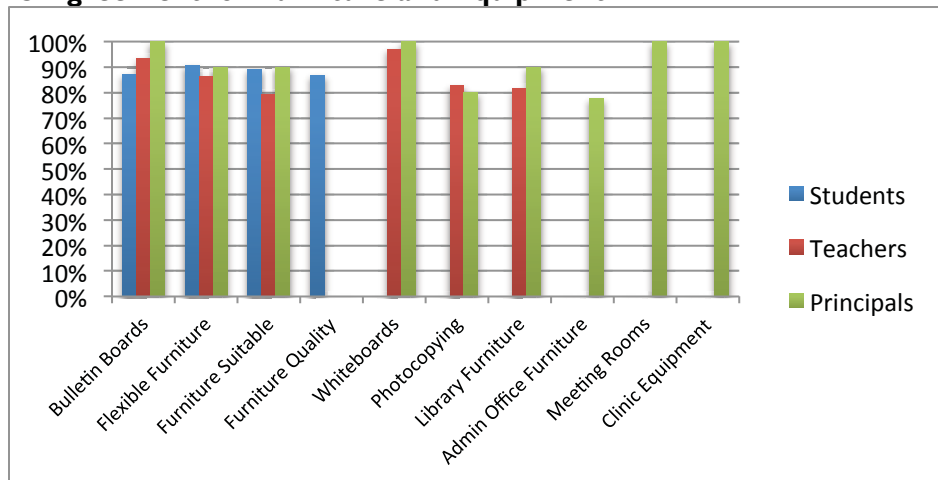
Additional Comments: A frequent comment raised in the workshop was the size of the morning assembly area outdoors, which end users said was too small to accommodate for all students at once.

g. Furniture and Equipment

The school community expressed their satisfaction with the furniture and equipment as follows; NS students, teachers and principals by 79%, 74% and 71% respectively; and RS students, teachers and principals by 62%, 67% and 86% respectively.

≥ 75% level of agreement: All NS school community members were satisfied with how the **bulletin boards** enhanced the educational environment, and how the **furniture** was flexible and suitable for students' age. Students also expressed satisfaction with the quality of the furniture. Teachers and principals found that **whiteboards** contributed to healthier classrooms; **library furniture** served the learning environment; **photocopying** machine facilitated their work. The figure below illustrates the levels of agreement for the above-mentioned indicators.

Figure 4 - NS Agreement for Furniture and Equipment



¹⁶Sub-evaluation domain not applicable for RS

As for RS, both teachers and principals they found that the **furniture** in the teachers' rooms were of good quality and helped them carry out their tasks. Principals found that all the furniture was suitable for students' age and for the KG.

≥ 25% level of disagreement: Although RS teachers and principals found teachers room furniture high quality, NS teachers did not agree. In addition NS principals found that the furniture in the resource area did not contribute to diversifying the teaching methods. They were also dissatisfied with the number of cupboards in the book storage room and the number of cribs available in the nurseries in female schools.

RS teachers stated that the furniture in the classrooms and science labs did not contribute to diversifying educational activities.

Additional Indicators:

NS teachers expressed that vocational, art, music and science lab equipment had not been delivered, as such, these items were not applicable.

h. Safety

End users expressed their satisfaction with safety in their schools as follows; NS students, teachers and principals by 87%, 76%, and 75% respectively; and RS students, teachers and principals by 57%, 66%, and 100% respectively.

≥ 75% level of agreement: Students expressed satisfaction with **safety of lab furniture** while teachers were satisfied with classroom furniture. Student and teacher found the **classroom furniture** safe to use. As discussed earlier, principals found the **fire systems, thickness of windows, and KG location** as each contributing to overall safety in the school.

In the RS, students found that **science lab furniture** was safe and principals found the KG location provided a safe environment.

≥ 25% level of disagreement: NS principals were not satisfied with the **height of the school surrounding walls**. They explained during the regional workshops that students can climb over them, and they did not provide the necessary privacy for female schools.

Additional Indicators: NS teachers expressed that there was a **lack of storage space for toxic chemicals** used for science experiments and that the electrical extensions in the computer labs were not safe for students.

i. People with Disabilities¹⁷

NS principals were satisfied with features that made their school more accessible for school community members with disabilities, namely **widened doorways, availability of ramps and elevators**.

j. Sense of Ownership¹⁸

The NS students, teachers and principals agreed 74%, 85%, and 100% respectively that they had enhanced feelings of ownership towards their school.

¹⁷ Sub-Evaluation Area not Applicable for RS

¹⁸ Sub-Evaluation Area not applicable for RS

Students said that having **lockers** to store their books contributed to their feeling of ownership in their school. On the other hand teachers and principals felt this way primarily due to the **school's overall design**. In addition, teachers found that their furniture enhanced their sense of ownership.

k. Operation and Maintenance¹⁹

Overall NS principals expressed their satisfaction with operation and maintenance at 45%.

≥ 75% level of agreement: Principals found the suppliers' ability to replace damaged furniture on time.

≥ 25% level of disagreement: Principals expressed concern with the **maintenance processes** and **cost**. During the regional workshops, all principals agreed that the maintenance procedure is long and often ineffective, because of **many stakeholders involved** (i.e. School, FD, MOE, MoPWH and Engineers and construction contractors). As for cost, they explained that paying for photocopying machine and printer ink, interactive whiteboard markers and the diesel expenses were beyond their budget.

l. Things that worked well and things that did not work well

The aspects concerning the NS are covered above and below are additional findings for the RS.

Occupancy and utilization of RS extensions were overall positive with **increased access to educational spaces** that offered opportunities to employ new technology, equipment and systems. Even in cases where utilization deviated from the original plan, principals devised creative ways to leverage the newly available space. The innovation lab at That As-Sawari Secondary Comprehensive Female School met the needs of the principal and school community users even though the space was intended for classroom instruction and counseling.

The RS challenges primarily stemmed from both delays in school construction and delays in receiving technology equipment. Schools have been waiting for computers with the exception of That As-Sawari Secondary Comprehensive Female School in Aqaba, which received their computer equipment first. As for construction challenges, principals expressed concern about construction proposals that would occur during the school semesters, because construction sites were not safe for children and the noise was also considered a classroom disruption.

5. Community Involvement and Impact²⁰

The findings below on the community involvement and JSP impact are based on data extracted from regional workshops, principal interviews, meetings with school community members and CMP and documents review.

a. Community involvement during the school planning stage

One of the existing challenges in Jordan's educational system is the limited level of involvement of the community within schools in their neighborhoods. The JSP presented a new concept of 'community schools' which offered an infrastructure that caters for the needs of community members and created new roles for them within the schools. Through various insights from stakeholders and meetings with local community members, their involvement in the planning stage included three workshops conducted by the Engineer in the early stages of the project. One was focused on retrieving insights and feedback

¹⁹ Sub-Evaluation Area not applicable for RS

²⁰ Sub-Evaluation Area not applicable for RS

on school design, and the remaining two were focused on environmental scoping. Both CMP and community members from five NS confirmed that through these three workshops community members were familiarized with the new school designs and their requests, opinions and concerns were collected. On the other hand, the community members representing the remaining five NS schools stated that they were not involved in the planning or design stages. As such, although efforts were made to involve the community, it did not cover all geographical areas, and therefore in many cases community members were not involved in the planning phase.

b. Community satisfaction with the new schools' role and functionality of community spaces

Community members expressed their satisfaction with the role of the NS and the positive impact on their community where the evaluation team identified three primary benefits:

1. Increased access to quality educational opportunities: Community members genuinely expressed that the NS was an exceptional opportunity for improving the education of their children. In addition, the local community members agreed that the quality of NS facilities surpassed neighboring private school facilities. This newfound pride in the JSP schools ignited an increased involvement in students' educational journey. Community members believe that the combination of the internal and external school supportive environment improves students' academic achievement.
2. Mutual Reciprocal Relationship: The NS also triggered a mutually beneficial relationship between the school and the local community. Community members became more active and involved in school activities. They felt that the presence of the NS and their involvement in it contributed to the well being of students in their community, which in turn enhanced the quality of their community as a whole. Motivated by pride in the NS and a sense of ownership towards it, community members organized and participated in activities that would help maintain the newly constructed facilities, such as fundraisers, voluntary clean up events and teaching campaigns for school promotion/awareness events.
3. Access to School Facilities: Community members generally found satisfaction with being able to access school facilities for their own recreational use. However, there was an inability to cluster all community facilities on the ground floor in some schools due to limitations posed by the size and the topography of the construction site. These limitations, in turn, resulted in utilization issues. These issues existed in schools such as Al Madeenah Al-Wardya School in which the multipurpose room was located on the 2nd floor and the library on the 1st floor amid classrooms; and in Al Qadesiah Secondary School for Girls and Saed Bin Abi Waqas in which the library was located on the 1st and 2nd floor respectively. Inability to balance both the community utilization and students' utilization of school facilities in this manner created some concerns for principals and community members alike. Having these facilities on different levels created some issues that prevented principals from encouraging the community to utilize these facilities. These issues include the need for regular follow-up from a staff member on community members' utilization due to custodial issues. The second issue is the location of the community facilities amid classrooms limiting their use to afterschool hours.

6. Gender Impact

a. Determine how the project addressed gender issues during its implementation.

The evaluation team found that the JSP was gender conscious. This was reflected on two levels: gender equality and gender sensitivity. Since gender equality is the ‘result of the absence of discrimination on the basis of a person's sex in opportunities and the allocation of resources or benefits or in access to services’ and gender sensitivity ‘encompasses the ability to acknowledge and highlight existing gender differences, issues and inequalities and incorporate these into strategies and actions²¹’ reaching a balance between both of these levels in a project this size is a challenge. There were both successful undertakings and areas in which additional attention need to be considered to ensure that this balance is achieved in similar future interventions.

In terms of gender equality, the JSP succeeded in creating better educational opportunities for both genders and with no bias in terms of providing similar quality, quantity and diversity of furniture, equipment and resources for both male and female schools.

Although Jordan has eliminated the gender gap in education enrollment, where primary gross enrollment for both females and males is nearly all-inclusive; the latest statistics show that in 2009 there was a higher enrollment rate of females than males in primary and secondary education by 4.6%²². These could be reasons why more NS schools were built for female students, 64% of the NS were female schools, while the remaining 36% were male. As for the RS, 60% were female schools while 40% were male. Limited data prevented the evaluation team from further investigating the reason behind this distribution of schools.

In meetings with FDs it was pointed out that in some cases the community tried to exert pressure on them to change the gender of the school as a result of their bias towards the male gender. For example, in Ajloun the community felt that the school should be transferred into a male school instead of a female one. Nevertheless, the MOE/FD did not give in and the NS in Ajloun remains to be a female school.

As for gender-sensitivity, it was reflected in some areas of the school designs to accommodate for existing gender differences and needs such as in terms of the availability of nurseries for female teachers in female schools. This was further confirmed by the NS principals where 77% of them agreed that JSP made gender sensitive decisions in its implementation. Most principals also supported the gender considerations made for guest bathrooms to accommodate for both genders. However, provisions for gender appropriate bathrooms should have been more evident in grades one to three in mixed-gender schools. The current NS model has a shared bathroom for boys and girls in grades one to three, which is traditionally undesirable. Parents in the workshops echoed this concern as well.

Based on the feedback received from end-users, gender-sensitivity in terms of the design could have been further enhanced by reconsidering the height of surrounding walls (for girls schools, the height should be raised for privacy issues); colors selected for the walls (traditional feminine and masculine colors should be applied); and ensuring that vocational labs are equipped with the appropriate supplies. Accordingly, the MOE expressed the need to revisit the school design model and its flexibility to accommodate for both genders.

²¹ European Commission-Justice-Gender Equality. Retrieved on April 28th, 2013 from: [www. http://ec.europa.eu](http://ec.europa.eu)

²² Jordan Department of Statistics, 2010

The evaluation team finds the recommendations made by the end users in regards to grades one to three bathrooms, the height of surrounding walls, and school paint reasonable. However, further investigation should be made to determine whether the equipment and supplies in vocational classrooms should be gender sensitive or should accommodate to both sexes. Exposing students to both types of equipment and supplies may contribute to nurturing in them new sets of skills and aspirations for future careers. Nevertheless, this must be supported by qualified teachers and a comprehensive curriculum that supports such a learning environment that caters for both genders.

7. Cost and Value

a. Determine whether the cost for this program was reasonable compared to the achieved results

The cost reasonableness of this project in terms of construction was covered in section 'Cost Reasonableness' above. Based on the data collected from end-users' and key stakeholders' insights and viewpoints, there was a consensus that this project was an invaluable and successful endeavor where the achieved results of this project created better educational opportunities for thousands of school community members. They also asserted the importance of replicating this project. The MOE also acknowledged the importance of such replications, however with considerations and adjustments to the school design and project planning which may have an impact on reducing the cost. Section 'Conclusions and Recommendations' of this report offers suggestions on how to reduce the cost of constructing the schools which will still achieve the desired results.

To be able to quantify the achieved results, a more extensive and longitudinal monitoring data is required to assess school utilization and evaluate the impact of the NS and RS on the school community in comparison to the initial financial investment made, which was limited in this evaluation due to the time constraint.

b. Determine what could have been done differently to reduce the cost, but without affecting the quality

Based on site visits and document reviews, below are some suggestions that will either reduce the initial purchasing cost or the operational, and/or maintenance cost in schools without affecting the quality. When applicable, at the end of every recommendation an estimation of the cost-saving value is given.

Table 9 - Suggestions to Reduce Construction Cost

No.	Description	Initial Cost Saving in USD/ School	Running Cost Saving in USD/School /year	Remarks
1	Replace ceramic Matt tiles with Terrazzo tiles	(95,000)		Easier and less costly to maintain and clean and does not require special cleaning equipment
2	Bathroom Fixtures purchased from local agents	(55,000)		Reduces maintenance and replacement cost
3	Replace ironmongery from local agents and brands	(11,500)		Reduces maintenance cost
4	Simpler PABX System	(25,000)		Easier to set up, utilize and maintain
5	Cancel the lightning protection system where not needed	(25,000)		Not all construction sites require a lightning protection system
6	Use an early streamer (pulsar) lightning protection system when needed	(8,500)		
7	Value engineer the irrigation system	(5,000)		
8	Minimize the paint colour schemes in the school			Cost impact may not be huge, however it will reduce the maintenance efforts
9	Use photovoltaic powered outdoor lighting instead of the 250 HIT Flood Lights		(700)	The batteries in the suggested lights can generate electricity during the day and store energy to be used after sunset. These floodlights are capable of providing lighting output for approximately 8 hours after being charged.
10	Replace the closed heating system with an open system	(2,500)		The closed heating system is more costly and needs more maintenance. An open system is more suitable when using radiators. The circulating heating water expands and contracts with the changing temperatures. To accommodate the changing water volume in the system an expansion tank is needed. This expansion tank can simply be an open system consisting of a tank located on the roof, which feeds the system by gravity; rather than a closed system which consists of a closed expansion tank, make up tank, and a pressure pump.
11	Replace electrical water heaters by a thermal solar system with built-in water heater	3000	(900)	Initial cost is higher, however there will be a reduction in the electricity bill
12	Replace the air conditioning system with an inverter type	2,600	30-50% saving on running cost	Initial cost is higher, however there will be a reduction in running cost
13	Introducing a water treatment system	1,000		Higher initial cost, however saves water consumption
14	Use of Machine-Room- Less elevators	(2,500)	(200)	JD 6,000 additional initial cost. A reduction of JD 8,500 when eliminating the room on the roof, plus a reduction in the electricity bill

c. Determine the sustainability of the operation maintenance costs for the Ministry of Education

It is well anticipated that the NS with their size, new advanced electromechanical systems and good quality and thus more expensive furniture and equipment compared to the ones available in the majority of other public schools, will have a consequence on the MOE's operation and maintenance cost.

Both the MOE and the FDs recognize the importance of having such schools with advanced electromechanical systems, furniture and equipment to offer students suitable learning environments, and accommodate for Jordan's education reform agenda and its growing number of students. However, they did express concern that these schools have a sizeable share of the total operation and maintenance cost per FD. As such, they recommended that some details in the project in terms of design may need to be revisited before replicating it in the future. (See Specific Recommendations section below)

The evaluation team identified several features, equipment and supplies that are present in NS, but not in other typical public schools, which can contribute to increasing the operation and maintenance cost of the NS, these include:

- 1- Whiteboards which require whiteboard markers
- 2- Printers which require regular ink refills
- 3- Heating systems to replace portable kerosene heaters
- 4- Air conditioning
- 5- Elevators to accommodate for students with disabilities
- 6- Gymnasium
- 7- Fire alarm systems and emergency doors
- 8- Security systems
- 9- Better quality thus more expensive and diverse collection of furniture

For example, in terms of supplies one NS approximately spends between 120-200 JDs per month on whiteboard markers. These are additional costs on the NS, which are not evident in other public schools that still use chalk and blackboards. Meanwhile, using whiteboards and markers are a step forward in offering students and teachers the necessary healthier learning environment.

As for the electricity consumption, although the MOE and FDs raised concerns about this issue, based on the information collected from the FDs (See Table 7) electricity consumption was within the expected range when considering the size of the NS (Annex XVI).

Below is a comparison of the electricity consumption of nine schools from three different directorates Ajloun, Al Qweismeh, and Aqaba. The electricity bills of three months are presented for one NS and two other public schools from each directorate. It is noted that although in all three cases the highest electricity consuming school is a NS; the consumption was reasonable when factoring in its size. According to Heteen's School principal, the electricity consumption in December 2012 was on the rise, because the school had unpaid bills accumulated from previous months. 10th Area School in Aqaba consumes the highest amount of electricity in comparison to the two other public schools because of the air-conditioning systems in the classrooms and the gymnasium's chiller.

Table 10 – Electricity Bills Comparison for Schools in Ajloun, Al Qweismeh and Aqaba Directorate

AJLOUN FD	Heteen School			Ras Muneef School			Halawa Co Basic School		
	Size 4634 Sqm	# of Students 623	Phase 4 (NS)	Size 1594 sqm	# of Students 278	Type MOE	Size 353 sqm	# of Students 226	Type MOE
	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)
December '12	19,520		3,771	2,765		396	2,432		337
January '13	5,280		831	2,006		261	1,500		171
February '13	3,022		441	1,089		99	412		21
Total	27,822		5,044	5,860		756	4,344		530

AL QWEISMEH FD	Um Qsair Basic School for Boys			Jaber bin Hayan Vocational School for Boys			Um Qsair & Muqablein Secondary School for Girls		
	Size 5910 Sqm	# of Students 829	Phase 2 (NS)	Size 1500 sqm	# of Students 400	Type MOE	Size 3500 sqm	# of Students 1,063	Type MOE
	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)
December '12	6,149		1,027	1,843		242	3,124		476
January '13	6,506		1,092	301		16	4,498		726
February '13	9,300		1,601	2,722		402	5,589		925
Total	21,955		3,720	4,866		660	13,211		2,127

AQABA FD	10th Area School for Girls			That Al Sawari Secondary School for Girls			8th Area Co. Secondary School		
	Size 5265 Sqm	# of Students 1,058	Phase 1 (NS)	Size 3750 Sqm	# of Students 1,100	Phase 1 (RS)	Size 3,726 sqm	# of Students 1,300	Type MOE
	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)	Consumption (KW)		Price (JD)
October' 12	31,360		5,474	8,762		1,459	8,480		1,409
November' 12	18,560		3,205	6,951		1,138	6,440		1,047
December' 12	10,240		1,730	Not Available		Not Available	3,840		586
Total	60,160		10,409	15,713		2,597	18,760		3,042

As for the issue of maintenance, there was limited data available on the maintenance cost since the majority of the evaluation school sample were either still under the warranty period, or did not conduct any significant maintenance tasks so far since they have been in operation for less than 2 years.

Nevertheless, based on the data available for the maintenance conducted in the NS- 10th Area School for Girls, which was constructed in Phase One and in comparison to two other public schools in the same directorate, the amount spent was reasonable for 2012. The NS spent 1100 JDs in 2012 for maintenance on water pipes, fire extinguishers, doorknobs, and painting some parts of the school. Two neighboring schools also spent approximately 1000 JDs in 2012 on the maintenance of water pipes and glass windows (8th Co. Secondary School and That As Sawari Secondary School for Girls).

Nevertheless, the cost of maintenance was also raised by the MOE and FDs. The FDs receive an annual sum to cover all the maintenance arising in all the schools in their directorate. Their concern was that when JSP schools surpass the construction warranty period and based on the heavy usage the replacement and maintenance of the rather expensive and higher quality components will be a financial challenge for them.

The ‘Specific Recommendations’; section of this report offers some suggestions on how the maintenance and operation cost can be reduced.

CONCLUSIONS & RECOMMENDATIONS

High Level Conclusions

The evaluation team concludes that the JSP is a novel project and a significant educational intervention that led to transformational change in the lives of thousands of school community members across Jordan. Based on the results of the participatory evaluation, site visits, and the documents review, the evaluation team gathered ample amount of data confirming the extensive achievements that the JSP succeeded in accomplishing within and beyond its predetermined scope.

This conclusion is based on the fact that the JSP did not only succeed in constructing 27 NS and rehabilitating 32 RS, but also succeeded in mirroring what the GOJ seeks to create in terms of developing the Jordanian human capital. The JSP offered 21st century schools to nurture 21st century students. It succeeded in introducing new physical learning environments that contributed to raising the bar of Jordanian public schools, supporting multiple strategies for educational, extracurricular and community activities. The project created a role-model intervention allowing for improved educational opportunities that contribute to better learning outcomes and better quality of students’ performance across Jordan in some of the most challenged areas. The JSP demonstrated how physical infrastructures can support the development of modern educational attitudes and behaviors that can be adopted by the school community and the MOE.

As such, the evaluation team reached a conclusion that the JSP pioneered in the development of modern school designs equipped with state-of-the-art facilities and systems that collectively enhanced the public school system in Jordan. Key stakeholders also expressed the promising results yielded by the JSP. By raising the bar of schools’ infrastructure and raising the standards of the education systems, JSP has been a catalyst in fueling the demand for and the recognition of the importance of having additional similar JSP-modeled schools.

The evaluation team was rather overwhelmed with comments expressing gratitude, satisfaction, appreciation and calls for additional similar interventions.

“This school is every student’s dream come true.”- Student - 10th Area Secondary Co. Girls School - South Workshop

“I’m happy in this school. I am a decision maker.” - Teacher - 10th Area Secondary Co. Girls School - South Workshop

“All I can say is that I have the longest waiting list in the directorate. I have private school students enrolling in my school.” - Principal - Al Qadesiah Secondary Girls School - Ein Al Basha - Middle Workshop

“Teachers see that we gave them something exceptional, so they want to give back.” - Principal – Maymounah Bint Al Hareth Girls School - North Workshop

“With all confidence and courage I can say that we are real partners of this school.” - Parent - Al Qadesiah Secondary Girls School - Ein Al Basha - Middle Workshop

“I couldn’t believe that this was a public school, the Hilton Hotels are proud to be supporting it.” - Hilton Hotels HR Manager - 10th Area Secondary Co. Girls - South Workshop

“We are very proud of this project and the great strides it achieved in our educational systems.” - MOE

“These schools are an asset to Jordan; they’re an asset for the students, the teachers, and the country as a whole.” - MoPWH

“Students attending this NS are all smiles. When you walk into this school it feels like you are walking into a university, it’s an educational lighthouse, not only on the level of Ain Janna, but on the level of the whole directorate.” - Field Directorate – Ajloun

“At times, sites selected weren’t the ideal locations to build these schools or extensions, but the whole point of the project was to tackle the most challenging areas, in every sense of the word.” - The Engineer

While it was agreed that the JSP proved to be a successful project that had a significant impact on the school communities in which the schools were built and/or rehabilitated, challenges also accompanied its implementation. This was due to the complexity of the project as a whole, which originated from certain embedded factors such as its national coverage in 128 locations across Jordan, multitude of stakeholders, the new-targeted model, and the implementation timeframe.

These embedded factors had an impact on the execution of such a complex project, which was a challenge by itself. This complexity had a number of implications on several aspects of the project including the:

- flow of information among key project stakeholders leading to delays in the construction and delivery of furniture and equipment,
- sense of ownership towards the project,
- identification of specific roles and responsibilities for involved key stakeholders (Memorandum of Understanding (MOU) between the MOE and the USAID was signed in 2009),
- issuing the necessary permits,
- school handing over process,
- schools’ staffing, and
- provision of maintenance procedures.

Another challenge that surfaced was the issue of site supervision. The materials used in the construction were of good quality and high standards, but shortcomings in the final execution were evident in some cases which contributed to decreasing the success of the final product. For example, humidity and water leakage in Um As Summaq School and poor water drainage system in Hetteen School were evident. (Annex VIII).

Since the JSP is a multifaceted project with a multitude of stakeholders and many impacting factors, reaching recommendations for such a project was a dynamic and relatively complicated, yet a very exciting task. The evaluation team made a sincere attempt to be as comprehensive as possible when offering the below action-oriented recommendations. As a result, the below recommendations should

contribute to improving similar future interventions. Both high level and specific recommendations are offered below. The high level recommendations cover areas on the overall level of the management and implementation of the project, while the specific recommendations cover relevant features within the seven areas of the evaluation.

High Level Recommendations:

a. Capacity Building – As an Integral Part of JSP

The size and nature of the JSP introduced key project stakeholders to an advanced new model for public school construction on all levels of planning, procuring, designing, constructing, furnishing and utilization. This novel intervention brought with it new sets of standards, and by default, responsibilities that the key project stakeholders were not necessarily accustomed to or familiar with. Since USAID is a renowned development agency that seeks sustainable solutions, the impact it achieved through the JSP can be further maximized by including an integral capacity building component targeted at developing the capacities of all involved key project stakeholders and implementers. As such, for similar future interventions, the evaluation team recommends that the project incorporates and implements a structured capacity building element that is targeted at three main levels:

- 1- Updating legislations that can support the full utilization of JSP schools, including reviewing procedures and protocols related to JSP
- 2- Capacity of the involved governmental departments
- 3- Capacity of all involved parties and implementers

On the legislations level, the capacity building element should focus on reviewing and adjusting legislations that are needed to accommodate for the new physical infrastructure that brings with it new sets of positions and responsibilities within the school. These newfound positions contribute to better utilization and sustainability of the new infrastructure. Such positions may include a maintenance specialist in the school, an increased number of janitors and guards, and a receptionist. On the level of procedures and protocols, the capacity building element should contribute to further enhancing the collaboration between different entities and upgrading the existing procedures to meet the demands of the JSP. As such, the capacity building element can be focused on supporting the MoPWH in developing criteria and tools to conduct a better selection of technical and financial qualifications of construction contractors.

On the level of departments, the capacity building element should focus on the various involved departments in both the central ministries and the FDs, such as the Building, Maintenance, Planning and Supplies Departments. This may start with ensuring that all departments gain a better understanding on how all components of the project are to rollout and further familiarize them with how to better conduct their roles and contributions towards the JSP.

On the level of individuals, the capacity building element should contribute to developing the capacity of all involved stakeholders in relation to the JSP, including and not limited to the local construction contractors in terms of paper work and procedures.

b. Enhancing the Sense of Belonging and Ownership

The sustainability of the JSP is directly correlated with the degree to which stakeholders and end users have a sense of ownership and belonging towards the NS and the RS. This sense of ownership may be further enhanced by involving key stakeholders more actively, and by supporting end users to accommodate to the new environment. As such, additional investment should be made to increase the

active involvement of the MOE and FDs in the JSP process, and to support the RS school community in further fully utilizing the new facilities available in their schools.

On the MOE level, we recommend that the USAID establishes a cost-sharing approach with in-kind contribution from the MOE where the latter assign a team within the ministry to be fully and solely dedicated to all aspects of the JSP. On the FD level, we recommend that more attention will be made in future planning phases to directly and actively involve them in the full project cycle since they are the supervising end users of the schools. Finally, it was evident in RS that the utilization of the new facilities was limited to the traditional educational approaches. Therefore, supporting the RS school community with programs such as the ERSP and CMP present today in NS, which focus on enhancing their utilization of the new extension, will contribute to increasing their sense of ownership towards the new infrastructure.

c. Planning

Planning is an integral component of a project of this size and complexity. Therefore, it is important to pay additional attention to certain areas in the early planning phase for similar future interventions. Building on the experience and success of the JSP, more attention can be invested in planning for the project through better understanding of the dynamics between key project stakeholders. Moreover, additional effort should be made during frequent intervals in the lifespan of the project to verify whether or not the adopted implementation approach needs any adjustment. The JSP is a process that requires systematic moments of 'reflection' and 'action' to influence and control the nature and the direction of the project's achievements. This will also provide USAID with deeper insights on the implementation dynamics and ways to continuously improve the efficiency of the project.

d. Roles and Responsibilities

For a project such as the JSP that requires very high levels of collaboration between a relatively large number of stakeholders, prompt alignment and identification of roles and responsibilities should be made available from the very beginning of the project. As such, developing a concise document with very clear and agreed upon specific roles and responsibilities will contribute to more effective implementation of the project. This should not be limited to a generic MOU between the MOE and USAID, on the contrary it should be an MOU which includes very detailed roles and responsibilities within all aspects of the project, from the staffing of the school (number of guards, janitors and others) to specific timelines of issuing permits and approvals.

e. Supervision

Supervision is a crucial element in a construction project, especially when it is spread across all regions of the country and involves a number of construction contractors. Therefore, it is important to recognize that the quality of the supervision cycle in the JSP is not limited to only one stakeholder. All involved key stakeholders should be more actively and regularly involved in the supervision to ensure better-quality final products. Increasing the level of supervision for future projects will have an impact on the quality of the final products and the efficiency at which the construction contractors work; resulting in fewer defaults and defects. Less complicated variation order procedure should be adopted to accommodate for any necessary and justified changes in the construction site. Additional support from the MoPWH should be provided, while the MOE and the FDs should have a more active role in the supervision.

f. Selection of Teachers and Principals for the NS

Role model schools require role model principals and teachers to ensure maximum utilization and sustainability of the NS. It is important to develop a functional principal and teacher selection system that encourages highly qualified staff to join these schools. This approach can be adopted from the existing teacher selection and incentive approach used for the King Abdullah II Schools for Excellence.

g. Project Concept Sustainability

A successful project such as the JSP should be institutionalized as a genuine innovative development project across the globe. Additional effort should be made to disseminate and institutionalize this experience among other development agencies and governments. Mapping out and documenting the success and challenges of the project from the early stages of planning, to the design, implementation and finally the utilization should be a main priority for a project with such a transformational change in the lives of thousands of individuals.

Specific Recommendations:

For the specific recommendations, this section is split into ten main areas and will provide recommendations that will contribute to increasing efficiency of utilization and to reducing initial and/or operational and maintenance cost. These recommendations are heavily based on end user feedback and the evaluation team observations.

1. Site Selection Outcomes

To determine the extent to which the site selection process yielded the desired outcomes for the project, a nationwide evaluation should be conducted with considerations to changes in demographics and influx of refugees in certain areas across Jordan over the past 7 years.

2. Community Involvement in the Planning and Design Phase

Additional and more structured workshops targeted at community members during the early stages of the planning and design phase across all geographical areas will contribute to higher levels of ownership, dedication and commitment towards the NS schools. For the success of the JSP model of 'community schools' it is important that from the early stages of the project the necessary levels of awareness, sense of ownership and buy-in towards the NS are enhanced. These efforts should be made even before the start of the construction phase to ensure that the maximum number of local community members are involved, committed and dedicated towards the success of these schools.

3. School Design Documents

With the available technology, the evaluation team suggests that since the JSP is offering a new model of school design, it would be more helpful to develop these design documents in a 3D form. This will enable all involved key stakeholders to better visually understand specifically how the future buildings will look like in terms of layout, spaces and functions. This may contribute to limiting mis-expectations and requests for changes in late stages within the construction.

4. Schools Layouts & Components

1. The evaluation team highly recommends keeping the concept of the **resource area** in all future JSP interventions. These areas support the new aspired educational standards within Jordan's public schools. They contribute to shifting traditional instructional approaches to the more modern student-centered learning environment. As such, the evaluation team recommends a few changes that can be made in terms of the design to enable a smoother and faster transition into this modern instructional methodology that nurtures independent learners and provides them with a high sense of ownership towards their own education. Firstly, design the resource areas to be a 'semi-free learning zones'; which is a semi-controlled space, by locating the small planning rooms or teachers' rooms in very close proximity or at the center of these areas (with long open windows to allow for

distant supervision). Secondly, make the dimensions of the resource areas more structured to offer a sense of control to the teachers through transparent boundaries, for example use a metal chain to outline the dimension of the area.

2. Design the school's **outdoor morning assembly area** and the **entrance door** to accommodate for the maximum number of students using them.
3. Ensure that **community spaces** are located more effectively in the schools by placing them either on the ground floor or with a separate entrance from a side door in order to encourage principals to accommodate more community involvement in the school.
4. Redesign and locate the **canteen** in a central area to cater for a larger number of students.
5. Incorporate a **storage area** for all science, art and vocational labs.
6. Ensure that **boundary walls** around the schools are at least 2 - 3m high to ensure better safety and privacy, especially in female schools. Based on verification with the MoPWH, this height is within acceptable standards for public schools.
7. Incorporate easily accessible and larger **storage rooms** on the ground floor to accommodate for the annual number of textbooks received from the MOE.
8. Add **sun breakers** at the eastern and southwestern elevations to eliminate glare and maintain moderate temperatures inside the buildings.
9. Investigate the design and furnishing of the **vocational labs** and the equipment available in them, to determine to what extent the project wants to accommodate for gender differences. For example, male vocational classrooms are accustomed to certain facilities and equipment such as welding and carpentry, while female schools are geared towards cooking, sewing and housekeeping. Future projects needs to investigate whether they want to expose students to both types of facilities and equipment or abide by the customs of the school.
10. Reconsider the size of **nurseries** in female schools and the amount of furniture in them to accommodate for the larger-than-expected number of teachers' children in it.
11. Consider building additional outdoor bathrooms or students' bathrooms on the ground floor to accommodate for access of students in recess time and outdoor lessons. The evaluation team fully endorses the availability of indoor bathrooms, but also acknowledges the need for outdoor or ground floor ones.

5. Selection of Materials and Impact on Maintenance

1. Replace **porcelain floor tiles** with alternative flooring material that is easier to clean without compromising on the USAID and MOE standards that need to be considered. Terrazo tiling of good quality can be a feasible alternative and can be cast specifically for USAID/MOE NS/RS in any color, pattern, shape and specifications and, needless to mention, it can be a signature for the county's local architectural heritage.
2. Replace the **paint** currently used in the schools with glossy paint, which does not get dirty as easily. An alternative in areas with high traffic would be to add a 3mm tile on the bottom sections and install a wood or plexi border inside classrooms to avoid furniture contact with walls.
3. Provide schools with practical indoor and outdoor **trashcans** that can be easily moved and emptied to maintain cleaner schools.
4. Replace steel panel **radiators** with cast iron radiators or the steel model that comes in one piece to limit misuse and vandalism. It is recommended to use the cast iron type used in Phase Four schools.

5. **Aluminum window locks** and tightness seemed to be a major issue in many schools. An alternative would be a heavy duty locking system.
6. Replace the **wooden doors** with better quality and more durable wood.
7. Clad **staircases plastered sides** with the same treads' material for more durability.
8. **Staircase** plastered side in many schools is dirty because a piece of marble should be added to the end of the tread to stop water from dripping on the side.
9. Quality of students' **lockers** should be re-considered or replaced with something more durable and of higher quality to ensure proper use.

6. Electrical and Mechanical Systems

1. Reconsider the design to allocate central controls at the school's administration for the following systems:
 - a. **Heating System:** There should be a control switch for the heating system and "trip" indication lamps for the boilers. Currently, the heating system is operated from four isolated switches in the boiler room.
 - b. **Outdoor Lighting System:** Switches and 24-hour timers for the outdoor lighting should be provided. The existing photocell is not being used due to the fact that the lights are left turned on overnight.
 - c. **Hot Water System:** Central switches for the water heaters are recommended. Upon reviewing the given sample of design drawings, the heaters are controlled by local switches near the electric water heater.
 - d. **Water Pumps Status:** It is recommended to provide a "trip" indication lamp in the control panel to indicate that there is a fault with the main water pump.
 - e. **CCTV System:** Ensure that principals and assistant principals have direct access to the CCTV Systems by connecting them to their computers.
2. Design bathrooms with external pipelines, or wider pipes, to respond to potential misuse and clogging and to facilitate future maintenance issues.
3. Feed **water coolers** from fused and switched spur outlets and not 13A sockets to avoid the sockets being removed and tampered with.
4. Replace the **electrical floor boxes in computer labs** with a low partition wall between the desks where wall mounted sockets at desk level can be housed.
5. Replace the existing advanced specifications, PABX, for the **telephone systems** with a more simplified one to ensure utilization in schools.
6. Replace the existing advanced specifications for the **paging systems** with one with fewer features but with control over where the paging is aired to limit noise disturbance.
7. Replace the current specified **lifts** with Machine-Room-Less (MRL) types to eliminate the need for the room specifically dedicated for the motor.
8. Consider the use of the **lightning protection system** only in site locations where necessary (for example, no need for such systems in Al Madina Al Wardiyah School). If it is required, then replace the Faraday Cage with a pulsar system.
9. For the **drainage water systems**, it is recommended that a water treatment plant be used in all schools to provide recycled grey water for irrigation and toilet flushing.
10. The current NS school designs employ a **closed heating system**; whereas, an open one is recommended for this project. The closed heating system is more costly and needs more

maintenance. An open system is more suitable when using radiators. A heating system using a boiler consists of the boiler, a supply collector, radiators, circulating pumps, a return collector, and an expansion tank. The circulating heating water expands and contracts with the changing temperatures. To accommodate the changing water volume in the system, an expansion tank is needed. This expansion tank can simply be an **open system** consisting of a tank located on the roof which feeds the system by gravity; rather than a closed system which consists of a closed expansion tank, make up tank, and a pressure pump.

11. Eliminate the use of a pump between the **main fuel tank** and the daily tank by simply elevating the main diesel tank half a meter above the ground. Moreover, there is no need to use a daily tank.
12. In areas requiring **cooling systems** for all spaces within the schools, especially in the computer labs and server rooms, it is advised to invest in the new generation of air conditioning systems which reduce around 40% of the running cost. The specification for cooling units should stress the energy consumption features.
13. The design of the **ventilation system** was limited to the toilets. The system consisted of wall mounted window type fans with grills. It was noticed that the location of these fans does not yield the proper ventilation required in the toilets. The design should ensure proper cross-ventilation in the space. Moreover, it was noticed that rooms with no windows such as the electrical and mechanical rooms had no ventilation. In general, all rooms with no windows should be provided with mechanical ventilation.

7. Operation and Maintenance

1. Provide every principal with a copy of the 'As-Built Drawings' and 'Operation and Maintenance Manuals' that is simplified and user-friendly to facilitate any maintenance procedure.
2. Provide every principal with a simplified and user-friendly orientation manual for electrical and mechanical systems in Arabic.
3. Provide principals with guarantees and suppliers' contact details to facilitate maintenance processes.
4. Ensure effective training for qualified personnel from the school and FDs on all electromechanical systems to ensure maximum utilization.
5. Properly tag all electromechanical items in all schools.

8. Cost and Value

1. The electromechanical supervision team on the construction site should be increased in number.
2. Allow enough time in the construction period for testing, commissioning and handing over. Responsible parties should ensure that all utilities are connected prior to this procedure in order to be able to test systems and give effective training on their utilization.
3. In line with JSP's objective to invest in the initial cost to reduce running cost, some existing systems need to be reconsidered. Therefore, it is essential to stress the use of energy-saving criteria in all design systems. Systems to be considered are:
 - Use of photovoltaic cells for the external lighting or use of low wattage LED floodlights.
 - As mentioned above, use of water treatment systems to provide irrigation for the landscape and possibly for flushing the toilets (grey water).
 - Central control of water heaters to ensure that they are all switched off when not needed.
 - Hot water supply can be achieved by a simple solar panels system with electrical heaters. This system consists of thermal solar panels with built-in water storage tanks. During sunny

days, these panels heat the domestic water. When the weather is not suitable for hot water generation, a built-in standby electrical water heater is used to heat the water. An automatic or manual controller will activate the electrical heater as necessary.

4. Construction cost can be reduced by the following:
 - a. Tendering the following systems as a provisional sum: PABX, Data Patch Panels, CCTV systems, Fire Alarm Systems, Paging System, Security System, Toilets fixture units. The contractor will be entitled to 10% overhead on the given price. These systems shall be tendered separately for all schools. This method will ensure that all schools will have the same brand of a given system. This way, the provision of the training, maintenance, and spare parts will be more effective and controlled. This would cut down the cost, ensure better service from suppliers, more efficient global training, and better maintenance.

9. Construction Contracting Approach and Procedures

1. Use Conditions of Contract based on FIDIC 1999 as per MoPWH instead of the unfamiliar version of 1987.
2. Give the technical evaluation of tenders more weight in the tender analysis to ensure competency of construction contractors.
3. Reduce the liquidated damages from 15% to 10% to avoid overpricing by construction contractors.
4. Factor in the capacity of the construction contractors that are bidding when estimating the project duration.
5. Simplify the variation order process and develop a matrix of roles and responsibilities with deadlines prior to implementation.
6. Establish a system within MoPWH and MOE to maintain references/feedback on construction contractors (construction and furniture) that could be used in future procurements to gauge performance.
7. Design the tendering packages in a way to allow for handing over of separate schools when completed, reducing delays arising from one specific school in the package.

10. Timeliness of Implementation

1. Develop a 'Pre-construction Package' prior to the start of the construction where all necessary permits for construction and utilities are issued and approved.
2. A milestone program should be prepared and included in the Tender documents for each package.
3. Develop an elaborated checklist that incorporates all items that need to be delivered to and the party responsible for it within the school. This checklist should be used at the first handing over to identify the specific areas that need further adjustments. The final handing over can be only completed when all items are checked with a clear definition of who is the person responsible for the final handing over.
4. The construction duration for each school should be clearly identified and the procedure of handing over completed schools should be planned accordingly.
5. The liquidated damages should be identified per school and time extensions should be given to each school on a separate basis.

LESSONS LEARNED

As mentioned earlier, the JSP is an innovative and successful one-of-a-kind educational intervention that had a positive impact on the lives of thousands of individuals across Jordan. This intervention went beyond its construction scope; it granted these individuals access to better quality education and an opportunity to excel as competent and qualified individuals ready to contribute to a knowledge-based economy.

As such, the evaluation team views the JSP as a ‘Transformational Change’ in the lives of benefiting students and educators alike. Transformational Change is something profound; it is the process whereby positive development results are achieved and sustained over *time*.²³ It is important to recognize the ‘time-factor’ as an integral component of the JSP. Key stakeholders and end beneficiaries need time to adopt, and adapt to all the new standards, practices and expectations that come with this project.

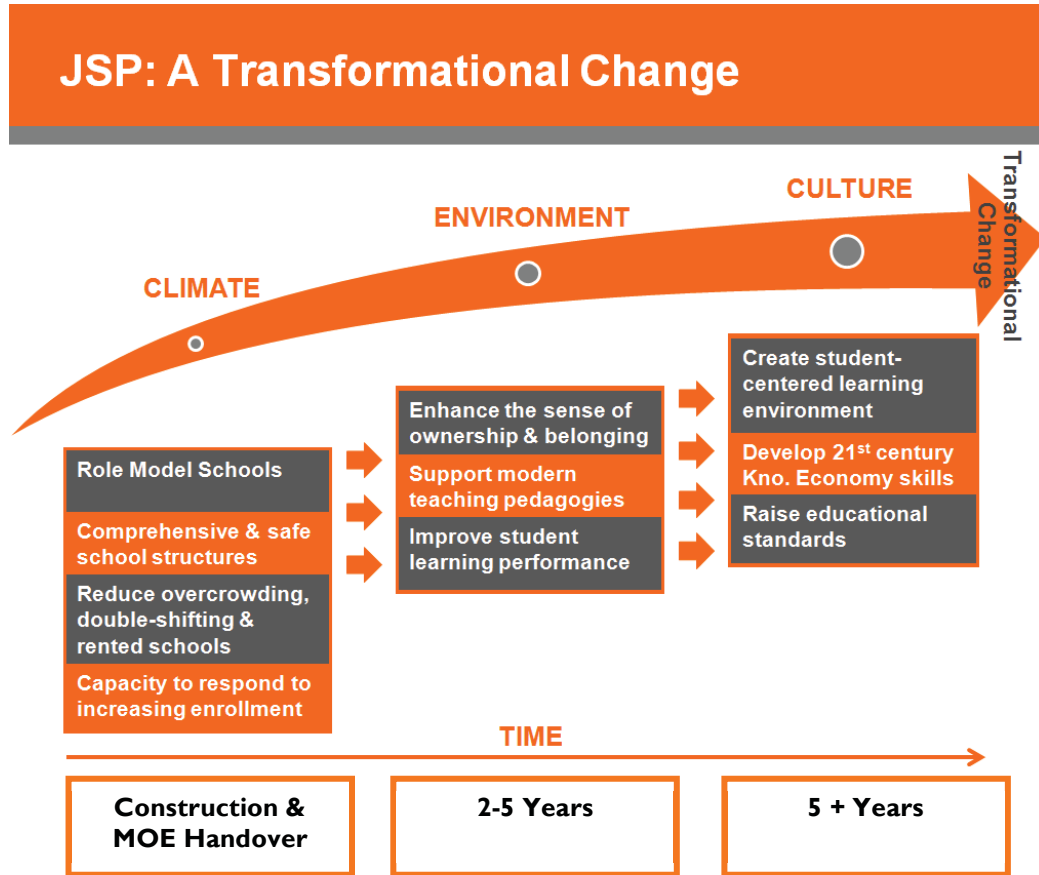
Change occurs over time and the JSP has already provided the suitable ‘climate’ for positive change to take place. It offered role model schools that are comprehensive and safe for quality education. As such, it offered a holistic intervention that had implications on the human behavior and the school systems within the new structures in which they exist. With time, once the school community adapts to this new change and starts interacting with all its elements, this ‘climate’ will shift into the new-found natural ‘environment’ of the school.

The school communities’ interaction and relationship with the new school designs, facilities and equipment create the new environment in which the school exists. Consequently, the JSP is offering educational breakthroughs in paradigms, attitudes and behaviors. This new environment which supports modern teaching pedagogies and community involvement enhances individuals’ sense of ownership and it improves students’ performance. Ultimately, through the JSP, transformational change will be achieved when this environment is internalized and turned into ‘culture’. It will be fully realized when all the school facilities are used to their maximum potential, and all school functions are aligned to create a student-centered environment that nurtures competent individuals who are empowered with 21st century skills. With the continuous collaboration with other projects such as the CMP and ERSP, this culture will be achieved.

As James Truslow Adams the American writer and historian said, “There are two educations. One should teach us how to make a living and the other how to live.” The JSP, with its supporting partners and all involved key stakeholders, need to recognize that their continuous efforts over the past seven years will reap success with time, and that their continuous determination to offer Jordanian students an education that will not only teach them how to *make a living*, but teach them *how to live*, will have an everlasting impact on the country as a whole.

²³ *Supporting Transformational Change*, UNDP, October 2011

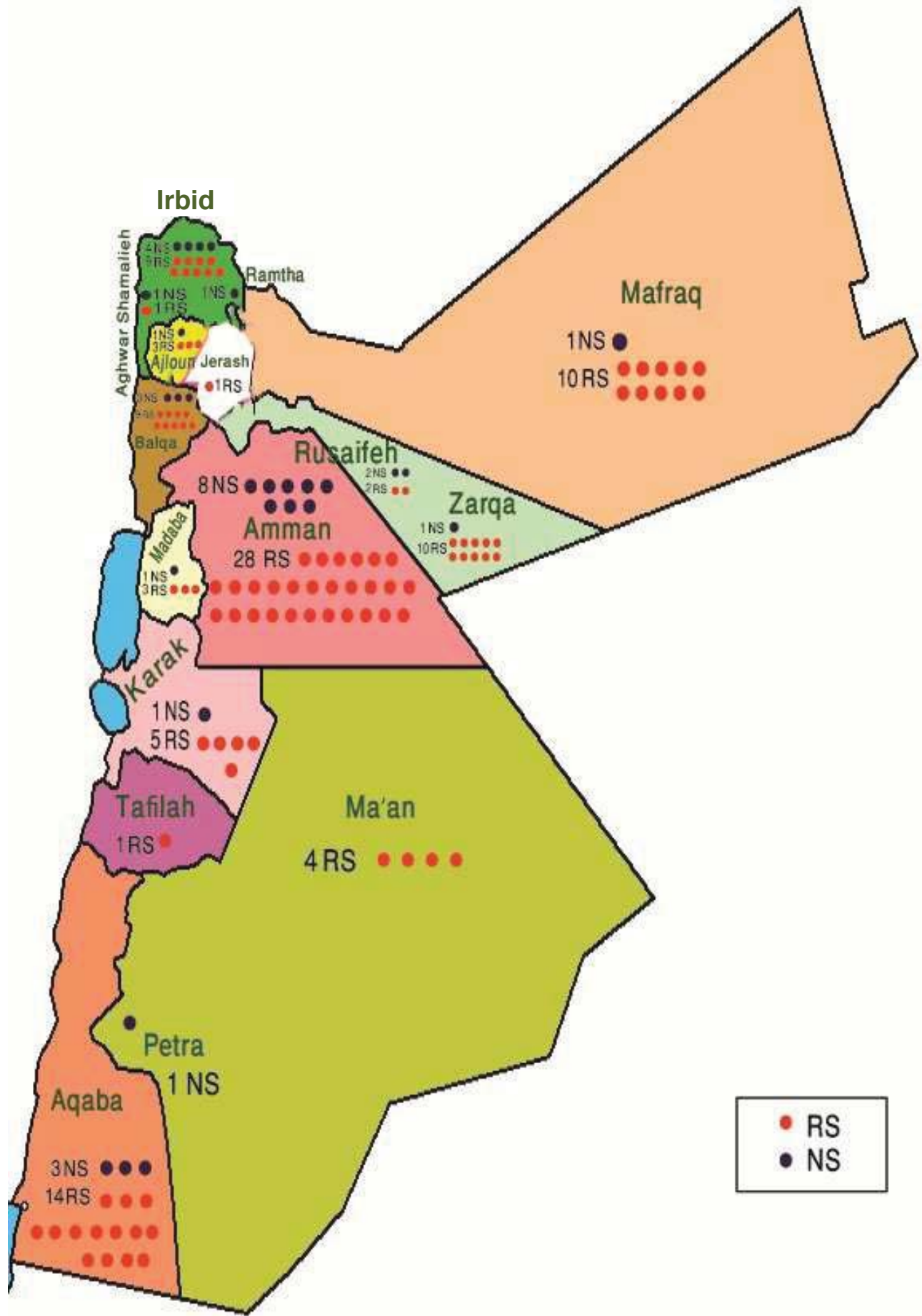
Figure 5 - JSP: A Transformational Change



ANNEXES

ANNEX I:

MAP OF JORDAN SCHOOL CONSTRUCTION AND REHABILITATION PROJECT (JSP) INTERVENTION FOR NEWLY CONSTRUCTED SCHOOLS (NS) AND REHABILITATED SCHOOLS (RS)



ANNEX II:

EVALUATION STATEMENT OF WORK

The Contractor shall evaluate JSP according to the guidelines provided hereunder and shall prepare a final evaluation report that includes all findings, conclusions and recommendations related to this evaluation.

Evaluation Methodology:

To evaluate the project, the Contractor shall conduct meetings and interviews with stakeholders, collect feedback from users through questionnaires, obtain and analyze data on the project areas as detailed below from different sources, organize workshops with different stakeholders to collect feedback, and conduct field visits to school sites.

The school sample shall include at least 10 new JSP schools (from different construction phases and with at least one school from each governorate) and at least 6 school rehabilitations. At least a total of 3 participatory field workshops shall be conducted at 3 different schools.

The Contractor shall meet and obtain feedback from all key stakeholders and from other stakeholders as appropriate.

The key stakeholders for this project are:

1. Ministry of Education, central and Field Directorates (FDs)
2. Ministry of Public Works and Housing, Building Department and Government Buildings Directorate
3. CDM
4. Construction contractors, furnishing contractors
5. School teachers and students
6. School community
7. USAID
8. Education Reform Support Project (ERSP)
9. Community Mobilization Project (CMP)

Other stakeholders:

10. Ministry of Planning & International Cooperation
11. Ministry of Environment
12. Local municipalities, Civil Defense and other local authorities
13. Other donors (KFW, World Bank, and others as relevant)
14. Utility companies
15. Local vendors and material suppliers

Evaluation Questions:

The Contractor shall address the following areas under this consultancy:

I. Higher Level Goals:

- a. Determine the impact of JSP in terms of:
 - Reducing overcrowding in existing schools
 - Reducing the number of double shifted schools
 - Reducing the number of rented schools
 - Addressing the increased enrollment needs in target areas due to demographic changes
 - The overall impact on school community
- b. Determine the impact of the new JSP schools on teacher and student attitudes and behaviors.

2. School Design and Planning:

- a. School selection process and outcomes
- b. Design concept soundness
- c. Responsiveness to the MOE and users' needs
- d. School size, layout and components
- e. Functionality, reasonableness and cost
- f. Overall quality and constructability of the design documents
- g. Are the final school designs in line with the design concepts?
- h. Selection of material and systems, impact on operation and maintenance

3. School Construction:

- a. Construction contracting approach and procedures
- b. Timeliness of implementation
- c. Cost reasonableness
- d. Responsiveness of the construction contractors during the defects liability period
- e. Obstacles and challenges faced by the construction contractors
- f. Quality of the final products

4. School Occupancy and Utilization (according to the users)

- a. General perception of the new schools
- b. School layout, spaces and functions
- c. Technology and the new educational environment
- d. Electrical and mechanical systems
- e. Material and finishing
- f. Outdoor spaces
- g. Furniture and equipment
- h. Safety
- i. People with Disabilities
- j. Sense of ownership
- k. Operation and maintenance
- l. Things that worked well and things that did not work well

5. Community Involvement and Impact:

- a. Community involvement during the school planning stage
- b. Community satisfaction with the new schools' role and functionality of community spaces

6. Gender Impact:

- a. Determine how the project addressed gender issues during its implementation.

7. Cost and Value:

- a. Determine whether the cost for this program was reasonable compared to the achieved results
- b. Determine what could have been done differently to reduce the cost, but without affecting the quality
- c. Determine the sustainability of the operation maintenance costs for the Ministry of Education

Coordination:

The Contractor shall coordinate with the MOE, education directorates, school principals and all stakeholders identified above.

Deliverables:

1. Work Plan: The Contractor shall submit a work plan to USAID for approval within 10 calendar days of the Purchase Order effective date. The work plan shall include proposed methodology, questionnaires, selected sample schools, workshops, interviews, reporting to USAID, roles and responsibilities of evaluation team, and timeline for completing the evaluation.

2. Interviews: The Contractor shall conduct interviews with representatives from all key stakeholders, and other stakeholders as deemed necessary for the evaluation.

3. Workshops: The Contractor shall conduct a total of three workshops at least at three different schools (North, Middle and South), involving school principals, teachers, local communities, and local stakeholders. Each workshop shall include 50-70 participants. The Contractor shall be responsible for all logistics, including coordination with the school principals to use the school facilities as venues for the workshops.

4. Briefings: The Contractor shall conduct weekly progress meetings with USAID to update USAID on evaluation progress and findings, verify and clarify information, and address any logistical issues. The Contractor shall also make a presentation of the findings, conclusions and recommendations of the evaluation team prior to submission of the draft Evaluation Report.

5. Final Evaluation Report: The Contractor shall submit a Draft Evaluation Report within 60 days from the effective date of the Purchase Order for USAID's approval. The report shall be written in proficient English and must include an executive summary, table of contents, body and appendices, and must not exceed 40 pages (excluding the appendices). The report shall describe the evaluation process, answer all evaluation questions, state recommendations in an actionable way with defined responsibility for the action and supported by a specific set of findings, and clearly state limitations (on data and in general). Copies of evaluation scope of work, sources of information, and all data collection instruments and results must be included as appendices in the final report. Within one week of receiving USAID's comments and approval of the Draft Evaluation Report, the Contractor shall submit five hard copies and three soft copies of the Final Evaluation Report in MS Word and PDF formats.

6. Dissemination: The Contractor shall submit the final report to the Development Experience Clearinghouse (DEC) at <http://dec.usaid.gov> within three months from completing the final report and after obtaining final clearance from USAID.

ANNEX III:

DISCLOSURE OF ANY CONFLICTS OF INTEREST

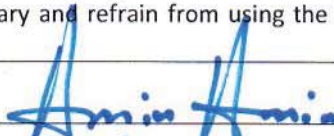
Name	Dr. Amin Amin
Title	CEO & President
Organization	ASK for Human Capacity Building
Evaluation Position?	<input checked="" type="checkbox"/> Team Leader <input type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

If yes answered above, I disclose the following facts:

Real or potential conflicts of interest may include, but are not limited to:

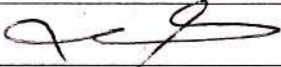
1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.
2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.
3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.
4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.
5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.
6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	30/4/2013

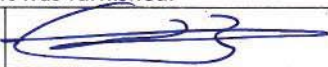
Name	Mohammad Hourani
Title	General Manager
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (contract or other instrument)	AID-278-C-13-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	1/5/2013

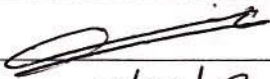
Name	Ibrahim Mahfooz
Title	Educational Specialist
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (contract or other instrument)	AID-278-C-13-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	1/31/2013

Name	Dr. Ghassan Koteit
Title	Monitoring and Evaluation Specialist
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i></p> <ol style="list-style-type: none"> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	5/5/2013


Name	Samar Akhu Zahieh
Title	Educational Specialist
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	SAZ
Date	1-5-2013


Name	Deema Al Alami
Title	Educational Consultant
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (contract or other instrument)	AID-278-C-13-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i>	
1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.	
2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.	
3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.	
4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.	
5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.	
6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	5/5/2013

Name	Sarya Sok
Title	Monitoring and Evaluation Specialist
Organization	ASK for Human Capacity Building
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number (contract or other instrument)	AID-278-C-13-00002
USAID Project(s) Evaluated (Include project name(s), implementer name(s) and award number(s), if applicable)	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i>	
	<ol style="list-style-type: none"> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.

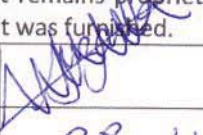
I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	5 May 2013

Name	Rama Akel
Title	Founder and Managing Director of Intelligent Design
Organization	ID Interior Design & Architecture
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i></p> <ol style="list-style-type: none"> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	
<p>I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.</p>	
Signature	
Date	28 April 2013


Name	Suzan Abdelkader
Title	Electrical Engineer
Organization	Scope MEP Design Studio
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<p>If yes answered above, I disclose the following facts:</p> <p><i>Real or potential conflicts of interest may include, but are not limited to:</i></p> <ol style="list-style-type: none"> <i>1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated.</i> <i>2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation.</i> <i>3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project.</i> <i>4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated.</i> <i>5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated.</i> <i>6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation.</i> 	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	28-4-2013

Name	Danka Tibor
Title	Mehcanical Engineer
Organization	Scope MEP Design Studio
Evaluation Position?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Award Number <i>(contract or other instrument)</i>	AID-278-C-13-00002
USAID Project(s) Evaluated <i>(Include project name(s), implementer name(s) and award number(s), if applicable)</i>	Jordan School Construction and Rehabilitation Project, Camp Dresser & McKee International, 278-C-00-06-00326-00
I have real or potential conflicts of interest to disclose.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If yes answered above, I disclose the following facts: <i>Real or potential conflicts of interest may include, but are not limited to:</i> <ol style="list-style-type: none"> 1. Close family member who is an employee of the USAID operating unit managing the project(s) being evaluated or the implementing organization(s) whose project(s) are being evaluated. 2. Financial interest that is direct, or is significant though indirect, in the implementing organization(s) whose projects are being evaluated or in the outcome of the evaluation. 3. Current or previous direct or significant though indirect experience with the project(s) being evaluated, including involvement in the project design or previous iterations of the project. 4. Current or previous work experience or seeking employment with the USAID operating unit managing the evaluation or the implementing organization(s) whose project(s) are being evaluated. 5. Current or previous work experience with an organization that may be seen as an industry competitor with the implementing organization(s) whose project(s) are being evaluated. 6. Preconceived ideas toward individuals, groups, organizations, or objectives of the particular projects and organizations being evaluated that could bias the evaluation. 	

I certify (1) that I have completed this disclosure form fully and to the best of my ability and (2) that I will update this disclosure form promptly if relevant circumstances change. If I gain access to proprietary information of other companies, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and refrain from using the information for any purpose other than that for which it was furnished.

Signature	
Date	28.4.2013

Name	David Isaacs
Title	Director - Animal Office
Organization	Ball's Blue Kitten & Puppy Co. LLC
Evaluation Purpose?	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Evaluation Board Number (number of other evaluations)	481-276-C-114660
Utah's Property Evaluation (include entire contract, implement terms and cover contents of activity)	Order: School Construction and Rehabilitation Project, Camp Dresser & McKee International, 276-C-00-04-0036- 00
I have read or generated conflicts of interest in relation	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If you answered above, I declare the following facts: I am a [parent/child/teacher] of a child, or an employee 1. Do you own the child or parent of the child whose job requires the services you provided in an advisory capacity? How much do you own? 2. Do you own the child or parent whose job requires the services you provided in an advisory capacity? 3. Do you own the child or parent whose job requires the services you provided in an advisory capacity? 4. Do you own the child or parent whose job requires the services you provided in an advisory capacity? 5. Do you own the child or parent whose job requires the services you provided in an advisory capacity? 6. Do you own the child or parent whose job requires the services you provided in an advisory capacity?	
I certify that these evaluations do not contain false and untrue information and I will update this disclosure form promptly if relevant circumstances change. If I give advice or testimony only in relation to other employees, then I agree to protect their information from unauthorized use or disclosure for as long as it remains proprietary and confidential using the information for any purpose other than that for which it was provided.	
Signature	
Date	6/15/2019

Name	David A. Job
Title	Cost Consultant/Quantity Surveyor
Organization	MWH Inc. Allen & Berry Co. LLC
Organization Address	<input type="checkbox"/> Team Leader <input checked="" type="checkbox"/> Team member
Organization Award Number (shown in the request)	ADJ278-C-11-0000
LEADS Propriety Statement (check appropriate boxes and insert contract ID number)	Junior School Construction and Rehabilitation Project, Carter-Drew & Payne Educational, 278-C-00-09-0028-00
I have had no personal conflicts of interest in this bid.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
If you prepared above, I declare the following facts: For a contract under which the contractor is to perform:	
1. The bid items are to be performed in 2011, and the contractor is not to be retained to be performing separately the same or the same work;	
2. There are no other contracts or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
3. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
4. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
5. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
6. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
7. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
8. There is no other contract or subcontracts under which the contractor is to be performing separately the same or the same work as the contract in this bid;	
I agree I will not have prepared the document form fully within the period of no offer and I will not update the document form primarily if without circumstances change if I gain access to proprietary information of other companies, then I agree to provide that information from confidential use or disclosure for as long as it remains proprietary and shall not use the information for any purpose other than that which is set forth and limited.	
Signature	
Date	4/5/2013

ANNEX IV:

DATA COLLECTION TOOLS DEVELOPMENT

This annex details the methodology that was followed to develop the tools for data collection of the evaluation of the JSP as well as how the tools were validated and made reliable.

DATA COLLECTION TOOLS FOR THE NEWLY CONSTRUCTED SCHOOLS (NS)

I. Evaluation Tools

Various tools were adopted to retrieve necessary answers for the evaluation questions taking into consideration the tools required by this RFP. The tools used were:

- Meetings with key stakeholders from the Ministry of Education (MoE) and Field Directorates (FDs)
- Individual meetings with representatives from the United States Agency for International Development (USAID) and the Community Mobilization Project (CMP) with the objective of retrieving data and feedback which will assist in answering the evaluation questions
- Developed of two questionnaires targeted at teachers and students of the NS
- Structured interviews with school principals
- Conducted three regional workshops to retrieve deep insights and data

2. Description of Data Collection Tools

a. Meetings

Various meetings were planned and conducted with key stakeholders from the MoE and FDs as well as the individual meetings with CMP and USAID.

b. Questionnaires for Teachers and Students and Structured Interviews for Principals (NS)

Designing the Data Collection Tools

The questionnaires designed were based on the following:

- Literature review related to the specifications of school buildings and the criteria needed in school buildings to achieve the ideal learning environment for students.
- Review of JSP objectives and linking these objectives to study questions in the evaluation tools.
- Feedback from expert coaches who work with JSP under ERSP and have direct experience with the school community members.

Based on the above procedures, three questionnaires were designed as follows:

- The principals' structured interview, 48 questions distributed in 8 areas.
- The teachers' questionnaire, 44 questions distributed in 5 areas.
- The students' questionnaire, 27 questions distributed in 5 areas.

Each above tool is based on a 4-point Likert scale: “4” Strongly Agree, “3” Agree, “2” Disagree, and “1” Strongly Disagree.

Validating the Data Collection Tools

To validate the tools, the evaluation team tested them on eight experts who were requested to evaluate the questionnaires' and structured interviews' sections in terms of language errors, clarity of meaning, importance of section, and adding other sections. USAID was also requested to send their feedback and

evaluation of the tools. Based on this evaluation the some sections were modified, deleted or added such as the following:

- Section 20 in the principal’s structured interview was modified from “the availability of a fire alarm system helped in dealing with emergency situations in the school” to “the availability of a fire alarm system helped in providing a suitable environment to deal with emergency incidents in the school”.
- Section 16 was deleted from the teacher’s questionnaire about “the availability of technological tools contributed in providing the learning environment that enriches the teaching/learning experience” as this section was found to be generic and detailed sections followed it
- Section 10 in the student’s questionnaire was added on “the availability of a library provided me broader opportunities to gain knowledge and reading, as based on the experts’ opinions, there is no section related to the library in the student’s questionnaire.

The Reliability Coefficient:

After validating the tools, the principal’s structured interview was tested on a test sample made up of nine school principals from newly constructed schools outside the evaluation sample. These principals were from the following schools: Aysha Bint Abi Baker Basic Co. Girls - Zarqa, Aysha Bint Abi Baker Basic Co. Girls - Salt, Abdel Munaiam Reyadh Basic Boys, Madaba Basic School Boys, Othman bin Affan Secondary for Boys, Jabel Tareq Basic Boys, Aysha’a Al Baouneye Basic Co. School, Al Bnyat Secondary Boys, and Khawla Bint Al-Azwar Basic Co. Girls. In addition, Dahiet Al Ameer Hassan Secondary School for Girls was visited on February 13, 2013 where the structured interview was tested on the principal’s assistant on behalf of the principal who was on leave, and the questionnaires were tested on 19 teachers of various subject-matters, and 60 students from grade five up to grade 10; taking 10 students from each grade. The principal assistant and teachers were asked to provide any feedback in terms of errors, clarity of meaning, the importance of the section and adding additional sections.

After testing the data collection tools in the above schools outside the evaluation sample, data was entered into the Statistical Package for Social Sciences (SPSS) and the Reliability Coefficient or Cronbach Alpha was calculated for each of the three tools. According to international studies, the reliability coefficient is considered a good indicator or reliable if it is .80 and over. (Denise & Beck, Essential of Nursing Research, Liddincott Williams & Wilkins Publishing, 2000, p. 374) The following are the results for reliability coefficient for the NS:

Table 1: Reliability Coefficient for NS

Questionnaire	Reliability
Principals	.86
Teachers	.87
Students	.90

After calculating the validity and Reliability Coefficient the following modifications to the tools were made:

- The principals’ structured interview, 88 questions distributed in 8 areas.
 - 86 questions – Close-ended questions (Multiple Choice)
 - 2 questions – Open-ended questions

- The teachers' questionnaire, 46 items distributed in 5 areas.
 - 44 questions – Close-ended questions (Multiple Choice)
 - 2 questions – Open-ended questions
- The students' questionnaire, 29 items distributed in 5 areas.
 - 27 questions – Close-ended questions (Multiple Choice)
 - 2 questions – Open-ended questions

Annex IV includes the final data collection tools.

Based on feedback gathered, “Not Applicable” was added to the Likert scale: “4” Strongly Agree, “3” Agree, “2” Disagree, “1” Strongly Disagree, “0” Not Applicable.

c. Workshops

Workshops were designed for the duration of four hours aiming at:

- Retrieving feedback and recommendations from the participants about the new schools
- Retrieving clarifications on a number of questions related to construction, furniture, and equipment in the new schools

Fifty to seventy participants were targeted for the workshops divided as follows:

Table 2: Target Audience for NS Workshops

Target Audience from the School	Leader Team	Teachers	Parents and Local Community	Students
Number	3-5	15-20	10-15	10-15
Target Audience from Outside the School	Leader Team	Teachers	ERSP & CBOs	Other Partners & Organizations
Number	3-5	10-15	5-7	10-15

Three workshops were conducted in newly constructed schools as follows:

- Middle Region: Al Qadesiah Secondary Co. School – Amman
- North Region: Maymouna Bint Al-Harith Girls School – ArRamtha
- South Region: 10th Area Secondary Co. Girls - Aqaba

DATA COLLECTION TOOLS FOR THE REHABILITATED SCHOOLS (RS)

I. Evaluation Tools

Various tools were adopted to retrieve necessary answers for the evaluation questions taking into consideration the tools required by this RFP. The tools used were:

- Meetings with key stakeholders from the MoE and FDs
- Developed of three questionnaires targeted at school principals, teachers and students of the NS

2. Description of Data Collection Tools

a. Meetings

Various meetings were planned and conducted with key stakeholders from the MoE and FDs in order to obtain data that answered the questions of the study.

Questionnaires for Teachers and Students and Structured Interviews for Principals (RS)

Designing the Data Collection Tools

The data collection questionnaires were designed based on the following procedures:

- Literature review related to the specifications of school buildings and the criteria needed in school buildings to achieve the ideal learning environment for students.
- Review of JSP objectives and linking these objectives to study questions in the evaluation tools.
- Identifying areas of expansion in the rehabilitated schools through referring to the JSP areas' of work to develop related items in the data collection tools.

Based on the particularity of each school and its specific extension, three data collection tools were designed for each end user (Principal, Teacher, and Student) where each included all expansion areas of the rehabilitated schools.

Based on the above procedures, the following were designed as follows:

- The principals' structured interview, 36 questions distributed in the different expansion areas.
- The teachers' questionnaire, 42 questions distributed in the different expansion areas.
- The students' questionnaire, 25 questions distributed in the different expansion areas.

Each of the above tool is based on a 4-point Likert scale (“4” Strongly Agree, “3” Agree, “2” Disagree, and “1” Strongly Disagree).

Validating the Questionnaires

The structured interview was checked by the principal of Munther Al Masri Basic Boys School (previously Al Tatbeekat Basic Boys School) while the teachers' questionnaire was checked by 13 teachers from different subject matters. The selected teachers were teaching in the new building of the school. Al Tatbeekat Basic Boys School was visited by the evaluation team on the 17th of February 2013. The extension areas that were being used by the school included: nine (9) classrooms allocated for only the 7th grade students, two (2) computer labs and one of the labs was divided into two rooms to be used as a teachers' room and principal's assistant room because no computers were delivered to the school till that date; noting that the extension areas based on the layout must include: (10) classrooms, one (1) computer lab and one (1) teachers' room.

The principal of Al Tatbeekat School and the other 13 teachers were requested to check the tools in terms of: language errors, clarity of meaning, the importance of each section, and the need to add new items. Based on their feedback some sections in the students' questionnaire were modified, and one item was added to both principal's structured interview and teachers' questionnaire. For example, the added part in the principal's structured interview was asking if the “Area of the teachers' room is suitable for the number of teachers and is allowing them to move easily”. The added part in the teachers' questionnaire was asking if the “Furniture in the teachers' room is of high quality”.

The Reliability Coefficient:

The same test sample above was used to calculate the Reliability Coefficient. In addition, the students' questionnaire was tested on a test sample made up of 41 seventh graders from Al Tatbeekat Basic Boys School who are utilizing the new classroom. As previously stated and based on the particularity of each school, the Reliability Coefficient was calculated for the teachers' and students' questionnaires within the areas of extension in the school. The Reliability Coefficient was not calculated for the principal's structured interview as the test sample included only one principal; however it was calculated when applying on the evaluation sample. Data was entered into the Statistical Package for Social Sciences (SPSS) and the Reliability Coefficient or Cronbach Alpha was calculated for each of the two questionnaires. Table (3) explains the Reliability Coefficient for both teachers' and students' questionnaire.

Table 3: Reliability Coefficient for Teachers' and Students' Questionnaires

Questionnaire	Reliability
Teachers	.90
Students	.83

According to international studies, the reliability coefficient is considered a good indicator or reliable if it is .80 and over. (Denise & Beck, Essential of Nursing Research, Liddincott Williams & Wilkins Publishing, 2000, p. 374)

Annex IV includes the final tools as following:

- Principals' Structured Interview: 42 items
- Teachers' Questionnaire: 49 items
- Students' Questionnaire: 25 items

ANNEX V:

DATA COLLECTION TOOLS



New Schools Structured Interview - Principal

Dear Principal,

The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing the learning environment for our students. The (JSP) program also aims to support the Jordanian government's effort in building new schools that will reduce overcrowding in classrooms, rented facilities and double shifting. Since its launch in August (2006), the JSP aimed to build (28) new schools across different regions in Jordan and to rehabilitate (100) existing schools according to international standards in building school facilities and providing them with suitable furniture and equipment.

These schools were designed according to the educational perspective that provides places, spaces, equipment and tools that contribute to positively affecting the attitudes of the school community. This, in return, leads to the enriching students' education and increasing their sense of ownership towards their school.

Taking into consideration the impact of this project, it is important to conduct an evaluation that assesses the process and outcomes of the (JSP), to identify recommendations for the effectiveness of the project and how it achieved its desired goals. Therefore, the team responsible for the (JSP) program seek your cooperation in answering the below **88** questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Note: When answering the below questions- please compare the realities of your current school with the realities of other public schools in Jordan.

Example:

Question	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
The school's outdoor facilities contributed in the implementation of a variety of educational activities.		x			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

Evaluation Area: School Occupancy and Utilization, Higher Level Goals, Community Involvement Impact, & Gender Impact

Aspect # 1: The School Building						
Number	Question	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
1.	I have a positive perception of my new school.					
Notes:						
2.	The height of the school surrounding walls contributes to a safe school environment.					
Notes:						
3.	The school's outdoor facilities contributed in the implementation of a variety of educational activities.					
Notes:						
4.	The design of the outdoor entrances helped in utilizing them to serve the school's work.					
Notes:						
5.	The location of the garden areas was strategic enough to allow for gardening activities.					
Notes:						
6.	The school's outdoor playgrounds provided more opportunities to implement school activities and events.					
Notes:						
7.	The type of the playgrounds' flooring material played a major role in providing safety for the students.					
Notes:						
8.	The type of the school's indoor flooring contributes to access a clean learning environment.					
Notes:						
9.	The type of paint used in the school is practical and suitable with students' daily use.					
Notes:						
10.	Wide hallways contribute to effectively using them to present several extracurricular activities.					
Notes:						
11.	The location of the Admin Office helped in following up on the school work.					
Notes:						
12.	The design of the administration division facilitated the completion of school management tasks.					
Notes:						
13.	The resources area helped in implementing activities and events that leads to achieve the learning goals.					
Notes:						
14.	The planning rooms helped in enriching the teaching-learning process.					
Notes:						
15.	The meeting rooms helped to communicate with members of the school community.					
Notes:						

16.	The size of the stationary room is suitable for its intended purpose.					
Notes:						
17.	The Filing Room contributed to the needs of managerial work.					
Notes:						
18.	The size of the Book Storage Room is suitable for its intended use.					
Notes:						
19.	The Filing Room is close to the secretary.					
Notes:						
20.	Having a Career Counseling Room contributed in creating better opportunities for students to know about their future careers.					
Notes:						
21.	Having a research room in the library contributed in creating better opportunities for teachers and students to conduct researches.					
Notes:						
22.	The multi-purpose halls contributed to the implementation of various educational activities.					
Notes:						
23.	The availability of equipment for students with disabilities contributed to the provision of a suitable learning environment for these students.					
Notes:						
24.	The location of the school's kiosk made it easier for students to use.					
Notes:						
25.	The availability of the school clinic helped in providing primary medical care that is suitable for students.					
Notes:						
26.	The availability of bathrooms in different locations inside the school helps in meeting the needs of school community members.					
Notes:						
27.	The bathroom equipment are suitable for the target age group.					
Notes:						
28.	The availability of emergency doors in the school helped to provide a safe school environment.					
Notes:						
29.	The doors used in the school building are practical and suit its' intended use by students.					
Notes:						
30.	The classroom doors are practical and suit the use of target students.					
Notes:						
31.	The windows used in the school are practical and suit their intended use.					
Notes:						
32.	The height of the windows in classrooms is suitable for the target age group.					

33.	The thickness of the windows contributes to a safe school environment.					
Notes:						
34.	The presence of fire systems contributed to dealing with emergency situations in the school.					
Notes:						
35.	The presence of a heating system in the school contributed in a more suitable school environment.					
Notes:						
36.	The distribution of electricity plugs facilitated the utilization of technology throughout the school.					
Notes:						
37.	The design of the school contributed to enhancing my sense of ownership towards the school.					
Notes:						
38.	The ventilation system in the school contributed to a suitable learning environment.					
Notes:						
39.	The good lighting system in the school contributed to a suitable learning environment.					
Notes:						
40.	The design of the car park allowed for its effective intended use.					
Notes:						
Questions (41-45) for FEMALE SCHOOLS						
41.	The location of the KG contributes to offering a safe school environment for students.					
Notes:						
42.	The play area for the KG contributed in achieving its intended use.					
Notes:						
43.	The bathrooms and the kitchen intended for the KG are located close to the KG.					
Notes:						
44.	The location of the nursery meets the requirements of the Ministry of the Social Development.					
Notes:						
45.	The space of the nursery contributed to achieve its' intended goal.					
Notes:						
Aspect # 2: Technology						
46.	The diversity of technological tools available in the school enabled the school community to use them in multiple ways.					
Notes:						
47.	The availability of computers in the administrative division allowed for completing administrative work.					
Notes:						
48.	The school's internal and external announcement system helps the communication between teachers and students.					
Notes:						
49.	The availability of surveillance cameras contributed to the control of school work.					
Notes:						

50.	The presence of printing machines contributes to achieving necessary school tasks.					
Notes:						
51.	The presence of photocopying machines contributes to achieving necessary school tasks.					
Notes:						
Aspect # 3: School Furniture						
52.	The availability of a flexible school furniture contributed to the diversification of a teaching-learning environment.					
Notes:						
53.	The school furniture is suitable with the target student age group.					
Notes:						
54.	The furniture used is of good quality.					
Notes:						
55.	The furniture of the administrative division suits the nature of its tasks.					
Notes:						
56.	The furniture available in the meeting room facilitated achieving its intended use.					
Notes:						
57.	The furniture of the school clinic contributed in providing first aid to students and teachers.					
Notes:						
58.	The availability of easy-to-move library furniture facilitated the ability of using it for different tasks.					
Notes:						
59.	The furniture available in the resources area contributed in diversifying the teaching-learning process and activities.					
Notes:						
60.	The furniture in the nursery is suitable for the children there.					
Notes:						
61.	There are enough cupboards and drawers in the Book Storage Room					
Notes:						
62.	There are enough cupboards and drawers in the Filing Room					
Notes:						
63.	The presence of bulletin boards in the corridors contributed to implementing different educational activities.					
Notes:						
64.	Using whiteboards at school is appropriate with the school budget.					
Notes:						
65.	Using whiteboards helped in creating a healthier classroom environment for students away from chalk.					
Notes:						
66.	The maintenance process suited the required speed of completing maintenance tasks during the guarantee period.					
Notes:						
67.	The responsible parties actively and promptly respond to reported maintenance issues.					

Notes:					
68.	The Suppliers replaced the damaged furniture that had arrived to the school.				
Notes:					
69.	The school has the financial ability to the conduct maintenance tasks after the warrantee period.				
Notes:					
70.	The yearly budget of the school matches the requirements of the schools (pens, maintenance etc...)				
Notes:					
Aspect # 4: General Goals for the Project					
71.	The capacity of the school contributed to the reduction of overcrowding in neighboring schools.				
Notes:					
72.	The school contributes to meeting the growing numbers of students in the region.				
Notes:					
Aspect # 5: Contribution of the Local Community					
73.	The local community is satisfied with the new role of the school.				
Notes:					
74.	The school facilities related to the local community are being utilized as they should.				
Notes:					
75.	The local community utilizes the available school facilities to organize activities and events for them.				
Notes:					
76.	The location of the facilities intended to be used by the local community are appropriately situated and do not disturb school activities or encourage vandalism.				
Aspect # 6: Attitudes					
77.	The new school's model contributed to the positive enhancement of teachers' attitudes and behaviors towards the school.				
Notes:					
78.	The new school's model contributed to the enhancement of students' positive attitudes towards the school.				
Notes:					
79.	The new school model had a positive effect in the overall school community.				
Notes:					
Aspect # 7: Addressing Gender Issues (male/female) and students' age					
80.	The gender of the school was taken into consideration when building the height of the surrounding wall.				
Notes:					
81.	The design of the sports areas suits the gender and age of the students in the school.				
Notes:					
82.	The colors used on the walls of the school suit the gender of students in the school.				
Notes:					
83.	The gender of the students was taken into consideration				

	when designing the bathrooms in mixed schools.					
Notes:						
84.	There are suitable bathrooms to serve guests of both genders.					
Notes:						
85.	The available school facilities in the school building (nursery, and kindergarten) suit the gender of the students in the school.					
Notes:						
86.	The vocational classroom suits the gender of the school.					
Notes:						
Aspect # 8: Suggestions and Recommendations						
87.	Reflect on the realities of your new school in terms of construction, furniture and preparations. What attracted you to the school and feel it plays a role in improving the teaching-learning process?					
88.	What are the major challenges related to construction, furniture and preparations that you feel had a negative effect on the teaching-learning process in the school?					



New Schools Questionnaire - Students

Dear Student,

The facilities added to this school have been built to serve you, and offer you better educational opportunities. The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by the U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing your learning environment. It is very important for us to understand the extent to which this project achieved its goals, and therefore, the team responsible for the JSP program seeks your cooperation in answering the below **29** questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Note: When answering the below questions- please compare the realities of your current school with the realities of other public schools in Jordan.

Example:

Question	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
The school's outdoor facilities facilitated the implementation of various activities.		x			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

Evaluation Area: School Occupancy and Utilization & Higher Level Goals

Aspect # 1: School Building						
Number	Statement	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
1.	I have a positive perception of my new school.					
Notes:						
2.	My new school has playgrounds and areas that help me do different activities.					
Notes:						
3.	The location of the school's kiosk helps using it with ease.					
Notes:						
4.	The availability of the school's clinic made first aid accessible to me and my school mates.					
Notes:						
5.	The spaces of the hallways make it safe for me to move from one classroom to the other.					
Notes:						
6.	The availability of a resource area gave me the opportunity to learn in different ways.					
Notes:						
7.	The availability of bathrooms in several areas in the school contributed to responding to my basic needs.					
Notes:						
8.	The availability of labs and vocational rooms helped me learn in a better way.					
Notes:						
9.	Having a theatre and sports areas gave me the opportunity to participate in diverse activities.					
Notes:						
10.	Having a library in the school created more opportunities for me to learn and read.					

Notes:						
Aspect #2 Technology						
11.	The available computers in the school helped in developing my computer skills.					
Notes:						
12.	The interactive whiteboards in the classrooms helped in providing an exciting and fun-learning environment.					
Notes:						
13.	The availability of student laptops provided an opportunity to use technology throughout the school.					
Notes:						
14.	Having internet at the school helped me complete my tasks.					
Notes:						
Aspect #2 School Furniture						
15.	The furniture in my classroom is flexible to use, and helps me better interact with my classmates.					
Notes:						
16.	The furniture in my classroom is suitable for my age.					
Notes:						
17.	The furniture in my classroom is made of good quality.					
Notes:						
18.	The furniture in the art & music lab helps me in completing my tasks.					
Notes:						
19.	The furniture in the vocational room helps me in completing my tasks					
Notes:						
20.	The furniture in the science lab helps me in completing my tasks.					
Notes:						
21.	The furniture in my classroom is safe to use.					
Notes:						

22.	The furniture in the labs is safe to use.					
Notes:						
23.	Having bulletin boards in my classroom allowed me to display my work.					
Notes:						
24.	Having a locker helped me in storing my books and stationary.					
Notes:						
25.	Having a locker for myself contributed to my sense of ownership towards the school.					
Notes:						
Aspect #4: Attitudes						
26.	I look forward to going to school and I feel happy when I'm there.					
Notes:						
27.	My new school helped in changing my behaviors to the better.					
Notes:						
Aspect # 5: Suggestions & Recommendations						
28. Reflect on the realities of your new school in terms of infrastructure, furniture and equipment. What attracts you to it?						
29. What are the aspects you do not like in your new school infrastructure, furniture and equipment?						



New Schools Questionnaire - Teachers

Dear Teacher,

The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing the learning environment for our students. The JSP program also aims to support the Jordanian government's effort in building new schools that will reduce overcrowding in classrooms, rented facilities and double shifting. Since its launch in August 2006, the JSP aimed to build 28 new schools across different regions in Jordan and to rehabilitate 100 existing schools according to international standards in building school facilities and providing them with suitable furniture and equipment.

These schools were designed according to the educational perspective that provides places, spaces, equipment and tools that contribute to positively affecting the attitudes of the school community. This, in return, leads to the enriching students' education and increasing their sense of ownership towards their school.

Taking into consideration the impact of this project, it is important to conduct an evaluation that assesses the process and outcomes of the JSP, to identify recommendations for the effectiveness of the project and how it achieved its desired goals. Therefore, the team responsible for the JSP program seeks your cooperation in answering the below 48 questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Note: When answering the below questions- please compare the realities of your current school with the realities of other public schools in Jordan.

Example:

Statement	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
The design of the classrooms played a role in implementing educational activities		X			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

Aspect # 1: School Building						
Number	Statement	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
1	I have a positive perception of my new school.					
Notes:						
2	The school's outdoor facilities facilitated the implementation of various activities that serve the teaching-learning process.					
Notes:						
3	The design of the school corridors and hallways facilitated the implementation of various educational activities.					
Notes:						
4	The design of the classrooms played a role in implementing educational activities.					
Notes:						
5	The availability of subject-matter classrooms contributed to providing better learning environment that improved the learning process.					
Notes:						
6	The availability of a resource room helped in implementing school activities that achieve educational goals.					
Notes:						
7	The availability of planning rooms enriched the teaching-learning process.					
Notes:						
8	Having a meeting room in every cluster promoted effective communication between teachers.					
Notes:						
9	Having a teachers room contributes to better communication between teachers.					
Notes:						

10	Having a Resource Room contributed in implementing enhancement activities suitable for students.					
Notes:						
11	The multi-purpose room contributed to the implementation of the activities that served the teaching-learning process.					
Notes:						
12	Having a library contributed to enriching the teaching-learning process.					
Notes:						
13	The design of the school contributed to enhancing my sense of ownership toward the school.					
Notes:						
Questions 14-16 are for Science, Art and Vocational teachers						
14	The availability of science labs contributed to implementing science experiments related to the curriculum.					
Notes:						
15	Having art & music lab contributed in implementing educational activities that serve the learning objectives.					
Notes:						
16	Having vocational lab contributed in implementing educational activities that serve the learning objectives.					
Notes:						
Aspect #2: Technology						
17	The availability of interactive whiteboards facilitated the implementation of activities that enrich students' learning.					
Notes:						

18	The availability of laptops for students contributed in activating the role of students in the learning-teaching process.					
Notes:						
19	Having my own computer helped me in doing my lessons better.					
Notes:						
20	The availability of Data Show equipment made it easier for me to present educational activities.					
Notes:						
21	The availability of charging units (COWs) contributed to the activation and utilization of laptops to serve the teaching-learning process.					
Notes:						
22	Having computers in the library helped in enriching the teaching-learning process.					
Notes:						
Questions 23-24 for Science and Art Teachers						
23	Having computers in science labs played a role in merging between technologies and teaching science.					
Notes:						
24	Having computers in the art and music lab played a role in merging between technologies and teaching art and music.					
Notes:						
Aspect #3: School Furniture						
25	The flexibility of the classroom furniture helps me in re-designing the style of the room.					
Notes:						
26	The furniture in my classroom is safe to use.					

Notes:						
27	The furniture available for teachers helped them complete their tasks.					
Notes:						
28	The furniture of the library helped in activating its use serving the educational-learning process.					
Notes:						
29	The furniture of the resource area contributed in conducting activities that cannot be conducted in the classrooms.					
Notes:						
30	Having bulletin boards in the classroom enriching the learning environment in the classroom.					
Notes:						
31	Having bulletin boards in the hallway contributed positively to the teaching-learning process.					
Notes:						
32	The availability of my room's furniture contributed in developing my sense of ownership.					
Notes:						
Questions 33-37 is for Science, Art and Vocational Teacher						
33	The furniture in the science lab created a more enriching learning environment for student.					
Notes:						
34	There is a safe place to store toxic substances required for experiments.					
Notes:						
35	The furniture in the art and music lab contributed to the teaching learning process.					
Notes:						

36	The furniture in the vocational lab contributed to enriching teaching learning process.					
Notes:						
37	The labs furniture is safe to use.					
Notes:						
38	The necessary scientific equipments are available to conduct science experiments.					
Notes:						
39	Art and music resources are available to conduct art and music activities.					
Notes:						
Aspect #4 Attitudes						
40	The whiteboards are practical and suitable for teaching purposes.					
Notes:						
41	The whiteboards contributed to a healthier classroom environment for the teacher and students.					
Notes:						
42	The photocopying machines at the school allowed me to photocopy activity sheets and assignments that helped in teaching students.					
Notes:						
43	The printers at the school allowed me to make innovative educational material to enrich students' learning.					
Notes:						
44	The New School helped positively enhancing teachers' attitudes and behaviors.					
Notes:						
45	The New School helped positively enhancing students' attitudes and behaviors.					
Notes:						
46	The new school model had a positive effect in the overall school community.					
Notes:						

Aspect # 5: Suggestions and Recommendations

47	Reflect on the realities of your new school in terms of construction, furniture and preparations. What attracted you to the school that you feel plays a role in improving the teaching-learning process?
48	What are the major challenges related to construction, furniture and preparations that you feel had a negative effect on the teaching-learning process in the school?



Rehabilitated Schools Structured Interview - Principal

Dear Principal,

The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing the learning environment for our students. The (JSP) program also aims to support the Jordanian government's effort in building new schools that will reduce overcrowding in classrooms, rented facilities and double shifting. Since its launch in August (2006), the JSP aimed to build (28) new schools across different regions in Jordan and to rehabilitate (100) existing schools according to international standards in building school facilities and providing them with suitable furniture and equipment.

These schools were designed according to the educational perspective that provides places, spaces, equipment and tools that contribute to positively affecting the attitudes of the school community. This, in return, leads to the enriching students' education and increasing their sense of ownership towards their school.

Taking into consideration the impact of this project, it is important to conduct an evaluation that assesses the process and outcomes of the (JSP), to identify recommendations for the effectiveness of the project and how it achieved its desired goals. Therefore, the team responsible for the (JSP) program seek your cooperation in answering the below **42** questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Example:

Question	Strongly Agree	Agree	Disagree	Strongly Disagree	Not Applicable
The school's outdoor facilities contributed in the implementation of a variety of educational activities		x			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

Number	Statement/Question	Answer				
1	Do the spaces added in your school include an administration room?	<input type="checkbox"/> Yes (Answer questions 2-4) <input type="checkbox"/> No (Go to question 5)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
2	The location of the administration room helps in following up on school work.					
Notes:						
3	The spacing of the admin room allows for completing administrative work.					
Notes:						
4	The furniture of the admin room matches the nature of the admin work.					
Notes:						
5	Do the spaces added in your school include teachers' rooms?	<input type="checkbox"/> Yes (Answer questions 6-10) <input type="checkbox"/> No (Go to question 11)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
6	The space of teachers' room is suitable with their number and allows them to move easily.					
Notes:						
7	The furniture of teachers' room is with high quality.					
Notes:						

8	The furniture of teachers' room helped them to complete their assigned tasks.					
Notes:						
9	The good ventilation in the teachers' room offered a suitable working environment for them.					
Notes:						
10	The good lighting in the teachers' room offered a suitable working environment for them.					
Notes:						
11	Do the spaces added in your school include classrooms?	<input type="checkbox"/> Yes (Answer questions 12-17) <input type="checkbox"/> No (Go to question 18)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
12	The new classrooms contributed to reduce the overcrowding inside classrooms.					
Notes:						
13	The spaces of the classrooms are suitable with the average number of students in each classroom					
Notes:						
14	Having new classrooms contributed to improving the teaching-learning environment in the school					
Notes:						
15	The ventilation in the new classroom contributed to a suitable learning environment					

Notes:

16	The lighting in the new classroom contributed to a suitable learning environment					
----	--	--	--	--	--	--

Notes:

17	The furniture used in the new classroom suits the age of students.					
----	--	--	--	--	--	--

Notes:

18	Do the spaces added in your school include computer labs?	<input type="checkbox"/> Yes (Answer questions 19-24) <input type="checkbox"/> No (Go to question 25)				
----	---	--	--	--	--	--

Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
--------	--------------------	----------------	-------	----------	----------------	----------------

19	The spaces of the computer labs suit the average number of students in each class.					
----	--	--	--	--	--	--

Notes:

20	Building new computer labs created opportunities for teachers to incorporate technology into their teaching.					
----	--	--	--	--	--	--

Notes:

21	The new computer labs contributed in creating more student-centered classrooms.					
----	---	--	--	--	--	--

Notes:

22	The electrical plugs in the computer labs contribute to effectively distributing computers.					
Notes:						
23	The ventilation in the new computer labs contributed to a suitable learning environment.					
Notes:						
24	The lighting in the new computer labs contributed to a suitable learning environment					
Notes:						
25	Do the spaces added in your school include science labs?	<input type="checkbox"/> Yes (Answer questions 26-29) <input type="checkbox"/> No (Go to question 30)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
26	The spaces of the science labs suit the average number of students in each class.					
Notes:						
27	The new science labs contributed to creating opportunities for teachers and students to conduct experiments to meet learning objectives.					
Notes:						
28	The ventilation in the new science labs contributed to a suitable learning environment.					

Notes:

29	The lighting in the new science labs contributed to a suitable learning environment.					
-----------	--	--	--	--	--	--

Notes:

30	Do the spaces added in your school include a library?	<input type="checkbox"/> Yes (Answer questions 31-34) <input type="checkbox"/> No (Go to question 35)				
-----------	---	--	--	--	--	--

Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
---------------	---------------------------	-----------------------	--------------	-----------------	-----------------------	-----------------------

31	The library contributed in improving the teaching-learning process.					
-----------	---	--	--	--	--	--

Notes:

32	The building of the library encouraged teachers to implement learning-objectives activities.					
-----------	--	--	--	--	--	--

Notes:

33	Having a library allowed for implementing different activities and events to serve the educational process.					
-----------	---	--	--	--	--	--

Notes:

34	The furniture in the library allows for using it for different educational activities.					
-----------	--	--	--	--	--	--

Notes:

35	Do the spaces added in your school include a	<input type="checkbox"/> Yes (Answer questions 36-38)				
-----------	--	---	--	--	--	--

	kindergarten?	<input type="checkbox"/> No (Go to question 39)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
36	The location of the kindergarten contributes to providing a safe environment for the students.					
Notes:						
37	The furniture in the kindergarten suits the ages of the students in providing a suitable learning environment.					
Notes:						
38	The ventilation in the KG contributed to a suitable learning environment.					
Notes:						
39	Do the spaces added in your school include bathrooms?	<input type="checkbox"/> Yes (Answer questions 40-42)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
40	The location of the bathrooms makes it easy for students to use.					
Notes:						
41	The ventilation in the bathrooms is good.					
Notes:						

42	The necessities available in the bathrooms suit the age groups and their needs.					
----	---	--	--	--	--	--

Notes:



Rehabilitated Schools Questionnaire – Students

Dear Student,

The facilities added to this school have been built to serve you, and offer you better educational opportunities. The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by the U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing your learning environment. It is very important for us to understand the extent to which this project achieved its goals, and therefore, the team responsible for the JSP program seeks your cooperation in answering the below **25** questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Example:

Statement	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
The new classrooms helped me concentrate better with the teacher		X			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

Evaluation Area: School Occupancy and Utilization

Number	Statement/Question	Answer				
1	Do the spaces added in your school include classrooms?	<input type="checkbox"/> Yes (Answer questions 2-6) <input type="checkbox"/> No (Go to question 7)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
2	I have a positive perception of my new classroom.					
Notes:						
3	The flexible furniture helped me to collaborate more with my classmates when I am doing activities.					
Notes:						
4	The ventilation in the classroom is suitable.					
Notes:						
5	The lighting in the classroom is suitable and allows me to see well.					
Notes:						
6	The furniture in my classroom is safe and doesn't cause me any injuries.					
Notes:						
7	Do the spaces added in your school include computer labs?	<input type="checkbox"/> Yes (Answer questions 8-12) <input type="checkbox"/> No (Go to question 13)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
8	The space in the computer labs is enough and helps me collaborate with my classmates.					
Notes:						

9	Having computers helps me in developing my computer skills.					
Notes:						
10	The furniture of the computer lab is safe to use.					
Notes:						
11	The ventilation in the computer lab is suitable.					
Notes:						
12	The lighting in the computer lab is suitable and allows me to see well.					
Notes:						
13	Do the spaces added in your school include science labs?	<input type="checkbox"/> Yes (Answer questions 14-17) <input type="checkbox"/> No (Go to question 18)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
14	Having a science lab in my school provided me with opportunity to implement scientific experiments linked to the curriculum					
Notes:						
15	The furniture of the science lab is safe to use.					
Notes:						
16	The ventilation in the science lab is suitable.					
Notes:						
17	The lighting in the science lab is suitable and allows me to see well.					
Notes:						

18	Do the spaces added in your school include a library?	<input type="checkbox"/> Yes (Answer questions 19-21) <input type="checkbox"/> No (Go to question 22)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
19	Having a library in my school helped me implement tasks and activities that contributed to improving my learning.					

Notes:

20	The ventilation in the library is suitable.					
-----------	---	--	--	--	--	--

Notes:

21	The lighting in the library is suitable and allows me to see well.					
-----------	--	--	--	--	--	--

Notes:

22	Do the spaces added in your school include bathrooms?	<input type="checkbox"/> Yes (Answer questions 23-25)				
-----------	---	---	--	--	--	--

Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
---------------	---------------------------	-----------------------	--------------	-----------------	-----------------------	-----------------------

23	The locations of the new bathrooms in my school make them accessible.					
-----------	---	--	--	--	--	--

Notes:

24	The bathrooms in my school are safe in terms of their doors, the height of the windows, and the flooring.					
-----------	---	--	--	--	--	--

Notes:

25	The bathroom necessities available are suitable.					
-----------	--	--	--	--	--	--

Notes:



Rehabilitated Schools Questionnaire - Teachers

Dear Teacher,

The objective of the Jordan School Construction and Rehabilitation Project (JSP), funded by U.S. Agency for International Development (USAID/Jordan) is to support the efforts of the Ministry of Education in enhancing the learning environment for our students. The JSP program also aims to support the Jordanian government's effort in building new schools that will reduce overcrowding in classrooms, rented facilities and double shifting. Since its launch in August 2006, the JSP aimed to build 28 new schools across different regions in Jordan and to rehabilitate 100 existing schools according to international standards in building school facilities and providing them with suitable furniture and equipment.

These schools were designed according to the educational perspective that provides places, spaces, equipment and tools that contribute to positively affecting the attitudes of the school community. This, in return, leads to the enriching students' education and increasing their sense of ownership towards their school.

Taking into consideration the impact of this project, it is important to conduct an evaluation that assesses the process and outcomes of the JSP, to identify recommendations for the effectiveness of the project and how it achieved its desired goals. Therefore, the team responsible for the JSP program seeks your cooperation in answering the below **49** questions noting that your responses will be treated confidentially and will be used solely for the purposes of this evaluation.

Example:

Statement	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
Having new classrooms helped me in managing my classrooms more effectively		X			

Kindly ask us for any assistance if you are unable to respond to any of the statements.

Thank you

1	Do the spaces added in your school include teachers' rooms?	<input type="checkbox"/> Yes (Answer questions 2-6) <input type="checkbox"/> No (Go to question 7)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
2	The space of teachers' room is suitable with their number and allows them to move easily.					
Notes:						
3	The furniture of teachers' room is with high quality.					
Notes:						
4	The furniture of teachers' room helped them to complete their assigned tasks.					
Notes:						
5	The good ventilation in the teachers' room offered a suitable working environment for them.					
Notes:						
6	The good lighting in the teachers' room offered a suitable working environment for them.					
Notes:						
7	Do the spaces added in your school include classrooms?	<input type="checkbox"/> Yes (Answer questions 8-14) <input type="checkbox"/> No (Go to question 15)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
8	Having new added classrooms reduced the number of students in the classroom.					
Notes:						
9	Having new classrooms helped me in managing my classrooms more effectively.					
Notes:						
10	Having new classrooms provided me with the opportunity to implement classroom activities.					
Notes:						
11	The furniture in the new added classrooms is safe to use.					
Notes:						

12	Having school-friendly furniture helped in diversifying classroom arrangements.					
Notes:						
13	Having good ventilation systems in the classrooms contributed to providing a suitable learning environment for the students.					
Notes:						
14	Having lighting systems in the classrooms contributed to providing a suitable learning environment for the students.					
Notes:						
15	Do the spaces added in your school include computer labs?	<input type="checkbox"/> Yes (Answer questions 16-24) <input type="checkbox"/> No (Go to question 25)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
16	The space of computer labs is enough for the number of students in the classroom.					
Notes:						
17	The space of the computer labs allowed for proper arrangement of the furniture.					
Notes:						
18	The availability of computer labs contributed utilizing technology to serve the teaching-learning process					
Notes:						
19	The computer lab's furniture is suited for students' ages and thus providing a suitable learning environment					
Notes:						
20	The furniture in computer labs is safe to use.					
Notes:						
21	Having electrical cables in the right places contributed to a suitable learning environment.					
Notes:						
22	The electrical extensions inside the computer labs are made in a way which is safe for students.					
Notes:						
23	Having good ventilation systems in the computer lab contributed to					

	creating a suitable learning experience for students					
Notes:						
24	Having good lighting systems in the computer lab contributed to creating a suitable learning experience for students					
Notes:						
25	Do the spaces added in your school include science labs?	<input type="checkbox"/> Yes (Answer questions 26-35 if you are a computer lab technician) <input type="checkbox"/> No (Go to question 36)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
26	The space of science labs is enough for the number of students in the classroom.					
Notes:						
27	The availability of science labs contributed to creating more opportunities to implement experiment that achieve learning objectives.					
Notes:						
28	The spaces of the science labs allowed for proper arrangement of the furniture.					
Notes:						
29	Having an emergency exit in the lab contributed to offering an element of safety for teachers and students when they are using the lab.					
Notes:						
30	The science lab-friendly furniture allows for creating a suitable learning environment that achieves goals					
Notes:						
31	The science lab's furniture is suited for students' ages and thus providing a suitable learning environment					
Notes:						
32	The furniture in the science lab is safe.					
Notes:						
33	The ventilation in the new science labs contributed to a suitable learning environment					
Notes:						
34	The lighting in the new science labs contributed to a suitable learning					

	environment					
Notes:						
35	There are designated areas in the lab to store toxic material used in experiments					
Notes:						
36	Do the spaces added in your school include a library?	<input type="checkbox"/> Yes (Answer questions 37-42) <input type="checkbox"/> No (Go to question 43)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
37	Having a library helped me implement activities that enriched the teaching-learning process					
Notes:						
38	The space of the library contributed to achieving learning goals					
Notes:						
39	The furniture of the library is safe to use.					
Notes:						
40	The flexibility of the library furniture allow for changing the seating into different styles.					
Notes:						
41	Having good ventilation systems in the library contributed to creating a suitable learning experience for students					
Notes:						
42	Having good lighting systems in the library contributed to creating a suitable learning experience for students					
Notes:						
43	Do the spaces added in your school include kindergartens?	<input type="checkbox"/> Yes (Answer questions 44-49 if you are a kindergarten teacher)				
Number	Statement/Question	Strongly Agree	Agree	Disagree	Strongly Agree	Not Applicable
44	The location of the kindergarten contributed to creating a safe environment for students					
45	The space of the kindergarten contributed to achieving learning goals					
Notes:						
46	The kindergarten's furniture is suited for students' ages and thus providing a suitable learning environment.					
Notes:						
47	The furniture of the kindergarten is safe to use.					
Notes:						

48	Having good ventilation systems in the kindergarten contributed to creating a suitable learning experience for students.					
Notes:						
49	Having good lighting systems in the kindergarten contributed to creating a suitable learning experience for students.					
Notes:						

New Schools Workshop Outline

Workshop Objectives:

- To gather deep insights, feedback and recommendations from the participants in regards to the new schools
- To gather clarifications on certain aspects on the new school
- To gather justifications and verifications to certain findings in regards to the new schools
- To gather first-hand data to support the evaluation process

Target Group:

Participants from the NS	Administration	Teachers	Parents & local Community	Students
Number	5-3	15-20	10-15	10-15
Participants from Neighboring Schools	Administration	Teachers		
Number	3-5	10-15		
Local Stakeholders	MoE	FD	Others (NGOs)	
Number	5	5	2	

**Teachers and Students (grades 5 and over will be randomly selected.

Other Details:

- Coordinate with the school's principal on where the workshop will be held, and specify the time
- Workshop duration: 4 Hours
- After every 'question' the whole group will gather to exchange ideas, build on each other's input and recommendations- allowing for a more comprehensive understating of the question at hand.

Workshop Activities:

Activity	Activity Description	Time Duration	
Workshop Introduction	A Presentation that includes the objective of the workshop, and introducing the facilitators of the workshop.	15 mins	
Opening Activity	Distributing cards to the participants, and each of them is required to get the largest number of signatures from the participants within a specific time, and then choose the three people who received the largest number of signatures, and ask them to refer to the owner of each signature is on the card.		
Activity: New School	<p>Dividing participants into groups.</p> <ul style="list-style-type: none"> The facilitator of each group distributes a card containing the following question: Reflect on the realities of the new school in terms of construction, furniture and preparations. What attracts you to the school, and you see plays an integral role in offering an ideal learning environment? The Facilitator asks the groups to answer the flip charts. Each group's work is displayed and discussed. <p>Product: Flip Charts are used in obtaining useful data for the evaluation.</p>	<p>Material Needed</p> <p>Question Cards</p> <p>Flip chart</p>	<p>Time</p> <p>30 mins</p>
Activity: Challenges	<ul style="list-style-type: none"> Participants are distributed in the following groups: <ul style="list-style-type: none"> Admin Group Teachers Group Students Group Families and Local Community Group The facilitator distributes a card containing a question for each group, and asks them to answer it from the groups point of view, as follows: What are the biggest challenges related to the school construction, furniture and preparations that you think had a negative effect of the educational experience in the school? <ul style="list-style-type: none"> The Facilitator asks the groups to answer from their own perspective. Each group's work is displayed and discussed. <p>Final Product: flipcharts are used in obtaining useful data for the evaluation.</p>	<p>Question Cards</p> <p>Flip chart</p>	<p>50 min</p>
Lunch Break -----30 minutes			
Activity: Discussion Questions	<ul style="list-style-type: none"> Participants are distributed in the following groups: <ul style="list-style-type: none"> Admin Group Teachers Group Students Group Families and Local Community Group The facilitator distributes a card containing the following question for each group: <ul style="list-style-type: none"> Admin, Teachers & Students: What's the impact of the NS on the attitudes and behaviors on the teachers, students (give examples). 	<p>Question Cards</p> <p>Worksheets</p>	<p>50 mins</p>

	<p>- Families and Local Community Group: How satisfied are you about the new roles of this school? What are the most significant facilities in the school that are being used by you? Are they suitable? What in your opinion is the effect of the schools on students' learning?</p> <p>Final Product: Data on main successes and impact of schools on the whole school community.</p>		
<p>Activity: My School, My Community</p>	<ul style="list-style-type: none"> • Participants are distributed in the following groups: <ul style="list-style-type: none"> ○ Admin Group ○ Teachers Group ○ Students Group ○ Families and Local Community Group • The facilitator distributes a card containing the following question for each group: What the impact of the school on the surrounding community (neighboring schools, FD's, mosques etc...)- give examples to reflect the realities on the local community surround the school. • The Facilitator asks the groups to answer from their own perspective. <ul style="list-style-type: none"> • Each group's work is displayed and discussed. <p>Final Product: flipcharts are used in obtaining useful data for the evaluation.</p>	<p>Question Cards</p> <p>Flip Chart</p>	<p>50 Minutes</p>
<p>Closing Activity: Opinions and Impressions</p>	<ul style="list-style-type: none"> • Facilitator provides each participant with a card. • Facilitator asks each participant to write a phrase describing his/her impression of the New School's Model. <ul style="list-style-type: none"> • The participants display their cards quickly. <ul style="list-style-type: none"> • Facilitator collects the cards. • Facilitator thanks the participants for their efforts. 	<p>Empty Cards</p>	<p>10 mins</p>

MoE Interview

Questions:

JSP Planning & Design Phase

- Was the role of MoE in the JSP clearly defined since the start of the project?
- Were there agreements that were contractually made that organized the relationship between the MoE and USAID for the JSP that defined clearly roles and responsibilities of each party?
- Can you assess MoE level of ownership towards the JSP? Was that developed right from the start of the program or after?
- Were you involved in the process of forming the JSP objectives and deliverable and timelines?
- Was the detailed timeline of the project shared with the MoE? Did any delays take place in terms of construction, furniture delivery? Why so?
- Did you receive all the details related to the deliverables? Were they all achieved? Why so?
- Was the MoE's input taken into consideration in the planning phase of the overall JSP? Yes, to which extent, No, Why?
- Did your feedback affect the planning?
- Did the MoE have an opinion on the number and locations of NS to be built or the number of the RS?
- Would you consider yourself as an active partner in the implementation of the project? Yes, No, how?
- What is your overall impression of the JSP?
- What do you think is the main impact of the JSP on the education sector in Jordan?
- Was the JSP successful in achieving its objectives? To which extent?
- As a MoE what are the biggest challenges you faced in the JSP?
- What departments within the MoE were officially requested to be part of the JSP? What were their roles and responsibilities?
- What were your communication channels with the JSP?
- As an MoE how do you perceive your relationship with the below within the JSP:
 - Architect & Engineering contractor,
 - Construction contractors,
 - MPWH, etc.
- From your point of view, did the JSP take into consideration your design norms and standards, and how? Including standards for school security and safety?
- Where there challenges or issues that MoE faced with other local authorities? Give examples?
- What were the funding mechanisms for the JSP?
- What do you think of these mechanisms?
- Are there any suggestions to have better mechanisms, to ensure a better functioning project?
- Was the MoE involved in choosing what kind of extension is made for the Rehabilitated Schools? How?
- Were their efforts made to ensure that the design of the NS and extensions in the RS were sensitive to the local culture?
- Was gender taken into consideration when designing and planning for this project? How?
- What was the role of the MoE in the Construction phase specifically?
- Were the responsibilities of the MoE identified for the construction phase? If so, how? And by whom?
- Did the MoE have any contribution to the type of construction materials used, furniture selected, or equipment used in the school? How?

JSP Execution & Construction Phase

- Describe the tendering and the procurement process applied in the JSP? Did they differ for each phase? Explain.
- Did you face any challenges during the different phases? If yes, please specify.

- To what extent does the MoE involve the FD in the NS and the extensions made in the RS? For example: Did you involve the Building Department in the FD in the construction phase? (Follow-up, supervision etc...)
- Was the MoE in close contact with the MPWH in the construction phase? How so?
- In the cases where the furniture and equipment were procured at once, who was responsible for the costs of storage and handling?

Handing Over

- Who is responsible for the NS and RS in terms of Operation and Maintenance costs? If it's the MoE can it bear all costs?
- How do you address and process the maintenance requests from both NS and RS?
- What kind of support is required from the MoE to ensure maximum utilization of the NS and the expansion areas in the RS? What steps is the MoE making to ensure that?
- Are there challenges in finding the required maintenance/spare parts in the local market? How does the MoE handle this?
- Was the quality of the final product as per the project/school specification?
- How do you handle the discrepancies between the running cost of larger landscaped areas, Heating, Ventilation and Air Conditioning systems (HVAC), and new elements in NS and RS schools in comparison to the other public schools in Jordan?
- In your opinion, how can we ensure a more effective utilization of the resources available in the NS and RS?
- In this final year of the JSP, looking back, what is the one thing that you would change to ensure a more successful implementation of the JSP?
- Do the NS and/or the RS stand out in comparison to other public schools? How?

Interview with MoPWH

Planning & Design

- Was your role in the JSP clearly defined since the beginning of the project?
- Were there agreements that were contractually made that organized the relationship between the MoPWH and USAID for the JSP? Please describe them.
- Were there agreements that were contractually made that organized the relationship between MoPWH and CDM for the JSP? Please describe them.
- Can you assess MoPWH level of ownership towards the JSP? Was that developed right from the start of the program or after?
- Were you part of the process of forming the JSP objectives and deliverable and timelines?
- Was the detailed timeline of the project shared with you? Did any delays take place in terms of construction? Why so?
- Did you receive all the details related to the deliverables? Were they all achieved? Why so?
- Was the MoPWH's input taken into consideration in the planning phase of the overall JSP? Yes, No, Why?
- Did your feedback affect the planning?
- Did the MoPWH have an opinion on the number of NS to be built or the number of the RS?
- Would you consider yourself as an active partner in the implementation of the project? Yes, No, how?
- What is your overall impression of the JSP?
- What is the nature of your relationship with the MoE for this project?
- Did you have feedback on the location of the NS schools? How did that process work?
- Were you involved in selecting the 100 RS? How?
- Were you involved in selecting the kind of intervention made to the RS Schools? How?
- Were you involved in the supervision of the quality of the construction material selected? How did that process work? What would happen if the materials selected didn't meet your standards?
- Did you have direct access to the FD's? If no, would it have been more efficient if you did?
- As MoPWH what were the biggest challenges that you faced throughout the JSP?

Construction & Execution

- Describe the tendering and the procurement process applied in the JSP? Did they differ for each phase? Explain.
- Did you face any challenges during the different phases? If yes, please specify. How did you respond to the challenges?
- Did you involve the MoE in the construction phase? If so, how?
- Did you have a role in following up on construction sites? How so?
- What steps were taken if the contractor was deviating from the design or the timeline?
- How did you respond during Defects Liability Period? What were the challenges that you faced?
- How would you improve the construction phase for similar future interventions?

Handing Over

- Was the quality of the final product as per the project/school specification?
- Was there a challenge in finding the required maintenance/spare parts in the local market? How did you handle this?
- Do you have any periodic maintenance procedures? Does that differ from the New Schools and Rehabilitated Schools?
- How do you address and process the maintenance requests from schools?
- Do you take any preventative maintenance measures in the New Schools and Rehabilitated Schools? If yes, how? If not, why not?
- Do you conduct any form of customized training for school staff to enable them to handle any basic maintenance related issues independently? If, so how?

Interview with CDM

Planning & Design

- Was there a contractual agreement on your relationship with USAID, MoE, and MPWH? Describe it.
- What other parties were you in direct contact with? How did you coordinate with them?
- Did you provide the MoE with a clear plan on how the construction phase will roll-out? Were they aware of their role and responsibilities in this phase?
- Explain the variations to contract and the reasons, effect on cost, process for approval of the variation orders?
- In your planning and design phase, how did you ensure that the local culture and needs are being taken into consideration?
- Was gender taken into consideration when designing and planning for this project? If so how?
- What was the biggest challenge you faced in the planning and design phase? If so how?
- Was the local community taken into consideration when designing and planning for this project? If so how?
- Were you involved in deciding the location of the NS schools? How did that process work?
- Were you involved in selecting the 100 RS? How did that process work?
- Were you involved in selecting the kind of intervention made to the RS Schools? How?
- Were there any major ambiguities in the designs or tender packages that hindered your work? If yes, such as? And how did they hinder your work?
- How were the construction standards agreed upon? Where there cases where the contractor deviated from the standards? How was that handled?
- How was the construction material standards agreed upon?
- What steps were taken if the contractor was deviating from the design or the timeline?
- Was the MoE continually updated on the development of the project? Accomplishments and delays? How often was that communicated to them?

Construction & Execution

- How was the supervision on construction sites conducted?
- Was it easy for you to get feedback from the supervising team? How did you address their needs?
- How did you respond during Defects Liability Period? What were the challenges that you faced?
- How was the current procurement approach designed?
- Why did you take the current approach for procurement? Would you propose a different approach?
- Would you change anything about the construction process? What why?
- Did you follow any specific procedure to test the mechanical and electrical systems? How did you respond to any challenges?

Handing Over

- Was the quality of the final product as per the project/school specification?
- Was there a challenge in finding the required maintenance/spare parts in the local market? How did you handle this?
- How do you address and process the maintenance requests from schools?
- Do you have any periodic maintenance procedures? Does that differ from the New Schools and Rehabilitated Schools?
- Do you take any preventative maintenance measures in the New Schools and Rehabilitated Schools? If yes, how? If not, why not?
- Do you conduct any form of customized training for school staff to enable them to handle any basic maintenance related issues independently?
- Did you follow any specific procedure for commissioning, and handing over? How did you respond to any challenges?

- How do you monitor the response to defects during Liability Period?
- What are lessons learned for similar future contracts?
- Was there a challenge in finding the required maintenance/spare parts in the local market? How did you handle this?
- What are the running cost of larger landscaped areas, Heating, Ventilation and Air conditioning systems (HVAC), and new elements in schools?

Interview with USAID

Planning & Design

- How did USAID align the goals of JSP with the needs and priorities of the MoE?
- Who mapped out the process of JSP- and the relationship between USAID, MoE, MPWH and the Contractors?
- Was there a clear organizational chart of the involved parties roles and responsibilities? If yes, please share. If not, why not?
- Did USAID communicate to the MoE its roles and responsibilities in the project? Was there any follow up? Was that done in a participatory approach?
- To what extent was the MoE involved in the planning and design phase?
- What decision were made to merge between the needs and regulations of the MoE and those of USAID?
- What challenges did you face with the MoE, and how did you try to overcome them?
- What was the biggest impediment for USAID in this project? How was it overcome?
- What steps were taken to ensure that the cultural needs of the schools/ communities were taken into consideration when planning and designing the JSP?
- Are you involved in the follow up on the main Contractor? If so how, or why not?
- In what ways can USAID hold the MoE or any other party responsible for not delivering what it is expected to deliver?
- For the RS did you expect the MoE or responsible party to communicate with the principals of the school to understand their needs?
- How did you ensure that the design and planning took into consideration the gender aspect?

Construction & Execution

- What were the advantages and disadvantages of working with one contractor?
- What was your role in the construction phase?
- How did you ensure that your contractor is taking into consideration the localities of the schools and the culture?
- Why in your opinion were there delays in the project timeline? How could they have been avoided?

Handing Over

- To what extent are you involved in the follow up phase, after the schools are operational?
- In your opinion did the JSP achieve the goals it intended to achieve for USAID? Explain.
- Did the quality of the final product meet your expectations?
- What are the major lessons you learned from this experience?
- What are your impressions of teachers and students in the NS and RS?

Interview with CMP

Questions:

- What is the role of the Local Community in the planning process for building the new schools?
- How did the contribution of the local community reflect on the design of the school building?
- Did they face any challenges in the planning phase in involving local communities? What were they?
- What was the effect of the local community's contribution in all aspects of the planning process for the new school's model?
- How satisfied is the local community with the NS's model? Give examples.
- How satisfied is the local community with the NS's role its playing in the community? Give examples
- How suitable are the school facilities in encouraging the local community to use them?
- What is the number of school communities that are in fact utilizing the schools?
- What parts of the school is the community utilizing in each school?
- In terms of the design of the school's facilities, do you feel they encourage the community to utilize them?
- Do you think the school facilities are being used by the community to their maximum potential? If so, why?
- Can you provide examples of projects that utilized the school facilities by the community?
- What are the obstacles that prevent the local community from utilizing the new school facilities?
- Did the new facilities contribute to strengthening the relationship between the school and the community? If so, how?
- What are the main challenges that the school faces when allowing the community to utilize their facilities?

Construction Contractor

Questions:

- How do you assess the procurement process used?
- What kind of difficulties and obstacles did you face during the construction phase?
- Who was supervising the construction process and ensuring the full achievements of the targeted objectives?
- What were the reporting mechanisms for the client?
- Was there any delay in the project? Why?
- Explain the variations to contract and the reasons, effect on cost, process for approval of the variation orders?
- How do you respond and process the school maintenance requests?
- Did the projects finish on time, reasons for delay?
- What were the challenges during Defects Liability Period?
- Was there a challenge in finding the required maintenance/spare parts in the local market? How did you handle this?

Furniture Contractor

Questions:

- How do you assess the procurement process used?
- What kind of difficulties and obstacles did you face during the delivery phase?
- Was there any delay in the project? Why?
- Explain the variations to contract and the reasons, effect on cost, process for approval of the variation orders?
- How do you respond and process the school maintenance requests?
- Did the projects finish on time, reasons for delay?
- What were the challenges during Defects Liability Period?

ANNEX VI:

SOURCES OF INFORMATION

MoE

No	Name	Title	Telephone
1	Dr. Mohammad Abu Ghazleh	Planning Director	+9626 560 7181
2	Dr. Mohammad Al Nsour	Head of Buildings and Projects Department	+9626 560 7181
3	Eng. Firyal Aqel	DCU Manager	+9626 560 7181
4	Emad Abu Awad	Director of International Tendering	+9626 560 7181

Field Directorate

Region	No	Field Directorate	Contact Person	Title	Telephone
North	1	Ajloun	Mahmoud Odebat	Director of the Field Directorate	+9622 642 0130 +9622 642 0159
			Mohammad Al Syoof	Director of Supervision	
			Majed Al Zoghhol	Director of Planning Department	
			Eng. Esam Abu Hamde	Director of Buildings	
			Mustafa Al Heyare	Director of General Education Department	
	2	Irbid	Esam Abu Ashour	Director of Planning Department	+9622 727 3115 +9622 727 4416
			Reyad Shaheen	Member of Buildings Department	
			Mohammad Al Qelan	Director of Activities Department	
			Atef Al Rawajbe	Custodial of Inventory and Supplies	
3	Ramtha	Turke Shaker	Member of Planning Department	+9622 738 1414 +9622 738 1858	
Middle	4	Ain Al Basha	Hail Al Torman	Director of the Field Directorate	+9626 533 8513 +9626 533 8514
			Hashim Al Shaer	Educational Supervisor	
			Ibrahim Hejaze	Member of Planning Department	
			Hassan Al Faore	Engineer from the Buildings Department	
			Esa Abu Shaheen	Member of Activities Department	
			Yousef Abu Salem	Custodial Personnel	
	5	Marka	Anas Al Jayouse	Member of Planning Department	+9626 565 1797 +9626 565 1798
			Eng. Mohammad Jameel	Engineer from the Buildings Department	
			Ibrahim Al Hadban	Member of Activities Department	
			Hazem Rafeeqe	Custodial Personnel	
	6	Na'ur	Khalid Al Masha'ale	Director of Planning Department	+9626 425 0624 +9626 425 0608
			Solayman Daoud	Member of Buildings Department	
			Eng. Mohammad Al Ateyat	Member of Buildings Department	
			Ahmad Al Masaeda	Director of Activities Department	
			Ali Al Marayha	Custodial Personnel	
	7	Qweismah	Fahed Al Jboor	Director of Planning Department	+9626 416 6301 +9626 416 6344
			Eng. Khaleel Al Maraeya	Director of Buildings Department	
			Mohammad Abu Al Hayja	Director of Inventory and Supplies	
			Dr.Salem Al Sharaeda	Director of Administration	
	8	Shounah Al Janoubiah	Ibrahim Al Abide	Director of Planning Department	+9625 358 1596 +9625 358 1354
Eng. Sari Al Shafe'e			Director of Buildings Department		
Solayman Hessen			Custodian of Inventory and Supplies		
Khalid Ahmad			Record Keeper		

Field Directorate

Region	No	Field Directorate	Contact Person	Position	Telephone
South	9	Al - Aqaba	Monther Al Qaraeen	Director of Planning Department	+9623 201 4253 +9623 201 4254
			Eng. Ibraheem Al Haj Ibraheem	Director of Buildings Department	
			Read Qderat	Director of Activities Department	
			Yousef Khater	Director of Supplies Department.	
	10	Al -Petra	Abeer Mohammad	Director of Planning Department	+9623 215 6673 +9623 215 6674
			Khaleel Al Nawafle	Director of Buildings Department	
			Eng. Ahmad Abu Hantash	Member of Buildings Department	
			Sultan Al Omran	Director of Activities Department	
		Zeyad Al Mashaele	Director of Supplies Department.		

Principals

Region	No	School Name	Principal Name	School Telephone #
JSP New Schools				
North	1	Hetteen Basic Co. Girls	Hanan Al – Samardale	+9622 642 2023
	2	Maymouna Bint Al-Harith Girls School / ArRamtha	Najah Tweet	+9622 738 0545
	3	Othman Bin Affan	Qasem Al - Jarah	+9622 727 0121
Middle	4	Aj Jofeh Secondary Boys	Ali Al Nomoor	-
	5	Al Qadesiah Sec. Girls Safout, Ein Al Basha	Wedad Al Kaied	+9626 537 0596
	6	Saed Bin Abi Waqas	Hasan Al Senjalawe	+9626 505 2186
	7	Um As Summaq Secondary Girls	Amal Al Sawaeer	+9626 573 2408
	8	Um Qusair Basic Boys	Ahmad Al Masree	+9626 420 0891
South	9	10th Area Secondary Co. Girls	Manal Abu Al Ez	+9623 205 0841
	10	Al Madeenah Al-Wardya (Wadi Mousa) Basic Co. Girls	Basma Al Dmoor	+9623 215 9669
JSP Rehabilitations Schools				
Middle	11	Ain Jalout Secondary Girls	Khadeja Soksok	+9626 566 6020
	12	Iben Hisham Basic Boys	Boshra Abed Al Raof	-
	13	Salhiet Al Abed Basic Boys School	Mohamad Faraj	-
	14	Um Habibah Basic Co. Girls	Alia Al Helo	+9626 581 3937
South	15	Ar-Rashediah Sec. Female	Amal Al Daa'aseen	+9623 204 2215
	16	That As-Sawari Sec. Female	Basma Al Shabatat	+9623 201 4255

CMP

No	Name	Title	Telephone
1	Ms. Samah Al Qosous	Project Manager CMP	+9626 566 3399
2	Ms. Israa Khamayseh	Team Member	+9626 566 3399
3	Ms. Rana Al Zoubi	Team Member	+9626 566 3399

CDM

No	Name	Title	Telephone
1	Eng. Tareg Jaludi	Program Manager / Chief of Party	+9626 566 4177
2	Eng. Mehran Meserlian	Vice President	+9626 565 1913
3	Sarah Woodhead	Principal	+1 703.691.6460

USAID

No	Name	Title	Telephone
1	Ms. Kenana Amin	Program Development Specialist	+9626 590 6630
2	Mr. Issam Omar	Project Management Specialist	+96279 520 1313
3	Ms. Sara Wessels	Engineering Officer / Social Sectors Officer	+9626 590 6633

MoPWH

No	Name	Title	Telephone
1	SG: Sami Halasah	Secretary General	+9626 585 8318
2	Eng. Rula Jaradat	Head of Building Studies & Design Department	+9626 580 8700 x2501
3	Eng. Eman Al Kahroof	Head of Royal Initiatives	+9626 580 8700
4	Eng. Maysoon Hiari	Head of Construction Supervision of MoE Projects	+9626 580 8700 x 2431

Furniture Contractor

No	Name	Title	Telephone
MAANI			
1	Fathi Kalbouneh	Project Manager	+9626 581 9344
2	Salwa Matahen	Manager – Support	+9626 581 9344

Contractors

No	Name	Title	Telephone
IRD			
1	Eng. Rula Kathuda	Acting Program Director	+9626 556 3399
Nabil Al Naber			
1	Nabil Al Naber	Senior Engineer	+96279 555 3203
Samarah & Yousef			
1	Eng. Mazen Hadad	Project Manager	+9626 539 1177
Sorenson			
1	Eng. Kareem Haidar	Senior Engineer	+96279 742 7413

National Contracting Co			
I	Taj Tamimi	Operations Manager	+96279 744 4840

ANNEX VII:

EVALUATION SCHEDULE

The time plan is designed over 11 Weeks encompassing the designated 75 days for the completion of this evaluation. The evaluation team followed a 'regional approach' to the Data Collection activities (Middle, North and South).

Task	Time Frame (Duration)															
	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11					
	3-9 F	10-16 F	17-23 F	24 F-2 M	3-9 M	10-16 M	17-23 M	24-30 M	31 M-6A	7-13 A	14-18 A					
Work Plan	█	█	█	█	█	█	█	█	█	█	█					
Document Review	█	█	█	█	█	█	█	█	█	█	█					
Validation of Data Collection Tools		█	█	█	█	█	█	█	█	█	█					
Interviews with Key Stakeholders			█	█	█	█	█	█	█	█	█					
Regional Data Collection				N	N	M	M	N	M	M	M	M	S	S	S	S
Data Analysis & Presentation Preparation									█	█	█	█	█	█	█	█
Delivering Presentation																
Draft Evaluation Report																
USAID Review & Approval																
Final Report Draft & DEC Submission																
Consortium Collective Meetings			█		█		█		█		█		█		█	
USAID Meetings				█		█		█		█		█		█		█
	F: February		M: Middle													
	M: March		N: North													
	A: April		S: South													

ANNEX VIII:

PICTURES FROM THE FIELD

School Layout, Spaces and Functions



NS - Hetteen Basic Co. School – Ajloun



RS – That As-Sawari Secondary Comprehensive Female School – Aqaba



NS – Al Madeenah Al-Wardya Basic Co. School – Petra



NS – Othman bin Affan Basic School for Boys – Hay Al Janoubi



NS – Um As Summaq Secondary School for Girls - Amman



NS – Othman Bin Affan Basic School for Boys – Hay Janoubi

Technology and the New Educational Environment



NS – Othman Bin Affan Basic School for Boys – Hay Al Janoubi



NS - Hetteen Basic Co. School for Girls – Ajloun



NS – Othman bin Affan Basic School for Boys – Hay Al Janoubi



RS – That As-Sawari Secondary Comprehensive Female School – Aqaba

Electrical and Mechanical Systems



NS – Al Qadesiah Secondary for Girls - Safout



NS - 10th Area Secondary Co. School - Aqaba



NS – Al Qadesiah Secondary for Girls - Safout



NS – Hetteen Basic School for Girls - Ajloun

Areas for Improvement



NS - Maymouna Bint Al-Harith Girls School - Ramtha



NS - 10th Area Secondary Co. School - Aqaba



NS – Al Qadesiah Secondary for Girls - Safout

Material and Finishing



NS- Al Madeeneh Al Wardiyah Basic Co. School – Wadi Mousa



NS- Hetteen Basic Co. School – Ajloun

Areas for Improvement



NS – Othman bin Affan Basic School for Boys – Hay Al Janoubi



NS – 10th Area Secondary Co. School for Girls - Aqaba



RS – Ar-Rashediah Secondary Comprehensive School for Girls - Aqaba

Outdoor Spaces



NS – 10th Area Secondary Co. School for Girls - Aqaba



NS- Aj Jofeh Secondary Schools for Boys - Ein Al Basha

Areas for Improvement



NS – Othman Bin Affan Basic School for Boys – Hay Janoubi

Furniture and Equipment



RS – Iben Hisham Basic School for Boys – Ar Rsaifah



NS - Al Madeenah Al-Wardya Basic Co. School for Girls – Petra



NS – Um As Summaq Secondary Co. School - Amman

People with Disabilities



**NS - Hetteen Basic Co. School for
Girls – Ajloun**



**NS – Um As Summaq Secondary Co. School
- Amman**

ANNEX IX:

HIGHER LEVEL GOALS – DETAILED IMPACT OF THE NS/RS ON NEIGHBORING SCHOOLS

Target School	Type of School	Implementation Phase	Principal contact	Phone number	Overcrowded schools affected	Rented schools affected	Double-shifted schools affected
10 th Secondary Co Girls	New	First	Manal Abu Ezz 77716451		The 10 th area is a new area in Aqaba and its establishment reduced the overcrowding in the following schools: 8 th Secondary Co School Khadija Bint Khuwailed Basic Co School Khadija Bint Khuwailed Basic Girls School Princess Basma Basic Co School That Al Swari Secondary Girls School		
Ain Jalout Secondary Girls	Rehabilitated	Third	Khadija Seksek 799509471	5666020	Sukainah Secondary School for Girls Al Hussein Secondary School for Girls		
Hetteen Basic Co. Girls	New	Fourth	Hanan Al Samardali 772055175		Ein Jannah Secondary Girls School Al Karameh Basic Co School Ajoun Basic Co School Al Mamadanya Basic Private School Al Bena Al Tarbawi Private School Izz Al Deen Usama Private School	Hetin Basic Co School	
Ibn Hisham Basic Boys School *The new building was separated from the school of Ibn Hisham and became a separate building under the name of Al Karameh School for Girls from (2-4 grades)	Rehabilitated	Third	Bushra Abd Al Raouf 788552801	05/3743234	Hind Bint Omayah School Atekah Bint Abd Al Mutaleb School		Ibn Hisham was a double shifted school, but it is now one shift only. The new building is now a school for 2-4 grades' girls (Al Karameh School for Girls)
Aj Jofeh Secondary School for Boys	New	Fourth	Ali Al Nmour 776293081		Al Jofeh Secondary School for Boys Nimer Bin Edwan Secondary School	Um Salama Basic Co School Al Jofeh Basic Co School	
Al Madeenah Al Wardya Basic Co	New	Fourth	Basma Al Dmour 777727422		Sumaia Bint Al Khayat Secondary Co School Wadi Mousa Secondary Girls School Nasiba Al Mazanya Basic Co School Arwa Bint Abd Al Mutaleb Basic Co School Um Salama Basic Co School	Al Esraa School was closed because the building is very old and all students were moved to Al Madina Al Wardya Basic Co School	
Maymoona Bint Al Hareth Basic Co	New	Second	Najah Tweet 777172447	2738545	Jumana Secondary School for Girls Al Aslamya Basic Co School Bin Oqba Basic School Basic Co School	Rufaidah Um Kalthoum Khawla Bint Al Azwar Rabea'a Al Adaweya Basic Co School	Sukainah Bint Al Hussein Basic School

Target School	Type of School	Implementation Phase	Principal contact	Phone number	Overcrowded schools affected	Rented schools affected	Double-shifted schools affected
Othman Bin Affan Basic Boys (Hay Janoubi)	New	Second	Qasem Al Jarrah 777932927		Al Muthana Bin Haretha Basic Boys School Abd Al Rahman Al Halhouli Basic Boys School Dahiet Al Hussein Basic Boys School Abu Bakr Al Sadeeq Basic Boys School		
Al Qadesiah Secondary School for Girls	New	Second	Wedad Al Edwan 795062672	65370596 65370540	Bab Amman Secondary School for Girls Aysha Um Al Mo'mneen Basic School Abu Merhaf Basic School Safout Secondary Girls School Raya Bint Al Hussein Safout Basic Co School Vocational School	Fatima Al Zahra'a School (A building linked to a mosque, all its female students were transferred to the new school and the building is now for a male school)	
Ar Rashidiyah Secondary Co	Rehabilitated	First	Amal Al Daaseen 772365183	32042215	Al Rashedeya School is the only school for girls one in the area and the new building helped in reducing overcrowding.	The school was renting two classrooms and after the construction of the new building, the two rooms were returned to the owner.	
Saad Bin Abi Waqas Basic Boys	New	Second	Hasan Al Sanjalawi 795276083	6052186	Abu Obaida Basic School Nayfa Basic Co School Al Muthana Bin Musallam School Al Mutasem Basic School Al Hasan Bin Al Haytham School		
Salhiet Al Abed Basic Boys	Rehabilitated	Fifth	Khaled Mohamamd Al Obous 772206595	4905399	Fatima Al Zahra'a Basic School		A double shifted school. The school consists of two buildings (an old one from the 70s and the second one from the 90s) and the objective of the expanded building is to transfer students from the old building into the new expanded one.
That As Sawari Secondary Girls	Rehabilitated	First	Basma Al Shbatat 772223977	32014255	Princess Basma Basic Co School Zain Al Sharaf Secondary Girls School Al Aqaba Secondary Girls School		
Um As Summaq Al Janoobi Basic Co	New	Fourth	Amal Al Sawaeer 772256036	65732408	Aysha Bint Abi Bakr School Marj Al Hamam Basic Co School Al Alamy Private School Al Hasad Al Tarbawi Private School Al Qasem Private School	Um Al Somaq Al Janoobi Basic Co School	
Um Habeebah Basic Co	Rehabilitated	Third	Alyaa Ahmad Al Helu 777387987	65813937	Um Habeebah Secondary School for Girls Kherbet Sarah Basic School Qurtoba Basic School		
Um Qusair Basic Boys	New	Second	Ahmad Al Masri 799728239		Al Karameh Basic School Um Qsair Basic School Al Hasaneya Basic School		Um Qsair Secondary School (Now for 11 th and 12 th grades only)

ANNEX X:

FUNCTIONALITY OF SCHOOL AREAS

		Cantilever above entrance	Number of Toilets & sinks	Separate community zone	Books storage	General storage	Guard room, toilet and kit	Direct access to KG from outside	Community access to computer lab	Community access to library	Storage for library	Research center for library	Staff planning overlooking resource areas	Career center availability	First aid office	First aid proximity to entrance and deputy room	Special needs office availability	Science labs at GF	Science lab access to outdoor	Prep room for labs	Natural ventilation for lab prep area	Storage room for vocational workshops	Storage room for art room	Two computer labs availability	Notes	
1	Hetteen Girls School	0	sufficient	X	0	X	X	X	X	X	X	X	X	X	X	0	X	X	X	X	X	0	0			
2	Al Qadesiah School- Girl	X	Insufficient*	X**	0	X		X***	X	X	X	X	X***	X	X	X	X	X	X	0	0	0	0	X	*Available is 30 while 32 are needed according to MOE standards ** Community cluster is spread on two levels at opposite ends of the layout, which makes most of the school function accessible by the community *** The kindergarten separate access opens directly into one of the classes while the other entrance is from the main school door. **** Resource areas at second floor are not supervised or visible by staff stations	
3	Um Qusair - Boys	X	Sufficient	X*	0	0		-	X	X	X	X	X	X	X	X	X	X	X	0	0	0	0	X	* Community zone is defined however a door should have been introduced to separate the southern cluster that has the labs	
4	10th Area school- Girls	X	sufficient	X	0	0		X	X	X	X	X	X*	X	X	X	X	X	X	0	0	0	0	X	*Special needs office separates the resources area from the staff planning. Functions could have been switched for better supervision	
5	Saed Bin Abi Waqas - Boys	X	Sufficient	0*	0	0	X	-	X	X	X	X	X	X	X	X	X	0	0**	0	0	X	0	X	* Community cluster has no separation making the community accessible to rest of school functions. ** General Science lab is located at FF and has no access to outside	
6	Ein Jalout- Girls	X	sufficient																					0		
7	Salhiet Al Abed- Boys	X	Sufficient*		0	0					X	X		0	0	0	0								1	* all bathrooms are located at basement floor
8	That Al Sawari-Girls	0																X	X	0					1	
9	Um Habeebah- Girls	X	Sufficient*																						1	* Available no is 10 no while 12 are needed according to MOE standards

ANNEX XI:

ARCHITECTURAL MATERIALS FEEDBACK ON

MATERIALS

Intermediate	M
Poor	P
Good	G
Difficult	D
Easy	E
Not available	O
Available	X

	Steels door rust	Cast iron radiators	Steel radiator with detachable cover	Roof insulation problems	Ground insulation problems	Wall humidity problems	Aluminum windows locks problems	Door handles problems	Exterior playgrounds drainage slope	Durability of students lockers	Marble edge to stairs treads	Cracks in walls	Finishing of interlocking tiles	Finishing of exterior plastering	External stone coping quality	Joints finishing	Easiness of floor tiles cleaning	Easy access to planter beds	Boundary wall height practicality	External metal handrail rust
Hetteen Girls School	X	X	O	X	O	X	X	O	M	P	O	X	M	M	P	M	D	P	G	X
Umm Al Summaq*	O	X	O	X	X	X	O	X	P	M	O	X	G	P	G	G	D	P	P	X
Al Qadesieh	O	O	X	O	X	X	X	X	M	P	X	O	G	G	O	M	D	P	P	
Othman Bin Affan	O	O	X	X	X	X	X	X	P	P	O	O	M	M	I	M	D	G	G	I
Um Habibah	X	I	I	O	O	O	X	X	I	I	O	O	I	G	I	G	E	G	G	I
Saed Ibn Abi Waqqas	X	O	X	O		X	P	X	P	P	X		M	M	P	M	D	G	P	O

* Major insulation problems

ANNEX XII:

COST ANALYSIS AND COMPARISONS

New School vs. New School Cost Comparison (within phase II)

School Name:		HAY AJ-JANOUBI BASIC BOYS SCHOOL			AL QADESI AH (SAFOUT) SEC. CO. GIRLS SCHOOL					
Phase & Package:		2-3			2-5					
Location:		Irbid			Ein Al Basha					
Contractor:		Samarah & Yousef Co.			Chart Contracting Co.					
BUA (m2):		5,230.00			5,910.00					
BOQ Division	Price (USD)	Cost/m2 (USD/m2)	Comments	Price (USD)	Cost/m2 (USD/m2)	Comments	Variance Price (USD)	Variance Cost/m2 (USD/m2)	Variance (USD)	
	a	b=(a/BUA)	c	d	e=(d/BUA)	f	g=(a-d)	h=(b-e)	i=(c-f)	
Div. 1 - General Requirements	95,400.00	18.24				GR seems to be included within unit rates, no separate BOQ provided	95,400.00	18.24		
Div. 2 - Site Construction 1/2/5	304,942.00	58.31	- There are many demolishing items with cost USD 17,480.00 - Trenches 120m, with cost USD 24,000.00 - External pavement tile 1450m ² with cost USD 20,300.00	250,100.00	42.32	- One demolish item with cost USD 4,500.00 - No trenches - No external pavement tiles Basement walls with cost USD 18,600.00	54,842.00	15.99	57,280.00	
Div. 3 - Concrete Works	1,388,149.00	265.42	No basement walls	1,455,530.00	246.28		(67,381.00)	19.14	(18,600.00)	
Div. 4 - Masonry Works	158,390.00	30.28		262,523.00	44.42		(104,133.00)	(14.14)		
Div. 5 - Metal Works	64,061.00	12.25	No Metal Canopies	123,285.00	20.86	Metal canopies with cost USD 21,800.00	(59,224.00)	(8.61)	(21,800.00)	
Div. 6 - Wood & Plastic Works	70,655.00	13.51		87,365.00	14.78		(16,710.00)	(1.27)		
Div. 7 - Thermal & Moisture Protection	110,785.00	21.18		104,370.00	17.66		6,415.00	3.52		
Div. 8 - Doors & Windows Works	246,310.00	47.10		292,009.00	49.41		(45,699.00)	(2.31)		
Div. 9 - Finishes	509,097.00	97.34		768,941.00	130.11		(259,844.00)	(32.77)		
Div. 10 - Specialties	30,020.00	5.74	- Soccer goals with cost USD 1,800.00 - No slide play - No space metal box	44,430.00	7.52	- No soccer goals - Slide play with cost USD 6,000.00 - Space metal box with cost USD 5,800.00	(14,410.00)	(1.78)	(10,000.00)	
Div. 13 - Special Construction	67,600.00	12.93		40,290.00	6.82		27,310.00	6.11		
Div. 14 - Conveying System	80,000.00	15.30	No chain lift	100,000.00	16.92	Chain lift with cost 32,000.00	(20,000.00)	(1.62)	(32,000.00)	
Div. 15 - Mechanical Works	316,865.00	60.59		338,290.00	57.24		(21,425.00)	3.35		
Div. 16 - Electrical Works	485,605.00	92.85		468,593.00	79.29		17,012.00	13.56		
Total	3,927,879.00	751.03	63,580.00	4,335,726.00	733.63	88,700.00	(407,847.00)	17.40	(25,120.00)	

- Notes:
- The purpose of this table is to study the differences between the cost of the schools
 - The variation in the price (column "g") is primary caused by the difference in the construction built up area (BUA)
 - The variance in cost (column "i") is USD 25,120.00 which contributes to approximately USD 2.85/m²
 - This table identifies that there are certain elements that are not available in all schools which would contribute to the variance in cost between schools, in addition to the difference in Built Up Area

Comparison Between Schools on Division Basis

NEW SCHOOLS

		AL QADESIAH (SAFOUT) SEC. CO. GIRLS SCHOOL		OTHMAN BIN AFFAN (HAY AJ-JANOUBI) BASIC BOYS SCHOOL		HETTEEN BASIC CO. GIRLS SCHOOL		UM AS-SUMMAQ SECONDARY CO. GIRLS SCHOOL	
Nationality of Contractor		Local		Local		International		International	
Built Up Area (m2)		5,910		5,230		4,634		5,281	
Division of Work		Cost (USD)	Cost/m2	Cost (USD)	Cost/m2	Cost (USD)	Cost/m2	Cost (USD)	Cost/m2
Div. 1	General Requirements	95,400.00	16.14	95,400.00	18.24	0	0.00	0	0
Div. 2	Site Construction 1/2/5	250,100.00	42.32	304,942.00	58.31	480,486.85	103.68	308,208.09	58.36
Div. 3	Concrete Works	1,455,530.00	246.28	1,388,149.00	265.42	1,529,637.15	330.07	1,382,581.90	261.79
Div. 4	Masonry Works	262,523.00	44.42	158,390.00	30.28	253,355.03	54.67	296,664.51	56.17
Div. 5	Metal Works	123,285.00	20.86	64,061.00	12.25	142,066.69	30.66	120,925.48	22.90
Div. 6	Wood & Plastic Works	87,365.00	14.78	70,655.00	13.51	78,792.72	17.00	145,080.14	27.47
Div. 7	Thermal & Moisture Protection	104,370.00	17.66	110,785.00	21.18	138,548.71	29.90	125,520.88	23.77
Div. 8	Doors & Windows Works	292,009.00	49.41	246,310.00	47.10	322,174.31	69.52	407,707.75	77.20
Div. 9	Finishes	768,941.00	130.11	509,097.00	97.34	663,753.10	143.22	719,969.76	136.33
Div. 10	Specialties	44,430.00	7.52	30,020.00	5.74	121,584.12	26.24	160,637.35	30.42
Div. 13	Special Construction	40,290.00	6.82	67,600.00	12.93	135,866.20	29.32	72,679.14	13.76
Div. 14	Conveying System	100,000.00	16.92	80,000.00	15.30	55,694.85	12.02	54,687.50	10.36
Div. 15	Mechanical Works	338,290.00	57.24	316,865.00	60.59	472,307.59	101.91	407,573.92	77.17
Div. 16	Electrical Works	468,593.00	79.29	485,605.00	92.85	504,380.58	108.84	670,021.97	126.87
	Total USD	4,431,126.00	749.77	3,927,879.00	751.03	4,898,647.90	1,057.03	4,872,258.39	922.56

		UM QUSAIR BASIC BOYS SCHOOL		MAYMOONAH BINT AL HARETH GIRLS SCHOOL		10TH AREA SECONDARY CO GIRLS SCHOOL	
Nationality of Contractor		Local		Local		International	
Built Up Area (m2)		5,910		6,349		5,265	
Division of Work		Cost (USD)	Cost/m2	Cost (USD)	Cost/m2	Cost (USD)	Cost/m2
Div. 1	General Requirements	0	0	0	0	0	0
Div. 2	Site Construction 1/2/5	211,038.50	35.71	170,454.00	26.85	262,096.00	49.78
Div. 3	Concrete Works	1,279,807.00	216.55	1,021,676.00	160.92	2,330,263.00	442.58
Div. 4	Masonry Works	170,223.00	28.80	220,165.00	34.68	180,810.00	34.34
Div. 5	Metal Works	241,612.00	40.88	97,780.00	15.40	528,135.00	100.31
Div. 6	Wood & Plastic Works	81,710.00	13.83	79,505.00	12.52	63,985.00	12.15
Div. 7	Thermal & Moisture Protection	106,156.50	17.96	109,349.00	17.22	193,793.00	36.81
Div. 8	Doors & Windows Works	265,152.00	44.86	224,830.00	35.41	416,760.00	79.15
Div. 9	Finishes	423,598.00	71.67	551,867.00	86.92	657,271.00	124.83
Div. 10	Specialties	23,757.00	4.02	35,340.00	5.57	36,730.00	6.98
Div. 13	Special Construction	96,670.00	16.36	68,580.00	10.80	41,746.00	7.93
Div. 14	Conveying System	58,000.00	9.81	80,000.00	12.60	0.00	0.00
Div. 15	Mechanical Works	262,543.00	44.42	272,355.00	42.90	519,248.50	98.62
Div. 16	Electrical Works	313,597.00	53.06	465,768.00	73.36	748,277.00	142.12
	Total USD	3,533,864.00	597.95	3,397,669.00	535.16	5,979,114.50	1,135.59

Comparison Between Schools on Division Basis

REHABILITATED SCHOOLS

		UM HABIBAH BASIC CO. GIRLS		AIN JALOUT SECONDARY GIRLS		THAT AL SAWARI SECONDARY SCHOOL GIRLS		AR RASHIDIYAH SECONDARY CO. GIRLS	
Nationality of Contractor		Local		Local		International		International	
Built Up Area (m2)		1,100		778		432		269	
Division of Work		Cost (USD)	Cost/m2	Cost (USD)	Cost/m2	Cost (USD)	Cost/m2	Cost (USD)	Cost/m2
Div. 1	General Requirements	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Div. 2	Site Construction 1/2/5	24,284.51	22.08	39,104.23	50.26	20,122.00	46.58	20,915.00	77.75
Div. 3	Concrete Works	233,347.89	212.13	294,657.75	378.70	101,504.00	234.96	68,286.00	253.85
Div. 4	Masonry Works	38,577.46	35.07	25,478.87	32.75	16,325.00	37.79	14,029.00	52.15
Div. 5	Metal Works	18,374.65	16.70	15,591.55	20.04	24,890.00	57.62	4,184.00	15.55
Div. 6	Wood & Plastic Works	0.00	0.00	0.00	0.00	13,130.00	30.39	1,950.00	7.25
Div. 7	Thermal & Moisture Protection	24,595.77	22.36	19,107.04	24.56	17,739.00	41.06	16,188.00	60.18
Div. 8	Doors & Windows Works	31,408.45	28.55	40,309.86	51.81	73,707.00	170.62	34,777.00	129.28
Div. 9	Finishes	87,708.59	79.74	60,038.03	77.16	86,901.00	201.16	56,195.00	208.90
Div. 10	Specialties	2,309.86	2.10	8,309.86	10.68	2,830.00	6.55	5,391.00	20.04
Div. 13	Special Construction	3,246.48	2.95	4,425.35	5.69	0.00	0.00	0.00	0.00
Div. 14	Conveying System	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Div. 15	Mechanical Works	22,581.69	20.53	20,501.41	26.35	14,001.00	32.41	17,766.00	66.04
Div. 16	Electrical Works	25,814.08	23.47	30,415.49	39.09	31,124.00	72.05	25,831.00	96.03
	Total USD	512,249.44	465.68	557,939.44	717.07	402,273.00	931.19	265,512.00	987.03

1 Main variance between schools is the concrete works which is normal due to demolition or addition of new areas

2 Further difference between Local and International contractor is evident

School Name:	10TH AREA SECONDARY COMPREHENSIVE GIRLS SCHOOL					
Phase & Package:	1 - New School					
Location:	Aqaba					
Contractor:	Sorenson Gross					
BUA (m2):	5,265					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	262,096.00	49.78	219,443.00	41.68	42,653.00	8.10
Div. 3 - Concrete Works	2,330,263.00	442.58	1,600,868.00	304.05	729,395.00	138.53
Div. 4 - Masonry Works	180,810.00	34.34	266,400.00	50.60	(85,590.00)	(16.26)
Div. 5 - Metal Works	528,135.00	100.31	442,320.00	84.01	85,815.00	16.30
Div. 6 - Wood & Plastic Works	63,985.00	12.15	67,505.00	12.82	(3,520.00)	(0.67)
Div. 7 - Thermal & Moisture Protection	193,793.00	36.81	152,506.00	28.96	41,287.00	7.84
Div. 8 - Doors & Windows Works	416,760.00	79.15	279,835.00	53.15	136,925.00	26.01
Div. 9 - Finishes	657,271.00	124.83	652,368.00	123.90	4,903.00	0.93
Div. 10 - Specialties	36,730.00	6.98	27,110.00	5.15	9,620.00	1.83
Div. 13 - Special Construction	41,746.00	7.93	49,883.00	9.47	(8,137.00)	(1.55)
Div. 14 - Conveying System						
Div. 15 - Mechanical Works	519,248.50	98.62	394,889.25	75.00	124,359.25	23.62
Div. 16 - Electrical Works	748,277.00	142.12	605,496.85	115.00	142,780.15	27.12
Total	5,979,114.50	1,135.59	4,758,624.10	903.79	1,220,490.40	231.80

Notes:

- The above school is higher than the market rate by: 25.6%

School Name:	AIN JALOUT SECONDARY GIRLS					
Phase & Package:	3-1 Rehabilitated School					
Location:	Amman					
Contractor:	Penta Group					
BUA (m2):	778					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	39,104.23	50.26	30,440.14	39.12	8,664.08	11.14
Div. 3 - Concrete Works	294,657.75	378.70	319,132.39	410.15	(24,474.65)	(31.46)
Div. 4 - Masonry Works	25,478.87	32.75	29,080.28	37.37	(3,601.41)	(4.63)
Div. 5 - Metal Works	15,591.55	20.04	21,112.68	27.13	(5,521.13)	(7.10)
Div. 6 - Wood & Plastic Works						
Div. 7 - Thermal & Moisture Protection	19,107.04	24.56	17,302.82	22.24	1,804.23	2.32
Div. 8 - Doors & Windows Works	40,309.86	51.81	39,577.46	50.87	732.39	0.94
Div. 9 - Finishes	60,038.03	77.16	78,708.45	101.16	(18,670.42)	(24.00)
Div. 10 - Specialties	8,309.86	10.68	8,950.70	11.50	(640.85)	(0.82)
Div. 13 - Special Construction	4,425.35	5.69	5,963.38	7.66	(1,538.03)	(1.98)
Div. 14 - Conveying System						
Div. 15 - Mechanical Works	20,501.41	26.35	17,534.20	22.54	2,967.21	3.81
Div. 16 - Electrical Works	30,415.49	39.09	19,725.97	25.35	10,689.52	13.74
Total	557,939.44	717.07	587,528.48	755.10	(29,589.04)	(38.03)

Notes:

- The above school is less than the market rate by: 5.0%

School Name:	AL QADESIAH (SAFOUT) SEC. CO. GIRLS SCHOOL					
Phase & Package:	2-5 - New School					
Location:	Ein Al Basha					
Contractor:	Chart Contracting Co.					
BUA (m2):	5,910					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements	95,400.00	16.14			95,400.00	16.14
Div. 2 - Site Construction 1/2/5	250,100.00	42.32	244,055.00	41.30	6,045.00	1.02
Div. 3 - Concrete Works	1,455,530.00	246.28	1,617,339.00	273.66	(161,809.00)	(27.38)
Div. 4 - Masonry Works	262,523.00	44.42	231,123.00	39.11	31,400.00	5.31
Div. 5 - Metal Works	123,285.00	20.86	123,285.00	20.86		
Div. 6 - Wood & Plastic Works	87,365.00	14.78	74,810.00	12.66	12,555.00	2.12
Div. 7 - Thermal & Moisture Protection	104,370.00	17.66	103,990.00	17.60	380.00	0.06
Div. 8 - Doors & Windows Works	292,009.00	49.41	282,020.00	47.72	9,989.00	1.69
Div. 9 - Finishes	768,941.00	130.11	734,302.00	124.25	34,639.00	5.86
Div. 10 - Specialties	44,430.00	7.52	43,250.00	7.32	1,180.00	0.20
Div. 13 - Special Construction	40,290.00	6.82	51,900.00	8.78	(11,610.00)	(1.96)
Div. 14 - Conveying System	100,000.00	16.92	105,000.00	17.77	(5,000.00)	(0.85)
Div. 15 - Mechanical Works	338,290.00	57.24	354,600.00	60.00	(16,310.00)	(2.76)
Div. 16 - Electrical Works	468,593.00	79.29	531,900.00	90.00	(63,307.00)	(10.71)
Total	4,431,126.00	749.77	4,497,574.00	761.01	(66,448.00)	(11.24)

Notes:

- The above school is less than the market rate by: 1.5%

School Name:	HETTEEN BASIC CO. GIRLS SCHOOL					
Phase & Package:	4-1 - New School					
Location:	Ajloun - Ain Jannah					
Contractor:	IRD					
BUA (m2):	4,634					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	480,486.85	103.68	297,139.50	64.12	183,347.35	39.56
Div. 3 - Concrete Works	1,529,637.15	330.07	1,530,554.00	330.26	(916.85)	(0.20)
Div. 4 - Masonry Works	253,355.03	54.67	234,725.00	50.65	18,630.03	4.02
Div. 5 - Metal Works	142,066.69	30.66	124,230.00	26.81	17,836.69	3.85
Div. 6 - Wood & Plastic Works	78,792.72	17.00	70,630.00	15.24	8,162.72	1.76
Div. 7 - Thermal & Moisture Protection	138,548.71	29.90	135,142.00	29.16	3,406.71	0.74
Div. 8 - Doors & Windows Works	322,174.31	69.52	225,962.54	48.76	96,211.77	20.76
Div. 9 - Finishes	663,753.10	143.22	612,661.15	132.20	51,091.95	11.02
Div. 10 - Specialties	121,584.12	26.24	114,435.00	24.69	7,149.12	1.54
Div. 13 - Special Construction	135,866.20	29.32	47,750.00	10.30	88,116.20	19.01
Div. 14 - Conveying System	55,694.85	12.02	55,000.00	11.87	694.85	0.15
Div. 15 - Mechanical Works	472,307.59	101.91	315,135.80	68.00	157,171.79	33.91
Div. 16 - Electrical Works	504,380.58	108.84	486,606.75	105.00	17,773.83	3.84
Total	4,898,647.90	1,057.03	4,249,971.74	917.06	648,676.16	139.97

Notes:

- The above school is higher than the market rate by: 15.3%

School Name:	MAYMOUNAH BINT AL HARETH GIRLS SCHOOL					
Phase & Package:	2-3 - New School					
Location:	Ar Ramtha					
Contractor:	Babel Contracting Co.					
BUA (m2):	6,349					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	170,454.00	26.85	138,724.00	21.85	31,730.00	5.00
Div. 3 - Concrete Works	1,021,676.00	160.92	1,248,512.00	196.65	(226,836.00)	(35.73)
Div. 4 - Masonry Works	220,165.00	34.68	257,816.00	40.61	(37,651.00)	(5.93)
Div. 5 - Metal Works	97,780.00	15.40	108,360.00	17.07	(10,580.00)	(1.67)
Div. 6 - Wood & Plastic Works	79,505.00	12.52	74,680.00	11.76	4,825.00	0.76
Div. 7 - Thermal & Moisture Protection	109,349.00	17.22	110,421.00	17.39	(1,072.00)	(0.17)
Div. 8 - Doors & Windows Works	224,830.00	35.41	209,925.00	33.06	14,905.00	2.35
Div. 9 - Finishes	551,867.00	86.92	603,982.50	95.13	(52,115.50)	(8.21)
Div. 10 - Specialties	35,340.00	5.57	37,330.00	5.88	(1,990.00)	(0.31)
Div. 13 - Special Construction	68,580.00	10.80	30,830.00	4.86	37,750.00	5.95
Div. 14 - Conveying System	80,000.00	12.60	68,000.00	10.71	12,000.00	1.89
Div. 15 - Mechanical Works	272,355.00	42.90	380,932.20	60.00	(108,577.20)	(17.10)
Div. 16 - Electrical Works	465,768.00	73.36	571,398.30	90.00	(105,630.30)	(16.64)
Total	3,397,669.00	535.16	3,840,911.00	604.98	(443,242.00)	(69.81)

Notes:

- The above school is less than the market rate by: 11.5%

School Name:	OTHMAN BIN AFFAN BASIC BOYS SCHOOL					
Phase & Package:	2-3 - New School					
Location:	Irbid					
Contractor:	Samarah & Yousef Co.					
BUA (m2):	5,230					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements	95,400.00	18.24			95,400.00	18.24
Div. 2 - Site Construction 1/2/5	304,942.00	58.31	275,162.00	52.61	29,780.00	5.69
Div. 3 - Concrete Works	1,388,149.00	265.42	1,627,778.00	311.24	(239,629.00)	(45.82)
Div. 4 - Masonry Works	158,390.00	30.28	197,705.00	37.80	(39,315.00)	(7.52)
Div. 5 - Metal Works	64,061.00	12.25	65,961.00	12.61	(1,900.00)	(0.36)
Div. 6 - Wood & Plastic Works	70,655.00	13.51	66,170.00	12.65	4,485.00	0.86
Div. 7 - Thermal & Moisture Protection	110,785.00	21.18	110,288.00	21.09	497.00	0.10
Div. 8 - Doors & Windows Works	246,310.00	47.10	222,175.00	42.48	24,135.00	4.61
Div. 9 - Finishes	509,097.00	97.34	562,037.00	107.46	(52,940.00)	(10.12)
Div. 10 - Specialties	30,020.00	5.74	32,025.00	6.12	(2,005.00)	(0.38)
Div. 13 - Special Construction	67,600.00	12.93	46,060.00	8.81	21,540.00	4.12
Div. 14 - Conveying System	80,000.00	15.30	72,000.00	13.77	8,000.00	1.53
Div. 15 - Mechanical Works	316,865.00	60.59	313,800.00	60.00	3,065.00	0.59
Div. 16 - Electrical Works	485,605.00	92.85	470,700.00	90.00	14,905.00	2.85
Total	3,927,879.00	751.03	4,061,861.00	776.65	(133,982.00)	(25.62)

Notes:

- The above school is less than the market rate by: 3.3%

School Name:	UM HABIBAH BASIC CO. GIRLS					
Phase & Package:	3-2 Rehabilitated School					
Location:	Amman					
Contractor:	Kamal Tayem					
BUA (m2):	1,100					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	24,284.51	22.08	25,312.68	23.01	(1,028.17)	(0.93)
Div. 3 - Concrete Works	233,347.89	212.13	287,054.93	260.96	(53,707.04)	(48.82)
Div. 4 - Masonry Works	38,577.46	35.07	45,935.21	41.76	(7,357.75)	(6.69)
Div. 5 - Metal Works	18,374.65	16.70	37,769.01	34.34	(19,394.37)	(17.63)
Div. 6 - Wood & Plastic Works						
Div. 7 - Thermal & Moisture Protection	24,595.77	22.36	27,191.55	24.72	(2,595.77)	(2.36)
Div. 8 - Doors & Windows Works	31,408.45	28.55	55,253.52	50.23	(23,845.07)	(21.68)
Div. 9 - Finishes	87,708.59	79.74	104,004.23	94.55	(16,295.63)	(14.81)
Div. 10 - Specialties	2,309.86	2.10	3,964.79	3.60	(1,654.93)	(1.50)
Div. 13 - Special Construction	3,246.48	2.95	6,507.04	5.92	(3,260.56)	(2.96)
Div. 14 - Conveying System						
Div. 15 - Mechanical Works	22,581.69	20.53	24,788.73	22.54	(2,207.04)	(2.01)
Div. 16 - Electrical Works	25,814.08	23.47	27,887.32	25.35	(2,073.24)	(1.88)
Total	512,249.44	465.68	645,669.01	586.97	(133,419.58)	(121.29)

Notes:

- The above school is less than the market rate by: 20.7%

School Name:	UM QUSAIR BASIC BOYS SCHOOL					
Phase & Package:	2-2 - New School					
Location:	Amman					
Contractor:	National Construction Co.					
BUA (m2):	5,910					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)		
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	211,038.50	35.71	241,156.50	40.80	(30,118.00)	(5.10)
Div. 3 - Concrete Works	1,279,807.00	216.55	1,829,883.00	309.62	(550,076.00)	(93.08)
Div. 4 - Masonry Works	170,223.00	28.80	207,796.00	35.16	(37,573.00)	(6.36)
Div. 5 - Metal Works	241,612.00	40.88	217,644.00	36.83	23,968.00	4.06
Div. 6 - Wood & Plastic Works	81,710.00	13.83	68,200.00	11.54	13,510.00	2.29
Div. 7 - Thermal & Moisture Protection	106,156.50	17.96	146,514.00	24.79	(40,357.50)	(6.83)
Div. 8 - Doors & Windows Works	265,152.00	44.86	216,952.00	36.71	48,200.00	8.16
Div. 9 - Finishes	423,598.00	71.67	533,126.50	90.21	(109,528.50)	(18.53)
Div. 10 - Specialties	23,757.00	4.02	28,525.00	4.83	(4,768.00)	(0.81)
Div. 13 - Special Construction	96,670.00	16.36	36,430.00	6.16	60,240.00	10.19
Div. 14 - Conveying System	58,000.00	9.81	68,000.00	11.51	(10,000.00)	(1.69)
Div. 15 - Mechanical Works	262,543.00	44.42	354,600.00	60.00	(92,057.00)	(15.58)
Div. 16 - Electrical Works	313,597.00	53.06	531,900.00	90.00	(218,303.00)	(36.94)
Total	3,533,864.00	597.95	4,480,727.00	758.16	(946,863.00)	(160.21)

Notes:

- The above school is less than the market rate by: 21.1%

School Name:	UM AL-SUMMAQ SECONDARY CO. GIRLS SCHOOL					
Phase & Package:	4-2 - New School					
Location:	Amman					
Contractor:	IRD					
BUA (m2):	5,281					
BOQ Division	Contractor		Market Rate		Variance Price (USD)	Variance Cost/m2 (USD/m2)
	Price (USD)	Cost/m2 (USD/m2)	Price (USD)	Cost/m2 (USD/m2)		
	a	b=(a/BUA)	c	d=(c/BUA)	e=(a-c)	f=(b-d)
Div. 1 - General Requirements						
Div. 2 - Site Construction 1/2/5	308,208.09	58.36	249,003.00	47.15	59,205.09	11.21
Div. 3 - Concrete Works	1,382,581.90	261.79	1,359,188.00	257.36	23,393.90	4.43
Div. 4 - Masonry Works	296,664.51	56.17	231,846.00	43.90	64,818.51	12.27
Div. 5 - Metal Works	120,925.48	22.90	120,956.00	22.90	(30.52)	(0.01)
Div. 6 - Wood & Plastic Works	145,080.14	27.47	83,880.00	15.88	61,200.14	11.59
Div. 7 - Thermal & Moisture Protection	125,520.88	23.77	123,345.50	23.36	2,175.38	0.41
Div. 8 - Doors & Windows Works	407,707.75	77.20	313,104.34	59.29	94,603.41	17.91
Div. 9 - Finishes	719,969.76	136.33	636,551.48	120.53	83,418.28	15.80
Div. 10 - Specialties	160,637.35	30.42	161,900.00	30.66	(1,262.65)	(0.24)
Div. 13 - Special Construction	72,679.14	13.76	40,310.00	7.63	32,369.14	6.13
Div. 14 - Conveying System	54,687.50	10.36	55,000.00	10.41	(312.50)	(0.06)
Div. 15 - Mechanical Works	407,573.92	77.17	359,122.28	68.00	48,451.64	9.17
Div. 16 - Electrical Works	670,021.97	126.87	554,527.05	105.00	115,494.92	21.87
Total	4,872,258.39	922.56	4,288,733.65	812.07	583,524.74	110.49

Notes:

- The above school is higher than the market rate by: 13.6%

ANNEX XIII:

CONSTRUCTION COST AND VARIATIONS

SI	Phase	Package	School	Contractor	Base Contract Price (BCA) USD	Estimate At Completion (EAC) USD	Approved Variation Orders	Quantity Variance	% Variance
1	I	NA	10th Area Secondary Co. Girls	International	5,979,114	5,921,666	-222,172	164,272	-1%
2	II	2	Um Qusair Basic Boys	Local	3,533,864	3,601,740	-111,700	188,555	1.92%
3	II	3	Othman Bin Affan (Hay Aj-Janoubi) Basic Boys	Local	3,832,479	3,553,597	-279,260	378.82	-7%
4	II	3	Maymoonah Bint Al Hareth Girls	Local	3,397,669	3,446,308	-135,692	184,332	1.4%
5	II	1	Saed Bin Abi Waqas Al Hashmee Shamalee	Local	1,625,910	2,106,967	210,454	279,344	29.5%
6	II	5	Al Qadesiah (Safout) Secondary Girls	Local	4,335,726	4,275,891	-190,478	130,643	-1.3%
7	IV	1	Hetteen Basic Co. Girls School	International	4,580,235	4,072,077	-341,071	-167,096	-11%
8	IV	2	Um As-Summaq Secondary Girls	International	4,872,258	4,453,641	-281,171	-137,445	-9%
9	IV	2	Al-Jofeh Secondary Boys	International	5,380,776	4,698,607	-436,707	-245,461	-13%
10	IV	3	Wadi Mousa Basic Girls	Local	3,337,701	2,996,133	-138,693	-202,873	-10%
11	I	NA	That As-Sawari Secondary Girls	International	402,273	381,513	0	-20,759	-5%
12	I	NA	Ar Rashidiyah Secondary Girls	International	265,502	256,858	-3,139	-5,504	-3%
13	III	2	Um Habibah Basic School Girls	Local	363,697	371,948	-6,960	15,211	2%
14	III	3	Iben Hisham Basic Boys	Local	324,536	338,888	-6,566	21,754	4%

ANNEX XIV:

COMPARISON OF STRUCTURAL AND ARCHITECTURAL WORKS, AND ELECTRO-MECHANICAL WORKS

Comparison of Structural and Architectural Works

	Name	Hay Al Janoubi basic Boys School (USAID funding)		Al Zarqa'a Al Hadaeqyeh (MOE funding)		Batna CO Educational Basic School	
	Location	Irbid		Al-Zarqa		Al-Salt	
	BUA	5,230		4,261		1,677	
Item No.	Description	Amount (USD)	USD/m2	Amount (USD)	USD/m2	Amount (USD)	USD/m2
1	Preliminaries			6,500.00	1.53	20,480.23	12.21
2	Site Construction						
	Demolition Works	17,480	3.34				
	Earthworks	84,312	16.12	18,503	4.34	143,842	85.77
	Base course	51,570	9.86	57,839	13.57	19,266	11.49
	Asphalt works	7,180	1.37	63,842	14.98	14,421	8.60
	Precast concrete works	35,340	6.76	22,797	5.35	10,664	6.36
	Planting Soil	5,750	1.10			1,412	0.84
	Plants					12,218	7.29
	Retaining Walls	36,195	6.92	124,633	29.25	221,610	132.15
	Stamped concrete external steps	206,500	39.48				
	Glustra Wall			14,831	3.48		
						2,119	1.26
3	Concrete Works						
	Concrete and Steel Reinforcement for sub and superstructure works	1,137,377	217.47	419,809	98.52	604,456	360.44
	Block for ribbed slabs	54,000	10.33	17,662	4.15	13,559	8.09
4	Masonry Works						
	Block works	94,890	18.14	66,285	15.56	44,654	26.63
	Stone cladding	9,500	1.82	34,605	8.12	21,751	12.97
5	Metal Fabrication						
	Ladders	1,900	0.36				
	Metal Windows, louvers, doors	51,340	9.82	21,469	4.10	69,774	41.61
	Handrails	19,481	3.72	9,040	1.73	8,475	5.05
	Alcubond			37,076	7.09		
	Canopies			22,994	4.40		
6	Wood & Plastics						
	Wood skirting	1,725	0.33				
	Kitchen cabinets	7,500	1.43	4,555	1.07	4,167	2.48
	Library Furniture	3,000	0.57	11,815	2.77	1,412	0.84
	Lab furniture	58,430	11.17	62,549	14.68	19,492	11.62
	Miscellaneous cupboards hangers			28,842	6.77	9,322	5.56
				1,702	0.40	983	0.59
	Advertising boards			847	0.20	5,650	3.37
	Protection rail					7,062	4.21
7	Thermal and Moisture Protection						
	Foam concrete	30,000	5.74	13,559	3.18	15,466	9.22
	Fluid applied waterproofing to structures	19,680	3.76	8,400	1.97		
	Vapor retarder	15,200	2.91			2,034	1.21
	Fluid applied waterproofing to wet areas	2,480	0.47				
	Expansion joints	8,970	1.72	5,876	1.38	1,271	0.76
	Roofing system one layer	24,600	4.70	11,441	2.68		
	Roofing system two layer					14,654	8.74
	Fire stopping material	10,000	1.91				
	Gravel to roof	6,000	1.15				
	Rigid insulation	22,400	4.28			6,215	3.71

Comparison of Structural and Architectural Works

	Name	Hay Al Janoubi basic Boys School (USAID funding)		Al Zarqa'a Al Hadaeqyeh (MOE funding)		Batna CO Educational Basic School	
	Location	Irbid		Al-Zarqa		Al-Salt	
	BUA	5,230		4,261		1,677	
Item No.	Description	Amount (USD)	USD/m2	Amount (USD)	USD/m2	Amount (USD)	USD/m2
8	Doors and Windows						
	Hollow metal doors	15,850	3.03	9,746	2.29		
	Wood Doors, 44mm thick	77,650	14.85	29,004	6.81	25,212	15.03
	Galvanized Steel access panel	320	0.06				
	Automatic Overhead Coiling door	1,700	0.33				
	Aluminum Windows	113,840	21.77	54,929	12.89	63,630	37.94
	Door hardware	35,350	6.76			-	
	Mirrors	1,600	0.31	353	0.08	85	0.05
9	Finishes						
	Plaster	120,416	23.02	64,972	15.25	57,203	34.11
	Perlite plastering	13,944	2.67				
	Gypsum board ceilings	2,400	0.46				
	American porcelain floor tiles	161,750	30.93				
	First grade non slip ceramic tiles			6,441	1.51	18,545	11.06
	American porcelain wall tiles	52,800	10.10				
	Local Jordanian ceramic wall tiles			12,161	2.85	16,271	9.70
	Terrazzo tiles under carpet or vinyl	7,776	1.49				
	Terrazzo tiles			91,949	21.58	15,763	9.40
	Marble tiles to entrance			25,282	5.93		
	local granite floor tiles, to stairs	19,420	3.71				
	local marble to stairs					15,636	9.32
	Local marble sills, thresholds, vanities and basin counter	20,400	3.90	5,141	1.21	5,085	3.03
	Vinyl floors	12,518	2.39	2,034	0.48	5,367	3.20
	Carpet	20,000	3.82				
	Painting	65,521	12.53	42,373	9.94	26,441	15.77
	concrete floors to vocational lab			1,695	0.40	2,119	1.26
10	Specialties						
	Blockboard chalkboard	6,000	1.15	6,816	1.60	2,331	1.39
	Signage	1,400	0.27				
	Louvered steel doors and windows	1,460	0.28				
	Flagpoles	560	0.11	1,412	0.33	706	0.42
	Toilet accessories	2,600	0.50				
	Basketball backstops, volleyball nets, soccer goals	9,000	1.72				
	Drinking fountain	9,000	1.72	5,650	1.33	5,650	3.37
11	Special Construction						
	Fire suppression system	48,600	9.29	14,479	3.40	9,601	5.73
12	Conveying system	80,000	15.30				
	Total Cost	2,924,675	559.21	1,461,908	339.15	1,566,071	933.85

Comparison of Electrical Systems

	Name	Hay Al Janoubi basic Boys School (USAID funding)		Al Zarqa'a Al Hadaeqyeh (MOE funding)		Batna CO Educational Basic School (KFW funding)	
	Location	Irbid		Al-Zarqa		Al-Salt	
	BUA	5,230		4,261		1,677	
Item No.	Description	Amount (USD)	USD/m2	Amount (USD)	USD/m2	Amount (USD)	USD/m2
1	Power system						
	Sockets, Switches, points, conduits etc...	37,429.00	7.16	11,409.00	2.68	16,619.00	9.91
	Cables and wires	54,974.00	10.51	8,350.00	1.96	17,592.00	10.49
	Distribution boards, panel boards	48,100.00	9.20	6,820.00	1.60	9,000.00	5.37
	Lighting fixtures & emergency lights (internal & external)	140,494.00	26.86	41,634.00	9.77	13,961.00	8.32
2	Data & Communication						
	Digital telephone exchange PABX 72 internal lines	9,100.00	1.74	120.00	0.03		
	Telephone, TV, computer & system data outlets	25,990.00	4.97	13,090.00	3.07	9,073.00	5.41
	Data cabinets	17,100.00	3.27				
	Data Switches	7,700.00	1.47				
	Distribution frame	500.00	0.10				
	Slave telephone connection box STC	400.00	0.08				
	Multi pairs cables	1,014.00	0.19				
	Fiber cables	6,144.00	1.17				
	Telephone connection box	540.00	0.10				
3	Audio System						
	Horn speakers	1,200.00	0.23	9,040.00	2.12	3,076.00	1.83
	Wall mounted speakers	1,000.00	0.19				
	Sound racks	16,000.00	3.06				
4	Camera system						
	CCTV Cameras	8,400.00	1.61				
	CCTV Central station	5,000.00	0.96				
5	Security						
	Magnetic contact	3,360.00	0.64				
	Infrared motion detector	14,030.00	2.68				
	Master security panel	2,400.00	0.46				
	Security key pad	650.00	0.12				
	Indoor/Outdoor siren	3,000.00	0.57				
	Security point	7,392.00	1.41				
6	Earthing & lightning protection						
	Lightning protection system	15,000.00	2.87				
	Earthing system for low current systems	700.00	0.13	700.00	0.16	600.00	0.36
	Earthing system for MDB	900.00	0.17	550.00	0.13	300.00	0.18
7	Ceiling Fans			3,770.00	0.88	3,510.00	2.09
	Total Cost	428,517.00	81.93	95,483.00	22.41	73,731.00	43.97

Comparison of Mechanical Systems

	Name	Hay Al Janoubi basic Boys School (USAID funding)		Al Zarqa'a Al Hadaeqyeh (MOE funding)		Batna CO Educational Basic School (KFW funding)	
	Location	Irbid		Al-Zarqa		Al-Salt	
	BUA	5,230		4,261		1,677	
Item No.	Description	Amount (USD)	USD/m2	Amount (USD)	USD/m2	Amount (USD)	USD/m2
1	Water & Drainage system						
	Pipes & fittings are CPVC, UPVC, XLPE & HDPE (in addition to Pex pipes used in Batna school)	98365	18.81	34260	8.04	24129	14.39
	Grate and sump concrete	24600	4.70				
	Floor drain, clean out, etc..	7450	1.42	625	0.15	2052	1.22
	Manholes	9810	1.88	6900	1.62	4710	2.81
	Neutralizing pits	40000	7.65				
	Storm Water channel			3000	0.70		
	Grill cover			600	0.14		
	Water distribution box and cabinets	12120	2.32	3000	0.70	2676	1.60
2	Water heater	5180	0.99	1215	0.29	648	0.39
3	Plumping fixtures	46080	8.81	11430	2.68	12820	7.64
4	Pumps	8700	1.66	1750	0.41	3900	2.33
5	Galvanized Steel tanks			2840	0.67	3960	2.36
6	Gas System						
	Gas pipe line HDPE pipes & Gas cylinders 12kg each	3950	0.76			1200	0.72
	Copper pipes & Gas cylinders 12kg each			6870	1.61		
7	Fans and Grills	6040	1.15	600	0.14	3770	2.25
8	Galvanized Steel Ductwork	1120	0.21			750	0.45
9	Heating system						
	Steel Radiators	39340	7.52			17598	10.49
	Heating distribution box with brass manifolds and automatic air vent	8780	1.68			2640	1.57
	Black steel seamless schedule 40(BSP) pipe	24440	4.67				
	Cast iron boilers	56000	10.71			5040	3.01
	Closed type expansion tanks	800	0.15				
	galvanized steel chimney	3000	0.57			1416	0.84
	Fuel gear pumps	1800	0.34			3600	2.15
	Single, stage end suction heating pump	5000	0.96				
	Fuel tank	1600	0.31			11040	6.58
	Make up unit	2800	0.54				
	Open type expansion tanks					234	0.14
10	Air conditioning system - split units	3200	0.61	3400	0.80		
11	Solar water heater system	19000	3.63			3480	2.08
12	Irrigation system					1200	0.72
	Total	429,175	82.06	76,490	17.95	106,863	63.72

ANNEX XV:

SCHOOL OCCUPANCY AND UTILIZATION INDICATORS

New Schools:School Occupancy and Utilization Indicators

Legend	A	Agree	No.	Questionnaire Statement
	SA	Strongly Agree	n	Number of Valid Reponses
	D	Disagree		
	SD	Strongly Disagree		

General Perception of the New School

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
I have a positive perception of my new school.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			100.00%			0.00%	

Teachers							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
I have a positive perception of my new school.	30.40%	60.20%	90.60%	8.40%	0.50%	8.90%	0.50%
Average			90.60%			8.90%	0.50%

Students							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
I have a positive perception of my new school.	45.50%	50.90%	96.40%	1.20%	1.30%	2.50%	1.00%
Average			96.40%			2.50%	1.00%

School Layout Spaces and Function

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
Wide hallways contribute to effectively using them to present several extracurricular activities.	90.00%	0.00%	90.00%	10%	0.00%	10.00%	0.00%
The location of the Admin Office helped in following up on the school work.	40.00%	10.00%	50.00%	40.00%	10.00%	50.00%	0.00%
The design of the administration division facilitated the completion of school management tasks.	70.00%	10.00%	80.00%	20.00%	0.00%	20.00%	0.00%

The resources area helped in implementing activities and events that leads to achieve the learning goals.	40.00%	20.00%	60.00%	10.00%	10.00%	20.00%	20.00%
The planning rooms helped in enriching the teaching-learning process.	50.00%	10.00%	60.00%	30.00%	0.00%	30.00%	10.00%
The meeting rooms helped to communicate with members of the school community.	70.00%	10.00%	80.00%	20.00%	0.00%	20.00%	0.00%
The size of the stationary room is suitable for its intended purpose.	50.00%	0.00%	50.00%	20.00%	10.00%	30.00%	20%
The Filing Room contributed to the needs of managerial work.	60.00%	20.00%	80.00%	0.00%	20.00%	20.00%	0.00%
The size of the Book Storage Room is suitable for its intended use.	50.00%	10.00%	60.00%	10.00%	20.00%	30.00%	10.00%
The Filing Room is close to the secretary.	70.00%	10.00%	80.00%	10.00%	10.00%	20.00%	0.00%
Having a Career Counseling Room contributed in creating better opportunities for students to know about their future careers.	50.00%	0.00%	50.00%	10.00%	0.00%	10.00%	40.00%
Having a research room in the library contributed in creating better opportunities for teachers and students to conduct researches.	50.00%	10.00%	60.00%	0.00%	0.00%	0.00%	40.00%
The multi-purpose halls contributed to the implementation of various educational activities.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The location of the school's kiosk made it easier for students to use.	60.00%	0.00%	60.00%	10.00%	30.00%	40.00%	0.00%
The availability of the school clinic helped in providing primary medical care that is suitable for students.	80.00%	10.00%	90.00%	0.00%	0.00%	0.00%	10.00%
The availability of bathrooms in different locations inside the school	80.00%	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The design of the school contributed to enhancing my sense of ownership towards the school.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The location of the KG contributes to offering a safe school environment for students.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The play area for the KG contributed in achieving its intended use.	83.30%	16.70%	100.00%	0.00%	0.00%	0.00%	0.00%

The bathrooms and the kitchen intended for the KG are located close to the KG.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The location of the nursery meets the requirements of the Ministry of the Social Development.	33.30%	0.00%	33.30%	16.70%	50.00%	66.70%	0.00%
The space of the nursery contributed to achieve its' intended goal.	16.70%	0.00%	16.70%	16.70%	66.70%	83.40%	0.00%
Average			72.73%			20.46%	6.82%

Teachers

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The design of the school corridors and hallways facilitated the implementation of various educational activities.	20.90%	63.90%	84.80%	14.10%	1.00%	15.10%	0.00%
The design of the classrooms played a role in implementing educational activities.	27.70%	60.70%	88.40%	9.90%	1.00%	10.90%	0.50%
The availability of subject-matter classrooms contributed to providing better learning environment that improved the learning process.	36.30%	51.10%	87.40%	8.40%	1.60%	10.00%	2.60%
The availability of a resource room helped in implementing school activities that achieve educational goals.	13.80%	57.70%	71.50%	15.80%	3.10%	18.90%	9.70%
The availability of planning rooms enriched the teaching-learning process.	13.30%	45.40%	58.70%	22.40%	4.60%	27.00%	14.30%
Having a meeting rooms in every cluster promoted effective communication between teachers	20.80%	48.20%	69.00%	18.30%	4.10%	22.40%	8.60%
Having a teachers room contributes to better communication between teachers.	29.60%	51.00%	80.60%	12.20%	3.10%	15.30%	4.10%
Having a Resource Room contributed in implementing enhancement activities suitable for students.	13.40%	41.20%	54.60%	13.40%	7.20%	20.60%	24.70%
The multi-purpose room contributed to the implementation of the activities that served the teaching-learning process.	24.00%	61.20%	85.20%	5.60%	4.10%	9.70%	5.10%
Having a library contributed to enriching the teaching-learning process.	26.70%	58.60%	85.30%	7.90%	3.70%	11.60%	3.10%

The availability of science labs contributed to implementing science experiments related to the curriculum.	29.50%	22.10%	51.60%	7.40%	1.10%	8.50%	40.00%
Having art & music lab contributed in implementing educational activities that serve the learning objectives.	26.70%	26.70%	53.40%	2.30%	0.00%	2.30%	44.20%
Having vocational lab contributed in implementing educational activities that serve the learning objectives.	28.80%	27.50%	56.30%	2.50%	0.00%	2.50%	41.30%
Average			71.29%			13.45%	15.25%

Students

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
My new school has playgrounds and areas that help me do different activities.	45.10%	42.30%	87.40%	9.20%	2.00%	11.20%	1.30%
The location of the school's kiosk helps using it with ease	14.20%	30.70%	44.90%	31.30%	17.20%	48.50%	6.60%
The availability of the school's clinic made first aid accessible to me and my school mates.	44.80%	34.50%	79.30%	4.20%	2.70%	6.90%	13.90%
The spaces of the hallways make it safe for me to move from one classroom to the other.	53.00%	35.50%	88.50%	6.30%	3.70%	10.00%	1.50%
The availability of a resource area gave me the opportunity to learn in different ways.	21.20%	36.50%	57.70%	6.40%	4.10%	10.50%	31.80%
The availability of bathrooms in several areas in the school contributed to responding to my basic needs.	40.60%	40.30%	80.90%	9.30%	7.40%	16.70%	2.40%
The availability of labs and vocational rooms helped me learn in a better way.	48.00%	28.20%	76.20%	6.90%	4.50%	11.40%	12.40%
Having a theatre and sports areas gave me the opportunity to participate in diverse activities.	41.50%	39.50%	81.00%	7.60%	6.10%	13.70%	5.40%
Having a library in the school created more opportunities for me to learn and read.	37.00%	32.90%	69.90%	10.40%	7.90%	18.30%	11.80%
Average			73.98%			16.36%	9.68%

Technology and New Educational Environment

Principals

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The diversity of technological tools available in the school enabled the school community to use them in multiple ways.	83.30%	16.70%	100.00%	0.00%	0.00%	0.00%	0.00%
The availability of computers in the administrative division allowed for completing administrative work.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The school's internal and external announcement system helps the communication between teachers and students.	83.30%	0.00%	83.30%	16.70%	0.00%	16.70%	0.00%
The availability of surveillance cameras contributed to the control of school work.	83.30%	16.70%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			95.83%			4.18%	0.00%

Teachers							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The availability of interactive whiteboards facilitated the implementation of activities that enrich students' learning.	43.10%	51.70%	94.80%	3.40%	0.90%	4.30%	0.90%
The availability of laptops for students contributed in activating the role of students in the learning-teaching process.	34.50%	50.40%	84.90%	8.00%	3.50%	11.50%	3.50%
Having my own computer helped me in in doing my lessons better.	55.20%	33.60%	88.80%	5.20%	2.60%	7.80%	3.40%
The availability of Data Show equipment made it easier for me to present educational activities.	55.70%	38.30%	94.00%	2.60%	0.00%	2.60%	3.50%
The availability of charging units contributed to the activation and utilization of laptops to serve the teaching-learning process.	17.30%	52.70%	70.00%	14.50%	3.60%	18.10%	11.80%
Having computers in the library helped in enriching the teaching-learning process.	15.50%	61.80%	77.30%	12.70%	6.40%	19.10%	3.60%
Having computers in science labs played a role in merging between technologies and teaching science.	33.30%	40.40%	73.70%	5.30%	1.80%	7.10%	19.30%
Having computers in the art and music lab played a role in merging between technologies and teaching art and music.	35.30%	31.40%	66.70%	9.80%	0.00%	9.80%	23.50%
Average			81.28%			10.04%	8.69%

Students							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The available computers in the school helped in developing my computer skills.	41.40%	29.90%	71.30%	5.50%	4.90%	10.40%	18.40%
The interactive whiteboards in the classrooms helped in providing an exciting and fun-learning environment.	57.20%	32.20%	89.40%	3.40%	4.60%	8.00%	2.60%
The availability of student laptops provided an opportunity to use technology throughout the school.	11.80%	13.60%	25.40%	8.70%	13.60%	22.30%	52.30%
Having internet at the school helped me complete the my tasks.	18.40%	19.00%	37.40%	14.70%	17.80%	32.50%	30.20%
Average			55.88%			18.30%	25.88%

Electrical and Mechanical Systems

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The availability of emergency doors in the school helped to provide a safe school environment.	50.00%	10.00%	60.00%	10.00%	30.00%	40.00%	0.00%
The presence of fire systems contributed to dealing with emergency situations in the school.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The presence of a heating system in the school contributed in a more suitable school environment.	70.00%	10.00%	80.00%	10.00%	0.00%	10.00%	10.00%
The distribution of electricity plugs facilitated the utilization of technology throughout the school.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The ventilation system in the school contributed to a suitable learning environment.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The good lighting system in the school contributed to a suitable learning environment.	90.00%	0.00%	90.00%	0.00%	10.00%	10.00%	0.00%
Average			88.33%			10.00%	1.67%

Materials and Finishing

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A

The type of the playgrounds' flooring material played a major role in providing safety for the students.	50.00%	20.00%	70.00%	0.00%	30.00%	30.00%	0.00%
The type of the school's indoor flooring contributes to access a clean learning environment.	10.00%	10.00%	20.00%	10.00%	70.00%	80.00%	0.00%
The type of paint used in the school is practical and suitable with students' daily use.	10.00%	10.00%	20.00%	20.00%	60.00%	80.00%	0.00%
The bathroom equipment are suitable for the target age group.	20.00%	0.00%	20.00%	30.00%	50.00%	80.00%	0.00%
The doors used in the school building are practical and suit its' intended use by students.	70.00%	20.00%	90.00%	10.00%	0.00%	10.00%	0.00%
The classroom doors are practical and suit the use of target students.	50.00%	10.00%	60.00%	40.00%	0.00%	40.00%	0.00%
The windows used in the school are practical and suit their intended use.	70.00%	20.00%	90.00%	10.00%	0.00%	10.00%	0.00%
The height of the windows in classrooms is suitable for the target age group.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The thickness of the windows contributes to a safe school environment.	88.90%	11.10%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			63.33%			36.67%	0.00%

Outdoor Spaces

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The school's outdoor facilities contributed in the implementation of a variety of educational activities.	60.00%	20.00%	80.00%	10.00%	10.00%	20.00%	0.00%
The design of the outdoor entrances helped in utilizing them to serve the school's work.	60.00%	20.00%	80.00%	20.00%	0.00%	20.00%	0.00%
The location of the garden areas was strategic enough to allow for gardening activities.	50.00%	10.00%	60.00%	10.00%	30.00%	40.00%	0.00%
The school's outdoor playgrounds provided more opportunities to implement school activities and events.	60.00%	30.05%	90.05%	0.00%	10.00%	10.00%	0.00%

The type of the playgrounds' flooring material played a major role in providing safety for the students.	50.00%	20.00%	70.00%	0.00%	30.00%	30.00%	0.00%
The design of the car park allowed for its effective intended use.	70.00%	10.00%	80.00%	0.00%	10.00%	10.00%	10.00%
The play area for the KG contributed in achieving its intended use.	83.30%	16.70%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			80.01%			18.57%	1.43%

Teachers

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The school's outdoor facilities facilitated the implementation of various activities that serve the teaching-learning process.	23.00%	57.10%	80.10%	17.30%	2.10%	19.40%	0.50%
Average			80.10%			19.40%	0.50%

Students

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
My new school has playgrounds and areas that help me do different activities.	45.10%	42.30%	87.40%	9.20%	2.00%	11.20%	1.30%
Average			87.40%			11.20%	1.30%

Furniture and Equipments

Principals

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The presence of printing machines contributes to achieving necessary school tasks.	40.00%	10.00%	50.00%	10.00%	0.00%	10.00%	40.00%
The presence of photocopying machines contributes to achieving necessary school tasks	70.00%	10.00%	80.00%	10.00%	0.00%	10.00%	10.00%
The availability of a flexible school furniture contributed to the diversification of a teaching-learning environment.	90.00%	0.00%	90.00%	10.00%	0.00%	10.00%	0.00%
The school furniture is suitable with the target student age group.	70.00%	20.00%	90.00%	10.00%	0.00%	10.00%	0.00%
The furniture used is of good quality.	10.00%	30.00%	40.00%	20.00%	40.00%	60.00%	0.00%

The furniture of the administrative division suits the nature of its tasks.	66.70%	11.10%	77.80%	22.20%	0.00%	22.20%	0.00%
The furniture available in the meeting room facilitated achieving its intended use.	80.00%	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The furniture of the school clinic contributed in providing first aid to students and teachers.	80.00%	20.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The availability of easy-to-move library furniture facilitated the ability of using it for different tasks.	90.00%	0.00%	90.00%	10.00%	0.00%	10.00%	0.00%
The furniture available in the resources area contributed in diversifying the teaching-learning process and activities.	20.00%	10.00%	30.00%	30.00%	20.00%	50.00%	20.00%
The furniture in the nursery is suitable for the children there.	0.00%	0.00%	0.00%	50.00%	50.00%	100.00%	0.00%
There are enough cupboards and drawers in the Book Storage Room	22.20%	22.20%	44.40%	11.10%	33.30%	44.40%	11.10%
There are enough cupboards and drawers in the Filing Room	40.00%	30.00%	70.00%	10.00%	20.00%	30.00%	0.00%
The presence of bulletin boards in the corridors contributed to implementing different educational activities.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Using whiteboards helped in creating a healthier classroom environment for students away from chalk.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			70.81%			23.77%	5.41%

Teachers							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The flexibility of the classroom furniture helps me in re-designing the style of the room.	41.60%	44.70%	86.30%	8.40%	2.60%	11.00%	2.60%
The furniture in my classroom is safe to use.	39.50%	46.30%	85.80%	7.40%	5.80%	13.20%	1.10%
The furniture available for teachers helped them complete their tasks.	28.10%	44.90%	73.00%	22.40%	3.10%	25.50%	1.50%
The furniture of the library helped in activating its use serving the educational-learning process.	27.40%	54.30%	81.70%	10.20%	2.50%	12.70%	5.60%
The furniture of the resource area contributed in conducting activities that cannot be conducted in the classrooms.	19.80%	40.10%	59.90%	16.70%	3.60%	20.30%	19.80%

Having bulletin boards in the classroom enriching the learning environment in the classroom.	33.20%	61.20%	94.40%	2.60%	0.50%	3.10%	2.60%
Having bulletin boards in the hallway contributed positively to the teaching-learning process.	35.20%	57.10%	92.30%	6.10%	0.50%	6.60%	1.00%
The availability of my room's furniture contributed in developing my sense of ownership.	39.70%	39.70%	79.40%	13.40%	3.10%	16.50%	4.10%
The furniture in the science lab created a more enriching learning environment for student.	20.00%	40.00%	60.00%	5.00%	0.00%	5.00%	35.00%
There is a safe place to store toxic substances required for experiments.	26.60%	39.40%	66.00%	1.10%	1.10%	2.20%	31.90%
The furniture in the art and music lab contributed to the teaching learning process.	26.50%	34.90%	61.40%	1.20%	0.00%	1.20%	37.30%
The furniture in the vocational lab contributed to enriching teaching learning process	25.00%	36.90%	61.90%	2.40%	1.20%	3.60%	34.50%
The labs furniture is safe to use.	30.20%	39.60%	69.80%	2.10%	1.00%	3.10%	27.10%
The necessary scientific equipments are available to conduct science experiments	10.20%	33.70%	43.90%	12.20%	7.10%	19.30%	36.70%
Art and music resources are available to conduct art and music activities.	16.70%	29.80%	46.50%	10.70%	1.20%	11.90%	41.70%
The whiteboards are practical and suitable for teaching purposes.	49.20%	47.00%	96.20%	1.70%	0.00%	1.70%	2.20%
The whiteboards contributed to a healthier classroom environment for the teacher and students.	56.30%	41.50%	97.80%	1.10%	0.00%	1.10%	1.10%
The photocopying machines at the school allowed me to photocopy activity sheets and assignments that helped in teaching students.	42.70%	40.00%	82.70%	10.30%	3.20%	13.50%	3.80%
The printers at the school allowed me to make innovative educational material to enrich students' learning	33.00%	29.70%	62.70%	17.60%	5.50%	23.10%	14.30%
Average			73.77%			10.24%	15.99%

Students

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The furniture in my classroom is flexible to use, and helps me better interact with my classmates.	54.50%	36.20%	90.70%	3.90%	3.10%	7.00%	2.40%
The furniture in my classroom is suitable for my age.	51.20%	38.00%	89.20%	6.40%	2.40%	8.80%	2.00%
The furniture in my classroom is made of good quality.	41.70%	45.10%	86.80%	8.30%	3.20%	11.50%	1.70%
The furniture in the art & music lab helps me in completing my tasks	32.40%	32.60%	65.00%	8.70%	6.20%	14.90%	20.00%
The furniture in the vocational room helps me in completing my tasks	29.00%	33.10%	62.10%	12.30%	7.90%	20.20%	17.70%
The furniture in the science lab helps me in completing my tasks.	29.60%	25.20%	54.80%	8.10%	6.90%	15.00%	30.20%
The furniture in my classroom is safe to use.	54.10%	37.70%	91.80%	4.20%	2.70%	6.90%	1.40%
The furniture in the labs is safe to use.	38.30%	43.10%	81.40%	6.60%	3.20%	9.80%	8.70%
Having bulletin boards in my classroom allowed me to display my work.	47.20%	40.00%	87.20%	5.30%	2.10%	7.40%	5.50%
Average			78.78%			11.28%	9.96%

Safety

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The height of the school surrounding walls contributes to a safe school environment.	10.00%	10.00%	20.00%	40.00%	40.00%	80.00%	0.00%
The type of the playgrounds' flooring material played a major role in providing safety for the students.	50.00%	20.00%	70.00%	0.00%	30.00%	30.00%	0.00%
The availability of emergency doors in the school helped to provide a safe school environment.	50.00%	10.00%	60.00%	10.00%	30.00%	40.00%	0.00%
The thickness of the windows contributes to a safe school environment.	88.90%	11.10%	100.00%	0.00%	0.00%	0.00%	0.00%
The presence of fire systems contributed to dealing with emergency situations in the school.	90.00%	10.00%	100.00%	0.00%	0.00%	0.00%	0.00%
The location of the KG contributes to offering a safe school environment for students.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			75.00%			25.00%	0.00%

Teachers							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The furniture in my classroom is safe to use.	39.50%	46.30%	85.80%	7.40%	5.80%	13.20%	1.10%
There is a safe place to store toxic substances required for experim	26.60%	39.40%	66.00%	1.10%	1.10%	2.20%	31.90%
Average			75.90%			7.70%	16.50%

Students							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The furniture in my classroom is safe to use.	54.10%	37.70%	91.80%	4.20%	2.70%	6.90%	1.40%
The furniture in the labs is safe to use.	38.30%	43.10%	81.40%	6.60%	3.20%	9.80%	8.70%
Average			86.60%			8.35%	5.05%

People with Disabilities

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The availability of equipment for students with disabilities contributed to the provision of a suitable learning environment for these students.	80.00%	10.00%	90.00%	0.00%	0.00%	0.00%	10.00%
Average			90.00%			0.00%	10.00%

Sense of Ownership

Principals							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The design of the school contributed to enhancing my sense of ownership towards the school.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average			100.00%			0.00%	0.00%

Teachers							
Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The design of the school contributed to enhancing my sense of own	34.70%	55.30%	90.00%	6.30%	2.60%	8.90%	1.10%

The availability of my room's furniture contributed in developing my	39.70%	39.70%	79.40%	13.40%	3.10%	16.50%	4.10%
Average			84.70%			12.70%	2.60%

Students

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
Having a locker helped me in storing my books and stationary.	50.30%	23.30%	73.60%	4.10%	2.90%	7.00%	19.30%
Having a locker for myself contributed to my sense of ownership towards the school.	47.30%	27.30%	74.60%	4.40%	3.80%	8.20%	17.20%
Average			74.10%			7.60%	18.25%

Operation and Maintenance

Principals

Statement	SA	A	Agreement	D	SD	Disagreement	N/A
The maintenance process suited the required speed of completing maintenance tasks during the guarantee period.	10.00%	10.00%	20.00%	10.00%	50.00%	60.00%	20.00%
The responsible parties actively and promptly respond to reported maintenance issues.	50.00%	0.00%	50.00%	20.00%	30.00%	50.00%	0.00%
The Suppliers replaced the damaged furniture that had arrived to the school.	50.00%	20.00%	70.00%	10.00%	10.00%	20.00%	10.00%
The yearly budget of the school matches the requirements of the schools (pens, maintenance etc...)	20.00%	20.00%	40.00%	10.00%	50.00%	60.00%	0.00%
Average			45.00%			47.50%	7.50%

Rehabilitated Schools: School Occupancy and Utilization Indicators

Legend	A	Agree	No.	Questionnaire Stateme
	SA	Strongly Agree	n	Number of Valid Repo
	D	Disagree		
	SD	Strongly Disagree		

General Perception of the New School

Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
197	2	I have a positive perception of my new classroom	19.80%	48.70%	68.50%	3.00%	5.60%	8.60%	22.80%
Average					68.50%			8.60%	22.80%

School Layout Spaces and function

Principals									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
2	2	The location of the administration room helps in following up on school work.	50.00%	0.00%	50.00%	50.00%	0.00%	50.00%	0.00%
2	3	The spacing of the admin room allows for completing administrative work.	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	6	The space of teachers' room is suitable with their number and allows them to move easily.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
5	13	The spaces of the classrooms are suitable with the average number of students in each classroom	60.00%	40.00%	100.00%	0.00%	0.00%	0.00%	0.00%
5	14	Having new classrooms contributed to improving the teaching-learning environment in the school	60.00%	40.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	19	The spaces of the computer labs suit the average number of students in each class	50.00%	0.00%	50.00%	0.00%	50.00%	50.00%	0.00%
2	20	Building new computer labs created opportunities for teachers to incorporate technology into their teaching	50.00%	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%
2	26	The spaces of the science labs suit the average number of students in each class.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%

2	27	The new science labs contributed to creating opportunities for teachers and students to conduct experiments to meet learning objectives.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
1	36	The location of the kindergarten contribute to providing a safe environment for the students.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	40	The location of the bathrooms makes it easy for students to use.	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average					86.36%			9.09%	4.55%
Teachers									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
13	2	The space of teachers' room is suitable with their number and allows them to move easily.	38.50%	61.50%	100.00%	0.00%	0.00%	0.00%	0.00%
59	9	Having new classrooms helped me in managing my classrooms more effectively.	23.70%	52.50%	76.20%	15.30%	3.40%	18.70%	5.10%
59	10	Having new classrooms provided me with the opportunity to implement classroom activities	18.60%	42.40%	61.00%	30.50%	3.40%	33.90%	5.10%
16	16	The space of computer labs is enough for the number of students in the classroom.	0.00%	25.00%	25.00%	43.80%	0.00%	43.80%	31.30%
16	17	The space of the computer labs allowed for proper arrangement of the furniture.	0.00%	43.80%	43.80%	25.00%	6.30%	31.30%	25.00%
15	26	The space of science labs is enough for the number of students in the classroom	20.00%	40.00%	60.00%	6.70%	6.70%	13.40%	26.70%
14	27	The availability of science labs contributed to creating more opportunities to implement experiment that achieve learning objectives.	21.40%	57.10%	78.50%	0.00%	0.00%	0.00%	21.40%
14	28	The spaces of the science labs allowed for proper arrangement of the furniture.	14.30%	50.00%	64.30%	7.10%	14.30%	21.40%	14.30%
Average					63.60%			20.31%	16.11%
Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
61	8	The space in the computer labs is enough and helps me collaborate with my classmates.	9.80%	29.50%	39.30%	4.90%	1.60%	6.50%	54.10%

121	14	Having a science lab in my school provided me with opportunity to implement scientific experiments linked to the curriculum	60.30%	31.40%	91.70%	2.50%	0.80%	3.30%	5.00%
114	23	The locations of the new bathrooms in my school make them accessible.	15.80%	41.20%	57.00%	7.90%	29.80%	37.70%	5.30%
Average					62.67%			15.83%	21.47%

Technology and New Educational Environment

Principals									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
2	21	The new computer labs contributed in creating more student-centered classrooms	50.00%	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%
Average					50.00%			0.00%	50.00%

Teachers									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
16	18	The availability of computer labs contributed utilizing technology to serve the teaching-learning process	6.30%	62.50%	68.80%	0.00%	6.30%	6.30%	25.00%
Average					68.80%			6.30%	25.00%

Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
61	8	The space in the computer labs is enough and helps me collaborate with my classmates	9.80%	29.50%	39.30%	4.90%	1.60%	6.50%	54.10%
61	9	Having computers helps me in developing my computer skills.	13.10%	26.20%	39.30%	3.30%	4.90%	8.20%	52.50%
Average					39.30%			7.35%	53.30%

Electrical and Mechanical Systems

Principals									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
2	9	The good ventilation in the teachers' room offered a suitable working environment for the	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	10	The good lighting in the teachers' room offered a suitable working environment for them	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
4	15	The ventilation in the new classroom contributed to a suitable learning environment	75.00%	25.00%	100.00%	0.00%	0.00%	0.00%	0.00%

5	16	The lighting in the new classroom contributed to a suitable learning environment	80.00%	0.00%	80.00%	0.00%	0.00%	0.00%	20.00%
2	22	The electrical plugs in the computer labs contribute to effectively distributing computers.	0.00%	50.00%	50.00%	0.00%	50.00%	50.00%	0.00%
2	23	The ventilation in the new computer labs contributed to a suitable learning environment	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	24	The lighting in the new computer labs contributed to a suitable learning environment	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	28	The ventilation in the new science labs contributed to a suitable learning environment	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	29	The lighting in the new science labs contributed to a suitable learning environment	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
	38	The ventilation in the KG contributed to a suitable learning environment.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	41	The ventilation in the bathrooms is good	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average					93.64%			4.55%	1.82%
Teachers									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
12	5	The good ventilation in the teachers' room offered a suitable working environment for them	25.00%	75.00%	100.00%	0.00%	0.00%	0.00%	0.00%
12	6	The good lighting in the teachers' room offered a suitable working environment for them	16.70%	75.00%	91.70%	8.30%	0.00%	8.30%	0.00%
60	13	Having good ventilation systems in the classrooms contributed to providing a suitable learning environment for the students	20.00%	63.30%	83.30%	11.70%	3.30%	15.00%	1.70%
61	14	Having lighting systems in the classrooms contributed to providing a suitable learning environment for the students.	21.30%	62.30%	83.60%	9.80%	3.30%	13.10%	3.30%
16	21	Having electrical cables in the right places contributed to a suitable learning environment.	54.10%	37.70%	91.80%	4.20%	2.70%	6.90%	1.40%
16	22	The electrical extensions inside the computer labs are made in a way which is safe for students	38.30%	43.10%	81.40%	6.60%	3.20%	9.80%	8.70%
16	23	Having good ventilation systems in the computer lab contributed to creating a suitable learning experience for students	0.00%	56.30%	56.30%	6.30%	6.30%	12.60%	31.30%

16	24	Having good lighting systems in the computer lab contributed to creating a suitable learning experience for students	0.00%	62.50%	62.50%	0.00%	6.30%	6.30%	31.30%
13	33	The ventilation in the new science labs contributed to a suitable learning environment	15.40%	23.10%	38.50%	15.40%	15.40%	30.80%	30.80%
12	34	The lighting in the new science labs contributed to a suitable learning environment	25.00%	41.70%	66.70%	0.00%	16.70%	16.70%	16.70%
Average					75.58%			11.95%	12.52%
Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
197	4	The ventilation in the classroom is suitable	28.90%	31.50%	60.40%	8.10%	11.70%	19.80%	19.80%
196	5	The lighting in the classroom is suitable and allows me to see well	32.10%	38.30%	70.40%	6.60%	3.60%	10.20%	19.40%
61	11	The ventilation in the computer lab is suitable	11.50%	26.20%	37.70%	4.90%	9.80%	14.70%	47.50%
60	12	The lighting in the computer lab is suitable and allows me to see well.	21.70%	21.70%	43.40%	3.30%	5.00%	8.30%	48.30%
120	16	The ventilation in the science lab is suitable	36.70%	33.30%	70.00%	8.30%	18.30%	26.60%	3.30%
120	17	The lighting in the science lab is suitable and allows me to see well	51.70%	35.80%	87.50%	2.50%	6.70%	9.20%	3.30%
Average					61.57%			14.80%	23.60%

Materials and Finishing

Principals									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
2	9	The good ventilation in the teachers' room offered a suitable working environment for them	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	10	The good lighting in the teachers' room offered a suitable working environment for them	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
4	15	The ventilation in the new classroom contributed to a suitable learning environment	75.00%	25.00%	100.00%	0.00%	0.00%	0.00%	0.00%
5	16	The lighting in the new classroom contributed to a suitable learning environment	80.00%	0.00%	80.00%	0.00%	0.00%	0.00%	20.00%
2	23	The ventilation in the new computer labs contributed to a suitable learning environment	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	24	The lighting in the new computer labs contributed to a suitable learning environment	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%

2	28	The ventilation in the new science labs contributed to a suitable learning environment	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	29	The lighting in the new science labs contributed to a suitable learning environment	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
1	38	The ventilation in the KG contributed to a suitable learning environment.	100.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	41	The ventilation in the bathrooms is good	50.00%	50.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	42	The necessities available in the bathrooms suit the age groups and their needs	50.00%	0.00%	50.00%	0.00%	0.00%	0.00%	50.00%
Average					93.64%			0.00%	6.36%
Teachers									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
12	5	The good ventilation in the teachers' room offered a suitable working environment for them	25.00%	75.00%	100.00%	0.00%	0.00%	0.00%	0.00%
12	6	The good lighting in the teachers' room offered a suitable working environment for them	16.70%	75.00%	91.70%	8.30%	0.00%	8.30%	0.00%
60	13	Having good ventilation systems in the classrooms contributed to providing a suitable learning environment for the students.	20.00%	63.30%	83.30%	11.70%	3.30%	15.00%	1.70%
61	14	Having lighting systems in the classrooms contributed to providing a suitable learning environment for the students.	21.30%	62.30%	83.60%	9.80%	3.30%	13.10%	3.30%
16	23	Having good ventilation systems in the computer lab contributed to creating a suitable learning experience for students	0.00%	56.30%	56.30%	6.30%	6.30%	12.60%	31.30%
16	24	Having good lighting systems in the computer lab contributed to creating a suitable learning experience for students	0.00%	62.50%	62.50%	0.00%	6.30%	6.30%	31.30%
13	33	The ventilation in the new science labs contributed to a suitable learning environment	15.40%	23.10%	38.50%	15.40%	15.40%	30.80%	30.80%
12	34	The lighting in the new science labs contributed to a suitable learning environment	25.00%	41.70%	66.70%	0.00%	16.70%	16.70%	16.70%
Average					72.83%			12.85%	14.39%
Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
197	4	The ventilation in the classroom is suitable	28.90%	31.50%	60.40%	8.10%	11.70%	19.80%	19.80%

196	5	The lighting in the classroom is suitable and allows me to see better	32%	38.30%	70.40%	6.60%	3.60%	10.20%	19.40%
61	11	The ventilation in the computer lab is suitable	11.50%	26.20%	37.70%	4.90%	9.80%	14.70%	47.50%
60	12	The lighting in the computer lab is suitable and allows me to see better	21.70%	21.70%	43.40%	3.30%	5.00%	8.30%	48.30%
120	16	The ventilation in the science lab is suitable	36.70%	33.30%	70.00%	8.30%	18.30%	26.60%	3.30%
120	17	The lighting in the science lab is suitable and allows me to see better	51.70%	35.80%	87.50%	2.50%	6.70%	9.20%	3.30%
109	24	The bathrooms in my school are safe in terms of their doors, the height of the windows, and the flooring	14.70%	40.40%	55.10%	11.00%	28.40%	39.40%	5.50%
112	25	The bathroom equipment available are suitable	7.10%	25.00%	32.10%	18.80%	37.50%	56.30%	11.60%
Average					57.08%			23.06%	19.84%

Furniture and Equipments

Principals									
n	No	Statement	SA	A	Ament	D	SD	Disagreement	N/A
2	4	The furniture of the admin room matches the nature of the admin work.	0.00%	50.00%	50.00%	0.00%	0.00%	0.00%	50.00%
2	7	The furniture of teachers' room is with high quality.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
2	8	The furniture of teachers' room helped them to complete their assigned tasks.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
5	17	The furniture used in the new classroom suits the age of students.	80.00%	0.00%	80.00%	0.00%	0.00%	0.00%	20.00%
1	37	The furniture in the kindergarten suits the ages of the students in providing a suitable learning environment.	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%
Average					86.00%			0.00%	14.00%
Teachers									
n	No	Statement	SA	A	Ament	D	SD	Disagreement	N/A
12	3	The furniture of teachers' room is with high quality	0.00%	75.00%	75.00%	16.70%	8.30%	25.00%	0.00%
12	4	The furniture of teachers' room helped them to complete their assigned tasks	0.00%	75.00%	75.00%	16.70%	8.30%	25.00%	0.00%
59	11	The furniture in the new added classrooms is safe to use	18.60%	55.90%	74.50%	16.90%	3.40%	20.30%	5.10%
58	12	Having school-friendly furniture helped in diversifying classroom arrangements	12.10%	48.30%	60.40%	32.80%	1.70%	34.50%	5.20%
16	19	The computer lab's furniture is suited for students' ages and thus providing a suitable learning environment	0.00%	68.80%	68.80%	0.00%	6.30%	6.30%	25.00%
16	20	The furniture in computer labs is safe to use	0.00%	68.80%	68.80%	0.00%	6.30%	6.30%	25.50%

13	30	The classroom flexible furniture contributed to offer objectives-achievable learning environment	0.00%	53.80%	53.80%	15.40%	15.40%	30.80%	15.40%
13	31	The science lab's furniture is suited for students' ages and thus providing a suitable learning environment	15.40%	46.20%	61.60%	7.70%	15.40%	23.10%	15.40%
13	32	The furniture in the science lab is safe	15.40%	46.20%	61.60%	7.70%	15.40%	23.10%	15.40%
Average					66.61%			21.60%	11.89%
Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
197	3	The flexible furniture helped me to collaborate more with my classmates when I am doing activities	13.70%	39.10%	52.80%	17.80%	6.60%	24.40%	22.80%
198	6	The furniture in my classroom is safe and doesn't cause me any injuries	24.70%	35.40%	60.10%	11.60%	10.60%	22.20%	17.70%
61	10	The furniture of the computer lab is safe to use	24.60%	19.70%	44.30%	1.60%	4.90%	6.50%	49.20%
121	15	The furniture of the science lab is safe to use	48.80%	43.00%	91.80%	2.50%	2.50%	5.00%	3.30%
Average					62.25%			14.53%	23.25%

Safety

Principals									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
1	36	The location of the kindergarten contribute to providing a safe environment for the students	100%	0.00%	100.00%	0.00%	0.00%	0.00%	0
Average					100.00%			0.00%	0.00%
Teachers									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
	11	The furniture in the new added classrooms is safe to use	18.60%	55.90%	74.50%	16.90%	3.40%	20.30%	5.10%
16	20	The furniture in computer labs is safe to use	0.00%	68.80%	68.80%	0.00%	6.30%	6.30%	25.50%
16	22	The electrical extensions inside the computer labs are made in a way which is safe for students	0.00%	68.80%	68.80%	0.00%	6.30%	6.30%	25.00%
13	29	Having an emergency exit in the lab contributed to offering an element of safety for teachers and students when they are using the lab.	23.10%	30.80%	53.90%	0.00%	23.10%	23.10%	23.10%
13	32	The furniture in the science lab is safe	15.40%	46.20%	61.60%	7.70%	15.40%	23.10%	15.40%
12	35	There are designated areas in the lab to store toxic material used in experiments	25.00%	41.70%	66.70%	8.30%	8.30%	16.60%	16.70%

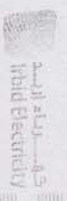
Average					65.72%			15.95%	18.47%
Students									
n	No	Statement	SA	A	Agreement	D	SD	Disagreement	N/A
198	6	The furniture in my classroom is safe and doesn't cause me any injuries	24.70%	35.40%	60.10%	11.60%	10.60%	22.20%	17.70%
61	10	The furniture in the computer lab is safe	24.60%	19.70%	44.30%	1.60%	4.90%	6.50%	49.20%
121	15	The furniture in the science lab is safe	48.80%	43.00%	91.80%	2.50%	2.50%	5.00%	3.30%
Average					65.40%			11.23%	23.40%

ANNEX XVI:

ELECTRICITY BILLS FOR DIRECTORATES

مخطط تانجنتي (1) ك.م.ك.ع

الموقع: كنفكة، كنفكة، محافظة أربيل - العراق
 كنفكة، كنفكة، محافظة أربيل - العراق



رقم الملف: 0130

رقم التسلسلي	رقم التانجنتي	وصف التانجنتي	القطب	المساحة	رقم الإحداثيات	نوع التانجنتي	نوع التانجنتي	نوع التانجنتي	نوع التانجنتي
6	1	رقم التسلسلي	1						
8	2	التاريخ	2						
10	3	الوقت	3						
12	4	مساحة التانجنتي	4						
14	5	مساحة التانجنتي	5						
16	6	مساحة التانجنتي	6						
18	7	مساحة التانجنتي	7						
20	8	مساحة التانجنتي	8						
22	9	مساحة التانجنتي	9						
24	10	مساحة التانجنتي	10						
26	11	مساحة التانجنتي	11						
28	12	مساحة التانجنتي	12						
30	13	مساحة التانجنتي	13						
32	14	مساحة التانجنتي	14						
34	15	مساحة التانجنتي	15						
36	16	مساحة التانجنتي	16						
38	17	مساحة التانجنتي	17						
40	18	مساحة التانجنتي	18						
42	19	مساحة التانجنتي	19						
44	20	مساحة التانجنتي	20						
46	21	مساحة التانجنتي	21						
48	22	مساحة التانجنتي	22						
50	23	مساحة التانجنتي	23						
52	24	مساحة التانجنتي	24						
54	25	مساحة التانجنتي	25						
56	26	مساحة التانجنتي	26						
58	27	مساحة التانجنتي	27						
60	28	مساحة التانجنتي	28						
62	29	مساحة التانجنتي	29						
64	30	مساحة التانجنتي	30						
66	31	مساحة التانجنتي	31						
68	32	مساحة التانجنتي	32						
70	33	مساحة التانجنتي	33						
72	34	مساحة التانجنتي	34						
74	35	مساحة التانجنتي	35						
76	36	مساحة التانجنتي	36						
78	37	مساحة التانجنتي	37						
80	38	مساحة التانجنتي	38						
82	39	مساحة التانجنتي	39						
84	40	مساحة التانجنتي	40						
86	41	مساحة التانجنتي	41						
88	42	مساحة التانجنتي	42						
90	43	مساحة التانجنتي	43						
92	44	مساحة التانجنتي	44						
94	45	مساحة التانجنتي	45						
96	46	مساحة التانجنتي	46						
98	47	مساحة التانجنتي	47						
100	48	مساحة التانجنتي	48						



C. 1312 **مذكرة**

دراسة كلفة بناء محافظة أربيل ٢٠١٤ هـ
 مكتب خبراء التوازن بين الميزاني حسب المخطط

رقم المصنف : ٥٥
 التاريخ : ٢٠١٣/٠٢/١٨
 الوقت : ١٠:١٧:٠٣

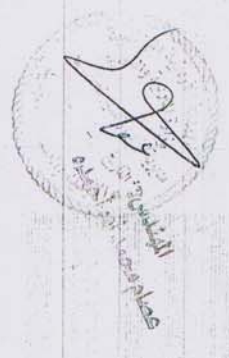
رقم الممثلين :
 رقم رقم : ٥٦١

مكتبه الجاني : ٤٩ :
 مكتبه الجاني : جاني الشوارع

وزارة التربية والتعليم
 مكتب خبراء محافظة صلاحية

البيانات المطلوبة : كلفة الاستثمارات : مبلغ الميزان : اسم الممثلين

رقم المصنف	البيانات المطلوبة	كلفة الاستثمارات	مبلغ الميزان	اسم الممثلين
١٥	١١٥	٤.١٣٢.٠١	١٣٨٧	١٧
١٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
١٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
١٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
١٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٢٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٢١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٢٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٢٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٢٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٢٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٢٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٢٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٢٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٢٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٣٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٣١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٣٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٣٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٣٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٣٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٣٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٣٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٣٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٣٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٤٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٤١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٤٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٤٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٤٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٤٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٤٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٤٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٤٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٤٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٥٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٥١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٥٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٥٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٥٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٥٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٥٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٥٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٥٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٥٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٦٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٦١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٦٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٦٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٦٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٦٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٦٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٦٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٦٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٦٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٧٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٧١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٧٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٧٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٧٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٧٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٧٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٧٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٧٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٧٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٨٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٨١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٨٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٨٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٨٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٨٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٨٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٨٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٨٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٨٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٩٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٩١	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٩٢	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٩٣	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٩٤	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٩٥	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٩٦	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٩٧	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
٩٨	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤
٩٩	١١٥	٢.١٣٢.٠١	١٣٨٧	١٧
١٠٠	١٧٨٧	٢.١٣٢.٠١	١٣٨٣	٣٤



اسم المدرسة : ام قصير والمقابلين الثانويه للبنين / جابر بن حيان المهنية
رقم الاشتراك : ٥/٤٥٧٣/٥٢٠
رقم الملف : ٤٠٧٠٩/٤٠٠٦٩
رقم العداد : ٢٠٠٣٣٠٣١٧٨

تاريخ الفاتورة

قيمة الفاتورة	إلى	من	رقم الفاتورة	القراءة الحالية	القراءة السابقة	كمية الاستهلاك
٢٤٢.١٣٥	١٢/٠١/٢٠١٣	١٧/١٢/٢٠١٢	٢٠١٣.١٠٠	٢٧٤٩١٩	٢٧٣.٧٦	١٨٤٣
١٥.٥٥٦	١٧/٠٢/٢٠١٣	١٢/٠١/٢٠١٣	٢٠١٣.٢٠٠	٢٧٥٢٢٠	٢٧٤٩١٩	٣٠١
٤٠٢.٣٣٣	١٧/٠٣/٢٠١٣	١٧/٠٢/٢٠١٣	٢٠١٣.٣٠٠	٢٧٧٩٤٢	٢٧٥٢٢٠	٢٧٢٢

ANNEX XVII:

SAMPLE OF COMPLETED DATA COLLECTION TOOLS



USAID
FROM THE AMERICAN PEOPLE

16



مدرسة المدينة العرربية الزاوية المتكاملة

أخي المدير، أختي المديرية...

السلام عليكم ورحمة الله وبركاته.

يهدف مشروع مدارس الأردن (JSP) المقدم بدعم من الوكالة الأمريكية للتنمية الدولية (USAID) إلى دعم جهود وزارة التربية والتعليم في تحسين البيئة التعليمية لأبنائنا الطلبة، إضافة إلى تعزيز جهود الحكومة الأردنية في بناء مدارس جديدة تحدد من مشكلات اكتظاظ الطلبة والمباني المستأجرة ونظام الفترتين، وقد سعى مشروع مدارس الأردن (JSP) منذ انطلاقه في آب من العام (2006) إلى بناء (28) مدرسة جديدة في مختلف مناطق المملكة، وتأهيل (100) مدرسة أخرى مع الأخذ بعين الاعتبار المعايير والمواصفات العالمية في إنشاء مرافق مدرسية وتزويدها بما يناسبها من أثاث وتجهيزات.

ولقد تم تصميم هذه المدارس وفق منظور تربوي يراعي توفير الأماكن والمساحات والتجهيزات والأدوات التي تسهم في تعزيز اتجاهات أعضاء المجتمع المدرسي، مما يؤدي إلى تعزيز تعلم الطلبة، وتقوية شعورهم بالملكية نحو المدرسة.

وانطلاقاً من أهمية عملية التقويم في الوصول إلى نتائج وتوصيات تتعلق بمعرفة مدى فاعلية المشروع ومدى تحقيقه للأهداف المنشودة منه، فإن القائمين على مشروع مدارس الأردن (JSP) يأملون في تعاونك في الإجابة على فقرات الاستبانة وعددها (88) علماً بأن الاستجابات ستعامل بسرية تامة وستستخدم لأغراض التقويم فقط.

ملاحظة: عند الإجابة على فقرات الاستبانة قارن واقع مدرستك الجديدة مع واقع المدارس الحكومية في المملكة الأردنية الهاشمية.

مثال:

الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا يطبق علي
لدي انطباع إيجابي عن مدرستي الجديدة.		X			

اطلب مساعدة الشخص المسؤول في حال وجود أي غموض في إحدى الفقرات.

وتقبل منا خالص الشكر والتقدير

المجال الأول: المبنى المدرسي

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق	لا يطبق علي
1.	لدي انطباع إيجابي عن مدرستي الجديدة.		✓			
ملاحظات:						
2.	ارتفاع الأسوار المدرسية يساهم في توفير بيئة مدرسية آمنة للطلبة.		✓			
ملاحظات: السور منخفض ولا يتطابق مع معايير الاعتماد الصحي ، شروط الاعتماد الصحي - و ، بينما ارتفاع الأسوار يفرض الصلابة للمباني وهناك أسواراً عالية						
3.	ساهمت الساحات الخارجية للمدرسة في تنفيذ فعاليات وأنشطة تربية متنوعة.		✓			
ملاحظات: ولكن لا تفري بالفرض .						
4.	تصميم المداخل الخارجية ساعد على توظيفها بما يخدم العمل المدرسي.		✓			
ملاحظات: مدخل المبنى مماثل بمبنى البوابة الرئيسية لا ساعد على عملية إدفان الأثاث						
5.	مواقع الأحواض الزراعية لعبت دوراً في تسهيل تنفيذ الأعمال المرتبطة بالزراعة والري...الخ.		✓			
ملاحظات: الحوض بين الساحة والمبنى لا يلبي لاحتياجاته						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق	لا ينطبق علي
6.	ساهم تصميم الملاعب المدرسية في إتاحة فرص أكبر لإقامة الأنشطة والفعاليات.	/				
ملاحظات:						
7.	نوعية أرضية الملاعب لعبت دوراً في توفير عنصر الأمان أثناء استخدامها.					/
ملاحظات:						
الأرضية قاسية						
8.	نوعية بلاط المدرسة تُسهم في توفير بيئة تعليمية نظيفة.					/
ملاحظات:						
محو معرفة المستفيد التنظيف ، والبلاط صعب						
9.	نوعية الدهان المستخدم في المدرسة عملي بحيث يتناسب مع استخدام الطلبة.					/
ملاحظات:						
10.	اتساع الممرات المدرسية ساهم في استخدامها بشكل فعال لعرض أنشطة تربية.	/				
ملاحظات:						
11.	ساعد موقع غرفة الإدارة على متابعة العمل المدرسي.	/				
ملاحظات:						
بدليل كل المرصني - تمويزه للإدارة مباشرة						

الرقم	الفقرة	بشدة موافق	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
12.	ساهم تصميم الجناح الإداري في تلبية المهام المرتبطة بالأعمال الإدارية.			✓		
ملاحظات: الأصل أن يكون المرشد والمساعد أمين العهد مربيين للإدارة						
13.	وجود منطقة المصادر ساعد على تنفيذ أنشطة وفعاليات مدرسية تحقق أهداف التعلم.		✓			
ملاحظات:						
14.	ساعد وجود غرف التخطيط على إثراء العملية التعليمية التعلمية.		✓			
ملاحظات: نحتاج إلى غرفة اجتماعات تضم جميع المعلمين						
15.	وجود غرف الاجتماعات ساعد على التواصل مع أعضاء المجتمع المدرسي.		✓			
ملاحظات: يحتاج الباص من الجناح الإداري						
16.	تناسب مساحة غرفة القرطاسية مع الغرض من استخدامها.		✓			
ملاحظات:						
17.	ساهم وجود غرفة الملفات في تلبية الحاجات المتعلقة بالأعمال الإدارية.		✓			
ملاحظات:						
18.	مساحة مستودع الكتب تناسب مع الغرض من استخدامه.		✓			
ملاحظات:						

لا يطبق على	غير موافق بشدة	غير موافق	موافق	موافق بشدة	الفقرة	الرقم
		/			موقع غرفة الملفات قريب من سكرتير المدرسة.	19.
ملاحظات:						
بعدة عن السكينة من الطلبة السائ						
				/	وجود غرفة المهن ساهم في إتاحة الفرصة للطلبة للتعرف على المهن المستقبلية التي تتناسب مع طموحاتهم.	20.
ملاحظات:						
/					وجود غرفة الأبحاث في المكتبة ساهم في إتاحة الفرصة للطلبة والمعلمين للقيام بعمليات الاطلاع والبحث.	21.
ملاحظات:						
لعدم وصول الأجهزة بعد						
				/	ساهم وجود القاعات متعددة الاستخدامات في تنفيذ أنشطة تربوية متنوعة.	22.
ملاحظات:						
				/	ساهمت التجهيزات الخاصة بالطلبة ذوي الإعاقة في توفير بيئة تعليمية مناسبة لهم.	23.
ملاحظات:						
	/			/	سهّل موقع المقصف المدرسي على الطلبة استخدامه.	24.
ملاحظات:						
بعدة عن الطلاب						

الرقم	العقرة	موافق بشدة	موافق	عبر موافق	عبر موافق بشدة	عبر موافق بشدة	عبر موافق بشدة	عبر موافق بشدة	عبر موافق بشدة
25	وجود العيادة المدرسية ساهم في توفير رعاية طبية أولية مناسبة للطلبة.	/							
ملاحظات:									
26	وجود دورات المياه في أكثر من موقع في المدرسة ساعد في تلبية احتياجات أعضاء المجتمع المدرسي.	/							
ملاحظات:									
27	المعدات الخاصة بدورات المياه تتناسب مع المرحلة العمرية للطلبة.	/							
ملاحظات:									
نظام الضغط من شهر مارس									
28	وجود أبواب الطوارئ في المدرسة ساعد على توفير بيئة مدرسية مناسبة.	/							
ملاحظات:									
29	الأبواب الخاصة بالمبنى المدرسي عملية وتتلاءم مع استخدام الطلبة.	/							
ملاحظات:									
30	أبواب الغرف الصفية عملية وتتناسب مع استخدام الطلبة.	/							
ملاحظات:									
31	النوافذ المستخدمة في المدرسة عملية وتتناسب مع الاستخدام.	/							
ملاحظات:									

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا يطبق علي
32.	ارتفاع النوافذ في الغرف الصفية مناسب للمرحلة العمرية للطلبة.	/				
ملاحظات:						
33.	سمك زجاج النوافذ المستخدم في الغرف الصفية، يتناسب مع توفير البيئة المدرسية الآمنة.	/				
ملاحظات:						
34.	ساهم وجود أنظمة الحريق في توفير بيئة ملائمة للتعامل مع الظروف الطارئة في المدرسة.	/				
ملاحظات:						
35.	وجود نظام التدفئة في المدرسة ساهم في إيجاد بيئة مدرسية مناسبة لأعضاء الهيئة الإدارية والتدريسية والطلبة.	/				
ملاحظات:						
36.	مواقع أباريز الكهرباء ساهمت في تسهيل تفعيل التكنولوجيا في المدرسة.	/				
ملاحظات:						
37.	ساهم التصميم المدرسي في تنمية شعوري بملكية المدرسة.	/				
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	على الطريق
38.	التهوية الجيدة في المدرسة ساهمت في توفير بيئة مدرسية مناسبة.	/				
ملاحظات:						
39.	الإضاءة الجيدة في المدرسة ساهمت في توفير بيئة مدرسية مناسبة.	/				
ملاحظات:						
كهرباء الضابحة الأرضية بدو كهربار مقفلة						
40.	تصميم مواقف السيارات لعب دوراً في تحقيق الغاية من استخدامه.	/				
ملاحظات:						
لا يوجد						
الأسئلة (41 - 45) خاصة بمدارس الإناث						
41.	موقع الروضة ساهم في توفير بيئة مدرسية آمنة للطلبة.	/				
ملاحظات:						
42.	منطقة الألعاب الخاصة بالروضة ساهمت في تحقيق الهدف من استخدامها.	/				
ملاحظات:						
43.	مواقع الخدمات الخاصة بالروضة مثل (دورات المياه، والمطبخ) قريبة من مكان الروضة.	/				
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق على
44.	موقع الحضنة يتناسب مع التعليمات الخاصة بالحضانات في وزارة التنمية الاجتماعية.					/
ملاحظات: لا يوجد فيها آهوية ، وغير مستحقة						
45.	مساحة الحضنة ساهمت في تحقيق الهدف من استخدامها.					/
ملاحظات: صفيرة جدا						
المجال الثاني: التكنولوجيا						
46.	تعدد أدوات التكنولوجيا المتوفرة في المدرسة ساهم في فتح مجالات واسعة أمام أعضاء المجتمع المدرسي لتوظيفها.					/
ملاحظات: لم تصل الأجهزة لعدد						
47.	ساعد وجود الحواسيب في الجناح الإداري على تنفيذ المهام المرتبطة بالأعمال الإدارية.					/
ملاحظات: لم تصل الأجهزة بعد						
48.	ساعد وجود أنظمة النداء الداخلي والخارجي على التواصل مع المعلمين والطلبة.					/
ملاحظات:						
49.	وجود كاميرات المراقبة ساهم في ضبط العمل المدرسي.					/
ملاحظات: البرمجية كانت لعدد شهر ثم انتهت						

الرقم	الفقرة	موافق بشدة	موافق	عبر موافق	عبر موافق بشدة	غير موافق بشدة	غير موافق
50	ساهم وجود آلات الطباعة في المدرسة في تلبية المهام المرتبطة بالأعمال المدرسية.						/

ملاحظات:

علم فصل الآلة الطباعة بعد

51	ساهم وجود آلات التصوير في المدرسة في تلبية المهام المرتبطة بالأعمال المدرسية.	/					
----	---	---	--	--	--	--	--

ملاحظات:

وصلت قبل شهر

المجال الثالث: الأثاث المدرسي

52	وجود أثاث مدرسي له طبيعة مرنة في الاستخدام ساهم في التنوع في شكل البيئة التعليمية.	/					
----	--	---	--	--	--	--	--

ملاحظات:

53	يتناسب الأثاث المدرسي مع المرحلة العمرية للطلبة.	/					
----	--	---	--	--	--	--	--

ملاحظات:

54	تمتاز نوعية الأثاث المدرسي بالجودة.	/					
----	-------------------------------------	---	--	--	--	--	--

ملاحظات:

55	يتناسب الأثاث الخاص بالجناح الإداري مع طبيعة المهام الموكلة لأعضاء الهيئة الإدارية.	/					
----	---	---	--	--	--	--	--

ملاحظات:

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق على
56.	ساهم الأثاث الخاص بغرف الاجتماعات في تحقيق الغرض من استخدامها.		/			
ملاحظات:						
57.	ساهم وجود الأثاث الخاص بالعيادة المدرسية في تقديم الإسعافات الأولية للطلبة والمعلمين.		/			
ملاحظات:						
58.	ساعدت مرونة الأثاث الخاص بالمكتبة في تفعيل طرق استخدامها.		/			
ملاحظات:						
59.	ساهم الأثاث المتوفر في منطقة المصادر في التنوع بطرق واستراتيجيات التدريس.		/			
ملاحظات:						
60.	يتوفر في الحضنة الأثاث المناسب للأطفال.		/			
ملاحظات: الرضاعة فقط فيها أسرة وأرضياتها تمسحها السجاد والمفاتيح ومنسنة مهابات وتلفزيون						
61.	يتوفر في مستودع الكتب رفوف أو خزائن تكفي حاجة المدرسة.		/			
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	على تطبيق
62.	يتوفر في غرفة الملفات ما يكفي من الرفوف والخزائن لتلبية حاجات المدرسة.	/				
ملاحظات:						
63.	وجود لوحات الإعلانات في الممرات المدرسية ساهم في تنفيذ الأنشطة التربوية المتنوعة.	/				
ملاحظات:						
64.	استخدام الألواح البيضاء في المدرسة يتناسب مع ميزانية المدرسة.	/		/		
ملاحظات: الزقلاام نالسيه العمرا						
65.	استخدام الألواح البيضاء في المدرسة ساهم في توفير بيئة مدرسية صحية بعيدة عن استخدام الطباشير.	/				
ملاحظات:						
66.	ساهم النموذج المعتمد للصيانة في سرعة إنجاز أعمال الصيانة المطلوبة للأجهزة خلال فترة كفالتها.				/	
ملاحظات: سبب حوله الإجراءات ، اول نموذج صيانة تم رفضه بتاريخ ١٤/٥/٢٠١٥ وصم الآلة لم يتبد أى إجراء (٣/٤)						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق	لا يطبق علي
67	هناك تجاوب من الجهات المختصة عند الإبلاغ عن الأعطال التي تحدث في الأجهزة والمعدات.			/		
ملاحظات:						
لا ينبغي لأحد من جهة التفتيش المفروض أن يتولى صلاحيات الكوادر أو المعلمين والمصحات						
68	الجهات الموردة قامت بتبديل الأثاث الذي وصل إلى المدرسة وهو في حالة غير صالحة.	/				
ملاحظات:						
69	لدى المدرسة القدرة المادية للقيام بعمليات الصيانة للأجهزة والمواد المستخدمة في المدرسة بعد انتهاء فترة الكفالة.			/		
ملاحظات:						
أغلب مطبخ الزبائن غير متوفرة بما هو مطلوب						
70	الميزانية السنوية للمدرسة تتناسب مع مستلزمات المدرسة من (أقلام، قرطاسية، تصوير...الخ)			/		
ملاحظات:						
المجال الرابع: الأهداف العامة للمشروع						
71	الطاقة الاستيعابية للمدرسة ساهمت في التقليل من الاكتظاظ في المدارس المجاورة.	/				
ملاحظات:						
المدرسة حلت محل مدرسة بناؤما قدم مدرسة الإسرار وأكثر المدارس الرائدة؛ كمنية بنت الحياض، نسيف الحياض، أروى بنت عبد المطلب، آمنة بنت وهب						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق
72	ساهم وجود المدرسة في إيجاد الفرص لقبول الأعداد المتزايدة من الطلبة في المنطقة.	/			
ملاحظات					
المجال الخامس: مشاركة أهالي الطلبة والمجتمع المحلي					
73	يوجد رضا من قبل المجتمع المحلي عن الدور الجديد للمدرسة.	/			
ملاحظات:					
74	تحقق المرافق المدرسية المتعلقة بالمجتمع المحلي الغاية من وجودها.	/			
ملاحظات:					
75	تستثمر المرافق المدرسية من قبل أعضاء المجتمع المحلي في تنفيذ أنشطة ومشاريع متنوعة.	/			
ملاحظات:					
76	مواقع المرافق المدرسية المتعلقة بالمجتمع المحلي مناسبة بحيث يمكن الوصول لها دون التأثير على المرافق المدرسية الأخرى.	/			
ملاحظات:					

المجال السادس: الاتجاهات

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
77	ساعدت المدرسة الجديدة على تنمية اتجاهات المعلمين وسلوكياتهم بشكل إيجابي نحو المدرسة.	/				
ملاحظات:						
78	لعبت المدرسة الجديدة دوراً في تنمية اتجاهات الطلبة وسلوكياتهم بشكل إيجابي نحو المدرسة.	/				
ملاحظات:						
79	كان لوجود المدرسة أثر إيجابي على أعضاء المجتمع المدرسي.	/				
ملاحظات:						
المجال السابع: مراعاة جنس المدرسة (ذكور/ إناث) وعمر الطلبة						
80	ارتفاع سور المدرسة يتناسب مع جنس المدرسة، ويسهم في توفير بيئة مدرسية مناسبة.				/	
ملاحظات:						
الزحور منخفضة						
81	تصميم الساحات الرياضية يتناسب مع جنس المدرسة.	/				
ملاحظات:						

الرقم	العقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	علي تطبيق
.82	الألوان المستخدمة في طلاء جدران المدرسة تتناسب مع جنس المدرسة.	/				
ملاحظات:						
.83	تم مراعاة جنس الطلبة في تصميم دورات المياه في المدارس المختلطة.	/				
ملاحظات:						
.84	يتوفر في المدرسة دورات مياه تخدم ضيوف المدرسة من كلا الجنسين.	/				
ملاحظات:						
.85	المرافق المدرسية الموجودة في المبنى المدرسي من (مختبرات ووحضانة، وروضة) تتناسب وجنس المدرسة.	/				
ملاحظات:						
.86	مشغل التربية المهنية في المدرسة يتناسب مع جنس المدرسة.	/				
ملاحظات:						

المجال الثامن: الانطباعات

.87

تأمل في واقع مدرستك الجديدة من حيث البناء والأثاث والتجهيزات، ما الذي جذبك للمدرسة وترى أنه يلعب دوراً في تحسين العملية التعليمية التعلمية؟

١٤١ تصميم المبنى والفضاء

١٤٢ النظام الصوتي

.88

ما هي أبرز التحديات المتعلقة بالبناء والأثاث والتجهيزات وترى أنها لعبت دوراً في التأثير سلباً على العملية التعليمية التعلمية في المدرسة؟

١٤٣ عدم وصول الكهرباء للمدرسة قبل بداية الدراسة

١٤٤ عدم وصول الزمالة قبل بداية الدراسة

نشكر لكم حسن تعاونكم معنا



USAID
FROM THE AMERICAN PEOPLE



أخي المعلم، أختي المعلمة...

السلام عليكم ورحمة الله وبركاته

يهدف مشروع مدارس الأردن (JSP) المقدم بدعم من الوكالة الأمريكية للتنمية الدولية (USAID) إلى دعم جهود وزارة التربية والتعليم في تحسين البيئة التعليمية لأبنائنا الطلبة، إضافة إلى تعزيز جهود الحكومة الأردنية في بناء مدارس جديدة تحدد من مشكلات اكتظاظ الطلبة والمباني المستأجرة ونظام الفترتين، وقد سعى مشروع مدارس الأردن (JSP) منذ انطلاقه في آب من العام (2006) إلى بناء (28) مدرسة جديدة في مختلف مناطق المملكة، وتأهيل (100) مدرسة أخرى مع الأخذ بعين الاعتبار المعايير والمواصفات العالمية في إنشاء مرافق مدرسية وتزويدها بما يناسبها من أثاث وتجهيزات.

ولقد تم تصميم هذه المدارس وفق منظور تربوي يراعي توفير الأماكن والمساحات والتجهيزات والأدوات التي تسهم في تعزيز اتجاهات أعضاء المجتمع المدرسي، مما يؤدي إلى تعزيز تعلم الطلبة، وتقوية شعورهم بالملكية نحو المدرسة.

وانطلاقاً من أهمية عملية التقييم في الوصول إلى نتائج وتوصيات تتعلق بمعرفة مدى فاعلية المشروع ومدى تحقيقه للأهداف المنشودة منه، فإن القائمين على مشروع مدارس الأردن (JSP) يأملون في تعاونك في الإجابة على فقرات الاستبانة وعددها (48) علماً ان الاستجابات ستعامل بسرية تامة وستستخدم لأغراض التقييم فقط.

ملاحظة: عند الإجابة على فقرات الاستبانة قارن واقع مدرستك الجديدة مع واقع المدارس الحكومية في المملكة الأردنية الهاشمية.

مثال:

الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علمي
لدي انطباع إيجابي عن مدرستي الجديدة.		X			

اطلب مساعدة الشخص المسؤول في حال وجود أي غموض في إحدى الفقرات.

وتقبل منا خالص الشكر والتقدير

المجال الأول: المبنى المدرسي

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
1.	لدي انطباع إيجابي عن مدرستي الجديدة.		X			
ملاحظات:						
2.	ساهمت الساحات الخارجية للمدرسة في تنفيذ فعاليات مدرسية تخدم العملية التعليمية التعلمية.		X			
ملاحظات:						
3.	تصميم الممرات المدرسية ساهم في تنفيذ أنشطة تربوية متنوعة.		X			
ملاحظات:						
4.	لعب التصميم المدرسي للغرف الصفية دوراً في تنفيذ أنشطة تعليمية.		X			
ملاحظات:						
5.	وجود غرف خاصة بالمباحث الدراسية ساهم في توفير بيئة صفية تحسن عملية التعلم.		X			
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
6.	وجود منطقة المصادر ساعد على تنفيذ أنشطة وفعاليات مدرسية تحقق أهداف التعلم.		X			
ملاحظات:						
7.	ساعد وجود غرف التخطيط على إثراء العملية التعليمية التعليمية.			X		
ملاحظات:						
8.	وجود غرف الاجتماعات في العناوين المدرسية ساعد على التواصل الفعال بين المعلمين.		X			
ملاحظات:						
9.	ساهم وجود غرفة المعلمين في إتاحة الفرصة لهم للتواصل.		X			
ملاحظات:						
10.	وجود غرفة صعوبات التعلم ساهم في تنفيذ أنشطة علاجية تناسب هذه الفئة من الطلبة.		X			
ملاحظات:						
11.	ساهم وجود القاعات متعددة الاستخدامات في تنفيذ أنشطة تخدم العملية التعليمية التعليمية.		X			
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا يطبق علي
12.	وجود المكتبة ساهم في إثراء العملية التعليمية التعليمية.	X				
ملاحظات:						
13.	ساهم التصميم المدرسي في تنمية شعوري بالانتماء لمدرستي.			X		
ملاحظات:						
الفقرات من (14 - 16) خاصة بمعلمي العلوم، والتربية الفنية، والتربية المهنية (أجب عن الفقرة التي تتعلق بمبحثك الدراسي)						
14.	وجود مختبرات العلوم ساعد على تنفيذ تجارب علمية ذات علاقة بالمنهاج.	X				
ملاحظات:						
15.	ساهم وجود مشغل الفن في تنفيذ مهام تعليمية تعزز تعلم الطلبة.			X		
ملاحظات:						
16.	ساعد وجود مشغل المهني في تنفيذ أنشطة تعليمية تخدم أهداف التعلم.	X				
ملاحظات:						

المجال الثاني: التكنولوجيا

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق	لا ينطبق علي
17.	ساهم وجود الألواح التفاعلية في تنفيذ مهام تعليمية تعزز تعلم الطلبة.		X			
ملاحظة:						
18.	وجود أجهزة الحاسوب الخاصة بالطلبة ساهم في تفعيل دورهم في العملية التعليمية للطلبة.	X				
ملاحظة:						
19.	ساعد وجود جهاز الحاسوب الخاص بي في التنوع في طرق تقديمي للأنشطة والمهام المقدمة للطلبة.	X				
ملاحظة:						
20.	ساهم وجود أجهزة العرض (Data Show) في تسهيل عرض الأنشطة التعليمية.	X				
ملاحظة:						
21.	ساهم وجود عربات الشحن في تفعيل استثمار أجهزة الحاسوب المحمولة بما يخدم العملية التعليمية.		X			
ملاحظة:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
22	وجود أجهزة الحاسوب المتوفرة في المكتبة ساعد على إثراء العملية التعليمية التعلمية.		X			
ملاحظة:						
الفقرات (23 - 24) خاصة بمعلمي العلوم، والتربية الفنية، (أجب عن الفقرة التي تتعلق بمبحثك الدراسي)						
23	وجود أجهزة الحاسوب في مختبرات العلوم لعب دوراً في دمج التكنولوجيا في تدريس مبحث العلوم.		X			
ملاحظة:						
24	ساهم وجود أجهزة الحاسوب في مشغل الفن في دمج التكنولوجيا في تدريس مبحث الفن.		X			
ملاحظة:						
المجال الثالث: الأثاث المدرسي						
25	مرونة الأثاث الصفي تساعدني على إعادة تشكيل الغرفة الصفية.		X			
ملاحظة:						
26	الأثاث الموجود في الغرف الصفية آمن للاستخدام.		X			
ملاحظة:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق بشدة	غير موافق	لا ينطبق علي
27	ساهم الأثاث الخاص بالمعلمين في مساعدتهم على أداء المهام الموكلة إليهم.			X		
ملاحظة:						
28	ساعد الأثاث الخاص بالمكتبة في تفعيل استخدامها بما يخدم العملية التعليمية التعلمية.		X			
ملاحظة:						
29	ساهم الأثاث المتوفر في منطقة المصادر في تنفيذ أنشطة لا يمكن تنفيذها في الغرف الصفية.		X			
ملاحظة:						
30	وجود لوحات الإعلانات في الغرف الصفية ساهم في إثراء البيئة الصفية.		X			
ملاحظة:						
31	وجود لوحات الإعلانات في الممرات ساهم في خدمة العملية التعليمية التعلمية.		X			
ملاحظة:						
32	ساهم توفر الأثاث الخاص بي كمعلم في تنمية إحساسي بالملكية الفردية.		X			
ملاحظة:						

الأسئلة (33 - 39) خاصة بمعلمي العلوم، والتربية الفنية، والتربية المهنية (أجب عن السؤال الذي يتعلق بمبحثك الدراسي)

الرقم	الفقرة	بشدة موافق	موافق	غير موافق	بشدة غير موافق	لا يطبق علي
33	الأثاث الخاص بمختبرات العلوم ساعد على توفير بيئة تعليمية تعزز تعلم الطلبة.		X			
ملاحظة:						
34	يتوفر في مختبر العلوم مكان آمن لحفظ المواد الخطرة اللازمة لتطبيق التجارب العلمية.		X			
ملاحظة:						
35	ساهم الأثاث الخاص بمشغل الفن في توظيفه بما يخدم العملية التعليمية العلمية.		X			
ملاحظة:						
36	الأثاث الخاص بمشغل المهني ساعد على توظيفه بما يثري عملية التعلم.		X			
ملاحظة:						
37	أثاث المختبرات والمشاعل آمن للاستخدام.		X			
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
38.	تتوفر في مختبر العلوم المعدات التي تسهم في تنفيذ التجارب العلمية المرتبطة بالمنهاج.			X		
ملاحظات:						
39.	تتوفر في غرفة الفن المعدات والآلات اللازمة لتنفيذ حصص التربية الفنية.			X		
ملاحظة:						
40.	الألواح البيضاء الموجودة في المدرسة عملية ومناسبة للاستخدام في التدريس.		X			
ملاحظات:						
41.	ساهمت الألواح البيضاء المستخدمة في الصف في توفير بيئة صحية للطلبة والمعلم.		X			
ملاحظات:						
42.	وجود آلات التصوير في المدرسة أتاح لي الفرصة لتصوير أوراق عمل وامتحانات تفيد في تدريس الطلبة.		X			
ملاحظات:						
43.	وجود آلات الطباعة في المدرسة أتاح لي الفرصة لإثراء حصص الصفية بأنشطة متنوعة.		X			
ملاحظات:						

المجال الرابع: الاتجاهات

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا يطبق علي
.44	ساعدت المدرسة الجديدة على تنمية اتجاهات المعلمين وسلوكاتهم بشكل إيجابي نحو المدرسة.		X			
ملاحظات:						
.45	ساعدت المدرسة الجديدة على تنمية اتجاهات الطلبة وسلوكاتهم بشكل إيجابي نحو المدرسة.		X			
ملاحظات:						
.46	كان لوجود المدرسة أثر إيجابي على أهالي الطلبة والمجتمع المحلي.		X			
ملاحظات:						

المجال الخامس: الانطباعات

.47	تأمل في واقع مدرستك الجديدة، ما الذي جذبك للمدرسة (من حيث البناء والأثاث والتجهيزات)، وترى أنه يلعب دوراً في تحسين العملية التعليمية التعليمية. <u>اعجبتني كون البناء حديثاً وبراغماتي ذوي الاحتياجات الخاصة</u> <u>اعجبتني تجهيز المدرسة بأحدث المفردات والأجهزة وتوفير</u> <u>الوسائل التعليمية المتميزة التي تثير وتساعد العملية التعليمية</u> <u>التعلمية</u>
-----	---

ما هي أبرز التحديات المتعلقة بالبناء والأثاث والتجهيزات وترى أنها لعبت دوراً في التأثير سلباً على العملية التعليمية التعلمية في المدرسة؟

أبعض العيوب في جودة البناء مثل عيوب في توريد المجرى
وعيوب في البنية التحتية وعيوب في توريد الكهرباء
مثل وضع المقابس الكهربائية بجانب فتحات الماء

نشكركم على حسن تعاونكم معنا



USAID
FROM THE AMERICAN PEOPLE



عزيرتي الطالب، عزيرتي الطالبة...

السلام عليكم ورحمة الله وبركاته.

لقد وجدت هذه المدرسة لخدمتك ولتقديم تعلم أفضل لك، ويسعى برنامج مدارس الأردن (JSP) المقدم بدعم من الوكالة الأمريكية للتنمية الدولية (USAID) لتعزيز جهود وزارة التربية والتعليم في تحسين البيئة التعليمية لك، وانطلاقاً من أهمية معرفتنا لمدى فاعلية المشروع في تحقيق أهدافه، فإننا نأمل تعاونك في الإجابة على فقرات الاستبانة وعددها (29) علماً أن الاستجابات ستعامل بسرية تامة وستستخدم لأغراض التقييم فقط.

ملاحظة: عند الإجابة على فقرات الاستبانة قارن واقع مدرستك الجديدة مع واقع المدارس الحكومية في المملكة الأردنية الهاشمية.

مثال:

الفقرة	موافق بشدة	موافق	عبر موافق	عبر موافق بشدة	لا ينطبق علي
لدي انطباع إيجابي عن مدرستي الجديدة.		X			

اطلب مساعدة الشخص المسؤول في حال وجود أي غموض في إحدى الفقرات.

وتقبل منا خالص الشكر والتقدير

المجال الأول: المبنى المدرسي

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
1.	لدي انطباع إيجابي عن مدرستي الجديدة.	X				
ملاحظات:						
2.	مدرستي الجديدة تحتوي على ساحات تساعدني على القيام بأنشطة متنوعة.	X				
ملاحظات:						
3.	ساعد موقع المقصف المدرسي على استخدامه بسهولة ويسر.	X	X			
ملاحظات:						
4.	وجود العيادة المدرسية ساهم في توفير الإسعافات الأولية لي ولزملائي.	X				
ملاحظات:						
5.	مساحة الممرات ساعدتني على التنقل من غرفة صفية لأخرى بأمان.	X				
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا يطبق علي
6.	المنطقة الموجودة بين الغرف الصفية (منطقة المصادر) أتاحت لي الفرصة للتعلم بطرق مختلفة.	X				X
ملاحظات:						
7.	وجود دورات مياه في أماكن متعددة من المدرسة ساهم في تلبية حاجاتي الأساسية.	X				
ملاحظات:						
8.	وجود المشاغل والمختبرات المدرسية ساعدني على التعلم بطريقة أفضل.	X				
ملاحظات:						
9.	وجود المسرح، وصالات الرياضة أتاحت لي الفرصة للمشاركة في أنشطة وفعاليات مدرسية متنوعة	X				
ملاحظات:						
10	وجود المكتبة أتاحت لي مجالات أوسع للمعرفة والاطلاع.	X				
ملاحظات:						

المجال الثاني: التكنولوجيا

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
11	ساعد توفر الحواسيب في المدرسة على تنمية مهاراتي في استخدام الحاسوب.				X	

ملاحظات: لا يوجد حواسيب

12	ساعد توفر الألواح التفاعلية على إيجاد بيئة تعليمية مشوقة وممتعة.					X
----	--	--	--	--	--	---

ملاحظات: لا يوجد ألواح تفاعلية

13	ساعد وجود الحواسيب المحمولة الخاصة بالطلبة على إتاحة الفرصة لي لاستخدامها في أماكن متعددة من المدرسة.					X
----	---	--	--	--	--	---

ملاحظات: لا يوجد حواسيب محمولة

14	ساعد توفر شبكة الانترنت في المدرسة على إتاحة الفرصة لي لتنفيذ المهام المطلوبة مني.					X
----	--	--	--	--	--	---

ملاحظات: لا يوجد شبكة انترنت

المجال الثالث: الأثاث المدرسي

15	الأثاث الصفي مرن ويسمح لي بالتفاعل مع زملائي.					X
----	---	--	--	--	--	---

ملاحظات:

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
16.	الأثاث الموجود في صفي يتناسب مع عمري.	X				
ملاحظات:						
17.	الأثاث الموجود في صفي يمتاز بالجودة.	X				
ملاحظات:						
18.	يساعدني الأثاث الخاص بمشغل الفن على إنجاز المهام المطلوبة مني.	X				
ملاحظات:						
19.	يساعدني الأثاث الخاص بمشغل المهني على إنجاز المهام المطلوبة مني.	X				
ملاحظات:						
20.	يساعدني الأثاث الخاص بمختبر العلوم على إنجاز المهام المطلوبة مني.	X				
ملاحظات:						
21.	الأثاث الموجود في صفي آمن للاستخدام.	X				
ملاحظات:						

الرقم	الفقرة	موافق بشدة	موافق	غير موافق	غير موافق بشدة	لا ينطبق علي
22.	أثاث المختبرات والمشاعل آمن للاستخدام.	X				
ملاحظات						
23.	وجود لوحات الإعلانات في الغرف الصفية ساهم في عرض إنجازاتي وأعمالي.	X				
ملاحظات						
24.	وجود خزانة خاصة بي أتاح لي الفرصة لحفظ كتبي وقرطاسيتي.	X				
ملاحظات						
25.	وجود خزانة خاصة بي ساهم في تنمية الإحساس بالملكية لدي.		X			
ملاحظات						
المجال الرابع: الاتجاهات						
26.	أتشوق دائماً للذهاب إلى مدرستي وأشعر بالسعادة وأنا فيها.		X			
ملاحظات						
27.	ساهمت مدرستي الجديدة في تغيير سلوكاتي نحو الأفضل.	X				
ملاحظات						

المجال الخامس: الانطباعات

<p>تأهّل في واقع مدرستك الجديدة، من حيث البناء والأثاث والتجهيزات ما الذي جذبك للمدرسة؟</p> <p>الغرف المضيئة، الفراغ الكبير وحرية التنقل بأمن وسلامة</p>	<p>.28</p>
<p>ما هي الجوانب التي لم تعجبك في المدرسة من حيث البناء والأثاث والتجهيزات؟</p> <p>لا يوجد</p>	<p>.29</p>

نشكركم على حسن تعاونكم معنا

ANNEX XVIII:

REGIONAL WORKSHOPS ATTENDANCE RECORDS



USAID
FROM THE AMERICAN PEOPLE

تقييم مشروع مدارس الأردن (JSP)

التاريخ: 2013/3/10

اليوم: الأحد

ورشة عمل استطلاعية/ تقييم مشروع مدارس الأردن

مكان تنفيذ ورشة العمل: مدرسة العاشرة الثانوية المختلطة / منطقة الجنوب / العقبة

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
1.	Rodica Athamneh	-	-	<i>Rodica</i>
2.	Bayan Sunna	H.R Manager	Hilton Apartments	<i>Bayan</i>
3.	سحرية صفيان أبو حنيفة	معلمة	مدرسة الكرامة	<i>سحرية</i>
4.	ناريج عبد القادر الهاشمي	معلمة	مدرسة الأمان	<i>ناريج</i>
5.	نوال صباغ الحكيم	معلمة	مدرسة الكرامة	<i>نوال</i>
6.	سليمة عبد الله عبد السلام	معلمة	مدرسة الكرامة	<i>سليمة</i>
7.	ريفعة محمد عزراخ الرويشة	الابنة	مدرسة الكرامة	<i>ريفعة</i>
8.	أريج جابر هاشمي السعدي	طالبة	مدرسة العاشرة	<i>أريج</i>
9.	كريمة محمد سليم الفايز	طالبة	مدرسة العاشرة	<i>كريمة</i>
10.	جود عبد الله خالد الرجوب	طالبة	مدرسة العاشرة	<i>جود</i>
11.	هدى بنت عبد الله البلوش	طالبة	مدرسة العاشرة	<i>هدى</i>
12.	سحر عقلة العيسان	طالبة	مدرسة العاشرة	<i>سحر</i>
13.	سمانة عبد الله محمد البلوش	طالبة	مدرسة العاشرة	<i>سمانة</i>
14.	آنساء محمد الفايز	طالبة	مدرسة العاشرة	<i>آنساء</i>
15.	آمنة حاتم الطراونة	طالبة	مدرسة العاشرة	<i>آمنة</i>
16.	نورة محمود القلاونة	طالبة	مدرسة العاشرة	<i>نورة</i>

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
17.	صبا بلال ابو العز	طالبة	مدرسة العاشرة	
18.	سارة محمد مصطفى	طالبة	مدرسة العاشرة	
19.	رها ماهر الهمالي	طالبة	مدرسة العاشرة	
20.	ضحى عثمان الرواشدة	طالبة	العاشرة	
21.	ساراء نصيم أبو سمرة	طالبة	مدرسة العاشرة	
22.	فاوية أم أبو ظلي	طالبة	مدرسة العاشرة	
23.	ايما هديل صالح يارسل	طالبة	مدرسة العاشرة	
24.	منتهى الزبيديين	معلمة	مدرسة العاشرة	
25.	عبلة المراهلة	معلمة	العاشرة	
26.	وداد محمد ملل	معلمة	العاشرة	
27.	كينة القطارنة	معلمة	العاشرة	
28.	وجدان الخطيب	معلمة	العاشرة	
29.	عريب الحناتنة	معلمة	العاشرة	
30.	سرك مظارنة	معلمة	العاشرة	
31.	سواد كمارم	معلمة	العاشرة	
32.	استام العلو في	معلمة	العاشرة	
33.	هنا فخر عبد راسين	معلمة	العاشرة	
34.	صباح كيد البرضيس	معلمة	العاشرة	
35.	جيهان عرفات زيتونه	معلمة	العاشرة	
36.	أمان حب حرد	معلمة	العاشرة	
37.	كيد محمد لوط	معلمة	م. ٢	
38.	جيل كيتي	معلمة	م. ٢	
39.	محمد الفايز	معلم	م. ٢	
40.	لوريط لولو	معلمة	م. ٢	

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
41.	رائد علي كزيبيا	مدير مدرسي	الثامنة للذكور	
42.	محمد علي يوسف الرهاطة	معلم الرياضة	الثامنة للذكور	
43.	منال عبد الرزاق ابولغز	مدرسة	العاشرة	
44.	نعمتة عبدالغزير عثمان البغدش	معلمة رياضيات	العاشرة	
45.	أمينة ابراهيم عبد الكريم البشير	معلمة عربي	الثامنة للبنات	
46.	بكر الخلفان يوسف العاصرة	معلمة عربي	الثامنة للبنات	
47.	عبدالله فيق تميم الكلاوي	معلم رياضيات	الثامنة للبنات	
48.	هدا خلف العمري	معلمة عربي	العاشرة	
49.	نوال الخديضة	معلمة عربي	العاشرة	
50.				
51.				
52.				
53.				
54.				
55.				
56.				
57.				
58.				
59.				
60.				
61.				
62.				
63.				
64.				



USAID
FROM THE AMERICAN PEOPLE

تقييم مشروع مدارس الأردن (JSP)

التاريخ: 2013/3/3

اليوم: الأحد

ورشة عمل استطلاعية/ تقييم مشروع مدارس الأردن

مكان تنفيذ ورشة العمل: مدرسة القادسية الثانوية المختلطة / منطقة الوسط / عين الباشا

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
1.	فاطمة عبداللطيف السلاوي	رئيسة منزل	-	
2.	كوثر الهدوان الصادي	رئيسة اللجنة النسوية	صافوق	
3.	شيرين بدر فكري شويخي	عضو في اللجنة النسوية	صافوق	
4.	طلحة مهال حسن كلبانة	رئيسة منزل	صافوق	
5.	عجل عبد السلام مسريه	مدرسة	صافوق	
6.	فهد عبد اللطيف لعل	مدرسة	صافوق	
7.	أحمد محمد عبد الله الفزاريه	مقاعد	-	
8.	محمد عبد لقادر عثمان	مدرسة	صافوق	
9.	وداد جميل احمد اللاد	مدرسة	صافوق	
10.	رائد عبد القادر قسوي	مدرسة	صافوق	
11.	احكام هديرين حجان	امينة مكتب	-	
12.	عائده صالح عبد الحفيظ بلوط	معلمة اداريه	-	
13.	ريم سوريه عبد السلام	مدرسة القادسية فقيه حجازي حاسوب	صافوق	
14.	سلام خالد العلي	امينة مكتب	صافوق	
15.	علاء حارسه محمد بنزي حارسه	معلمة حاسوب	صافوق	
16.	حرثية اني ملبه	مدرسة	صافوق	

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
17.	أسماء رضا بن زيد	معلمة	القادسية	
18.	كعبه اسماعيل ابو حجير	معلمة	القادسية	
19.	ساره محمد علي التومنا	معلمة	القادسية	Sr
20.	صالح عبد الله يوسف	معلمة	القادسية	
21.	علاء محمد شاهيه	معلمة	القادسية	علاء
22.	هدى أحمد محمد بود لهم	معلمة	القادسية	
23.	رنا نصر عبد الحميد البديهي	معلمة	القادسية	
24.	حربيه ابراهيم زاغبا الطراي	معلمة	القادسية	
25.	اسمار عبد الواحد طه	قيمه مخبر علم	القادسية	
26.	شذى موقت القاعوري	طالبة	القادسية	
27.	براءة عوفية عمرو القاعوري	طالبة	القادسية	
28.	أريج ناجح محمد الخناصه	طالبة	القادسية	
29.	فرح محمد حسن حسين	طالبة	القادسية	
30.	ساجدة سالم عامر يوسف	طالبة	القادسية	
31.	سعاد ابراهيم أبو شمله	طالبة	القادسية	
32.	نسائل أحمد حميدان	طالبة	القادسية	
33.	بتول مهدي عبد الله	طالبة	القادسية	
34.	آرام مصطفى الفنتاش	طالبة	القادسية	
35.	مدح مصطفى ياغين	"	"	
36.	سارة محضر	"	"	
37.	لين محمد الوحيد	طالبة	القادسية	
38.	هند سالي الخرابشة	طالبة	القادسية	
39.	حنان جواد سعيان	طالبة	"	
40.	شيرين بدر فارق (شوق)	معلمة محاربي	القادسية	

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
41.	فاطمة السلاوي	مديرة	صافوط	
42.	طلحة جمال عيسى			
43.	كوتة عدوانه العبادي	مديرة	القادسية	
44.	مريم عبدالله الكوريجات	مديرة	القادسية	
45.	فهد محمد ابراهيم بها	معلم	القادسية	
46.	صالح عبد الحكيم العيسى	معلم	القادسية	
47.	كوثر أبو شادش	معلمة	صافوط	
48.	عندرة ابو حنا شرف	معلمة	صافوط	
49.	سوزان سليمان العبدية	معلمة	القادسية	
50.	ماجد محمد العبدية	معلمة	القادسية	
51.	الاميرة طلال العبدية	معلمة	القادسية	
52.	سعاد نصر فدين العبدية	معلمة	القادسية	
53.	مريم زورق محمد مراد	معلمة	القادسية	
54.	كهدية خالدة محمود الساعية	معلمة	القادسية	
55.	شرفية محمد امين العبدية	معلمة	القادسية	
56.	روى امينة عبد	معلمة	القادسية	
57.	هيام علي عيسى	معلمة	القادسية	
58.	نادية كعبي	معلمة	القادسية	
59.	ريثيا ياسر نافع	معلمة	القادسية	
60.	كوين جهاد حمده	معلمة	القادسية	
61.	يثرية تاج محمد المرابي	معلمة	القادسية	
62.	تالاراش (عبد)	معلمة	القادسية	
63.	شفا جميل العبدية	معلمة	صافوط	
64.	سرى فهد ابراهيم	معلمة	صافوط	



USAID
FROM THE AMERICAN PEOPLE

تقييم مشروع مدارس الأردن (JSP)

التاريخ: ٢٨/٢/٢٠١٢

اليوم: الخميس

ورشة عمل استطلاعية/ تقييم مشروع مدارس الأردن

مكان تنفيذ ورشة العمل: مدرسة عثمان بن عفان / منطقة الشمال / إربد

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
1.	عصام أبو بكر	رئيس فريق	مديرية شمال إربد	
2.	أيمن عزام ضحان	رئيس فريق لأكاديمية	بيت	
3.	إيمان حنينا نفا	معلمة	بيت	
4.	نجاة احمد صويط	مدرسة	مدرسة بنت كاره	
5.	ساجدة محمد السقا	معلمة	مدرسة بنت كاره	
6.	نور كبدن حمد جاور	معلمة	مدرسة بنت كاره	
7.	هدى فريضة الداود	معلمة	مدرسة بنت كاره	
8.	عيران علي الزعبي	طالبة	مدرسة بنت كاره	
9.	حميد محمد الجندب	معلم	مدرسة بنت كاره	
10.	دينا خالد الشاذلي	معلمة	مدرسة بنت كاره	
11.	علاء راند صويط	طالب	مدرسة بنت كاره	
12.	فهد سليم مسلم سركا	معلم	مدرسة بنت كاره	
13.	محمد شندوع	طالب	مدرسة بنت كاره	
14.	ياسين محمد ياسين	طالب	مدرسة بنت كاره	
15.	فاهد محمد الكهرمان	معلم	مدرسة بنت كاره	
16.	محمد سليمان سليم الطويل	معلم	مدرسة بنت كاره	

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
17.	عبد الله عيسى العويش	طالب		
18.	كريم محمد مقداد	معلم	عمارة بن عصفان	
19.	أنس محمد بن عبد العزيز	طالب		
20.	ناصر أحمد سليمان العزبان	معلم	عمارة بن عصفان	
21.	بشير محمد صالح بركات	طالب	عمارة بن عصفان	
22.	أحمد محمد محمد العصفان	طالب	عمارة بن عصفان	
23.	محمد حيدر محمد بركات العويش	طالب	عمارة بن عصفان	
24.	فادي محمد محمد طاطة	معلم		
25.	محمد عبد الرؤوف القفاة	طالب	عمارة بن عصفان	
26.	إبراهيم محمد حسيب بن عصفان	معلم		
27.	محمد مصيد خليل الشقيري	معلم	عمارة بن عصفان	
28.	فارس أحمد مقداد عمان	معلم	عمارة بن عصفان	
29.	صفي محمد شريف خلف بن عصفان	معلم	عمارة بن عصفان	
30.	مالك زياد جابر عكور	طالب	عمارة بن عصفان	
31.	علي مردان محمد بشير	طالب	عمارة بن عصفان	
32.	محمد محمد كبدية محمد العزبان	طالب	عمارة بن عصفان	
33.	رعد رزق الله الناصر	طالب	عمارة بن عصفان	
34.	فارس محمد رمضان العزبان	معلم	عمارة بن عصفان	
35.	علي فواز علي دلك	معلم	عمارة بن عصفان	
36.	سادي فوسف العزبان	معلم	عمارة بن عصفان	
37.	كريم محمد حماد	معلم	عمارة بن عصفان	
38.	صلاح محمد صالح عصفان	معلم	عمارة بن عصفان	
39.	أنس شهاب الدين محمد حمزة	معلم	عمارة بن عصفان	
40.				

الرقم	الاسم	الوظيفة	مكان العمل	التوقيع
41.	رياضة عبد الرزاق شمس	معلم التربية	مدرسة لابنة	
42.	عاطف خالد محمد الرواحي	موظف	مدرسة الوزار	
43.	خسام ابو عاصم	معلم	مدرسة ابن خلدون	
44.	محمد محمود محمد لقلانه	معلم	مدرسة	
45.	سليم بن محمد عيان	معلم	مدرسة	
46.	زياد محمد ابو ادول	معلم	مدرسة	
47.	محمد بن محمد ابو نوري	معلم	مدرسة	
48.	ليث عدنان الدوهي	معلم	مدرسة	
49.	الحسين احمد مكات	معلم	مدرسة	
50.	خديجة عبد الواسع	معلم	مدرسة	
51.	اوس راشد مسترزي	معلم	مدرسة	
52.	محمد عيسى ابو ارجل	معلم	مدرسة	
53.	عبد المجيد عبد درابسة	معلم	مدرسة	
54.	فهد المصباح الهراعي	معلم	مدرسة	
55.	غانديا الحموي	معلم	مدرسة	
56.	عبد العزيز الهراعي	معلم	مدرسة	
57.	طارق محمد بكار	معلم	مدرسة	
58.	قاسم عبد المرحوم	معلم	مدرسة	
59.	عزيم محمد الحسن	معلم	مدرسة	
60.	فاد محمد ربيع صبيح	معلم	مدرسة	
61.				
62.				
63.				
64.				

ANNEX XIX:

ARCHITECTURE REPORT

ID INTERIOR DESIGN & ARCHITECTURE REPORT

**EVALUATION OF THE JORDAN SCHOOL
CONSTRUCTION AND REHABILITATION
PROJECT (JSP)**

ARCHITECTURE

School Selection Process and Outcomes

Schools Selection Process:

The approved and used selection criteria showed high level of sensitivity to the projects main goals, in which the over-crowding, double-shifting, and rented schools were on top of the list.

The screening process with its three levels assisted in prioritizing sites with most needs for new and rehabilitated schools.

The three screening levels covered the USAID criteria, MOE needs and feedback, geographical considerations, cost effectiveness and maximum usage:

First Screening Level covered the following:

1. Site Ownership by MOE,
2. Existence of double-shifting or overcrowding or rented school in the area.
3. Site area to be 2500- 3500 sqm and without a significant slope.
4. Expected enrolment to be sufficient for 14 classrooms.

Second Screening Level covered the following:

1. Calculating potential number of students.
2. Focus on urban populated areas.
3. Estimating future growth in the areas and the need for schools.

Third Screening Level covered the following:

1. Site size and configuration to host adequate outdoor spaces.
2. Availability of utilities at site i.e water, sewage, electricity, telephone, technology, distance from electrical high tension overhead lines, roads.
3. Cost effective construction in which sites need to be clear of older buildings, minimum slope, and minimum excavation works.
4. Easy site accessibility via pedestrian and minor traffic routes and to the disabled.

The above elaborate approach for the selection of the schools covered almost all relevant aspects.

Design Concept Soundness

The design concept was developed to reflect and integrate the vision of ERfKE, The Jordan Ministry of Education and USAID. The main highlights of the vision that formed the final schools design concept can be summarized as follows:

Vision

- Encouraging innovation in teaching for student centered learning
- Increasing opportunities for students' life-long learning.
- Community interaction with schools and students.
- Safe and comfortable schools.
- Low operating sustainable schools.

Concept

The vision was translated into a more specific design concept that supports the paradigm shift from instruction to learning through constructing different clusters and outdoor spaces that are accessible to the surrounding community.

The used concept of clusters helps in the supervision and control of large schools and provides the teachers and students with a tailored environment to their specific needs.

The proposed conceptual clusters are:

- **Learning Clusters** (Resource areas, classrooms, small group spaces, special needs areas and labs)
- **Lab Clusters** (Science, art, vocational, computer labs)
- **Support Areas** (Toilets, vertical circulation, storage and custodial, guard station)
- **Core Spaces** (Administration, career center, specialists)
- **Community Zoning** (Library, computer labs, multipurpose rooms and support)

The concept of the schools is very daring and attentive to the educational reform requirements; however it introduced a whole new cultural challenge to all users. Having to change the attitude towards the classroom by introducing the rotation system for students, providing community access to school after hours is a major change. Nevertheless having set such high standards for schools in Jordan; be it private or public with all the faced challenges had elevated the overall reference for schools construction whether in terms of size, design, teaching methods, IT facilities, outdoor spaces, finishing etc. Nevertheless the design concept did succeed in achieving the ambitious vision for public schools in Jordan.

School size layouts and components

Size

New schools areas standards have been developed based on MOE standards with amendments to accommodate the new teaching approaches.

The overall size of schools is reasonable but with few concerns regarding the following:

- **Classroom** size is an issue that was raised in several schools. The size of the classrooms fully occupied (36 students) is small with bare minimum space between front desks and the white board.
- **Outdoor** designs have to take into consideration the morning assembly in which all students lineup in the morning before entry (e.g Hetteen School).

Layout

Schools design process did take into consideration the following limitations to stay within the original concept boundaries:

- **School clusters** was evident in all layouts which help in having better control over large scale schools.
- **Community clusters** have separate access and are detached from the remaining main school functions. However, in some schools there was a missing separation between the community cluster and the remaining school facilities for example in Al Madeenah Al-Wardya School, Al Qadesiah - Ein Al Basha, and Saed Bin Abi Waqas School.
- The **core spaces and community clusters** need to be located on the ground floor for easier access of the administration and community and to minimize the cross circulation between students and non-students.

- **Kindergarten access** should be separate with a drop off area and a separate playground. An exception to this rule is the access to kindergarten cluster in Al Qadesieh and Wadi Mousa Schools in which the entrance opens directly to one of the classes.
- **School entrance** should be easily accessible and visible from outside.
- **Science Labs** have to be in one cluster at the GF level with access to outside. Schools that did not fulfill this requirement are Al Qadesieh and Saed Bin Abi Waqas.
- **Resource areas** integration in classrooms clusters and having an adjacent teacher's room to supervise the activities taking place. An exception to this design rule was noticed in one of the resource area in Al Joufeh School and the two resource areas at the second floor in Al Qadesieh.
- Spreading **teacher's stations** on all floors and clusters to have better and easier control.

Upon careful studying of the sample schools designs and conducting site visits, the layouts of the schools are carefully planned, with high attentiveness to the schools original concept with minor exception as above listed.

Functionality and reasonableness

The overall functionality of schools goes in line with the concept, layouts and components of the project with minor discrepancies in few schools. The following recommendations might assist in illuminating deviation from original design outlines and help improve the final product and functionality of future schools:

1. Introduce an architectural element that acts as **sun breakers** on eastern and south western windows to eliminate glare and to maintain a moderate temperature inside the building.
2. **Boundary walls** height should be 2-2.5 meter high to ensure safety, privacy and sensitivity to neighborhoods.
3. A major issue that reoccurred in all schools is the odor from **toilets** at end of corridor which can be solved by introducing a better ventilation system and adding a closed lobby for bathrooms that will create an air lock.
4. In high slope schools sites there are some **ramps** that use major part of the outdoor spaces (Al Qadesiah School). Alternatively in these schools an external elevator can be used to maximize the utilization of exterior spaces.
5. New schools design does not provide adequate **book storage** space as the MOE provides each school with all text books needed for the whole semester at once.
6. **School main entrance** door size did not take into consideration the students flow at the same time in and out of the school. Larger entrance should be considered in future designs.
7. Schools **entrances** are too exposed to outside with no intermediate space that can provide **air-lock** to maintain the school temperature.
8. Depending on the school entrance orientation a **cantilever** should be considered as a protection from rain and sun.
9. Most schools have locked fire exit doors to have better control over students' access in and out of the school which compromises safety.
10. Location of **water coolers** is not practical (next to bathrooms)
11. Many of the **planted areas** in outdoor facilities are either not accessible due to high level or higher boundaries around them which makes maintenance of these areas a challenge. An irrigation system should be introduced to those planters.

12. **Science labs** should have preparation area that is well ventilated with direct access to outdoor. Al Qadesiah, Um Qusair and Saed Bin Abi Waqas Schools do not have a preparation area for chemistry, biology and general science labs.
13. All schools do not have storage rooms for **pre-vocational and art labs**.
14. Size of **canteen** window should be enlarged to accommodate the high number of students buying during the break.

Are the final school designs in line with the design concept?

We believe that the school concept was implemented in all designs with no mentionable variations. The above explained issues if taken into consideration in future designs can deal with the issues that occurred after usages.

Selection of materials and impact on maintenance

1. Porcelain floor tiles are hard to clean and stain easily.
2. Toilets sinks mixers are not particle and being stolen from schools.
3. Wall paint gets dirty very quickly.
4. Very small lockers for teachers.
5. Using an alternative flooring material that is more durable and easier to clean without comprising the USAID and MOE standards. Terrazo tiling can be a feasible alternative and can be cast specifically for USAID new schools in any color, pattern, shape and specifications.
6. Extend maintenance period in contractor contract to two years for architectural and E/M works.
7. Cast iron radiators should be used instead of steel ones because the cover rips off easily.

Quality of final product

1. Almost all schools had major problems with insulation.
2. Exterior spaces slopes have problem and do not drain towards the grilles or manholes. Alternatively a higher slope should be considered.
3. Metal doors final finish should be re-considered, most doors have rust.
4. Aluminum windows locks are not heavy duty and should be re-considered.
5. Quality of students' lockers should be re-considered. Almost all locks are broken.
6. Door handles are easily detached from doors. Other door handle should be considered with deeper screws that doesn't detach from wood easily. Alternatively a fixed handle can be used with a roller catcher cylinder.
7. Final finish of interlocking tiles is generally poor and not leveled which creates drainage problems.
8. Finishing at most of the junctions is poor, i.e. tiling around door frames, plastering at exposed edges, stone coping cutting and alignment,
9. Radiator covers keep getting removed.
10. Staircase plastered side in many schools is dirty because a piece of marble should be added to the end of the tread to stop water from falling on the side.
11. The architectural details and specification for roof insulation is sufficient however there was a leakage problem from roof in many schools. The implementation of this part of the

construction should be supervised with high attention and tests should be carried out to ensure water tightness prior to occupying schools.

Users' feedback:

I. School layout spaces and function

I.1. Maymounah Bint Al Hareth School:

The following spaces are not being used as designed:

- I.1.1. **Administration meeting room** is being used as a deputy director's office because there are two deputies in the school and only one office is provided.
- I.1.2. **Filing room** at GF level is being used as storage.
- I.1.3. **Career Center office** is being used as an office for Jordanian heritage because there is no personnel for career development on school.
- I.1.4. **Special needs office** is being used as an office to manage "Sherketna" project.

I.2. Othman Bin Affan School:

- I.2.1. **Staff room** at the second floor is being used as a deputy director's office because the second deputy does not have an office space.
- I.2.2. **Career center** is being used as a staff meeting room.
- I.2.3. **Special needs** office is being used as a prayer room.

I.3. Aj Joufeh Al Thanaweyeh School:

- I.3.1. **Five class rooms** in the left cluster at the GF level are not being used as classes for grades 1-3 as originally planned. Rooms are being used as a prayer room, meeting room, books storage, furniture storage and science classroom.
- I.3.2. **Special needs room** at first floor level is being used as nutrition and food storage to make use of the AC as there is no special needs teacher.

I.4. 10th Area school:

- I.4.1. **Teachers' room** is being used for student activities.
- I.4.2. **Meeting room** next to administration is being used as a student's filing room.
- I.4.3. **Storage room** at GF level is being used an office for "Sherketna" project office.
- I.4.4. **Fire exit lobby** is being used as a waiting area.
- I.4.5. **Exhibition area** is being used as a nursery.
- I.4.6. **Small conference** room is being used as books storage.
- I.4.7. **Staff planning** and conference room is being used as a child counseling office.
- I.4.8. **Special needs** room at FF level is being used as a teacher's lounge.
- I.4.9. **Staff planning** room is being used as a storage.
- I.4.10. **Small conference** room at FF level is being used as a teachers' cafeteria.
- I.4.11. **Janitor room** at FF level is being used as students' shop.
- I.4.12. **Small conference** room at 2nd floor is being used as a teachers' cafeteria.
- I.4.13. **Staff planning** room at 2nd floor is being used as a counseling office.

I.5. Umm As-Summaq Al Janoubi School:

- I.5.1. **The multi-use office** is being used as a deputy office.

- I.5.2. **Special needs room** is being used by the school counselor.
- I.5.3. **Computer charging** room is being used as a book storage room.
- I.5.4. **Career center** is being used as a secretary office.
- I.5.5. **Stationary room** is being used as a teachers' room for the 1-3 cluster.
- I.5.6. **Meeting room** at FF level is being used as a teacher's room.
- I.5.7. **Meeting room** at 2nd floor is being used as a teacher's room.

I.6. Al Qadesiah School:

- I.6.1. **Physical education** office is being used as a nursery.
- I.6.2. **Physical education** storage at GF level is being used as a maintenance technician office.
- I.6.3. **Changing room** is being used as book storage room.
- I.6.4. **Table storage** room is being used as a second nursery.
- I.6.5. **Community service** storage is being used as a kitchen for the nursery.
- I.6.6. **Career center** at the GF level is being used as a nursery.
- I.6.7. **Staff child care** center is being used as a physical education teachers' office.
- I.6.8. **Book storage** at FF level is being used for nutrition storage.
- I.6.9. **Multi-use office** at FF level is being used as a staff room.
- I.6.10. **Special needs office** at 2nd floor is being used as teachers' room.
- I.6.11. **The small conference** room at the 3rd floor is being used as nutrition storage.

I.7. Al Madeeneh Al Wardya School:

- I.7.1. **Janitor's room** at GF level is being used as nutrition storage.
- I.7.2. **Stationary room** is being used as janitors' rest area.
- I.7.3. **Staff planning** and small conference at FF level is being used as the cluster coordinator office.
- I.7.4. **Multi-use office** at FF level is being used as a secretary office.
- I.7.5. **Staff planning** at 2nd floor is being used as a teachers' lounge.
- I.7.6. **Career center** at 2nd floor is being used as a coordinator's office.
- I.7.7. **Staff planning** at 3rd floor is being used as a teacher's lounge.

I.8. Saed Bin Abi Waqas School:

- I.8.1. Small meeting room at GF level is being used as a secretary office.
- I.8.2. Muti-use room at GF is being used as a small meeting room.
- I.8.3. Special education office at FF level is being used as a deputy director office.
- According to the principals the following layout of functions are not satisfactory:
 - Administration offices
 - Planning rooms
 - School clinic
 - KG space
- According to the teachers the following layout of functions are not satisfactory:
 - Planning rooms
 - Learning support rooms
- According to the students, the most unsatisfactory layout of function is the school kiosk

2. Material and finishing

- The following materials are commonly disagreed on by principals:
 - Playground flooring material
 - School indoor flooring
 - Paint
 - Bathroom equipment
 - Classroom doors

3. Outdoor spaces

Further to questionnaires, surveys and user feedback; the principals, teachers and students are satisfied with the outdoor spaces.

4. Furniture and equipment

- Most principals agreed with the effectiveness of furniture in different parts of school and the flexibility of furniture. However principals were less satisfied with furniture in KG, resource area and book storage. They were also dissatisfied with the quality of the furniture.
- Most teachers and students agreed with the effectiveness of furniture; its flexibility, safety, availability and flexibility.

ID Schools Visits Summary

Hetteen School: مدرسة حطين الاساسية للاناث

School Information:

- Grades from KG2 – 7th grade
- 21 classrooms
- School opened in 8th October 2012
- 36 students per classroom
- Contractors: Samara and Yousef; Eng. Mazen Haddad
- Construction time: 2 years

Principal (Hanan Samardali) feedback:

- Humidity in walls.
- Water leakage from roof.
- There were problems with the sewage however contractor fixed it.
- Water seeping from exterior retaining wall.
- Drainage slope at exterior spaces does not drain water to exterior drains.
- The exterior rain drip drain does not pour into the manholes, but is elevated from floor level and drips on students' feet.
- Rust in doors.
- Some furniture not suitable for students, and hard for maintenance.
- Aluminum windows mechanism is of poor quality and does not close properly.
- Entrance door (مضرب شتاء).
- The contractor used to respond to maintenance requests, but currently they stopped.
- Rotating plastic chairs are too smooth and students slip while sitting.

The three most Major problems as stated by Principal:

- Insulation
- Furniture
- Drainage and heating equipment

After inspection; ID feedback:

- The school broadcasting unit sound does not reach the frontal field where the students line up in the morning.
- Principal doesn't have a visual access to the entrance, nor does the secretary.
- There are missing shelves in the student lockers, and their quality is poor.
- Furniture is hard to maintain, easily broken and the veneer keeps ripping off.
- The lighting fixtures keep burning and need to be constantly replaced.
- Door handles are not stable, and can easily detach from door.
- Bathroom door locks sometimes get stuck.
- Main entrance door does not go all the way to the floor and has no threshold; thus water seeps inside.
- There are rust in all steel doors.
- Ventilation, sound insulation and natural lighting are all sufficient.
- The exterior stone on the façade has a high bump and is dangerous for running students.
- Stock for stairs keeps coming off.
- There are cracks in wall that are not treated.
- The interlocking tiles for exterior fields is not regular, nor is straight.

- There is rust in the handrails.
- Gas room is located in an area accessible by students.
- There are bad finishes around all corners.
- Window side stones do not go all the way till the aluminum section, and the plastering at that detail is not waterproof nor exterior plaster.
- The playgrounds have uneven flooring level.
- The stairs do not have a side piece of marble to stop the water from falling off when cleaning the stairs.
- Multipurpose hall still has no stairs for the podium, and the sound system is still not working.
- Ceramic floors are hard to clean.
- The gas in the staff kitchen is exposed and has no allocated space.

Othman Bin Affan School: مدرسة عثمان بن عفان الأساسية للبنين

School Information:

- Grades from 4th – 10th grade
- 22 classrooms
- 36 students per classroom

Principal (Kasem) feedback:

- The fields slope does not slope towards drains.
- Rain water accumulating between school and boundary wall leak into the school and come out of tiles.
- Tiles are hard to clean.
- Not all furniture are delivered yet, such as mirrors, curtains, principal assistant desks, counselor desk.
- There are no individual desks for teachers.
- Furniture is easily damaged and not durable, and side veneer keeps ripping off.
- Student desk are not leveled.
- The door handles are not durable, nor are properly fixed to doors.
- Aluminum window locks do not work.
- The classrooms size is small compared to furniture used.
- Water well leaked.

The three most Major problems as stated by Principal:

- Water well
- Furniture
- Exterior fields drainage and slope

After inspection; ID feedback:

- There is handicapped access in the school in terms of ramps and elevator.
- Water tightness at exit doors is not done properly.
- Not all door accessory screws are installed, and handles are not properly fixed to door as the door is compressed wood and cannot handle high pressure.
- There is water leakage on walls, and high humidity.

- There are cracks in walls due to leakage of water from ceiling.
- Electric sockets plan does not comply with furniture plan.
- There are no curtains.
- There are no cleaning machines for floor tiles.
- Mixers at bathrooms are not practical for students.
- The stairs do not have a side piece of marble to stop the water from falling off when cleaning the stairs.

Al Qadesiah School: مدرسة القادسية الثانوية للاناث

School Information:

- Grades from KG – 12th grade
- Operated in 2011
- Approximate number of students: 1000 student

After inspection; ID feedback:

- There is humidity in walls.
- Unhygienic and bad smell due to high humidity and mould in the room that will be turned into a nursery.
- The door handles keep detaching from doors.
- Aluminum windows are hard to open and close.
- External gates are steel tubes that allow children to leave school with no supervision.
- External gates allow garbage from the street to enter the schools.
- Ramp handrails are too steep and can be dangerous if people sit on it.
- There are some missing furniture in classrooms.
- Radiator covers keep getting removed.
- There are sewage and drainage problems in bathrooms.
- Location of water coolers is not appropriate (next to bathrooms).
- Lockers locks are not usable.
- Very small lockers for teachers.
- Very narrow and non-usable teachers' lounge.
- Lockers are rusting.
- Wall paint gets dirty very quickly.
- The stairs do not have a side piece of marble to stop the water from falling off when cleaning the stairs.

Um Habibah School: مدرسة ام حبيبة الاساسية للاناث

School Information:

- Renovated School (Not new built)
- Grades from 1st – 8th grade
- Construction took 1 year and 3 months
- School has been operating for 3 years
- Average number of students per classroom: 40-50 (Could not stick to 36 students because of the high density of population in the area.
- Number of classrooms: 36
- Spaces added to school: 10 classrooms, teachers lounge, assistant room, computer lab (Not yet operating as there are no computers), and sanitary units.

Principal feedback and comparison to previous state:

- Better finishing from old school.
- Smaller in space but it is not dysfunctional.
- The sanitary units (Bathrooms) have high quality finishing, however not suitable for students and their maintenance is expensive. Accordingly the units were closed.
- Classroom windows opening up to the corridors are not suitable as students are easily distracted by anyone passing through the corridor.
- The school administration changed and replaced all door handles, even for fire exits.
- Maintenance of furniture is expensive.

After inspection; ID feedback:

- Students' furniture can easily break, and there are a large number of damaged desks already.
- Students' furniture is not completely stable.
- There are no white boards.
- There is no heating, nor any fans.
- No rotation or training for these schools.
- Push panic lever for exit doors are removed by school administration.
- Computer labs new furniture is better however the sockets are easily detached from desk.

Saed bin Abi Waqas School: مدرسة سعد بن ابي وقاس الاساسية للبنين

School Information:

- Grades from 1st – 6th grade
- School has been operating for 1.5 years
- Maximum number of students is 36
- Number of classrooms: 24
- Approximate total number of students: 846 students
- Local consultant (Plans are issued from): Arabtech Jardaneh

Principal feedback:

- Resource room is not used because of the smell of the nearby bathrooms.
- Sewage drainage in bathrooms is poor, and drainage needs to be pumped every 2-3 days.
- Space planning is very comfortable.
- All door handles have been changed by the administration.
- There are no fresh air ducts in the bathrooms.

After inspection; ID feedback:

- The fire exit stairs is exterior and its handrails are dangerous.
- There is a maintenance personnel employed in the school.
- The boundary walls are low.

- Aluminum windows do not close or open easily, and they were screwed shut in most classrooms.
- Push Panic lever has been removed from all exit doors and all exit doors are locked.
- Electric sockets are not properly fixed to all walls.
- Most bathroom mixers are broken, or stolen.
- Radiator covers are not properly fixed and can easily be removed.
- Water coolers are not all working properly, and their location next to the bathroom causes inconvenience.
- There is high humidity in walls.
- Walls are hard to clean.
- Door accessories are very poor.
- Movable ramps are not working.
- Misuse of spaces such as: Resource room, career center, charging room.
- Black-out curtains are needed in labs.
- Door locks are hard to open.
- No drains are installed in classrooms or separate rooms.
- Board cork is very thin and does not handle putting and removing papers.
- Screws of furniture are short and hence the wooden pieces keep falling apart.
- Main entrance gates are steel tube doors that allow garbage from the street to enter the schools.
- Functions of administration department are spaced far away.

ANNEX XX: COST & VALUE REPORT



EVALUATION OF THE JORDAN SCHOOL CONSTRUCTION AND REHABILITATION PROJECT (JSP)

Cost Value Engineers

ACRONYMS AND ABBREVIATIONS

BCA	Base Contract Amount
BOQ	Bills of Quantities
CDD	Civil Defense Directorate
CDM	Camp Dresser and Mckee International
EAC	Estimate at Completion
FIDIC	International Federation of Consulting Engineers
FF&E	Furniture, Fixtures and Equipment
GAM	Greater Amman Municipality
GBD	Government Building Directorate
GTD	Government Tendering Directorate
JEA	Jordan Engineers Association
JOD	Jordanian Dinars
JSP	Jordan School Construction And Rehabilitation Project
MEP	Mechanical, Electrical and Plumbing
MOE	Ministry of Education
MoPWH	Ministry of Public Works and Housing
SAM	System for Award Management
USAID/Jordan	United States Agency for International Development in Jordan
USD	United States Dollars

UNITS

m ³	cubic meters
m ²	square meters
m	meters
cm	centimeter
mm	millimeter
yr	year

I. Executive Summary

I.1 Introduction

During the first quarter of 2013 an evaluation was conducted on the Jordan School and Rehabilitation Project (JSP) to provide The United States Agency for International Development in Jordan (USAID/Jordan) to provide conclusions and recommendations on the project's achievements, impact, and contribution to achieving the targeted results. The evaluation will help USAID/Jordan learn lessons from completed interventions and consider options for improving similar future interventions.

The overall JSP program objectives were:

- Reduce overcrowding in classrooms
- Reduce rented facilities which are usually old and built for different purposes, and which lack necessary halls or multifunctional halls, laboratories, libraries and play grounds, and have inadequate natural lighting, ventilation and classroom space.
- Reduce double shifting, as such utilization is not conducive to the sustainability of the infrastructure concerned and does not encourage an appropriate educational process
- Provide the capacity for improved enrollment rates for basic education for the growing population
- Improve the design and quality of educational architecture so as to enhance the relationship of the students with their place of learning and to increase their learning performance

The JSP schools were grouped into multiple design and construction phases:

- Phase I – 3 new schools in Aqaba and 14 school rehabilitations in Aqaba Governorate
- Phase II – 13 new schools, split out into five construction packages
- Phase III – 18 school rehabilitations in three construction packages
- Phase IV– 12 new schools in four construction packages
- Phase V – 68 school rehabilitations in 14 construction packages

I.2 Evaluation Methodology

The evaluation process included meetings, interviews with the stakeholders, data collection, and data analyzing. The stakeholders interviewed by NEA are as follows:

- CDM - Camp Dresser & Mckee
- MOE – Ministry of education
- MoPWH - Ministry of Public Works and Housing
- USAID - United States Agency for International Development
- Contractors:
 - ❖ Nabil Al Naber Foundation – worked on school rehabilitation
 - ❖ National Contracting - worked on new schools
 - ❖ International Relief & Development - worked on new schools

- ❖ Sorenson – worked on both new and rehabilitated schools
- ❖ Ayoubi - Furniture Supplier

The schools evaluated by NEA were as follows:

SI	Phase	Package	School	Location	Type
1	I	1	10th Area Secondary Comprehensive Girls School	Aqaba	NEW
2	II	2	Um Qsier Basic Boys	Amman	NEW
3	II	3	Hay Aj-Janoubi Basic Boys	Irbid	NEW
4	II	3	Maymoonah Bint Al Hareth Girls School	Ar Ramtha	NEW
5	II	1	Saed Bin Abi Waqas Al Hashmee Shamalee	Amman	NEW
6	II	5	Al Qadesiah (Safout) Secondary Girls	Ein Al Basha	NEW
7	IV	1	Hetteen Basic Co. Girls School	Ajloun - Ein Jannah	NEW
8	IV	2	Um Al-Summaq Secondary Girls	Amman	NEW
9	IV	2	Al-Jofeh Secondary Boys	Shouanah Al Janoubiyah-Balqa	NEW
10	IV	3	Wadi Mousa Basic Girls	Petra	NEW
11	I		That As Sawari Secondary Girls	Aqaba	REHAB.
12	I		Ar Rashidiyah Secondary Girls	Aqaba	REHAB.
13	III		Ain Jalout Secondary Girls	Amman	REHAB.
14	III	2	Um Habibah Basic School Girls	Amman	REHAB.
15	III		Iben Hisham Basic Boys	Ar Rsaifeh	REHAB.
16	V		Salhiet Al Abed Basic Boysl	Amman	REHAB.

The schools visited by NEA were as follows:

SI	Phase	Package	School	Location	Type
2	II	3	Othman Bin Affan - Hay Aj-Janoubi Basic Boys	Irbid	NEW
3	II	5	Al Qadesiah (Safout) Secondary Girls	Ein Al Basha	NEW
1	III	2	Um Habibah Basic School Girls	Amman	REHAB.

1.3 Recommendations

1.3.1 Construction Contracting Approach and Procedures

Use Conditions of Contract based on FIDIC 1999 which is familiar in the local market and is easily implemented by MoPWH. Changes to particular conditions to suit all parties can be agreed and implemented.

Care should be taken when estimating the duration of the project, liquidated damages, limit to liquidated damages and the minimum amount of Interim Payment Certificate to avoid increased cost due to such risks.

The Contracts should enable flexibility in handing over of the schools that have been completed and not wait till completion of the whole work package.

Although the variation order process is well defined in the contract, it seems there are a number of outstanding variations; it is recommended that the project team adhere to all durations stipulated in the contract to avoid unnecessary delays.

I.3.2 Timeliness of Implementation

It is evident that considerable factors have contributed to the delays, as can be seen in Tables 1a and 1b below, these factors should be tackled in the future phases to avoid the same issues.

The issue of permits, project duration and capability of the team on site are of major importance and need to be taken into consideration.

A milestone program should be prepared and be part of the Tender documents for each package.

The duration for each school should be clearly identified, and the procedure for taking over completed schools should be allowed.

The liquidated damages should be identified per school and time extensions should be given to each school on separate basis.

I.3.3 Cost Reasonableness

The cost of the program seems reasonable at the time of tender, the concern is focused on the increased cost of using international contractors which is approximately 15-25% higher, whom had sub contracted some of the same local contractors although they had already tendered and had been awarded other phases.

The cost of the program on the other hand in comparison to MOE projects is considered to be on the high side; 50% of this increase is attributed to the high quality product and systems that are not available in the other schools, and the other 50% is attributed to increased cost due to utilizing Grade 1 contractor in lieu of Grade 3 (used in MOE projects).

In terms of ideas for reducing the cost, we have evaluated ideas collected by the Architect and Engineers and a forecast of USD 200,000 cost saving per school could be achieved.

I.3.4 Responsiveness of the Construction Contractors during defects liability period

More efficient system for maintenance needs to be implemented to avoid delay in solving the issues.

It is suggested that a centralized unit be available to attend to such needs for all schools.

I.3.5 Obstacles and Challenges Faced by the Construction Contractors

Obstacles and challenges that have affected the Construction contractors need to be considered in future phases.

The need for adequate supervision and timely replies and approvals is highly recommended for the success of any project.

Evaluation Areas

I. School Construction

I.1 Construction Contracting Approach and Procedures

The procurement approach was based on tendering procedure by the Ministry of Public Works and Housing (MoPWH) and based on Tender Documents prepared for each Phase and each Package within the particular phase.

The conditions of contract were based on FIDIC 1987 which is an old version of the FIDIC in addition to particulars prepared for this particular project.

Our observations from both reviewing the documents and the information gained during the interviews are as follows:

1. The front end documents are well prepared and address all contractual obligations for both the Employer and the Contractor.
2. The documents are based on an unfamiliar FIDIC version (FIDIC 1987) to the local market which caused difficulties and was cause to many disputes during the construction phase. It seems that the contractors have not priced for the risks associated with such contract, for example some contractors were surprised that the circulars issued by MoPWH for time extension due to weather conditions were not included, others identified that only some of the material would be compensated for change in cost of the material due to market conditions.
3. All tenders were prepared using the same document with minor changes to the following parameters:
 - Amount of tender security
 - Time for substantial completion
 - Time to complete the Work including Punch List Items
 - Amount of liquidated damages
 - Minimum amount of Interim Payment Certificate
4. The amount of liquidated damages per day is on the high side and could negatively affect the tender value the same is applied to the limit of liquidated damages which is 15%. Those increased figures will be embedded into the tendered value and will cause an increase to the tender prices. Liquidated damages were not applied in many of the tenders although considerable unjustified delays did take place.
5. The tender packages grouped the schools irrespective of the area/location which could have been a challenge to the Contractors and the supervising team. Therefore the number of schools in each package can be reduced although this may increase the load on the tendering committee.

6. Clause 48.2 in the Conditions of Particular Application, related to Taking Over of Sections or Parts was deleted, although this could have eased the process if schools had been completed ahead of other schools.
7. Clause 52.3 in the Conditions of Particular Application, related to Instructions for Variations, in particular those that are in excess of USD 100,000 need prior approval of USAID. Although it is normal for capping the amount of variations that need Employer approval, it is evident from the interviews that the variation process was complicated and did not follow the procedure as stipulated in the conditions of the contract. This in addition to a considerable amount of open variations to date. This process has negatively affected the contractors and should be addressed in the future contracts.

I.2 Timeliness of Implementation

During the interviews it was evident that considerable delays affected the tenders, we list the major causes below, however we draw your attention to the fact that contradicting opinions may have arose from the interviews, but we have listed all the findings below, so that they can be tackled in future contracts:

- Delays of receiving GAM permits caused substantial delays, since the work cannot commence on site without this document. It was noted that work was scheduled to commence 30 days from the issuance of notice. Some construction contractors claimed for additional time and cost due to this delay.
- Delays in issuing 'Occupancy Permits' caused delays in connecting the schools to the water, electricity, telephone and sewage grids, preventing full testing of some electrical and mechanical systems.
- In some cases there were construction delays due to the authority approvals process in issuing the required permits.
- Some construction contractors reported experiencing delays from the Engineer when responding to their queries, RFI's, material approvals, design issues, and variation order.
- Preparation of the required documents such as workshop drawings, and quotations was delayed
- Delays in approval, procurement and need to re-tender of FFE items.
- The custom and tax exemptions process is lengthy causing delays in implementation.
- International construction contractors take longer than the local ones to secure construction permits, approvals, registration and other required documents.

Table 1a and 1b - below show the delays for the sample schools, it is noted that the nationality of the contractors did not affect the existence of delays. It is to be noted that time extensions are currently under discussion/review with MOE/MoPWH.

Table 1a – Delays in New Schools

SI	Phase	Package	School	Contractor	Time for Substantial Completion	Actual Time for Substantial Completion	Approved Time Extension	Unjustified Delay	% Delay not justified
1	I	1	10th Area Secondary Comprehensive Girls School	International	480	597	72	45	8.2%
2	II	2	Um Qsier Basic Boys School	Local	580	644	64	0	0.0%
3	II	3	Hay Aj-Janoubi Basic Boys School	Local	490	629	134	5	0.8%
4	II	3	Maymoonah Bint Al Hareth Girls School	Local	490	629	134	5	0.8%
5	II	1	Saed Bin Abi Waqas Al Hashmee Shamalee	Local	365	600	233	2	0.3%
6	II	5	Al Qadesiah (Safout) Sec. Co. Girls School	Local	580	665	85	0	0.0%
7	IV	1	Hetteen Basic Co. Girls School	International	365	523	32	126	31.7%
8	IV	2	Um Al-Summaq Secondary Co. Girls School	International	365	499	34	100	25.1%
9	IV	2	Al-Jofeh Secondary Boys School	International	365	510	16	129	33.9%
10	IV	3	Wadi Mousa Basic Co. Girls School	Local	365	504	12	127	33.7%

Table 1b – Delays in Rehabilitated Schools

SI	Phase	School	Contractor	Time for Substantial Completion	Actual Time for Substantial Completion	Approved Time Extension	Unjustified Delay	% Delay not justified
11	I	That As Sawari Secondary Girls	International	180	358	27	151	72.9%
12	I	Ar Rashidiyah Secondary Co. Girls	International	180	358	0	178	98.9%
13	III	Ain Jalout Secondary Girls	Local	120	278	102	56	25.2%
14	III	Um Habibah Basic Co. Girls	Local	150	360	110	100	38.5%
15	III	Iben Hisham Basic Boys / Shift 1 & Shift 2	Local	180	488	276	32	7.0%

I.3 Cost Reasonableness

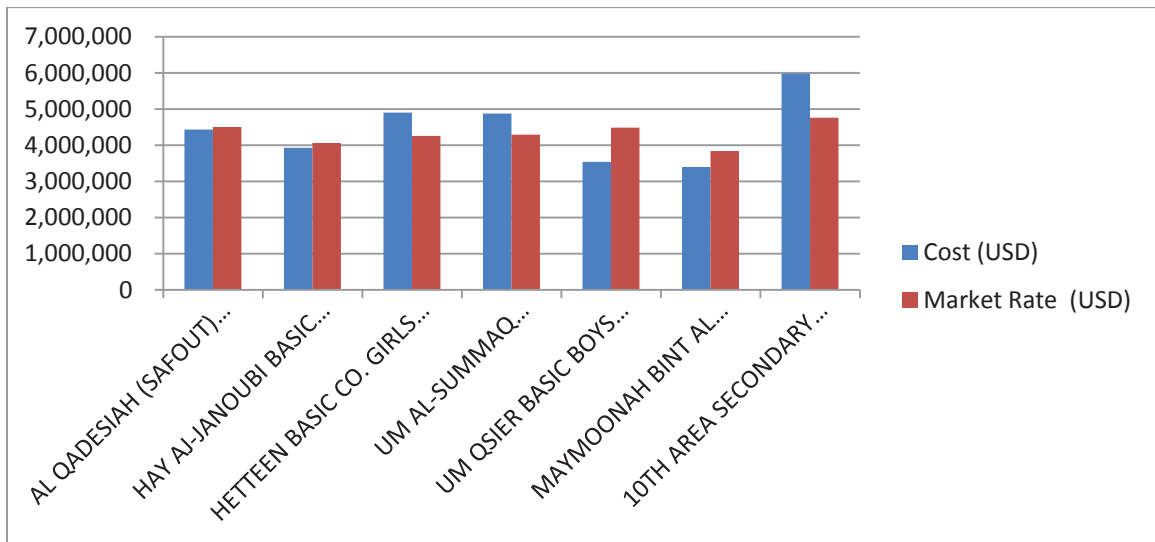
Cost Reasonableness is divided into two stages:

Stage 1 – Evaluate the Schools based On Market Rates during the time of tender

Stage 2 – Evaluate and compare the USAID Funded/JSP schools with other MOE models

For Stage 1 we analyzed and evaluated the priced bills of quantities of the sample schools as per the market rates during the time of tender. It was concluded that most schools were reasonably priced when tendered to local contractors, however when international contractors were invited the cost increased by approximately 15-25%. This increase is normal, however, and due to the type of construction local contractors are equipped to perform such projects. Please refer to Annexes XII and XIII for further cost data and comparisons.

The chart below compares the cost of some of the new schools with the market rates at the time of tendering, it can be understood that some of the increase in cost is contributed by the use of International Contractors.



During our interviews with the Client it was understood that they are satisfied with the product with an 80% rate of satisfaction.

As per regulations of USAID any contract that exceeds the amount of USD 5 million will have to be bid by International Contractors only, this was later waived to allow capable local contractors to bid for the works and reduce the cost.

On the other hand, the variations that occurred due to design changes were minimal in value and in most cases the total value of the project decreased. Table 2 below compares the cost of the schools and shows the amount of variations which appear to be within the norm. Please refer to Annexes XII and XIII for further cost data and comparisons.

Table 2 – Construction Cost and Variations

SI	Phase	Package	School	Contractor	Base Contract Price (BCA) USD	Estimate At Completion (EAC) USD	Approved Variation Orders	Quantity Variance	% Variance
1	I	1	10th Area Secondary Comprehensive Girls School	International	5,979,114	5,921,666	-222,172	164,272	-1%
2	II	2	Um Qsier Basic Boys	Local	3,533,864	3,601,740	-111,700	188,555	1.92%
3	II	3	Hay Aj-Janoubi Basic Boys	Local	3,832,479	3,553,597	-279,260	378.82	-7%
4	II	3	Maymoonah Bint Al Hareth Girls School	Local	3,397,669	3,446,308	-135,692	184,332	1.4%
5	II	1	Saed Bin Abi Waqas Al Hashmee Shamalee	Local	1,625,910	2,106,967	210,454	279,344	29.5%
6	II	5	Al Qadesiah (Safout) Secondary Girls	Local	4,335,726	4,275,891	-190,478	130,643	-1.3%
7	IV	1	Hetteen Basic Co. Girls School	International	4,580,235	4,072,077	-341,071	-167,096	-11%
8	IV	2	Um Al-Summaq Secondary Girls	International	4,872,258	4,453,641	-281,171	-137,445	-9%
9	IV	2	Al-Jofeh Secondary Boys	International	5,380,776	4,698,607	-436,707	-245,461	-13%
10	IV	3	Wadi Mousa Basic Girls	Local	3,337,701	2,996,133	-138,693	-202,873	-10%
11	I		That As Sawari Secondary Girls	International	402,273	381,513	0	-20,759	-5%
12	I		Ar Rashidiyah Secondary Girls	International	265,502	256,858	-3139	-5,504	-3%
13	III	2	Um Habibah Basic School Girls	Local	363,697	371,948	-6,960	15,211	2%
14	III		Iben Hisham Basic Boys	Local	324,536	338,888	-6,566	21,754	4%

For Stage 2 the analysis was based on comparing similar project to the USAID project as per the table below: (For detailed comparison please refer to Annex XIV)

	Name	Hay Al Janoubi basic Boys School (USAID funding/JSP Schools)		Al Zarqa'a Al Hadaeqyeh (MOE funding)	
	Location	Irbid		Al-Zarqa	
	BUA	5230m2		4261m2	
	Area of external asphalted land	380m2		6200m2	
Item No.	Description	Amount (USD)	USD/m2	Amount (USD)	USD/m2
1	Preliminaries			6,500	2
2	Site Construction	444,327	85	302,444	71
3	Concrete Works	1,191,377	228	437,471	103
4	Masonry Works	104,390	20	100,890	24
5	Metal Fabrication	72,721	14	90,579	17
6	Wood & Plastics	70,655	14	110,311	26
7	Thermal and Moisture Protection	139,330	27	39,276	9
8	Doors and Windows	246,310	47	94,032	22
9	Finishes	496,945	95	252,048	59
10	Specialties	30,020	6	13,879	3
11	Special Construction	48,600	9	14,479	3
12	Conveying system	80,000	15		
13	Mechanical Works	429,175	82	76,490	18
13	Electrical Works	428,517	82	95,483	22
	Total Cost	3,782,367	723	1,633,881	380

Our findings based on the above are as follows:

- All schools were constructed by local construction contractors. However, the NS was constructed by a Grade 1 construction contractor, while the remaining two schools were constructed by Grade 3 construction contractors. This explains why Al Zarqa'a Al Hadaeqyeh School (MOE funding) unit rates were on the low side in comparison to the JSP and as a consequence of lower overheads and profit.
- The NS was constructed using high quality and therefore high-priced material in comparison to Al Zarqa'a Al Hadaeqyeh School (MOE funding) contributing to an increase of at least USD 35/m2.
- The NS implemented many electrical and mechanical systems that are not available in the Al Zarqa'a Al Hadaeqyeh School (MOE funding), contributing to an increase of at least USD 55/m2

- The NS design included an elevator to accommodate for the disabled which added USD 15/m²
- The table below provides some comparisons for the structural works, it can be concluded that the cost difference between the NS and MOE school in terms of amount of concrete is almost nil, however the steel reinforcement there is approximately 50% increase which contributed to the cost difference of JOD 40/m², the rest of the difference is attributed to the difference in unit rates of Concrete works which seem to be priced on the very low side in MOE school.

Description	Hay Al Janoubi basic Boys School (USAID funding)	Al Zarqa'a Al Hadaeqyeh (MOE funding)
Reinforced Concrete ratio/school area	0.64	0.60
Steel Reinforcement / cubic meter of reinforced concrete	127	85
Concrete Grade	Grade 17.5 – Blinding Grade 30 –sub structure Grade 30 – Superstructure works	Grade 15 – Blinding Grade 20 – slab on grade Grade 30 – sub structure Grade 35 – Superstructure works

- The NS design is larger in size. The increase in size was from the average MOE classroom area of 1.25 to 1.4 (sm²/student) contributing to an approximate increase of 12% on the overall cost.
- Therefore it is concluded that the NS provide a higher quality product than the traditional MOE schools with advanced services which contribute to at least 50% of the increased cost, the other 50% is related to the difference in pricing.

I.4 Obstacles and Challenges Faced by the Construction Contractors

During the interviews with the construction contractors it was evident that the following obstacles and challenges affected them. However, we draw your attention to the fact that several opinions may have arose from the interviews. We have listed all the most repeated findings below, so that they can be tackled in future contracts:

- Delay in commencement of works after notice to proceed.
- The Occupancy Permit delay caused delays for tests on completion for some Electrical and Mechanical systems, which affected other works or the operation of the school.
- Response from the Site Engineers was slow and some urgent matters could not be resolved on site.
- Long process to get the custom and tax exemptions for some contractors.
- Delay of approving the shop drawings.
- Variation notices and approvals was a lengthy process.
- Some specified brands did not have local agents, for example bathroom fixtures.
- Some spare parts are available locally but were expensive, for example the bath fixtures, door accessories, etc...

I.5 Responsiveness of the Construction Contractors during defects liability period

The Appendix to Tender called for 30 days to complete the punch (snag) list items. It was noted through interviews with the Engineer that the construction contractors did not complete the full punch list during the 30 day contractual duration. The MoPWH had visited the schools two to three times to complete the de-snagging process and issue the Handing Over certificate.

During this period the Defects Liability Period, two types of damages used to occur, the first due to contractor workmanship which was minor in nature and the second due to end user mis-use. Most construction contractors did visit the schools and attended to the first type of damages, while left the replacement of broken items till the end of Defects Liability Period.

However, it was noted that the process for maintenance was lengthy, where forms needed to be filled by the school and circulated in the various departments of the MOE and MoPWH. Thereafter, a site visit would be conducted to evaluate the damages, and finally the construction contractor was notified. In some cases, this process normally took between two to three months.

2. Cost and Value

2.1 Determine whether the cost of this program was reasonable compared with achieved results.

The cost reasonableness of this project in terms of construction was covered in section 'Cost Reasonableness' above. Based on the data collected from end-users' and key stakeholders' insights and viewpoints, there was a consensus that this project was an invaluable and successful endeavor that the achieved results of this project created better educational opportunities for thousands of school community members. They also asserted the importance of replicating this project. The MOE also acknowledged the importance of such replications, however with considerations and adjustments to the school design and project planning which may have an impact on reducing the cost. Section 'Recommendations' of this report offers suggestions on how to reduce the cost of constructing the schools, which will still achieve the desired results. To be able to quantify the achieved results, a more extensive and longitudinal monitoring data is required to assess school utilization and evaluate the impact of the NS and RS on the school community in comparison to the initial financial investment made, which was limited in this evaluation due to the time constraint.

2.2 Determine what could have been done differently to reduce the cost, but without affecting the quality

Some ideas which could have been done differently in each school without affecting the quality are suggested below;

No.	Description	Initial Cost Saving in USD/School	Running Cost Saving in USD/School /year	Remarks
1	Replace ceramic Matt tiles with Terrazzo tiles	(95,000)		Easier and less costly to maintain and clean and does not require special cleaning equipment
2	Bathroom Fixtures purchased from local agents	(55,000)		Reduces maintenance and replacement cost
3	Replace ironmongery from local agents and brands	(11,500)		Reduces maintenance cost
4	Simpler PABX System	(25,000)		Easier to set up, utilize and maintain
5	Cancelling the lightning protection system where not needed	(25,000)		Not all construction sites require a lightning protection system
6	Using an early streamer (pulsar) lightning protection system when needed	(8,500)		
7	Value engineer the irrigation system	(5,000)		
8	Minimize the paint color schemes in the school			Cost impact may not be huge however, it will reduce the maintenance efforts
9	Use photovoltaic powered outdoor lighting instead of the 250 HIT Flood Lights		(700)	The batteries in the suggested lights can generate electricity during the day and store energy to be used after sunset. These flood lights are capable of providing lighting output for approximately 8 hours after being charged.
10	Replace the closed heating system with an open system	(2,500)		The closed heating system is more costly and needs more maintenance. An open system is more suitable when using radiators. A heating system using a boiler consists of the boiler, a supply collector, radiators, circulating pumps, a return collector, and an expansion tank. The circulating heating water expands and contracts with the changing temperatures. To accommodate the changing water volume in the system an expansion tank is needed. This expansion tank can simply be an open system consisting of a tank located on the roof which feeds the system by gravity; rather than a closed system which consists of a closed expansion tank, make up tank, and a pressure pump.
11	Replace electrical water heaters by thermal solar system with built-in water heater	3000	(900)	Initial cost is higher, however there will be a reduction in electricity bill
12	Replacing the air conditioning system with inverter type	2,600	30-50% saving on running cost	Initial cost is higher, however there will be a reduction in running cost
13	Introducing a water treatment system	1,000		Higher initial cost , however saves water consumption
14	Use of Machine-Room Less lifts	(2,500)	(200)	6000 JD additional initial cost, decrease in elimination of the room at roof JOD 8,500. In addition to reduction of electricity bill

ANNEX XXI: ELECTRO-MECHANICAL REPORT

SCOPE MEP DESIGN STUDIO REPORT

**EVALUATION OF THE JORDAN SCHOOL
CONSTRUCTION AND REHABILITATION
PROJECT (JSP)**

ELECTRO-MECHANICAL ENGINEERS

I. School Design & Planning (NS & RS)

a. Functionality, reasonableness, and cost

a. NS:

The design of the electromechanical systems is quite adequate and suitable for the project.

The design adopted international standards which set a new model for future schools to follow.

The addition of new systems such as the CCTV, intruder alarm, PABX, data network, and smart boards has enriched the learning environment. The introduction of these systems might have caused a bit of a challenge at the beginning, but the end users soon embraced the improved environment and took pride in it.

There is an obvious need for more in-depth training on the operation and maintenance of these systems but this does not negate the overall positive outcome.

Introducing heating, proper toilets within the floors, and cooled water drinking fountains has provided facilities which enhance the educational environment. Students, whose basic needs are satisfied will, no doubt, prosper.

Although the design requirements were set at the beginning of the project, this did not stop the team from adjusting and modifying the designs as the works progressed to suit the realities on the ground.

This dynamic approach to the design and implementation was valuable to the progress and outcome of the project.

The cost of the electromechanical systems was within the local standards and norms.

b. RS:

The electromechanical design for the rehabilitated schools was basic and straight forward. It addressed the needs of the new buildings without any complications.

The design complemented the existing buildings and provided the requested additional functional spaces.

b. Selection of Material and System, impact on operation and maintenance

The specified and installed electromechanical material in the new and rehabilitated schools conformed to the highest prevailing standards in the country.

Using good materials reduces operation and maintenance cost; however, the introduction of new systems, such as the CCTV, intruder alarm, fire alarm, PABX, and data network necessitates the need for more advanced training and maintenance.

2. School Construction

a. Quality of the Final Product

Based on the sample of visited new and rehabilitated schools from various phases, it was apparent that the specified and installed materials were of the highest international standards. The specified makes were intended to ensure safe and efficient operation and to avoid unnecessary maintenance.

Based on the sample of the visited schools, the quality of workmanship varies from one school to another. There is definitely room for improvement but the overall outcome is satisfactory.

Enough time for proper testing & commissioning and handing over should be allowed for in the tender period. To achieve this goal, all utilities should be available on site prior to the handing over. This would ensure that all systems are programmed and are working properly before the school is operational.

3. School Occupancy and Utilization

a. Electrical Systems

1. Lighting Design (NS & RS):

The design was efficient. The indoor light fittings were well specified.

The outdoor flood lights could have been selected with LED lamps or be powered from photovoltaic cells located on roof.

The aim is to provide a sustainable solution in terms of power consumption. As it stands, in most of the visited schools, the flood lights were turned off to reduce the electricity bill.

2. Power System (NS & RS):

The power distribution system was adequate for the project. Few points ought to be considered in future designs:

a. Design to allocate central controls at the school's administration for the following systems:

a. Heating system.

There should be a control switch for the heating system and "trip" indication lamps for the boilers. Currently the heating system is operated from four isolating switches in the boiler room.

b. Outdoor Lighting System:

Switches and 24hour timers for the outdoor lighting should be provided. The existing photocell is not being used due to the fact that the lights will be on all during the night.

c. Hot Water System:

Central switches for the water heaters are recommended.

Upon reviewing the given sample of design drawings, the heaters are controlled by local switches near the electric water heater. In the 4 of the visited new schools, the water heaters have been switched off from the mains to prevent students tampering with the switches.

d. Water Pumps Status:

It is recommended to provide a “trip” indication lamp in the control panel to indicate that there is a fault with the main water pump.

- b. The water coolers ought to be fed from fused and switched spur outlets and not 13 A sockets to avoid the sockets being removed and tampered with.

c. Floor Boxes in Computer Labs:

In three out of the four visited schools, the electrical floor boxes underneath the computer desks in the middle of the rooms are not very functional due to their location underneath the student’s feet and water seeping in during cleaning. In the fourth visited school, Al Madeenah Al-Wardya in Petra, there were not sockets in the middle of the room, though the desks were in place. It is best to replace them by a low partition wall between the desks where wall mounted sockets at desk level can be housed.

3. Telephone System (NS & RS):

The system is well designed.

The specification of the PABX needs to be much simpler and straight forward. Due to the complexity of the specified PABX, in the majority of the visited schools, it is not yet programmed.

4. Data System (NS & RS):

The data system is well designed but the network needs programming.

5. CCTV System (NS):

This system has proved to be very useful in three out of the four visited new schools. In the fourth school, Al Madeenah Al-Wardya in Petra, the computers were not procured yet. A demo version of the software was placed on the principal’s computer.

6. Fire Alarm System (NS & RS):

The design and specification of the fire alarm system were quite suitable. Unfortunately, due to insufficient training, the system was turned off in 3 out of the four new visited schools. The system was still not programmed in the visited rehab school.

7. Security System (NS):

The system has proved to be beneficial except for the magnetic contacts on the Fire Exit Doors. These contacts were not efficient as they were already broken in several locations.

This causes the operator to switch off the whole system as they don't know how to silence the alarms.

To keep it simpler, these can be replaced by motion detectors near the doors.

The doors should be equipped with contacts that will work in conjunction with the fire alarm system. This way, the doors shall remain closed and would only open in fire alarm incidents.

8. Lifts (NS):

The specified lifts had their motors housed in a dedicated room on roof. It is recommended to use Machine-Room-Less (MRL) types and eliminate the need for the room.

MRL lifts have around 30% higher initial cost than the conventional traction lifts, but they save around 50% of the energy and require much less maintenance.

9. Lightning Protection System (NS):

It has been noticed that the lightning protection system was used as a generic design requirement.

In several locations, the location of the school did not necessitate such a system.

Moreover, the Faraday Cage design was not connected to the equipment on roof as it should be.

It should have been clear in the design that the lightning pit should be 3 meters away from the building.

In phase 4 schools, the system was replaced with the "Early Streamer" pulsar system. This is less costly and easier to install.

10. Paging System (NS):

The specifications should have been simpler and with less features.

The currently specified systems in the four visited new schools are not programmed properly and the operators in the schools are not able to handle them.

The feedback we have received from the operators is that the system should be located in a place overlooking the playground.

b. Mechanical Systems:

1. Drainage System (NS & RS):

The design of the system was acceptable. The problems faced in the projects were mainly due to inadequate usage.

It is recommended though, due to the scarcity of resources in the country, that a water treatment plant be used in all schools to provide water for the irrigating the plants and possibly for flushing the toilets.

2. Storm Water System (NS):

In some cases, the design did not coordinate the storm water's flow with the topography of the site.

3. Water System (NS & RS):

The designs up to Phase III have adopted the pressurized system from down. This did not prove very functional in these schools as there were always problems with the automatic operation of the pumps.

Nonetheless, in phase IV, the booster pump sets were replaced with standard lifting pumps from water reservoir to roof-mounted water tanks. The water was then pumped to the water network below. Having a storage tank on the roof ensures enough water supply to the network in cases of power failure.

Another design issue which should be highlighted is the use of the push taps in toilets as they were abused by the students and often stolen. Moreover, they were not easy to use for younger students.

The water drinking fountains were mostly out of order due to the lack of spare parts in the local market. It is better to specify local made brands.

The water heating is currently achieved by local electrical water heaters for each toilet. It is best if they are replaced by simple solar systems with built-in water heaters which are activated from a central location on cold days. Also, for practical reasons, hot water is not really necessary for hand washing. It is only needed in toilets with showers or in kindergarten rooms.

4. Heating System (NS):

The design of the heating system is conforms to the local standards; however, the system is not fully utilized due to the scarcity of the resources (diesel supply). In phase 2, an unsuccessful investment was made in the solar panels which preheat the water for the heating system. These were never efficient due to the fact the heating systems on average are operated only 2 hours per day. It was noticed that, in phase 4, this system was cancelled.

The current designs employ a closed heating system; whereas, an open one is more recommended for this project. This is because, apart from the cost saving, this is a much more familiar system to be used with the radiators and is easier for maintenance purposes.

The steel panels radiators, specified in phase 2, have a decorative cover which was easily vandalized. It is recommended to use the cast iron type used in phase 4 schools.

Also, it is advised to eliminate the use of a pump between the main fuel tank and the daily tank by simply elevating the main diesel tank half a meter above the ground. Moreover, there is no need to use a daily tank.

5. Cooling System (NS & RS):

Apart from the schools in Aqaba and Dead Sea areas, the cooling is only used in the computer lab and the server room. The design uses the straight forward and efficient wall mounted split units.

In areas requiring cooling for all spaces, wall mounted split units are used for the rooms. Packaged units were used for the gymnasium.

The specification for cooling units should stress the energy consumption features. The higher initial cost shall be paid back by the lower running cost.

6. Fire Fighting System (NS & RS):

The design of the fire fighting system was quite adequate and efficient. It complies with the local Civil Defence requirements.

7. Ventilation (NS & RS)

The design of the ventilation system was limited to the toilets.

The system consisted of wall mounted window type fans with grills. It was noticed the location of these fans does not yield the proper ventilation required in the toilets. The design should ensure proper cross ventilation in the space.

Moreover, it was noticed that rooms with no windows such as the electrical and mechanical rooms had no ventilation.

In general, all rooms with no windows should be provided with mechanical ventilation.

4. Operation and Maintenance

1. A copy of the Operation Manuals and As- Built Drawings should be placed in the school.
2. Proper tagging of all electromechanical items.
3. Orientation manuals to be delivered to the School's principal.
4. Proper training for the right personnel.
5. Continuous and periodic training.
6. Sustainability to be considered.
7. It is recommended to appoint a trained maintenance person for every school.
8. Guarantees and suppliers contacts to be given to the school's principal.
9. Simplifying technology where possible and using features that are necessary for the operation.
10. Prevention of vandalism by developing a sense of ownership for the students and the community.

5. Cost and Value

a. Determine what could have been differently to reduce the cost without affecting the quality.

1. The electromechanical systems included in the designs are a step in the right direction; however, some specification could be simplified to allow for ease of use, maintenance, and sustainability.
2. Electromechanical designs should be audited by a third party prior to the tendering stage.
3. Electromechanical supervision team should be increased in number.
4. Allow enough time in tender period for testing & commissioning and handing over. Parties to ensure that all utilities are connected prior to this procedure.
5. It is crucial to ensure functional training of qualified personnel for all electromechanical systems. Periodic training should be held for schools to ensure viable operation of all systems.
6. A copy of the As-Built Drawings and Operation & Maintenance Manuals should be available on school premises at all times. Moreover, a list of all systems' suppliers' contact detail should be provided.
7. It is advised to develop a simple orientation manual for each school to be handed over along with the copy of As-Built Drawings.
8. Running cost of these schools is causing an issue with the Ministry of Education. Therefore, it is essential to stress the use of energy saving criteria in all design systems. Systems to be considered are:
 - a. Use of photovoltaic cells for the external lighting or use of low wattage LED flood lights.
 - b. Use of water treatment system to provide irrigation for the landscape and possibly for flushing the toilets.
 - c. Central control of water heaters to ensure that they are all switched off when not needed.
 - d. Hot water supply can be achieved by a simple solar panels system with electrical heaters. The system consists of thermal solar panels with built-in water storage tank. During sunny days, these panels are capable of heating the domestic water. When the weather is not suitable for hot water generation, a built-in standby electrical water heater will be used to heat the water. An automatic or manual controller will activate the electrical heater as necessary

9. Construction cost can be reduced by the following:
 - a. The following systems shall be tendered as provisional sum:
 - i. PABX
 - ii. Data Patch Panels
 - iii. CCTV systems
 - iv. Fire Alarm Systems
 - v. Paging System
 - vi. Security System
 - vii. Toilets fixture units and mixers

The contractor will be entitled to 10% overheads on the given price. These systems shall be tendered separately for all schools. This method will ensure that all schools will have the same brand of a given system. In this way, the training, maintenance, and spare parts shall be more convenient.

- b. Study if the lightning protection system is really required for the area. If it is required, then a pulsar system can be used instead of the Faraday Cage.
 - c. Use of a machine room-less lift eliminates the need for a lift room.
 - d. Maintain the new design of the water system as in phase 4.
 - e. Maintain the design of the heating system as in phase 4.
10. Use energy efficient systems where possible to minimize the running cost even if the initial cost is higher.

ANNEX XXII:

USAID AND MOE FEEDBACK ON DRAFT REPORT

USAID Feedback

- General
 - Overall, the report was well-written, well-organized and contained useful information and recommendations consolidated in one document.
 - The final report would be stronger and more useful if more factual and objective supporting data (e.g. providing the viewpoints of all relevant stakeholders) were included.
 - Attached is a sample evaluation report template received recently from USAID/Washington; please use for the final report as appropriate.
- Technical
 - This evaluation is about the program and the process and not any one specific entity part of this program. As such, please remove any references to specific vendors and entities and just describe or reference the process. (e.g. repetitive mention of CDM throughout the document; describing process from CDM's viewpoint and not including the views of the MOE and MOPW; etc.).
 - Ensure that all viewpoints are included in the report (e.g. vendors may think the process was working well, but MOE/MOPWH think otherwise; state this and make recommendations how to ensure such differences can be addressed in future).
 - The statements regarding overall impact of the project on overcrowding, renting, and double shifting should be supported by factual evidence. How were these conclusions reached? Only by relying on statements from the principals? For example, these overall statements should be based on data provided in the Selection Report of surrounding schools and then compared to current data of these same schools.
 - The Executive Summary could be strengthened by providing more evidence-based facts to substantiate the findings/recommendations.
 - Please explain how the reliability factor of the evaluation tools was calculated (p. 5).
 - Suggest moving Section V. A "Process Findings" to the conclusion section since it provides overall statements on the end results of this project and not views on the process of designing and implementing this project.
 - The discussion on findings related to School Design and Planning and others tend to be descriptions of the process rather than highlighting what the issues were (starting p. 11). For example,
 - Was the school selection process effective?
 - Was the process of ensuring responsiveness to MOE needs really effective or does it need improvement?
 - Was the issue of classroom size and layout related to need for larger classrooms or oversized furniture or what?
 - In some instances there were differences between conceptual designs and final school designs which impacted the overall concept of community schools – this should be reflected and explain the effectiveness of the process for verifying this.
 - Delays on timeliness were due to "occupancy permit" delays and not to work permits. What were the issues related to delays in approving FFE items and customs/tax exemptions? The DUNS registration did not affect the construction contracts listed in Table. 3.1
 - Table 3.1 (p. 17) provides data on construction delays. Several of the projects had extensive unjustified delays. This should be qualified with the

- statement that these requests for time extensions are currently under discussion/review with MOE/MoPWH
- It may be useful to recommend establishing a system within MoPWH and MOE to maintain references/feedback on contractors which could be used in future procurements to gauge performance of offerors.
 - The discussion on gender is very general and needs more detail and analysis. For example, was there originally more need for female schools because of enrollment rates or access issues and therefore there were more female schools? What are the gender-sensitive considerations taken in the design that were good? Should paint color and vocational rooms really be according to tradition or are should we try to break the norm/tradition?
 - Discussions on cost effectiveness were not sufficient and did not address USAID's needs in this area.
 - The idea of the evaluating cost and value is not about comparing the cost of the constructed schools compared to market price. It is about whether the overall investment was worth the end results. It is also about comparing the costs of comparable USAID schools (with the new designs) with existing MOE schools (with the old designs). Are the costs substantially high, and if so does the end result substantiate the cost difference?
 - Cost comparison should also include comparison of operation and maintenance costs of comparable USAID schools and MOE schools. And if there are substantial differences, explain why is that so. Recommendations should then explain what amendments in the future are needed or recommended to decrease these costs while not impacting quality.
 - Recommendations on cost effectiveness should not only look at the electromechanical works. It should consider the costs related to designs, structural and concrete works and how these could be reduced in the future.
 - Recommendations for reducing costs (p. 32) should be disaggregated by initial investment costs and costs related to operation and maintenance. For example, the report should provide comparison between utilized designs and systems and recommended designs and concepts and where the savings would be (initial investment and/or operation & maintenance). The report should also explain if these savings are per school or overall and the timeframe for these savings (e.g. if O&M, is it per year?)
 - The electricity bill for Heteen School (p. 33) needs more explanation. Are the schools compared to Heteen schools of comparable size and operation? The bill is very high in December and then it is decreased to nearly a third in the following months. Do we have an explanation for this? Also, what are the recommendations as a result of these extensive operation costs?
 - The last sentence on p. 33 refers to the maintenance amounts received by FDs, but does not present what is the issue. Please elaborate.
 - Under the recommendations for construction contracting (p. 40), include recommendation to include option of handing over segments of the contract to allow for flexibility to hand over schools that are completed as they become completed.
 - The issues with the solar panels and heating were discussed several times during our meetings, but it was not mentioned in the report.

MOE/DCU Feedback

- General
 - Generally ,the report covers the scope as specified in the TOR, however, further clarification and details are required for some elements as mentioned in the below specific comments.
 - One of key objective of the evaluation is to assess Higher Level Goals to reduce the overcrowding, double-shift and provide the capacity for improved enrollment. This was not detailed enough with the figures to show how the student teacher was affected and changed before and after the construction at each school level. What has been mentioned in the report is only numbers of schools reduced for overcrowding, double shifting, and rented schools.
 - The lessons learned are generic, several lessons learned was included in the report but it has to be compiled and addressed in the section (VIII) so as to be considered in future similar investments.
- Technical
 - The report linked the JSP to the first phase of ERFKE, it is essential to link it also to the second phase giving that the last phase of JSP (phase V) was included in the scope and cost of ERfKEII, and the implementation stage extended during the implementation of ERfKE II.
 - Page 2 “A. problem Statement”: Please note that ERfKE I was supported not only by the WB and USAID. Several donors and lenders provided support to ERfKE I (KfW, EU, CIDA, Arab Fund, EIB, Islamic Bank, etc.).
 - Page 4 “b. Implementation”: it is mentioned that CDM was responsible for the assessment, planning, design, tendering, awarding and supervision of the construction and rehabilitation of all selected school. This not accurate and further review is needed for this paragraph giving that the tendering and awarding of construction contracts is not the responsibility of CDM and this is subject to the national procedures undertaken by the MOPWH.
 - Tables (3.1, 3.2) Construction delays for the NS and RS showed that in most of the cases the international contractors have unjustified delays compared to local contractors, further clarifications for the reasons are essential so as to be considered in the future.
 - Based on the findings, it is clear that the use of international consultant was not cost effective and resulted of an increase of 15% of the contract amount compared to local contractors, this result was not reflected in the recommendation of the study or in the lessons learnt that for future JSP, it is essential and more effective to use local contractors instead of internationals.
 - Page 36: Selection of Teachers and Principals for NS. The constructed schools are MOE schools and should be subject to the followed selection criteria as it would be difficult for the Ministry to create specific criteria for the schools constructed with the support from each donor.
 - The recommendations has no feedback on the packaging of the schools, we have been informed by several bidders and contractors that packages should be less in terms of no. of schools included in the tender. This will ensure more effective implementation and management of the contracts.
 - The Ministry of Education is not in agreement with the recommendation with the suggested change for the tiles, and with taking out the systems from the construction document and implementing it in several contracts because this will complicate the work by having more than one contractor working in the same site.

MOE/Buildings and International Projects Feedback

- General

- Include table or chart showing process from design to implementation.
- The Ministry was not informed of the design and implementation issues for particular schools and this needs to be reflected in the evaluation report.
- The design company is not certified/accredited in Jordan and did not coordinate with the Ministry to avoid design errors.
- The designs were not rigorously reviewed by the Research Dept. in MOPWH during approval process of designs in preparation for implementation.
- Comparison costs between local and international contractors vary substantially, but this did not reflect on the construction and finishing.
- Use of materials that did not have local vendors did create problems for future maintenance.
- Challenges surfacing during implementation and poor planning created many changes which reflected on the project's budget.
- Grouping of the tenders in one highly priced package, and delay in payments or approvals for variation orders negatively impacted implementation and the ability of subcontractors to implement.
- Lack of qualified resident engineers on side and not giving them authority to respond to clarifications, and the many parties that must be addressed to reach to the decision-maker delays project implementation.
- Sidelineing the role of the owner (i.e. Ministry) from the project during design and implementation, and not taking their comments into account negatively impacted the evaluation method as some of the delays are attributed to the owner even though the owner was not aware of it.
- Not following up on the lab tests for the infrastructure works negatively impacted the roof insulation and as such there're leaks from roofs (noting that it's the responsibility of the employer to verify work and conduct the necessary tests).
- The note on the construction work by the Ministry is in reality the responsibility of the employer and not the owner; it is the responsibility of the employer to provide all design documents properly certified before starting implementation in order to obtain the necessary permits and estimate the costs for connecting utilities and before the end of the project.
- Despite the above mentioned challenges which were not mentioned in the evaluation report, the project was overall successful and achieved part of its objectives. However, the responsibility first and foremost falls on the employer.

MOE/Planning Dept. Feedback

- General

- Thanks to USAID for funding and supporting such projects as JSP which will contribute to improving the education quality and environment. And thanks to ASK for evaluating this project, which will be beneficial to MOE as they plan and sustain such projects in the future.
- Participatory approach to evaluating this project is good and is used for service projects. However, lack of a scientific approach in evaluating some parties may impact the overall evaluation or recommendations of high costs, especially as related to sustainability.

- The overall finding that the JSP project is a successful model that is contributing to transformation of the education sector needs to be supported by numbers and/or statistics that led to this finding. Noting that our view conforms to the finding that this project had qualitative impacts in terms of school infrastructure and that its results will be more evident in the future.
- The draft report did not sufficiently show some of the results related to community participation, gender or staff training.
- The report did not discuss the idea of revisiting the design model and its flexibility for both sexes even though it was mentioned by several interviewees. The report indicated that this model should be adopted and replicated. Unless the finding/recommendation is to replicate the idea of the project after revising the design model.
- The cost of the project was indicated as within the normal range, even though everyone knows that the project was of high cost.
- Some of the findings related to the design made many recommendations that would increase the cost after handing over, and these recommendations were opposite of the opinions of some of the teams met during this evaluation.
- Some of the recommendations were rather sharp. For example it indicated that those on the project starting with the design and implementation and ending with follow-up and maintenance need to know their roles and responsibilities and need to be trained on that; this is somewhat unfair and it should be noted that some roles and responsibilities were impacted by other changes.
- The draft report indicated that the principles, standards and way of operating under this project were unique, although school construction utilizes the same procedures and it is not new to those working in these departments as described by the project; this is not to say that there was not a good learning experience through this project.
- The findings show that planning is a main component of this project, so it is essential to coordinate with the relevant persons from the start and follow it up through the different stages of the project to make adjustments as needed. This requires constant mentoring and follow-up from the project implementers and USAID in a way that will ensure its institutionalization and sustainability. It should be noted that coordination processes take place all the time, however the implementation of this project took a long time and some projects were implemented in the meantime in several locations which had some impact on the need to make some amendments to buildings.
- The report recommended a selection process for teachers and principals as the selection standards followed by the King Abdullah schools. However, these schools are complementary to the existing comprehensive schools and as such it is not feasible to apply separate selection processes for teachers and principals outside of the normal process – which already achieves its objective effectively and it would require additional costs on the already limited MOE budget.
- The proposed recommendations need to be revisited in terms of implications, even though there is indication that these recommendations could be supported – but after implementation and sustainability.
- It was hoped that this evaluation will help be based on data and information collected and that it would take into consideration some of the views that would amplify the impact of this project with respect to education given the financial capabilities of Jordan and not to emphasize replication of this model.

U.S. Agency for International Development/Jordan
American Embassy
P.O. Box 354
Amman, Jordan 11118
wmast@usaid.gov