USAID MONITORING, EVALUATION, AND LEARNING ACTIVITY
SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION
SEPTEMBER 2021
ABSTRACT

This evaluation, designed to examine information from USAID school infrastructure activities in Jordan, employed a mixed method approach involving cross-sectional primary qualitative and quantitative data, including school observations and surveys across 104 USAID-funded schools and surveys of teachers from neighboring schools, along with focus groups and use of secondary data across three activities.

Overall, there were many positive elements among USAID-funded schools including reasonably high standards and all basic building features present plus evidence of progress over time. There were many areas for potential improvement relative to the goals of 21st-century learning, including that most classrooms were designed towards a “delivery of content” rather than active learning model, an absence of specialty learning space, deficiencies in wireless Internet and use of technology for learning, and outdoor areas that were not fully optimized for learning and play.

Surveys revealed stronger senses of community, belonging, use of technology in teaching, better student outcomes generally and parental and community engagement. Secondary data provided mixed evidence in student outcomes with some evidence of slightly better learning in SKEP and JSP early grades and modest differentiation in traditional subject outcomes from 2014 assessments, but other international assessment data that did not uniformly favor USAID-funded school students.

Twelve recommendations are provided to generate school design-related improvements to create school designs that can facilitate the delivery of a modern curriculum. Recommendations also are provided related to how the Mission might incentivize improved school utilization and measurement-related improvements to consider to better assess construction-related results.
This evaluation was informed by 110 schools that were built or rehabilitated under USAID-funded activities. The map below illustrates the schools that were visited under this evaluation, including nine schools built under Schools for a Knowledge Economy Program (SKEP), 28 built under Jordan School Construction and Rehabilitation Project (JSP), and 73 schools that were expanded or rehabilitated under Jordan School Expansion Program (JSEP).
ACKNOWLEDGEMENTS

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LIST OF ACRONYMS

COVID-19       Coronavirus Disease 2019
EFEI            Education Facilities Effectiveness Instrument
EMIS            Education Management Information Systems
EQ              Evaluation question
ERfKE           Education Reform for Knowledge Economy
ESMP            Enhancing School Management and Planning
FGD             Focus Group Discussion
GoJ             Government of Jordan
JSEP            Jordan School Expansion Program
JSP             Jordan School Construction and Rehabilitation Project
LMO             Local Monitoring and Evaluation Organization
LQAS            Lot Quality Assurance Survey
MoE             Ministry of Education
MPWH            Ministry of Public Works and Housing
NAfKE           National Assessment for the Knowledge Economy
PISA            Programme for International Student Assessment
RAMP            Early Grade Reading and Math Project
SKEP            Schools for a Knowledge Economy Program
SOW             Scope of Work
TIMSS           Trends in International Mathematics and Science Study
USAID           United States Agency for International Development
# TABLE OF CONTENTS

**ABSTRACT**  
**ACKNOWLEDGEMENTS**  
**LIST OF ACRONYMS**  
**TABLE OF CONTENTS**  
**EXECUTIVE SUMMARY**

Purpose, Evaluation Questions, and Methodology  
Findings and Conclusions  
Evaluation Question 1: Aspects of Physical School Environment  
COVID-related Adjustments  
Completion of Construction Work and Timeline Deviations  
Evaluation Question 2: Student Body Changes in USAID-built and Neighboring Schools  
Evaluation Question 3: Learning and Other Outcomes  
Recommendations  

## 1. BACKGROUND AND PURPOSE OF EVALUATION

### 1.1. PROGRAMMATIC OVERVIEW

### 1.2. PURPOSE AND CONTEXT OF EVALUATION

## 2. METHODS AND LIMITATIONS

### 2.1. EVALUATION QUESTIONS

### 2.2. METHODS

### 2.2.1. Instruments, Sampling, Response Rates, Datasets

### 2.2.2. Limitations

## 3. FINDINGS AND CONCLUSIONS

### 3.1. EQ 1: Aspects of Physical School Environment to Take into Consideration for Future Construction

#### 3.1.1. Overall Patterns in the Data

#### 3.1.2. Areas of Strength

#### 3.1.3. Areas for Improvement

#### 3.1.4. Conclusions on USAID-funded Schools and ERfKE / 21st-century Learning

### 3.2. COVID-related Adjustments

### 3.3. EQ 2: Student Body Changes in USAID-built and Neighboring Schools

#### 3.3.1. Number of Double-shift Schools

#### 3.3.2. Number of Rented Schools

#### 3.3.3. Distribution of Students by Nationality

#### 3.3.4. Student to Classroom Units and Space Ratios

#### 3.3.5. Student-teacher Ratios

#### 3.3.6. Counterfactuals if USAID had not Built Schools and Perceived Effect

### 3.4. EQ 3: Learning and Other Outcomes in USAID-built and Neighboring Schools

#### 3.4.1. Teaching Attitudes and Behaviors

#### 3.4.2. Support, Skills, Attitudes

#### 3.4.3. Teaching Behavior and Performance

#### 3.4.4. EQ 1B: SKEP Start-up Training and Adoption of Student-centered Methods

#### 3.4.5. School Programming and Facilities Including for People Living with Disabilities

#### 3.4.6. Student Outcomes

#### 3.4.7. Community Outcomes

#### 3.4.8. Unintended Effects

#### 3.4.9. Conclusions

## 4. RECOMMENDATIONS

### 4.1. School Design-related Improvements
4.2. School Use, Procurement, and Measurement Imp...movements

### 5. APPENDICES

<table>
<thead>
<tr>
<th>Appendix Number</th>
<th>Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>5.1.</td>
<td>Appendix 1: Scope of Work</td>
<td>35</td>
</tr>
<tr>
<td>5.2.</td>
<td>Appendix 2: Inception Report Including Detailed Methods</td>
<td>51</td>
</tr>
<tr>
<td>5.3.</td>
<td>Appendix 3: Information Sources – List of Datasets Accessed, Interviews, Focus Groups</td>
<td>88</td>
</tr>
<tr>
<td>5.4.</td>
<td>Appendix 4: Information Sources – References</td>
<td>91</td>
</tr>
<tr>
<td>5.5.</td>
<td>Appendix 5: Broader Project Background</td>
<td>93</td>
</tr>
<tr>
<td>5.6.</td>
<td>Appendix 6: Learning Community Example</td>
<td>97</td>
</tr>
<tr>
<td>5.7.</td>
<td>Appendix 7: Methods – Additional Detail on Sampling, Response Rates and Statistical Tests</td>
<td>98</td>
</tr>
<tr>
<td>5.8.</td>
<td>Appendix 8: Methods - Schools not Surveyed during the School Observations and Coding</td>
<td>101</td>
</tr>
<tr>
<td>5.9.</td>
<td>Appendix 9: Methods - Data Collection Tools</td>
<td>102</td>
</tr>
<tr>
<td>5.9.1.</td>
<td>Focus Group Discussion Tools</td>
<td>102</td>
</tr>
<tr>
<td>5.10.</td>
<td>Evaluation and Evaluability Assessment Building Performance EFEI Survey</td>
<td>107</td>
</tr>
<tr>
<td>5.11.</td>
<td>Appendix 11: Evaluation Question 1A – Completion of Construction Work and Timeline Deviations</td>
<td>117</td>
</tr>
<tr>
<td>5.12.</td>
<td>Appendix 12: Detailed Delay Notes from by Current Construction Management Contractor</td>
<td>119</td>
</tr>
<tr>
<td>5.14.</td>
<td>Appendix 14: Scores by Index and Sub-indicator</td>
<td>123</td>
</tr>
<tr>
<td>5.15.</td>
<td>Appendix 15: Summary Scores, Instruments 1 and 2 by USAID Activity</td>
<td>127</td>
</tr>
<tr>
<td>5.16.</td>
<td>Appendix 16: Summary Scores, Instruments 1 and 2 by Sex, Education Level, Urbanity, Region</td>
<td>128</td>
</tr>
<tr>
<td>5.17.</td>
<td>Appendix 17: Summary Scores, Instruments 3 and 4 (Principal and Teacher Survey) by USAID Activity</td>
<td>129</td>
</tr>
<tr>
<td>5.18.</td>
<td>Appendix 18: Summary Scores, Instruments 3 and 4 (Principal and Teacher Survey) by Sex, Education Level, Urbanity, Region</td>
<td>130</td>
</tr>
<tr>
<td>5.19.</td>
<td>Appendix 19: Disaggregated Statistical Tests from Teacher Survey</td>
<td>131</td>
</tr>
<tr>
<td>5.20.</td>
<td>Appendix 20: Additional Information on Teacher Support, Attitudes, and Behavior</td>
<td>132</td>
</tr>
<tr>
<td>5.21.</td>
<td>Appendix 21: Photographs of USAID-funded School Existing Conditions</td>
<td>134</td>
</tr>
<tr>
<td>5.22.</td>
<td>Appendix 22: Photographs That Help Demonstrate Recommendations</td>
<td>144</td>
</tr>
<tr>
<td>5.23.</td>
<td>Appendix 23: Teacher COVID-19 Responses</td>
<td>156</td>
</tr>
<tr>
<td>5.25.</td>
<td>Appendix 25: Principal Responses on Crowding</td>
<td>159</td>
</tr>
<tr>
<td>5.26.</td>
<td>Appendix 26: MoE Supervisor Classroom Observation Tool in Arabic</td>
<td>161</td>
</tr>
<tr>
<td>5.27.</td>
<td>Appendix 27: ESMP Data on Facilities</td>
<td>193</td>
</tr>
<tr>
<td>5.28.</td>
<td>Appendix 28: LQAS Statistical Test Tables</td>
<td>197</td>
</tr>
<tr>
<td>5.29.</td>
<td>Appendix 29: PISA Statistical Test Tables</td>
<td>198</td>
</tr>
<tr>
<td>5.30.</td>
<td>Appendix 30: NAFKE Statistical Test Tables</td>
<td>202</td>
</tr>
<tr>
<td>5.31.</td>
<td>Appendix 31: Educational Quality Control Statistical Test Tables</td>
<td>208</td>
</tr>
<tr>
<td>5.32.</td>
<td>Appendix 32: TIMSS Statistical Test Tables</td>
<td>212</td>
</tr>
<tr>
<td>5.33.</td>
<td>Appendix 33: Stakeholder Presentation Part 1</td>
<td>213</td>
</tr>
<tr>
<td>5.34.</td>
<td>Appendix 34: Team Members</td>
<td>214</td>
</tr>
<tr>
<td>5.35.</td>
<td>Appendix 35: Statements of Difference</td>
<td>227</td>
</tr>
<tr>
<td>5.36.</td>
<td>Appendix 36: Conflicts of Interest Disclosures</td>
<td>243</td>
</tr>
</tbody>
</table>
EXECUTIVE SUMMARY

Purpose, Evaluation Questions, and Methodology

This evaluation was designed to examine information from USAID school infrastructure activities in Jordan, which were selected in support of the Kingdom’s Education Reform for Knowledge Economy (ERfKE) goals to support a transition into a knowledge-based economy and hub for technology. The purpose was to inform the design of future schools and determine how USAID infrastructure has affected students and communities. The evaluation and its data collection tools were informed by research and best practice including that effective learning environments support a variety of learning activities in a way that most classrooms worldwide are not equipped to do.

This evaluation involves three primary evaluation questions that deal with use and usability, school occupancy, and outcomes for teachers and students.

1. What are the positive and negative aspects of the physical school environment (inside and outside spaces) that should be taken into consideration for future school construction?
2. In what ways, if any, has the student body changed in USAID built and neighboring public schools?
3. Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

The evaluation team also was asked to collect information on COVID-related safety adjustments in USAID-funded schools and to examine patterns in construction timelines.

The evaluation’s methodology included cross-sectional data and comparisons across three points in time for question 2 relying on quantitative with some qualitative methods. These included observations of 104 of 108 USAID-funded schools across three activities: Jordan School Construction and Rehabilitation Project (JSP), Jordan Schools Expansion Program (JSEP), and Schools for a Knowledge Economy Program (SKEP). The school observations emphasized structure and potential improvements; surveys of principals and an online teachers survey from these schools; remote focus groups of teachers, field directorate supervisors, and SKEP Start-up Activity coaches; and secondary data analysis. A set of neighboring schools were drawn with support from the Ministry for comparison purposes from neighboring catchment areas defined as a one-kilometer radius for basic education and three kilometers for secondary education. The analysis of question two compared school populations across three academic years - 2010/11, 2015/16, and 2018/19. The first year was chosen as the academic year before waves of Syrian refugees arrived and last dates as the last academic year prior to a pandemic, which affected teaching and learning as well as the ability of the evaluation team to observe schools in session or interact with students.

Findings and Conclusions

Evaluation Question 1: Aspects of Physical School Environment

Findings from observational data show an expected ranking of scores from higher to lower for SKEP, JSP, and JSEP schools with room for improvement for all schools. Overall, there were many positive elements among USAID-funded schools with some improvements shown between JSP and SKEP schools. The schools were designed to reasonably high standards with high-quality materials, all basic building features present, good daylight and ventilation, and accessibility for students with disabilities. Further, the schools contained age-appropriate furniture, positioned shared teacher offices close to classes, and
contained individual space for student personal items. The buildings also scored well from a student safety perspective.

There were many areas for potential improvement in future schools, however, as the schools fell short in design and probably in how they are utilized when evaluated against the goals of 21st-century learning. While the designs were improvements over traditional schools in Jordan, the buildings were not designed to fully facilitate modern methods of teaching and learning in line with the ERfKE goals. Conclusions with respect to areas for improvement follow, categorized into three areas with further detail provided in the main text:

**Program Deficiencies**

- Outside of early grades, specialty learning spaces generally were not organized as learning communities. Learning communities\(^1\) organize direct instruction spaces like classrooms around ancillary spaces like seminar rooms, small group rooms, teacher work rooms and learning commons in order to facilitate hands-on student-centered and directed learning.
- Storage for learning resources was somewhat insufficient.
- There were minimal options for students to eat beyond standard seating areas.
- Technology was not consistently used as a tool to teach, and students themselves did not use electronic technology as would be expected in a modern school.

**Architectural Design Inadequacies**

- Outdoor areas were not fully optimized for learning and play including insufficient outdoor areas dedicated for learning and shade.
- Indoor learning spaces did not connect directly to the outdoors to extend learning space. Less than 40% of SKEP or JSP schools had dedicated outdoor learning spaces near the school building and 51% of these schools had sufficient outdoor areas for messy work. See specific ways in which to better connect indoor and outdoor spaces as shown in Section 5.22, Recommendation # 10 Appendix 22 of this report.
- Teacher resources areas were limited. See a properly outfitted teacher office – Section 5.22, Appendix 22, Recommendation # 5 of this report. At 56% of JSP schools, teacher offices lacked opportunities for collaboration, limited visibility of student areas, were not adequately furnished, nor had adequate room for individual storage. Additionally, only 68% of JSP and 89% of SKEP schools offered a mix of formal and informal spaces for teachers to collaborate.
- Classrooms had temperature swings during different seasons.
- Enumerators observed that only 62% of JSP schools were organized to facilitate more than just lectures, as compared to 89% of SKEP schools. Additionally, JSP lacked learning community spaces or classroom groupings at 74% of their schools, and only 64% of JSP schools had informal group tutoring and table groupings available adjacent resource areas.
- Many schools lacked dedicated safe areas for buses to load or unload students.

**Lack of Adequate Furnishings and Poor Maintenance**

- Furniture was durable and appropriately sized but lacked variety with limited use of furniture that could encourage multiple modalities of learning beyond lecture and presentation.
- Building upkeep was lacking and many items remained in disrepair as schools age, a common problem across the system.

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\(^1\) See Section 5.6 Appendix 6 for a sample learning community diagram.
COVID-related Adjustments
Teacher survey data indicate that teachers from USAID-funded schools are somewhat more confident in measures taken by their schools to return to in-person learning. Five measures almost universally adopted among USAID schools included signs and floor stickers demonstrating social distancing, vaccination campaigns among teachers and staff, free masks, requiring masks inside the school, and increasing distance between classroom chairs to at least a meter apart. While the protective measures undertaken by neighboring schools were fewer across all measures, it was notable that substantially fewer of these schools reported opened windows, limited outside visitors, or offered masking stations, three easy, low-cost approaches to reducing spread of the virus. Few schools seemed to undertake measures to increase airflow in bathrooms, a known vector of viral transmission generally.

Completion of Construction Work and Timeline Deviations
The primary observable variable affecting success in on-time delivery of school construction projects was the onset of COVID and a nationwide lockdown, which doubled delays on average. However, delays among contractors with better systems and commitment to contracts were a minimum of about two months. The evaluation found a difference in delays given a higher number of schools contracted and location outside Amman but only prior to COVID, and the differences were modest relative to the very long delayed timelines among some contractors. Some contractors were consistent in meeting timelines while others were not.

Evaluation Question 2: Student Body Changes in USAID-built and Neighboring Schools
The construction of the USAID-funded schools seems to have led to decreases in crowding among neighboring schools in the first two years after construction was completed. Indicators measured included a number of double-shift schools, rented schools, student nationality, ratios of students per classroom units and square meter, and student-teacher ratios. The student body increased over the period due to increases in both Jordanian and Syrian students (by about 20%), leading to large increases for both USAID-funded and neighboring schools in numbers of double-shift schools and smaller increases in the other measures of crowdedness.

Basic education levels were more crowded than secondary, although increases occurred for both levels by 2018/19. Based on available data from USAID-funded JSEP expansion schools, the number of students per square meter decreased by 40 percent between average existing classrooms and entirely new JSP and JSEP classrooms and by almost half between existing neighboring and SKEP schools.

A counterfactual analysis indicates that had USAID not invested in the schools, there would have been at least 27 percent more double shifts, or an additional 45 and 71 double shifts depending on the number of buildings the government rented.

Evaluation Question 3: Learning and Other Outcomes
Evaluation question 3 relied secondarily on survey data from principals and teachers and primarily on available secondary data, all of which had significant limitations in clarifying the effect of the school construction on learning and other standard academic outcomes across levels and school types. Data were even more limited in terms of the types of effects expected on building 21st-century competencies aligned with ERfKE and best developed in truly student-centered learning environments.

Overall, students were reported by teachers and principals at USAID-funded schools to have greater sense of community, belonging, slightly lower levels of bullying, higher attendance and use of

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2 Reasons provided by stakeholders included the lockdown and re-mobilization, disease outbreaks, effects on material and equipment suppliers, the transition to working on a cash-only basis, and a reduction in the size and quality of the labor pool.
technology in teaching, and better outcomes generally. The evidence also pointed to higher attendance but no difference in (already low) vandalism and grade repetition, teaching time on task, or student involvement in school activities. Parents and communities were better engaged, especially at the SKEP schools, although apparently not enough to overcome some resistance to use active-learning methods by motivated principals and teachers in some schools. USAID-funded schools were better organized to support students living with disabilities, but fewer disabled students were enrolled in the USAID-funded schools.

There was some evidence of slightly better learning in SKEP and JSP early grades, where building designs and support better facilitated real learning environments that promote co-teaching and student-centered learning. There was also a modest extent of differentiation in traditional subject outcomes, such as in upper grade national assessment results from 2014 designed to measure both traditional subjects and knowledge economy skills. However, outcomes measured did not uniformly favor USAID-funded schools. Among schools that were selected to generalize nationally rather than across USAID-funded and neighboring schools, two sets of international assessment scores were slightly higher. Further, it is important to note though that success in traditional school subject grades and assessments reflects on student ability to succeed within the existing, traditional system rather than necessarily their prowess in terms of 21st Century skillsets such as self-motivation, critical thinking and problem solving, wellbeing and belonging, cooperation, and understanding of complex situations.

Stakeholders also provided reason to expect there may be diminishing effects over time not just in terms of differences in teaching in newer over older schools, but also possibly within newer schools as modern technology, on which the teachers are trained to rely for their newer teaching methods, breaks or principals restrict their use. Structural limitations to student-centered methods, including a lack of co-teaching areas in upper grades and a dense curriculum combined with short classes will present a long-term limitation on expecting differences in teaching and learning.

Recommendations

The report provides two sets of recommendations, those related to school design-related improvements and those related to school use, procurement, and measurement improvements. These recommendations are explained in full in the text.

The following bullet-point version of the recommendations with respect to school design-related improvements were intended to guide the Mission toward creating agile and dynamic school designs that will work today, stand the test of time, and facilitate the delivery of a modern curriculum that equips students with the skills they need for success in a rapidly changing world and to meet ERfKE goals.

- Design for Student-Centered Pedagogy through Learning Communities across All Grades (beyond Early Grades)
- Add Specialized Learning Spaces
- Create Inspiring, Multi-Use Spaces
- Boost Educational Technology, as Allowed
- Improve Teacher Offices
- Increase Variety of Furniture
- Assure Adequate Storage
- Plan for Future Expansion, if Relevant
- Improve Eating Areas
- Improve Outdoor Play and Learning Spaces and Indoor-Outdoor Connection
- Add Informal Learning Areas
- Create Greater Room Variety and Connectivity
- Improve Student Drop-off and Pick-up Zones
- Provide Indoor Fitness Areas Where Such Areas are not Provided
- Assure Every School Includes Spaces for the Performing Arts
- Make Science Labs More Flexible
- Provide for Increased Community Use

The following bullet points summarize recommendations related to **school use, measurement improvements, and procurement** based on the findings and conclusions across all sections of the report.

- Examine with MoE Obstacles to Student-centered Learning Environments
- Adapt Student-centered Methods to Context
- Adapt Technology to and Policy Interventions Regarding Low Maintenance Context
- Build Community Support for Student-centered Methods
- Deepen Support for Learning Environment Adoption During or After Start-up Support
- Have USAID-funded Schools Serve as Learning Nodes
- Improve Inclusion for Students with Disabilities
- Promote Measurement of Competencies Beyond Traditional Academic Testing
- Consider Promoting Skill-focused National Assessments
- Supplement International Assessments
- Increase Self-assessment and Promotion of Student-centered Learning
1. BACKGROUND AND PURPOSE OF EVALUATION

1.1. PROGRAMMATIC OVERVIEW

Due to rapid population growth, the influx of Syrian and other refugees, and economic constraints that have caused a migration of students from private to public schools, Jordanian public schools have been strained by overcrowding in recent decades. Over 720 schools have operated double shifts to accommodate students, while many others operate with classroom sizes beyond their intended capacity. The Ministry of Education (MoE) also operates 777 schools in rented buildings. Both academic and non-academic learning outcomes across Jordanian public schools are affected by challenges in access to safe and engaging learning environments. In response to these needs, the Government of Jordan (GoJ) launched the Education Reform for Knowledge Economy (ERfKE) in 2003 in coordination with the MoE to support its transition into a knowledge-based economy and a hub for technology in the region. The context is discussed in greater detail in Appendix 5.5.

In support of GoJ efforts, USAID launched infrastructure activities beginning in 2006 with the four-year Jordan School Construction and Rehabilitation Project (JSP) and continued in 2014 with the six-year Jordan School Expansion Program (JSEP), followed in 2015 by the five-year Schools for a Knowledge Economy Program (SKEP). The focus of these activities was 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. USAID established specific guidelines for construction with implications for use. However, some guidelines may have aligned more closely than others with the objectives of establishing 21st century classrooms and some may have been adhered to more closely than others in implementation, implying scope for suggestions for improvement. Further, USAID did not have authority for mandating use as planned, as expressed to the evaluation team both anecdotally and via photographic evidence.3

Table 1 presents the activities that were implemented, budgets, durations, interventions undertaken and those linked to this evaluation.

<table>
<thead>
<tr>
<th>USAID Activities and Projects</th>
<th>Project Duration</th>
<th>Cost (million)</th>
<th>Interventions</th>
<th>Evaluation Scope</th>
</tr>
</thead>
</table>
| Jordan School Construction and Rehabilitation Project | 2006-2013 | $199 | • Built 28 schools  
• Rehabilitated 100 schools | 28 built schools |
| Jordan Schools Expansion Program | 2014-2022 | $180 | • Rehabilitate 120 schools  
• Expand / rehabilitate 300 kindergarten classrooms  
• Expand / rehabilitate 50 sports fields / facilities. | 80 school expansions & rehabilitations (including 6 JSP) |
| Schools for a Knowledge Economy Program | 2015-2022 | $102 | • Build 25 schools (9 completed) | 9 built schools |

USAID supported ERfKE through other relevant activities in education from management systems, to training early-grade teachers on numeracy and literacy, information and communications technology

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3 For instance, the “SKEP Final Planning and Design Guidelines Draft” pp 35-55, 69-73, and 77-79 discuss space adjacencies and clustering of classes, labs, and teacher spaces in line with best practice. However, traditional desk types and arrangement were found on pages 66 - 68 as well as in the classrooms visited.
(ICT), and remote learning. School leadership and start up programming were provided for JSP and SKEP schools through a variety of contractual mechanisms.

### 1.2. PURPOSE AND CONTEXT OF EVALUATION

This evaluation was designed to examine information from USAID school infrastructure activities in Jordan to inform the design of new schools and determine how USAID infrastructure has affected students and communities.

The evaluation and its data collection tools were informed by research and best practice including that effective learning environments support a variety of learning activities in a way that most classrooms are not equipped to do. One perspective on approaches to learning is the 20 “modalities of learning” that Architect Prakash Nair identified and that can serve as a basis for the design of effective learning spaces. When a school is “zoned” so that different learning activities are designed to happen in specific parts of the school, then the seamlessness needed for students to quickly cycle between several learning activities is lost. For example, regular classrooms are good for lectures and student presentations but do not work as well for most of the other modalities, like team collaboration, independent study, and peer tutoring. For learning spaces to work effectively and give students easy access to all or as many of the 20 modalities of learning as possible on an as-needed basis, school designs – for all school levels – would need to move away from the obsolete, traditional “cells and bells” model and towards a learning community model. An example of a school unit organized into a learning community is provided in Appendix 6.

### 2. METHODS AND LIMITATIONS

#### 2.1. EVALUATION QUESTIONS

This evaluation involves three evaluation questions (EQ)—one with two sub-questions—that fit into three categories: 1) Use and Usability of the Physical Spaces Constructed, 2) Patterns of School Occupancy, and 3) Learning and Other Outcomes for Students and Communities from USAID Built and Neighboring Public Schools. The evaluation questions and any refinement of wording are discussed in further detail in the Inception Report (see Appendix 5.2).

- EQ 1 – What are the positive and negative aspects of the physical school environment (inside and outside spaces) that should be taken into consideration for future school construction?
  - EQ 1A – How long did it take to complete the construction work? In what ways did this deviate from the planned timeline?
  - EQ 1B – Is there evidence that SKEP school start-up teacher and principal training under the modified start-up program has resulted in use by teachers of methods and approaches that build on what the newer schools are designed to facilitate?
- EQ 2 – In what ways, if any, has the student body changed in USAID built and neighboring public schools?

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4 These modalities include independent study, peer-to-peer tutoring, one-on-one with teacher, lecture, team collaboration, project-based learning, distance learning, learning with mobile technology, student presentation, internet-based research, seminar-style instruction, performance-based learning, interdisciplinary study, naturalist learning, art-based learning, social-emotional learning, design-based learning, storytelling, team learning and teaching, play and movement learning.

• EQ 3 – Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

As EQ 1A ties in least with the central focus of the evaluation, it is presented separately in Appendix 5.11. As EQ 1B involved teacher behavior outcomes that are studied under EQ 3, this question is covered as a sub-section under EQ 3.

2.2. METHODS

The evaluation utilized a mixed methods approach, predominantly cross-sectional and quantitative with some qualitative data. The quantitative data included observations of USAID-funded schools emphasizing structure and potential improvements (EQ 1); in-person and phone surveys of principals and an online teachers survey (EQ 1 and 3); remote focus group discussions (FGDs) of teachers, field directorate supervisors, and SKEP school coaches (EQ 1B and 3); and secondary data analysis (EQ 2 and 3). EQ 1A involved data on construction timelines. EQ 2 analyzed data cross-sectionally and across three points in time, 2010, 2015 and 2019. The observational collection and principal surveys were drawn from the Education Facilities Effectiveness Instrument (EFEI), a tool used to evaluate the educational efficacy of over $1 billion worth of school facilities worldwide. EFEI was designed to assess schools both on the building design and features that directly affect the performance of teachers and students. The instrument was customized to include items that could reasonably be expected to be present in a well-designed school built in Jordan to meet today’s learning needs, where students graduating from schools in Jordan must compete on equal terms with students regionally and globally. The instruments were composed of sub-indicators themselves composed of multiple questions or items rated ordinally.

Thus, in agreement with USAID and in line with the high bar USAID set for itself in the construction of the newer schools, the instruments were geared in measurement toward new or renovated buildings and the bar for excellence was not lowered. The teacher instruments were developed with some sections triangulating with the principal instrument and other sub-indices drawn from the literature on student-centered learning.

Because of COVID-19, data collection minimized exposure and required social distancing and mask wearing for in-person discussions. Data collection was monitored by both the local data collection manager and via review of data and photographs remotely. Methods and quality control measures are described in greater depth in section 5.2.3 of the Inception Report (Appendix 5.2). In order not to simply repeat the prior evaluation and assessment, and to add value and an additional perspective, the observational survey was designed to cover all schools across many dimensions. The observational data collection included 61 items for Part 1 on building design.

The first instrument included location, potential for expansion, layout and views, safety, materials and construction, specialty spaces, building condition, and building component condition. The second instrument included 53 items covering entry, specialty learning spaces, general learning spaces, teacher offices, shared learning resources, health and fitness, the indoor/outdoor connection, and furniture. The principal survey was designed with 91 questions to provide information on the school connection to community; availability of technology; building design and use; eating; teaching and learning; overall satisfaction and social cohesion; energy, materials, and maintenance; and utility infrastructure. A few questions were also added on the effect on neighboring schools, though these were not included in the indices. Finally, the fourth instrument was a short teacher survey of 50 questions. Three sections of the survey were intended to triangulate with the principal survey, covering similar issues involving

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5 Prakash Nair, 2006.
availability of technology, design and use, overall satisfaction and social cohesion. Two sections went in
greater depth on teaching and learning. One of these teaching and learning sections was then added
into the principal survey to triangulate with teacher responses. Summary scores from the four indices
are found in Appendices 5.15 through 5.18.

EQ 2 and 3 were designed with two steps, first conducting an evaluability assessment focused on
availability, completeness, and accuracy of available secondary databases, and second, collecting
additional data if required. As existing data limitations became apparent quickly, additional data was
collected up front by including the previously unplanned teacher survey and FGDs. Further, additional
datasets were requested from the MoE for secondary analysis, emphasizing individual-level data where
possible. A list of datasets accessed is provided in Appendix 5.4. As data from the pandemic onward
would not capture the differential effect of school infrastructure and teaching, secondary data focused
on the academic year 2018/19.

2.2.1. Instruments, Sampling, Response Rates, Datasets
The universe for this evaluation was constituted by two sets of schools. The first and primary focus of
the evaluation was to examine schools that were built or rehabilitated under USAID-funded activities. A
total of 110 schools, as presented earlier in Table 1, were examined, including 37 USAID-built schools (9
under SKEP and 28 under JSP), and 73 expansion schools that underwent USAID-funded rehabilitation
and expansion work (under JSEP). The second was comparison schools for EQ 2 and 3 and included
neighboring schools (not built or reconstructed by other development partners) defined by catchment
areas, representing the schools most similar to the USAID schools demographically. For primary schools,
the catchment area was defined during planning as a one-kilometer radius, while that for secondary
schools was defined by a three-kilometer radius. These catchments were used to define neighboring
schools. The Queen Rania Center for Education and Information Technology used GIS to select schools
within these thresholds, and schools listed multiple times were removed.

Data collection was complicated by its being undertaken at the end of the school year and during Tawjihi
exams. The teachers’ survey sample included all teachers that could be reached from all 110 USAID-
funded schools and from 119 neighboring schools where principals provided contact information.
Responses were received from teachers from 97 of the 110 USAID-funded schools and 78 of 119
neighboring schools, where principals agreed for their teachers to participate. For the observational
data collection and principal survey, 104 of 110 schools were surveyed and included in the sample.
Further discussion about the observational and survey complications and response rates as well as focus
group discussions and methods for EQ 1A are discussed in Appendix 5.7.

Secondary data drew on student-level data from the 2014 National Assessment for the Knowledge
Economy (NAfKE), which covered mathematics, Arabic, and science and examined within those subjects
skills in communication, problem solving, knowledge, applying knowledge, and reasoning. The team also
received access to student-level data for the GoJ’s annual Educational Quality Control examinations
covering three grades in various years. The evaluation also drew on student-level data from the
Programme for International Student Assessment (PISA) tests of 15-year-old students in Jordan in 2015
and 2018 in math, science, and reading, with higher-level skills underlying those fields. Finally, the

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6 This figure excludes schools with expansions under JSEP that were built new under JSP.
7 Three principals were unreachable after three or more attempted contacts. For one school, two attempts were made to
survey the structure indicated by USAID and the A&E firm. However, after data collection ended, it was discovered that the new
extension to the school had been transferred to a primary school. A list of the schools not surveyed, and the reasons why are
included in Appendix 5.7.
evaluation was provided access to the Trends in International Math and Science Study (TIMSS) assessment of 2015 and 2019, which assessed 4th and 8th grade students in math and science.

From USAID’s Early Grade Reading and Math Project (RAMP), the evaluation drew on its Lot Quality Assurance Sampling Survey (LQAS) of early grade reading and math as well as the field directorate supervisor classroom observation dataset for early grades. Other sources of data included student repetition rates and a physical and phone survey of most of the MoE schools by the Enhancing School Management and Planning (ESMP) Activity from 2018-19. The evaluation also received, but could not use due to invalid data, student-level scores from the Tawjihi exam and school-level pass rates. These data sources, how they were used and analyzed, and limitations are discussed further in Appendix 5.7 and throughout the document, as relevant.

2.2.2. Limitations

Given that the evaluation occurred during a pandemic without students in schools since March 2020, the team analyzed data on outcomes from 2018/19. This limited the evaluation’s ability to speak to outcomes for recently completed SKEP schools or to observe schools in operation. This is an important caveat because the evaluation could not observe classes directly, instead relied on self-reporting from principals and teachers, whose responses were subject to social desirability response bias. All stakeholders were familiar with the Ministry’s goals with respect to ERfKE and the National Interactive Curriculum, and the supervision process and forms clearly linked performance with ability to apply student-centered methods, as far as the supervisors were trained appropriately to do so.

The team attempted to partially offset this bias by asking some questions in ways that framed direct instruction approaches in a positive light and calculated them as a sub-index and analyzed classroom observations from MoE supervisors for early grades, as available. The pandemic restricted travel and the ability to conduct most in-person training, surveys, or FGDs, but mitigation measures and experience with remote training and collection ensured no loss of quality or learning. Further, the analysis included triangulation of data across different sources, combining and comparing responses by principals, teachers, and other secondary data.

Creating or adapting a methodologically appropriate assessment of higher-level skills in line with the goals of the ERfKE reforms was not feasible due to the lack of primary data, so all measures used secondary data. As caveats, traditional measures of scholastic achievement, such as grades and subject assessment scores, focused on traditional 19th to mid-20th century measures of school success rather than skills like teamwork, self-direction, initiative, and entrepreneurialism that modern learning communities foster. Those important 21st century skills, aligned with ERfKE, were not captured in this evaluation. Measures of differences between two sets of schools also may have overstated the effects of the interventions if the new schools had disproportionately higher or “privileged” households of socioeconomic status, who could utilize resources to get into the better schools, as suggested by some stakeholders. Further, each dataset provided outcomes with some limitations, in particular, the Education Quality Control examination data is school level and not entirely comparable with other analyses with clearly-identified neighboring schools, as indicated in Appendix 5.7.

As USAID funded multiple activities, the evaluation was unable to parse the effect of the infrastructure alone. This was not problematic as the evaluation did not aim at attribution. Further, the literature

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8 The evaluation team was not able to access data to test this hypothesis, and other stakeholders indicated that the process for student selection was transparent and unbiased.
suggested that, while investments in infrastructure can generate changes in learning outcomes,⁹ these changes are strengthened by complementary capacity building support in how to best utilize the new or upgraded facility and resources.

There were some inconsistencies between the observed building design and conditions and the principal and teacher survey responses. Overall, the feedback from the surveys was more positive than one might gather from just the field observations alone. Unfortunately, we could not observe the schools in use to confirm or question the reliability of survey responses with respect to the intention of how the questions are framed. Under the circumstances, the report relies more on conclusions that could reasonably be drawn from the field observations even when they may not fully match up with what teachers and principals are saying.

3. FINDINGS AND CONCLUSIONS

3.1. EQ 1: Aspects of Physical School Environment to Take into Consideration for Future Construction

3.1.1. Overall Patterns in the Data

Figure 1 shows overall scores by index and the combination of the four indices as a percent of the maximum possible scores. Scores below 70% represent areas for improvement, scores above 75% represent a desirable and achievable goal for the country, and scores closer to 90% represent a preferred stretch goal development partners could aim for. The figure demonstrates an expected difference between JSEP schools, which only received an expansion on an existing, outdated school, and JSP and SKEP schools. They also demonstrate large differences between SKEP and JSP schools. This represents both improved design and a deterioration and insufficient maintenance already among the JSP schools. The difference is slightly more notable in the schools’ educational adequacy than building design or principals’ responses with respect to the questions in the index on use and function. The differences are smaller yet among teachers’ responses across school types. Smaller differences are found among disaggregates tested, especially from the teachers’ survey, with boys schools generally scoring lower than girls and mixed schools and rural schools scoring lower among a few measures. As these differences are not germane to the findings in the next two sub-sections, the tables are presented in Appendix 5.19.

Tables that show scores by index and sub-indicator are provided in Appendix 5.14. The teacher survey is discussed in greater detail under EQ 3, section 3.4.

3.1.2. Areas of Strength
This sub-section discusses general areas of strength among USAID-funded schools with reference to schools by activity/project as relevant. Among the USAID-funded schools, the overall differences across regions, between rural and urban areas, and between primary and secondary schools were relatively modest across all instruments and so not discussed, although the scores are presented in Appendix 5.16 and 5.18.

School buildings can be a very significant (and often overlooked) force in creating a positive school climate. How students feel about school and how well they perform is directly impacted by the quality of their learning environment. The discussion below shows that most of the surveyed schools boasted several positive attributes.

All basic building features were present and generally in functioning order except for those noted below in the areas of weakness. The schools were designed to reasonably high standards and mostly held up well despite the lack of adequate maintenance, as discussed under weaknesses.

Learning spaces had access to operable windows (natural daylight / ventilation). Daylight is important not only for student health and wellbeing, but there is evidence as well that improved daylighting correlates to higher student academic achievement.

The enumerators found the USAID campuses easy to navigate as a result of good organization and wayfinding. Especially in larger schools, wayfinding and the proper location of classrooms, labs, and common spaces, can minimize travel distance and make schools function more efficiently.

SKEP schools in particular were built with access for students with disabilities to the school and toilets fully accounted for, with JSP better than JSEP schools, which generally lack good access, but trailing substantially SKEP schools, as discussed further under section 3.4.5. Supervisors indicated that the USAID-funded schools were better equipped than other schools to support students with disabilities in terms of accessible ramps, elevators, resource rooms, and toilets.

The quality of interior design, materials, and lighting was good. This refers more to the quality of materials selected than the adequacy of lighting and construction quality. Similarly, some attempts were made to furnish the schools with age-appropriate furniture, and all students had access to individual desks and chairs or, less positively, tablet armchairs.
Within the schools, many key public indoor spaces had direct connections to the outdoors. This is an architectural benefit in that it affords opportunities for better indoor-outdoor connections. However, to fully utilize this feature, outdoor spaces need also to be furnished and shaded as appropriate, which will be discussed further under weaknesses alongside classroom spaces.

Surveys noted that many shared teacher offices/workrooms were generally within a 30 second walk from their learning spaces. This is a valuable asset for the schools since teachers need to have professional spaces to work in and areas where they can take a well-deserved social break or time to coordinate with their colleagues in-between classes. In terms of personalized spaces, SKEP schools were particularly strong in providing each student with an individual space for their personal items with JSP trailing somewhat and JSEP schools far behind. Finally, resource rooms were available in the new schools for potential use by teachers for special needs or for students who needed one-on-one attention for whatever reason.

3.1.3. Areas for Improvement

This sub-section identifies problems unearthed during the field observations and subsequent surveys that could be addressed as part of upcoming USAID-funded school construction programming. While some of the items from the indices rated as inadequate may indicate a need for increased capital expenditures, in many cases, good design can balance the scales by creating more cost-effective solutions, merely improving the quality of the architectural and educational design. Others (such as the need for better furniture and more specialized equipment) would require higher funding or reprioritization of some funding.

Generally, the areas for improvement fall into three categories: 1) Program deficiency, meaning that the original design brief left out components that would be considered essential for a fully modern school; 2) design inadequacies, which refers to architectural design based upon an older (and obsolete) “cells-and-bells” paradigm; and 3) lack of adequate furnishings and poor maintenance. Each of these deficiencies has one or more pages of photographs associated with the deficiency, as presented in Appendix 5.19.

I) Program Deficiency

Specialty learning spaces were absent from many schools, including meeting spaces and multi-use/hands-on learning rooms. All SKEP schools had what the enumerators judged as adequate areas for hands-on learning. Conversely, while 75% of JSP schools had sufficient space, 54% of observed schools lacked proper resources in the space.

Student storage for JSP schools is insufficient. Storage is important for both student belongings and materials as well as for school learning resources. Student storage in the new schools was mostly large enough for individual students and well-distributed in smaller groupings. JSEP schools were particularly deficient in storage, but even JSP schools were deficient in the learning storage supply (at 43%). In labs, JSP scored 88% and SKEP = 100% on storage next to work area and 70%, and 94% for storage with counters and sinks. Even in SKEP schools, the enumerators’ rated that storage space "might be inadequate" for learning materials (56% or 5 of 9) and for students (22 percent or 2 of 9)."

Specialty learning spaces were not universally designed properly to meet the needs of 21st century learning, lacking flexibility and features. Modern labs benefit from services at the perimeter of rooms or
supplied from ceiling grids. This allows the lab tables to be movable. That was not the case with most of the renovated or new schools, including SKEP schools; moreover, there were limited number of outdoor learning spaces directly connected to the labs, with SKEP scoring 83% and JSP scoring 40%. There were insufficient areas for art, such as drawing, painting, sculpture and ceramics. Both in terms of quality and quantity, spaces for performance and music were strong among SKEP schools generally though less so for JSP schools and should be consistent for all future schools moving forward. SKEP schools scored 78% and JSP schools 70% overall, and 89% and 70% respectively have appropriate musical performance space. SKEP schools scored better generally than JSP schools, and USAID should assure that these spaces are available for all future schools without exception.¹¹

Teachers indicate wireless internet was not available across all schools¹², and video conferencing generally was not an option to bring in outside teachers. JSP teachers in FGDs indicated this affected use of facilities, such as laboratories. The Mission indicates this is not an infrastructure issue, as schools are equipped with the wired network but that the MOE policy does permit WiFi in schools. Assuming allowed, high-bandwidth wireless connections would allow anytime, anywhere learning and connect the school to the abundance of learning opportunities that can be found online.

There were minimal options for students to eat beyond standard seating areas. The evaluation did not observe student cafes or cafeterias. Such spaces are not just suitable for eating but serve many other purposes, such as providing valuable project space, an area for social and emotional development and for community meetings and school events.

Technology was not consistently used as a tool to teach, and students themselves did not use technology. There was not much evidence that technology was being used in the classroom to the extent that it should in a modern school. Portable laptop carts could be used in situations where it is not possible for every student to own a laptop. Computer labs were also set up more for direct instruction than for collaborative work or student projects (see details in section 3.4.5).

II) Architectural Design Inadequacies

Outdoor learning areas were lacking and few learning spaces connected directly to the outdoors. Although many rooms had outer windows and possibilities for extending learning outdoors under some lightweight sun shading, no attempt had been made to provide terraces or decks directly connected to primary learning spaces. Only 39% of SKEP schools and 20% of JSP schools had dedicated outdoor learning spaces within 15m of the school building. Teachers in FGDs confirmed that their students preferred learning lessons outdoors and would prefer doing so more often. For example, only 3% of JSEP schools (example shown to right) and 51% of JSP and

¹⁰ Dedicated areas for different kinds of art will vary, since the work areas, equipment, storage needs, and ambiance will be different for drawing and painting vs. sculpture and ceramics or graphic design.

¹¹ Options for performance spaces include stairs that look onto a raised stage and big drop down screen or large LCD Monitor, dedicated auditoriums (not recommended due to cost and wasted space that could be better used for teaching and learning), which all SKEP schools have, or performance space with portable stage and some seating, which only 44% of SKEP and 48% of JSP had. Other alternatives include black box theatres, drama studios, and areas for dance. These should, ideally be next to production facilities and places for set design and have ancillary storage, green rooms, changing areas, etc.

¹² Even in SKEP schools, only two-thirds of principals indicate it is available throughout the building. Data from ESMP confirm this finding and indicate that problems with the Internet or wireless Internet connectivity and bandwidth were not more frequent at neighboring schools (p=0.72, p=0.73, respectively, Appendix 5.27).
SKEP schools had sufficient outdoor areas for messy work. Finally, 44% of JSP schools and 67% of SKEP schools had dedicated outdoor areas set up for gardening.

**Outdoor learning space mostly was not properly shaded.** Where outdoor spaces were provided, they were not properly outfitted for learning nor were they shaded, making them nearly impossible to use for extended periods. There was very little greenery, and most paved surfaces will radiate too much heat to be usable during the middle of warm days. During the cooler months of the year, these areas will have more utility.

**Teacher resources were limited in some cases.** Offices for teachers, where they existed, were not properly outfitted to be used as professional workspaces or as areas that encourage collaboration – essential to prepare interdisciplinary team-teaching assignments. While 100% of SKEP schools had fully outfitted office spaces for teachers (well-removed from classrooms, a drawback discussed elsewhere), 56% of JSP schools provided teachers with elements such as conferencing tables, phones, computers, lockable personal and professional storage, and other equipment. Additionally, 68% of JSP and 89% of SKEP schools offered a mix of formal and informal spaces for teachers to collaborate.

**Outdoor learning/play options were very limited.** Some marginally acceptable, fixed play equipment for younger children was observed, but these are not the preferred way for young children to play. Opportunities for indoor and outdoor play for older students was nonexistent to very limited.

**Most classrooms outside of early education were designed as traditional, isolated rooms and organized by current management such that, while in class, students spent most of their time listening to teacher lectures** rather than student projects/activities. Isolating rooms in upper basic and secondary levels encourages management to retrench to content-driven, teacher-centered learning. This reduces student engagement, as discussed further under section 3.4.6. Enumerators noted that only 62% of JSP schools and but 89% of SKEP schools were had at least some classrooms (most frequently in the sciences) organized to facilitate more than just lectures, with a variety of equipment, technology, and learning resources available in those classrooms. Furthermore, while enumerators indicated that 78% of SKEP schools’ early basic education classrooms were in grouping of 4-6 in line with USAID guidelines, to promote collaboration, this was noted among only 26% of JSP schools. And while all SKEP schools had informal group tutoring and table groupings available adjacent to resource areas, this was only observed at 64% of JSP schools. Appendix 6 provides an example of how to create real learning communities throughout basic and secondary levels, where students are even better able to avail themselves of the better development learning communities offer.

Many schools lacked dedicated **safe areas for buses** to load or unload students.

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13 As noted in the limitations, some schools were visited while closed and therefore the enumerators could not fully assess the full functionality of the rooms, but rather scored based on the layout the rooms were in at the time.
**Furniture lacks variety in type, height, and materials.** Most of the non-specialty classrooms (other than for very young children) had furniture designed and arranged solely for a teacher-centered pedagogy. In addition to a teacher desk, the classrooms were furnished with a desk that could accommodate one to two students. Plastic and metal chairs are durable but not ergonomic and not suitable for students to sit in for long periods of time. Soft or other comfortable seating like lounge chairs, sofas and foam seating were extremely rare. Additionally, the lack of sound absorbing materials used in the classroom may have prevented from rooms being acoustically comfortable; similarly, the principle surveys found that 72% of JSP schools and 89% of SKEP schools had classrooms that may have classes affected by outside noise.

**Schools had temperature swings (too hot, too cold).** Enumerator observations and discussions with principals suggest that many rooms in JSEP schools (though not necessarily the new wings) were not sufficiently insulated, and not all of them were air-conditioned making them uncomfortable on both hot and cold days with respondents indicating cold winter days as particularly problematic.

**Building upkeep was lacking** and many items remained in disrepair as schools age as noted below:

- **Interior Walls:** The condition of the interior wall materials at many schools (primarily JSEP and JSP) showed unacceptable levels of peeling, stains, scratches, and water damage on painted surfaces and wall coverings.
- **Toilets:** On average, toilet facilities, even among JSP and SKEP schools, were in only okay condition, with most fixtures working but not necessarily fully clean and stocked. In some schools, however, especially among JSEP and JSP, toilets were dirty, had exposed piping, smelled bad or had multiple non-working fixtures.
- **Library Collections and Computers:** Teachers in FGDs noted that library collections and computers were old and out of date.
- **Air Conditioning:** Lack of air conditioning affected the ability to use common rooms and theaters.

Issues with getting maintenance from the GoJ was a widely recognized issue among principals outside of USAID’s manageable interest.

3.1.4. **Conclusions on USAID-funded Schools and ERfKE/21st-century Learning**

The field observations yielded sufficient data to draw some useful conclusions and provide clear direction for the design of future schools funded by USAID.

- Construction quality of both exterior and interior elements were reasonably good.
- The buildings scored well from a student safety perspective and were built to modern standards.
- The site designs observed did not generally consider the possibility of future expansion.
- Maintenance was a problem.
- Outdoor areas were not fully optimized for learning and play.

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14 Further, the difference between USAID-funded schools and neighboring schools was small and statistically insignificant (p = 0.64).
15 While the evaluation team recognizes that nine of the JSP schools already have been expanded upon under JSEP and that the JSEP school sites were not designed originally by USAID, even the SKEP schools were rated at only 22 percent of their maximum across three questions.
Learning environments seemed predominantly oriented towards a teacher-centered, top-down “delivery of content” model. Adequate areas for the development of essential soft skills like social and emotional development, critical thinking and complex problem solving were lacking. While teacher collaborative areas were within a 30 second distance from the classrooms, they did not facilitate passive supervision. The ideal location for teacher offices would have been in the midst of student work areas to allow for passive supervision of students while teachers worked in their separate space. Facilities to properly address student health and fitness were lacking. There was a lack of adequate student storage in some cases. Furniture was durable but lacked variety with limited use of furniture that could encourage multiple modalities of learning beyond lecture and presentation.

The recommendations that follow from these findings and conclusions address the problems head-on. The idea is not for newly constructed schools to change the direction of education in Jordan overnight, but to design them in a way that allows existing teaching and learning models to evolve over time. In other words, the recommended way forward is to create agile and dynamic school designs that will work today, stand the test of time, and facilitate the delivery of a modern curriculum that equips students with the skills they need for success in a rapidly changing world.

3.2. COVID-related Adjustments

The most reliable data gathered on how schools were adjusting to COVID was from the teacher survey. Additional discussion from school observations and how teachers felt about school readiness for COVID appear in Appendix 5.5. Figure 8 displays responses by school where at least half of teachers responded their school had undertaken a measure. Most teachers across all responding schools indicated their school had undertaken a vaccination campaign among staff. However, otherwise, there were about a quarter to three-quarters fewer neighboring schools where teachers reported undertaking measures compared to USAID schools.

Figure 8 presents COVID measures applied, in order of frequency, among USAID-funded schools. The five measures almost universally adopted among USAID schools included signs and floor stickers demonstrating social distancing, vaccination campaigns among teachers and staff, free masks, requiring masks inside the school, and increasing distance between classroom chairs to at least a meter apart. The latter was challenging to do in the generally larger USAID-funded classrooms, but particularly difficult in smaller neighboring school classrooms. Also high on the list included additional hand washing or

16 Teachers across USAID and neighboring schools claim to follow student-centered methods, but during COVID at least, their classroom arrangements and furniture seem oriented toward teacher-centered models.
17 As noted in Appendix 5.19, there were somewhat fewer USAID-funded schools where three-quarters of teachers agreed that their schools undertook measures. The larger difference though was for neighboring schools, where, aside from a vaccination campaign among staff, there were no more than 20 percent of schools where three-quarters of neighboring school teachers agreed these measures were uniformly taken. Some variation was expected between these thresholds of agreement, as some of these measures were judged by some teachers as not widely undertaken or undertaken in the area of the building they frequent.
sanitizer stations, changing room layouts, leaving more windows open, testing temperature or tracking sickness status, limiting outsiders from entering the school, and implementing masking stations.

Figure 8: Proportion of Schools where at Least 50% of Teachers Report their Schools Undertaking Specific Protective Measures

While the protective measures undertaken by neighboring schools were fewer across all measures, it was notable that substantially fewer reported opened windows, limited outside visitors, or offered masking stations, three easy, low-cost approaches to reducing spread of the virus. Few schools seemed to undertake measures to increase airflow in bathrooms, a known vector of viral transmission generally. The extent to which such changes would be quick and inexpensive is expected to vary by school, but increasing openings in cement walls and inserting larger exhaust fans should not be expensive and would generally be positive for reducing viral transmission. Almost none indicated the schools had put up plastic barriers, probably impractical in classroom situations outside of non-existing kitchens or in administrative rooms; this was confirmed with no references to these changes among observational enumerators.

3.3. EQ 2: Student Body Changes in USAID-built and Neighboring Schools

In what ways, if any, has the student body changed in USAID built and neighboring public schools?

One of the purposes of constructing the schools was to reduce perceived overcrowding within catchment areas. Therefore, the evaluation explored occupancy, including how the student body had changed among USAID-built and neighboring schools and patterns of school use.
The end of the section examines the effect of the construction of the schools through a brief counterfactual analysis and question posed to principals.\textsuperscript{19} Student drop-out rates are discussed under EQ3, examining if there are differences in outcomes among USAID-funded and neighboring schools.\textsuperscript{20,21
<table>
<thead>
<tr>
<th>School Group</th>
<th>Education Level</th>
<th>Academic Year</th>
<th>2010/11</th>
<th>2015/16</th>
<th>2018/19</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
</tbody>
</table>
3.3.6. Counterfactuals if USAID had not Built Schools

This subsection examines what is called counterfactuals of what school occupancy would have looked like without the USAID-funded schools constructed. One has to assume either that the government would have built or rented some additional buildings along with hiring additional teachers, let the size of classes increase, or increased the number of second shifts at schools. It is not possible to construct exactly what that scenario would look like, as at some point, increasing classroom size becomes impractical. This section examines two alternatives.

The least cost and most likely path is that the number of the students that were assigned to USAID schools at the time of the evaluation would have been reassigned across the pool of neighboring schools such that the number of second shifts would have increased proportionate to the number of USAID schools. This could mean that nearly half of all schools in the USAID catchment areas would have had double-shifts without the USAID intervention, representing a 43% increase over the current number of double-shift schools, per the table below. Some stakeholders during KII and FGDs have indicated that second shifts tend to reduce classroom hours for both shifts, thus reducing teacher time on task, and according to one stakeholder “destroys” the culture of ownership found among schools with single shifts/cohorts of students.

<table>
<thead>
<tr>
<th>School Group</th>
<th>One Shift</th>
<th>Two Shifts</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Shifts 2018/19 (Actual)</td>
<td>USAID Schools: 83</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>Neighboring Schools: 334</td>
<td>141</td>
</tr>
<tr>
<td>Schools Shifts without USAID (54 New Additional Rented Buildings/Schools)</td>
<td>Neighboring Schools: 328</td>
<td>211</td>
</tr>
<tr>
<td>Schools Shifts without USAID (No Additional Rented New Buildings/Schools)</td>
<td>Neighboring Schools: 274</td>
<td>238</td>
</tr>
</tbody>
</table>

Note: For simplicity, the schools are still referred to in the counterfactual as neighboring schools.

As more of the second shifts were designated for Syrian students only, it might be expected that this policy choice also would have been extended further resulting in slightly fewer schools with mixed student nationalities than at the time of evaluation. However, more of the second shifts in schools in the catchment areas were secondary-level, and fewer Syrian students had progressed to the secondary level. Therefore, the number of Syrian-only shifts might not have increased much or at all. Any increase would have been opposite of the current international trend in education of integrating different types of students to reduce the potential for marginalizing minorities.

A more-costly response to increased numbers of students would have been if the GoJ followed their recent approach of roughly evenly distributing students among 1) additional rented buildings and 2) increased second shifts across schools. This counterfactual scenario would have meant 27% more schools in the USAID catchment areas would have held double shifts barring the construction of the new schools. However, the use of rented buildings also would be expected to substantially reduce educational quality relative to the new schools through use of non-dedicated spaces lacking lab facilities, gymnasiums, libraries, and outdoor recreational and learning space discussed extensively under EQ.1.

Teachers are hired by MoE and not USAID, so there is no reason to believe the Ministry would not have hired sufficient teachers to staff the additional shifts, which would have resulted in roughly equivalent
student-teacher ratios as identified through the evaluation. However, funds might have been more limited with more rented facilities if that approach were used. Thus student-teacher ratios might have been somewhat or slightly higher than at the time of evaluation, if the MoE rented more buildings and education budgets did not increase to cover those buildings. During the evaluation, there were more second shifts (61 of the 74 night shifts) assigned for secondary-level education, which also had lower average student-teacher and student-classroom ratios. Together, this means that a GoJ strategy of increasing shifts in the absence of the USAID-funded school construction might not have alleviated crowding unless more of the second shifts were extended to basic-level education. However, the GoJ likely would have chosen a strategy of allowing slightly higher student-classroom ratios during morning shifts to accommodate more young students, which may be preferred by parents.24

As discussed in section 3.4, the USAID-funded schools exhibited higher scores among teacher survey indicators on school design and use; technology; satisfaction and social cohesion; and, to a lesser extent, teaching and learning. Thus, teacher and student experiences and opportunities would have been lower with respect to those indicators. Combined with greater crowding and the poorer experience in double-shift schools, educational quality would have suffered without the USAID-funded construction in either scenario. The exact degree of lowering of educational quality is complicated and not possible to project exactly. However, as discussed in the next section, expected differences in outcomes in the counterfactual were less clear-cut.

3.3.7. Perceived Effect on Neighboring Schools

The survey of principals confirmed the positive effects of school construction and expansions discussed in the subsection above on counterfactuals. The survey asked principals if their school “reduced crowding issues at neighboring schools” in the first two years after completion.25 Of the 93 principals where the question was applicable, 86% indicated the construction reduced crowding within the catchment for the first two years. Similarly, 88.8% thought crowding was reduced somewhat (50%) or a lot (38.8%) even after the first two years. Further, over half of the principals responding indicated that average class sizes decreased. About a third indicated the number of rented buildings and the number of second shifts decreased in the catchment.26 Of the 11 principals who did not indicate the construction reduced crowding at neighboring schools, nine provided open responses that the school was not designed large enough, four indicated that COVID meant more students were joining public schools, three cited additional waves of immigration, and two thought there were no nearby schools in the catchment.

3.4. EQ 3: Learning and Other Outcomes in USAID-built and Neighboring Schools

Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

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24 By definition of having fewer classroom units without additional schools, the student-class ratio would have been considerably higher. However, existing rooms would function amid two shifts as more than one class, so the student-class ratio statistic is not particularly insightful.

25 See Appendix 5.24 for related tables.

26 These were responses to separate questions. Twice as many principals indicated that there were no rented buildings among neighboring schools as the class size question, and so there was a higher not applicable response.
This section of the evaluation answers evaluation question three by exploring whether learning and behavioral outcomes of students differed from their peers in neighboring schools. It also explores whether there were effects on teachers as well as communities of newly built schools and school expansions. The analysis relied on primary data from the Teacher Use and Teaching and Learning Index and to a lesser extent the Principals General Use and Function Index to provide additional information on teacher behavior, teaching, and the learning environment. Five other secondary data sources relied on are discussed in greater detail in the methods section 2.2, Appendix 5.7 and in the Inception Report.

3.4.1. Teaching Attitudes and Behaviors

The implicit theory of change underlying the objectives of the construction programming involved first changes at the level of principals and teachers, which then translated to improvements in student-level and community relations outcomes. This was in line with general international research as well as that in Jordan. For instance, the finding from the executive summary of Jordan’s National Assessment for Knowledge Economy assessment, noted that 11% of the variation in scores among students was associated with teacher-related variables. Therefore, the evaluation examined first changes in teaching attitudes and behaviors.

The sub-index scores for the teacher instrument are shown in Table 4. The first two sub-indicators triangulate with principals’ responses. These sub-indicator scores and individual questions constituting these indicators are discussed in subsequent sections.

<table>
<thead>
<tr>
<th>Elements Assessed/Sub-Index</th>
<th>USAID School Average</th>
<th>Expansion Schools (JSEP)</th>
<th>New Schools (SKEP, JSP)</th>
<th>Neighboring Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability/Use of Technology(^{a})</td>
<td>51%</td>
<td>43%</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Design Use(^{b})</td>
<td>63%</td>
<td>59%</td>
<td>70%</td>
<td>42%</td>
</tr>
<tr>
<td>Teaching &amp; Learning 1(^{c})</td>
<td>63%</td>
<td>61%</td>
<td>66%</td>
<td>57%</td>
</tr>
<tr>
<td>Teaching &amp; Learning 2(^{d})</td>
<td>55%</td>
<td>55%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Teaching &amp; Learning 1+2 – Standard lecture, individual responses/tasks(^{e})</td>
<td>28%</td>
<td>26%</td>
<td>29%</td>
<td>38%</td>
</tr>
<tr>
<td>Overall Design/Use Satisfaction/Social Cohesion(^{f})</td>
<td>79%</td>
<td>77%</td>
<td>81%</td>
<td>55%</td>
</tr>
</tbody>
</table>

Notes: Numbers in red depict scores at or below 70%, which represents areas for improvement. References below to teacher survey sections and questions are found in Appendix 9, section 5.9.2 survey 4 of 4.

\(^{a}\): Section 1 of teacher survey, composed of six questions on availability and use of technology in classrooms

\(^{b}\): Section 2 of teacher survey, composed of eight questions on sharing rooms, resources and spaces; temperature; noise and maintenance disruptions; adequacy of play areas

\(^{c}\): Section 3 of teacher survey, composed of 15 questions related to teaching behavior and teaching/class structure.

\(^{d}\): Section 4 of teacher survey, composed of 15 items related to frequency of approach to teaching/learning assignments and style (direct instruction, group work, projects, etc.).

\(^{e}\): Nine questions from sections 3 and 4 of teacher survey, framed to elicit honest responses about frequency of teaching and learning structured in a traditional manner (desks in rows, direct instruction/lecture, teaching to different student levels, individual student questioning, recitation).

\(^{f}\): Section 5 of teacher survey, composed of 17 questions related to overall indicators of satisfaction, safety, belonging, teacher inclusion, and parental participation.

27 Ahmads Tweissi, Khattab Abu Lebdih, and Emad Ababneh; “National Assessment for Knowledge Economy 2014 Executive Summary” August 2015.
3.4.2. Support, Skills, Attitudes

There were some notable differences between USAID-funded and neighboring schools (see Appendix 20 paragraphs 3 and 4, section 5.20). Teachers from USAID-funded schools rated the support they receive from their principals and schools (such as involvement in leadership decisions and receiving feedback), teaching skills, and enthusiasm and belonging higher than neighboring schools generally. The average weighted score for the index on school design and use (described further in Table 4, note be with detail provided in the instruments shown in appendices 9 and 15) was notably higher for USAID-funded schools (63%, 70% for JSP and SKEP) than neighboring schools (42%), as were other sub-index scores on sharing resources and spaces.

However, there is room for improvement in terms of availability and use of technology in classrooms among USAID-funded schools, where teachers indicated an average of 51%; these were 10% lower scores than principals that responded for the buildings overall. Low scores included wireless access in their classrooms, use of computers beyond computer classes, availability of portable equipment, and video conferencing capacity revealing considerable room for improvement in use of technology in classrooms. Even in SKEP schools, which scored 73%, with somewhat better wireless connectivity and computer access than other schools, there was room for improvement.

As shown in Table 4 (see also comment f), the sub-indicator on teacher perception of design, use, satisfaction, and social coherence was relatively strong across USAID-funded schools at 79%, which was 24% above their neighboring school colleagues. The lowest scoring questions within this sub-index included student focus, student attitudes and well-being, periodic bullying, and parental engagement, all rating between 43 and 65%. Each of the 17 individual questions are less important individually than the overall point of the subindex and finding that this points to both a weak point in the schools and the potential benefit of building designs (as well as potential changes in curricula and teacher pre-/in-service training) that could encourage a more student-centered learning environment. Such engagement through student-centered learning environments better focuses students, improves attitudes, well-being, and feelings of belonging. These in turn encourage improvements in other questions, such as average attendance rates and perceptions of outcomes, and potentially to engagement by teachers (although a wide range of factors are involved in the latter).

3.4.3. Teaching Behavior and Performance

The evaluation next explored teacher behavior and performance. As noted earlier, because of the pandemic, the team was unable to observe classes. To offset this, nine questions from the teacher surveys were purposely framed to try to reverse the social desirability bias by positively framing traditional, teacher-centered approaches and methods with outputs shown in the fifth row of Table 4.

The differences found between USAID-funded and neighboring schools were present but substantively modest. For the first sub-index of teaching and learning (see note c, Table 4), USAID-funded teachers provided only 7% higher category ratings than their neighboring school counterparts (63% vs 57%, respectively). The one key difference found was a higher probability of USAID-funded school teachers offering students project-based learning each semester (72% vs 53%).

“*I feel that the curriculum is higher than the level of the students, and I am frustrated because I am trying to simplify the information as much as possible for the student, but it remains difficult.*” – SKEP School teacher

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28 Due to the large number of respondents and their high proportion relative to the overall number of teachers from these schools, even accounting for clustering among schools, all differences were found to be statistically significant at the p=0.00 level unless indicated. Thus, the analysis focuses only on substantively relevant differences.

29 JSP schools averaged 58%, which, combined with SKEP schools averages to 62% overall, per table 4, row 1, column 3.
For the second teaching and learning sub-index (see Table 4, comment c), differences were insignificant, as teachers from all sets of USAID and neighboring schools rated themselves on average at 55%, with field trips, project work, and working at work stations scoring low. Interestingly, teachers from USAID-funded schools indicated that they more frequently kept student desks “neatly in straight rows” than neighboring schools (88% and 64%, respectively). Photographs from the USAID-funded schools were filled with standard individual chairs combined with writing desks or tablet chairs all set in straight rows facing the front. Although classes were not in session as enumerators observed schools, these did suggest that there remained room for USAID-funded school teachers to rely on newer, less-structured methods.

As noted under limitations, there were some disconnects between the survey responses, affected by social desirability bias and limited broader vision, and observational findings. For instance, the vast majority of survey respondents said that they “sometimes” taught students in an interdisciplinary manner and that they considered themselves as advisors allowing students to learn at their own pace. However, the teachers also reported limited time per class where students were actually learning; school classrooms were generally organized according to subjects; the team found a lack of space for co-teaching interdisciplinary work or hands-on project areas; and there were large numbers of student chairs in standard classrooms, sometimes with tablet armchairs across JSEP, JSP, and SKEP schools. These made it nearly impossible to teach in a truly co-teaching interdisciplinary manner and to offer a truly differentiated curriculum often. Teachers across USAID-funded schools confirmed this to some extent with 43% (52% in neighboring schools) having indicated that “Teaching in different ways and to different levels for different students within an in-person class is not practical to implement....”

FGDs with teachers and supervisors also highlighted that all teachers mostly used traditional teaching methods, such as lecturing from the blackboard to explain subject matter. Teachers and supervisors indicated that early grade teachers were more likely to use modern teaching methods, such as learning by playing, cooperative education, peer learning and role playing. However, many supervisors during FGDs stated they saw little difference by grade or by whether the school was USAID-funded except when supervisors visited classrooms. In upper basic, Arabic and English teachers preferred more traditional teaching methods, while those teaching scientific subjects and mathematics added in some group work (as confirmed by supervisors), and in secondary, all teachers indicated they mostly used traditional methods. Teachers across the FGDs indicated the biggest obstacle to using student-centered methods is the new curriculum due to the amount of material and complexity of subjects that were not conducive to slower, student-centered methods during short class periods in classrooms with many students. Teachers from JSP schools and some SKEP schools also noted a lack of proper working equipment as an obstacle in applying student-centered methods. Teachers and supervisors noted that communities, including parents and students,

“I did not find any difference frankly between the schools that were funded by USAID and the other schools. The level is very close and the traditional education is almost more than 90 percent.” – Field Directorate Supervisor

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30 This question was stated in a way that suggested keeping chairs in a row was positive to try to offset positive bias and served as a check to see to what extent they actually used less-structured methods.
31 With 45% of USAID-funded teachers reporting fewer than 20 minutes and another 45 reporting 20 to 30 minutes.
32 Supervisors agreed that too many students and too small classrooms made student-centered learning difficult but did not believe the USAID school rooms were too small to do so.
resisted change to unaccustomed methods and new teachers relied on the pre-service Ministry training plus learning from other teachers, which they suggested diminishes the number using these methods over time.

A second example discussed with data in Appendix 5.20 was that there was only weak evidence outside of the SKEP school early-grade clusters of teachers co-teaching and using true interdisciplinary teaching where classrooms were configured as learning suites, allowing more modalities of learning. Supervisors called co-planning and co-teaching beyond early grades almost “nonexistent” and that many teachers bought pre-prepared traditional plans seeing minimal difference between USAID-funded and other schools. The Appendix also discusses slightly lower rates of corporal punishment in USAID-funded schools (which was infrequently used anyway); and time on task, which was universally short across all schools, at between 20 and 30 minutes, which, if the curriculum is long, leaves limited time for student-led self direction.

Finally, the evaluation used data from ratings of early grade teacher classroom performance according to field directorate supervisors, part of whose job was to provide feedback to teachers on their teaching. Supervisors rated teachers on a five-point ordinal Likert scale across 12 indicators, which were summed by MoE as an index representing “teaching effectiveness” in terms of student-centered teaching. Teachers also were rated similarly across 25 indicators with some questions specific to their academic discipline as an index of overall “teaching performance.”33 Electronic data were available only for early grades through the efforts of the RAMP program to code these electronically. There were many caveats to this data, as supervisors indicated that relatively few teachers were visited each year at least outside of early grades), in which RAMP operated, and teachers were selected purposefully based on known needs for professional support. The scale of scores were not particularly useful, as scores were upward biased given that teachers were generally provided sufficient forewarning to prepare specific lesson plans for observation by the supervisor. Thus, these ratings are best seen as a rough indicator of where supervisors saw the highest need for improvement among lower grade teachers. It is, however, the best test of the effect of the newer schools on teaching behavior, as early grades were the only level supervisors indicated one should expect differentiation.

The analysis found modest differences in teaching effectiveness scores in student-centered teaching among early grade teachers selected for observation. Teachers from neighboring schools were rated at 70%, while those at USAID-funded schools were rated slightly higher at 72% (p=0.001). Given how the index was constructed, this means teachers from USAID schools received on average a bit more than 1 point higher on 1 of the 12 items. Overall teaching scores for USAID and neighboring schools showed a slightly larger but still modest difference, averaging about 73% vs 69%, respectively (p=0.000). Although the data had many caveats for the intended purpose, it was consistent with the findings above that teachers from the early grades in USAID-funded schools may have been using student-centered learning techniques slightly more often and more effectively than their neighboring school colleagues.

3.4.4. EQ 1B: SKEP Start-up Training and Adoption of Student-centered Methods

Is there evidence that SKEP school start-up teacher and principal training under the modified start-up program has resulted in use by teachers of methods and approaches that build on what the newer schools are designed to facilitate?

This sub-section examines findings related to SKEP schools and compares them to other schools, especially JSP schools. The latter were expected to resemble more the SKEP schools as they received

33 See Appendix 5.26 for the supervisor classroom observation tool from the MoE.
training under USAID-funded programming, albeit 8 to 11 years ago. Broadly, teachers from SKEP schools reported a somewhat more student-centered teaching environment than other schools, including JSP schools. Excluding issues of resources, on which SKEP schools score higher than others, SKEP school teachers reported 72% compared to 64% for JSP teachers on the general teaching and learning index. Questions where SKEP teachers scored substantively higher included frequency of interacting with neighboring school teachers on teaching methods; students having opportunities to do project-based learning; frequency of co-teaching; more differentiated teaching and learning; and frequency with which students decided for themselves how they wanted to learn subjects in class. However, in terms of a series of student-centered teaching methods (a second teaching and learning index) as well as questions designed to offset the social desirability bias, SKEP school teachers rated themselves overall the same as JSP, JSEP, and neighboring schools (p=0.43).

This represented a mix of small differences and no differences between SKEP schools and others, reflecting some combination of newer technology and more-recent technical assistance and training. The SKEP school teachers received indirect training through the training-of-trainers approach facilitated by motivated principals plus modest amounts of coaching for weaker teachers; they did not receive direct training, as with JSP.

SKEP school principals were mixed about whether the training and coaching support for teachers was sufficient, with 2 of the 9 indicating they thought it was very sufficient, 4 finding it somewhat sufficient and 3 indicating it was somewhat insufficient.

In terms of use of technology by teachers for learning, coaches noted that there was electronic data showing that teachers used the new equipment frequently. Their FGD comments also suggested that teachers depended on technology to facilitate use of newer methods. However, this finding highlights that stakeholders frequently confused student-centered learning and learning environments with use of technology, when most student-centered methods do not necessarily require advanced technology. This, combined with some comments from teachers at older SKEP schools about the equipment becoming broken without maintenance, points to a potential flaw in the SKEP Start-up training of promoting new equipment as the primary method for student-centered learning.

The evaluation also explored the SKEP Start-up Activity and its effect on teachers indirectly through its training for principals to practice inclusive leadership. This was represented through three questions to teachers on whether they “are kept informed regularly about what is happening or being planned regarding the school,” whether “teachers are considered an important part of the school leadership team” and whether they received feedback on their performance. While neighboring school teachers rated their schools relatively poorly on these measures at 66%, JSP and JSEP schools rate their schools at 86%, and SKEP school teachers rate their schools at 95% in terms of practicing inclusive leadership.

In addition, one other element of the SKEP Start-up Activity training programming is to partner SKEP with neighboring schools to encourage teachers to interact and “share ideas, lessons learned and teaching strategies.” A question on this engagement was asked of teachers; 72% of teachers at SKEP schools reported that they engaged frequently with teachers from neighboring schools compared to 58% for JSP schools and 55% for neighboring schools. Teachers and supervisors also noted that teachers at SKEP schools interacted with each other, visiting each others’ classes, and those at neighboring schools at least to some extent to provide support on student-centered methods for those interested in teaching that way.

SKEP principals also were encouraged specifically to communicate regularly with parents. Teachers from SKEP schools uniformly reported the school communicated regularly with parents (99%). This figure
was a bit higher than teachers at JSP schools (95%) and much higher than at neighboring schools (72%). SKEP school teachers also rated the involvement of parents at 68%, or moderate to high involvement, compared to 50% (moderate involvement) for JSP, and 38% (low to moderate involvement) for neighboring schools.

3.4.5. School Programming and Facilities Including for People Living with Disabilities

The team used information from the ESMP dataset from academic year 2018/19 to compare some facility- and programming-related variety of extracurricular activities between USAID and neighboring schools. Statistical tables are provided in Appendix 5.27. USAID-funded schools were slightly more likely to have extracurricular programming in arts (94% vs 87%, p=0.06). Otherwise, differences were minor (and statistically insignificant) as almost all schools surveyed offered sports and less than 15% offered music.

**Teachers in USAID-funded schools, especially SKEP schools (51 and 73%, respectively) reported higher use of technology than at neighboring schools (38%).** Teachers reported lower use of technology than did principals though; 56% of USAID-funded school principals indicated computers were used often to aid learning beyond computer lessons, while 56% of teachers across USAID-funded schools indicated never using modern technology beyond computer lessons and only 15% indicated doing so often. Supervisors felt teachers needed further training on tools and equipment to use technology effectively and that the MoE needed to improve maintenance of them. They also noted that due to the high cost of the equipment, many teachers were afraid to use and damage equipment and principals sometimes restricted use of the equipment. Student use of portable technology was limited, however, with about 30% of teachers indicating students did so except for SKEP schools, half of whom indicated students do so.

Teachers and supervisors confirmed that SKEP schools had better-equipped and maintained facilities, including libraries, laboratories, and theaters, than JSP and other schools to facilitate student-centered learning. However, they noted that students were able to equally access internet-connected computers across SKEP and JSP schools (79% and 77%, respectively) at much higher frequencies than neighboring schools (48%).

Among variables included in the ESMP dataset was information on school facilities, including presence of and usability of disability ramps. There was a considerable difference between the USAID-funded and neighboring schools, with a high rate of disability ramp access among USAID-funded schools. A much smaller proportion (57%) of neighboring public schools had disability ramps, as shown in Table 5. Further, when examining whether available ramps were built at the appropriate angle, 94% of ramps at USAID-funded schools were properly-designed, while 77% were at the appropriate pitch among neighboring schools. This means that even among those ramps available, a greater percentage (23%) did not allow effective access.

Both teachers and supervisors noted that the USAID-funded schools were better equipped in general to support students living with difficulties in terms of accessible ramps, elevators, resource rooms, and toilets equipped for students with disabilities, which helped integrate them in regular classes. However, stakeholders noted that USAID-funded schools had fewer such students. In addition, given

> “The application [of student-centered methods] does not rise to the level we want because … the teacher is not originally convinced of the strategies and resists change.” – MoE Field Directorate Supervisor

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USAID designs all schools with ramps per the required regulations. This discrepancy may be the result of an observation of an existing ramp in the old portion of a JSEP school that USAID expanded.
system-wide problems with maintenance, elevators in JSP schools were not always working, and classes for students living with physical disabilities were moved to ground floors or students are individually carried up stairs. Supervisors indicated that teachers and administrative staff universally needed more training on how to work best with students with disabilities.

<table>
<thead>
<tr>
<th>School Group</th>
<th>Disability Ramp Availability</th>
<th>Disability Ramp Adequacy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Available (%)</td>
<td>No Ramps (%)</td>
</tr>
<tr>
<td>USAID-funded schools</td>
<td>84.6%</td>
<td>15.4%</td>
</tr>
<tr>
<td>Neighboring public schools</td>
<td>57.1%</td>
<td>42.9%</td>
</tr>
</tbody>
</table>

*Note: Differences are significant at the (p=0.000) level.*

The average of the three observational items on school adaptations for disabilities resulted in scores of 44%, 74%, and 96% for JSEP, JSP, and SKEP schools, respectively, showing an improvement in design between the JSP and SKEP schools.

3.4.6. Student Outcomes

This section discusses student-level outcomes. The ideal measures to understand the differential effect of student-centered learning would assess self-motivation, critical thinking and problem solving, wellbeing and belonging, cooperation, and a global sense of understanding of complex situations. It is important to recognize that class grades and testing scores on traditional subjects are useful to understand how students operate within traditional systems rather than signal how they function at a higher level; the correlation between grades and competencies developed in student-centered learning are not necessarily strong or even positive. Further, during the evaluation there was anecdotal discussion among stakeholders of self-selection among motivated parents and students into the better, USAID-funded schools, such that differences may have been due to a “biased sample” of higher performing students.35 Thus, as this section reviewed the mostly-traditional student-level outcome measures that were available for the analysis, the interpretation of differences across the groups of schools needs to be understood with caveats.

Wellbeing, Belonging, Focus, Attendance, Grade Repetition, Involvement in School Activities

Teachers at USAID-funded schools who responded to the survey more often reported that “the school environment leads to a feeling of belonging among students” than their counterparts at neighboring schools (100% and 59%, respectively). Teachers at USAID-funded schools also reported that student outcomes generally were affected positively by their schools with 93% agreeing with that statement, well above the 71% saying so for neighboring schools. A similar, slightly-higher proportion of teachers from USAID-funded than neighboring public schools reported that the majority of students seemed well focused throughout the day (41% and 33%,

35 Those affiliated with the SKEP, however, indicated they believed the selection criteria for students was transparent and neutral “giving all a[n equal] chance” to enter the schools.

"Before the design process, a meeting is held with parents and community members, and they are consulted and even participate in the design of the school, and thus community members feel that they are partners in this school since the beginning of its work." – SKEP Start-up Coach Participant
respectively) and that the majority of students exhibited “positive social, physical, and emotional wellbeing” (64% and 48%, respectively).

Teachers at USAID-funded schools reported more often than those in neighboring schools that “the school environment leads to increased student attendance” (88% and 60%, respectively), reflecting both better conditions at the USAID-funded schools and that teachers at neighboring schools did not uniformly consider conditions at their schools bad. The evaluation also examined grade repetition rates. The database available included about half of schools at the basic level only for the academic year 2018-2019. There was a 1% grade repetition rate among basic-level students at USAID-funded schools and a 1.6% grade repetition rate at neighboring schools, a substantively and statistically insignificant difference (p=0.239). Examining principals’ perception of student involvement in school activities, as collected by ESMP, there was no difference between USAID and neighboring schools, with 89% of principals in both groups rating student involvement as moderate to high (see table in Appendix 5.27).

**Safety, Bullying, and Vandalism**

The teacher and principal surveys asked about safety and bullying. Most teachers in both sets of schools reported that “students, teachers, and staff feel safe while at school”, though more teachers at USAID-funded schools agreed than at neighboring schools (85% and 73%, respectively). Teachers noted that bullying among students happened, though somewhat less frequently at USAID-funded schools. Overall, 24% of teachers at USAID-funded schools reported bullying happened often compared to 43% of those from neighboring schools with only 9 percent indicating it never happened. Of principals at USAID-funded schools, 16% reported bullying happened more than once a month and 13% up to once a month.

Examining the data from principals collected by ESMP related to vandalism, there was almost no difference between USAID and neighboring schools in terms of those for which principals indicated vandalism was no problem or just a slight problem (66% and 67%, respectively p=0.84) as opposed to a moderate to severe problem. Supervisors confirmed that vandalism was not very common but presented more in boys’ upper grades; vandalism was lower in USAID-funded schools than neighboring schools due in their view to having fewer students, thus allowing teachers and principals to provide more guidance in maintaining the schools.

**National and International Assessments Reading, Math, Science and Problem Solving**

National and international assessments provided moderate insight into student outcomes, predominantly but not uniformly indicating that USAID-funded school students performed somewhat better within the traditional system and traditional subjects and perhaps in other real-world competencies.

As discussed in the methods section, the 2014 NAFKE covered mathematics, Arabic, and science and examined within those subjects skills in communication, problem solving, knowledge, applying knowledge, and reasoning. Tables with t-tests are presented in Appendix section 5.30. Within mathematics, students from the JSP schools, which were new at that time, scored 5% to 9% higher than neighboring schools in three of four skills: communicating, knowledge base, and application of knowledge. With respect to science scores, students from JSP schools scored 3% to 7% higher (statistically significant at the alpha 5% to 10% levels depending on the skill). There were no significant

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36 USAID principals are more optimistic, with 92 percent reporting so.
37 USAID principals are slightly more optimistic with 95 percent reporting so.
38 As the dataset represented a sub-sample of schools of interest, the analysis examined the statistical significance.
39 The figures are 26% for JSEP, 27% for JSP, and 11% for SKEP, which included specific elements on reducing bullying.
differences in Arabic. Analyzing skill sets across the three subjects, JSP students scored 4% to 6% higher for each of the skills.

The Kingdom has undertaken annual Educational Quality Control examinations each year in selected grades and selected subjects since 2017 (including grades 3, 4, 8, and 10, although only school-level data that was not entirely compatible with the other analyses was provided. Comparing the included JSP and SKEP schools to JSEP and other schools across these 16 test results, students from JSP and SKEP schools scored higher than students at neighboring schools for 3 results by between 13% to 16% in grade 4 math and English and grade 10 English, each statistically significant only at the alpha 0.10 level. Tables as shown in Appendix 5.31. Scoring above neighboring schools for 20% of the tests was higher than would be expected due to random chance at the 10% level but not resoundingly so.

The GoJ undertakes Tawjihi graduation exams for secondary students in their penultimate year to enter universities. Student-level data contained invalid data, but school-level data revealed no difference between USAID-funded and neighboring school pass rates for 2018, 2019, and 2020; however, in 2016, neighboring school pass rates exceeded those of USAID (p=0.002).

Examining the three main indicators from RAMP’s LQAS related to reading and mathematics, there was a substantively- and statistically-significant difference for the reading comprehension assessment score between USAID-funded and neighboring schools. Students at 45 JSEP and 15 JSP schools (no SKEP schools were included) combined scored about 8% higher than neighboring schools (p=0.02) on reading comprehension. Looking at the two groups of schools separately, JSP and JSEP school students scored 16% and 6%, respectively (p=0.001 and 0.058, respectively). No statistically significant difference was found between USAID-funded and neighboring schools in terms of oral reading fluency scores.40

The PISA assessments of 2015 and 2018 included sections on reading, math, and science both years.41 No significant differences were found for math and science scores between the 14 JSEP and 8 JSP schools selected as part of the exam and the 115 neighboring schools, while scores for USAID-funded schools were 2.6% lower than neighboring schools in reading (p=0.003). While the sample did not permit generalizability across USAID-funded schools, the lower scores for USAID-funded schools may not have been fully representative of this set of schools and highlighted that JSEP school expansions should not necessarily be expected to provide much better outcomes. Nonetheless, the results indicated that scores in traditional academic subjects and higher-level thinking in upper basic education were not universally higher among all USAID-funded schools as expected and, in fact, were lower among some.

Students from the 13 USAID-funded schools included across the 2015 and 2019 TIMSS assessments had 7% lower scores in science) than neighboring schools, while there was no statistically significant difference in math scores. Tables are presented in Appendix 5.31.

The available assessment related data either did not include any SKEP schools (PISA, TIMSS, NAFKE, LQAS) or enough SKEP schools (1 or 2 in each of the Educational Quality Control exam data for 2018 and 2019) to test differences statistically between SKEP and other schools.

40 Data for Mathematics were determined to be unreliable and so analysis not included.
41 Scores for Jordan generally are below world-wide average, and those for urban areas and girls and higher than for rural areas and boys, as expected and as shown in Appendix section 5.29.
3.4.7. Community Outcomes

Teachers among USAID schools rated parental involvement and outreach higher than teachers from neighboring schools. Considerably more teachers at USAID-funded (84%) than neighboring schools (44%) reported that their school regularly communicated with parents. In addition, SKEP Start-up Coaches noted that parents were allowed to attend some classes at USAID-funded schools. Subsequently, somewhat more of the teachers at USAID-funded schools (83%) rated the level of engagement of the parental organization as moderate to high relative to that of teachers at neighboring schools (64%). The responses were essentially identical when teachers rated the level of engagement of parental involvement, with somewhat more teachers at USAID-funded schools (81%) rating parental involvement as moderate to high relative to teachers at neighboring schools (64%). SKEP Start-up coaches confirmed that USAID-funded school parent councils were held on a regular basis with real records, while most other schools generally did not have parent council meetings, though generate minutes if they did.

Principals from USAID-funded schools concur with teachers’ assessments, having rated parental involvement in the ESMP data collection somewhat higher than at neighboring schools. Parental involvement was rated as moderate to exemplary (versus slight to none) by 68% of USAID principals compared to 55% among neighboring schools (p=0.02). Lower parental involvement was expected with lower outreach but also with anecdotal reports of more engaged parents working to get their students into the USAID-funded schools.

Teachers and some supervisors noted parental interaction was stronger at SKEP schools and JSP than other schools. Teachers indicated that parental involvement at JSP schools often was limited to the stronger students. They also noted that the distance education period had reduced parental involvement across all schools due to the lack of an interactive platform between students and teachers (with the exception of a small group who communicated by phone, a practice later banned by the MoE).

USAID-funded school principals responded relatively high on connection with community sub-index, with SKEP schools rating 88% followed by JSP schools at 75% and JSEP schools at 55%. SKEP and JSP schools tended to have sports fields and rooms or areas designated for community use without creating safety issues. SKEP and two-thirds of JSP schools took advantage of local community resources. Enumerators confirmed that a) demonstration spaces and b) performance spaces were present more often among SKEP schools (89% and 72%) followed by JSP schools (58% and 44%), while JSEP schools lagged (21 and 11%). While the schools did not all run adult programming for their communities, students often volunteered for community service while parents and community members volunteered at the school, and more than half of JSP schools and three-quarters of SKEP schools reported that their communities had donated money or resources to the school. SKEP Start-up Activity coaches noted that involving communities in the design process, conducting training for community members, and allowing them to use school facilities built support.

3.4.7. Unintended Effects

The evidence did not point to any significant unintended consequences of the construction projects on the students, schools, or communities. This could have been due to the lack of major unintended effects. Another reason was that with limited stakeholder time in responding to evaluation team questions and limited time to complete the report, priority went toward expected rather than a wide

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42 See Appendix 5.27.
range of potential unexpected consequences. It also may be a consequence of not being able to visit schools and classes in person to notice unintended effects.

3.4.8. Conclusions
There was enough available data to begin to test the hypothesis that construction with modest amounts of technical assistance and training would result in improved outcomes in terms of scores in traditional subjects. However, the data had significant limitations even for that purpose and did not provide the full picture across levels and school types nor on 21st century competencies aligned with ERfKE and best developed in truly student-centered learning environments. One limitation of the data included relying on expansion schools where one would not expect a large effect.

Better student-level outcomes were found more often where building designs and support better facilitated real learning environments that promote co-teaching and are student-centered; that is, in SKEP schools and JSP schools when they were new. The evidence for EQ 1 and 3 suggested that early grade schools, more-often structured and supported as learning communities, somewhat better fostered student-centered learning with modest differentiation found in both teaching and learning. Traditionally-structured upper basic and secondary schools represented a lost opportunity. This is because students are better able to avail themselves of what student-centered approaches offer in increased learning the older they are, such as more-advanced ability to undertake longer-term projects.

Students were reported by teachers and principals to have greater sense of community, belonging, slightly lower levels of bullying, higher use of technology in teaching and learning, and better outcomes generally. USAID-funded school teachers responded that, while student focus was slightly higher than in neighboring schools, it generally was not high, which was a product of low engagement in student-centered learning, especially in upper basic and secondary schools. The evidence also pointed to higher attendance but no difference in vandalism, time on task, grade repetition, or involvement in school activities. Parents and communities also were better engaged, especially at the SKEP schools, although apparently not enough to overcome some resistance to use of active-learning methods by motivated principals and teachers in some schools. While USAID-funded schools were better organized to support students living with disabilities, fewer of such students were availing themselves of this opportunity for reasons that should be explored further.

The evidence also suggested modest differentiation in traditional subject outcomes, especially in the lower grades given the superior design of the facilities and support of teachers for higher use of student-centered methods. There was also a modest extent of differentiation in traditional subject outcomes in upper grades, especially in the 2014 NAFKE assessment results, which indicated modest differentiation in higher-level skill development among JSP schools when they were new. The differences were moderate and not uniform with too few SKEP schools included to assess differentiation in outcomes yet.

However, stakeholders provided reason to expect there may be diminishing effects over time not just in terms of differences in teaching in newer over older schools, in this case SKEP versus JSP, but also possibly within newer SKEP schools, as modern technology breaks or principals restrict their use and teacher’s reliance on them. Structural limitations to student-centered methods, including a lack of co-teaching areas in upper grades and a dense curriculum combined with short classes will present long-term limitations on expecting differences in teaching and learning.
4. RECOMMENDATIONS

The section below identifies key design recommendations for potential incorporation into future USAID funded projects. Images demonstrating some of these recommendations in the context of schools outside of Jordan are provided in Appendix 5.22. They provide examples of the attributes discussed of various learning spaces and are not intended to be copied without contextualization. These design recommendations were written as suggestions to direct USAID’s contractors and principals, but they assume overall that USAID adjusts its guidance and directions for contractors to revise and organize their designs accordingly. While the principles espoused by the examples cited are all applicable to the USAID schools in Jordan, each would be interpreted by architects in a manner that makes sense culturally.

4.1. School Design-related Improvements

Design for Student-Centered Pedagogy through Developing Learning Communities across All Grades.
Design spaces to minimize lecture-based teaching, which should only be used as a supplement to hands-on learning approaches. One way to do so is for USAID to require designs that move away more completely from the obsolete “cells and bells” design invented during the first industrial revolution, beyond even the SKEP school designs, towards a fully student-centered model with fewer traditional classrooms and more spaces for active learning. Learning communities are even more effective in upper basic and secondary education, as students are better able to engage in more modalities of interactive learning as they age. Appendix 6 provides an example of how to create real learning communities even in upper basic and secondary levels.

Add Specialized Learning Spaces. Increase the number of specialized spaces such as maker labs and specialty labs, such as robotics, forensics, graphic art and design and video production, so the availability for practical learning on a day-to-day basis is increased. When a space is designed and available for student use, it should be outfitted with proper learning resources, furniture, equipment and supplies.

Create Inspiring, Multi-Use Spaces. School buildings should include inspiring, imaginative, and innovative spaces that are also highly functional and effective places to improve student academic achievement and contribute to their social and emotional development. Multi-use lab spaces with sufficient power outlets and water access for hands-on learning should be added to the standard program, as should better utilizing hallways as classroom extensions.

Boost Educational Technology. Prioritize educational technology early in the planning process. Audio and video systems should be fully integrated throughout the building design. High-bandwidth wireless internet, which was deficient in many of the surveyed schools, can become the catalyst for a variety of mobile technologies as well.

Improve Teacher Offices. Support and encourage teachers to work together by giving them access to better and more high-quality professional workspaces beyond the classroom and isolated teacher rooms that do not integrate with or oversee learning spaces.

Increase Variety of Furniture. Require variety, variation in heights, seating types, and materials for loose furnishings that contractors procure. Create a variety of seating and table selections to support a greater
range of student learning activities. The ability for students to select preferred areas to work in and furniture to use improves the learning potential of each space.

**Assure Adequate Storage.** In new designs, include more storage for student projects and teaching and learning resources. Ensuring that there is adequate storage space in labs and other learning spaces within the classroom supports overall class management through the quick accessibility or storage of resources as differing lessons may dictate.

**Plan for Future Expansion.** Require architects to include in the master plan where an expansion might go to adequately plan for future enrollment growth.

**Improve Eating Areas.** Add and improve areas for dining with varied types of seating, outdoor dining spaces, and even remote spaces to sit and eat away from the main café.

**Improve Outdoor Play and Learning Spaces and Indoor-Outdoor Connection.** Improve outdoor areas for play, sports, and learning. Add more shaded features to increase flexibility and opportunities for various activities that would not be possible in an indoor setting. Make outdoor learning areas directly accessible from instructional spaces. USAID should encourage school designers to maximize opportunities for outdoor learning. Such spaces are cost-effective, in many cases, more functional than indoor spaces, have more healthy access to daylight and fresh air, and feel less prison-like and oppressive than crowded indoor classrooms.

**Add Informal Learning Areas.** Optimize the number of informal learning spaces throughout schools, preferably one per four dedicated general learning spaces. Some of the smaller commons’ areas could replace hallways that are prevalent in the current model and thereby not increase the total built-up area of the school.

**Create Greater Room Variety and Connectivity.** Make sure building designs include spaces of varying sizes including small group rooms, meeting rooms, seminar rooms, and quiet reading rooms. Require that more of the spaces link to each other to better facilitate co-teaching and true interdisciplinary learning where principals and teachers are ready. Provide meeting spaces of varying sizes that are usable by teachers and students. Seminar rooms for 15 students, small group rooms for 6 students, quiet rooms for 3 students are some of the most popular sizes.

**Improve Student Drop-off and Pick-up Zones.** Schools with bus drop-off and pickup should have a dedicated safe area for buses to park and load/unload students.

**Provide Indoor Fitness Areas Where Such Areas are Not Provided.** When possible, an indoor gymnasium or a multiuse sports room would improve student wellbeing and would make a great addition to the standard program of spaces.

**Assure Every School Includes Spaces for the Performance Arts.** Ensure there are music rooms for both voice and instrumental music including an ancillary music storage room and areas for performance / drama or multi-use area to enable performance. This could be as simple as a classroom-sized space suitable for plays with a very small audience. Where space allows, also add a space for two-dimensional and three-dimensional visual arts to the standard program.

**Make Science Labs More Flexible.** Science rooms should be designed with movable tables, with services and sinks along the perimeter of the room. This flexible layout will support a wider range of activities.

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43 Currently, many rooms at USAID-funded schools are furnished with tablet armchairs, and even SKEP school general classrooms are organized to face the front of a classroom.
Consider connecting lab / specialty spaces that are on level 1 directly to the outside and adding a small learning porch that will be directly accessible from the room.

**Provide for Increased Community Use.** To increase the value of the school to the community, continue the pattern with SKEP of encouraging the school or parts to be made available for community use after hours. This can be made possible simply by 1) specifying locks on certain doors and making only selected areas of the school available after hours, or 2) having areas separate from the school building itself available to the community, as with some SKEP schools.

### 4.2. School Use, Procurement, and Measurement Improvements

**Examine with the MoE Obstacles to Student-centered Learning Environments.** If the MoE is willing, consider as part of an IP workplan working with the Ministry more broadly to assess plans to overcome obstacles to creating true student-centered learning environments campus-wide and adopting student-centered teaching modalities. Some specific examples are provided throughout this sub-set of recommendations.

**Adapt Student-centered Methods to Context.** Work with teacher leaders to better develop or refine a mix of student-centered methods presented to teachers that can cover large portions of curriculum during short class periods and that do not rely primarily on technology that can break. This effort could include developing along with teachers’ pre-prepared lesson plans for teachers to share to make it easier to use them and not rely just on buying already-prepared traditional method plans.

**Adapt Technology to and Policy Interventions Regarding Low Maintenance Context.** Consider a policy-related component of upcoming activities focused on helping the GoJ in improving its policies, rules, and processes with respect to maintenance in terms of amount, timing, responsiveness, and ownership. Assuming such changes may not happen in the near term, design future schools selecting technology, less-sophisticated options that is as resilient as possible to neglect of official maintenance even if that may not seem as impressive upon opening to reduce an impediment to use of student-centered methods. Provide spare parts and tools as part of the initial delivery.

**Build Community Support for Student-centered Methods.** As two of the primary impediments to adopting student centered methods come from teachers and parents, USAID’s IPs need to engage parents to better understand and advocate or at least not resist such methods being used in their schools.

**Deepen Support for Learning Environment Adoption During or After Start-up Support.** With new schools designed as learning communities across all levels, plan on an additional year of support for the schools in how to make best use of learning communities through collaboration and co-teaching, student-centered engagement, peer-centered learning, and other of the 20 modalities of learning. While the SKEP Start-up Activity focused on critical issues of proper administration, organization and operation of schools, a year of support did not allow for the depth of support required not just to really instill student-centered pedagogy but also how the whole school can operate differently in learning communities for true 21st-century learning.

**Have USAID-funded Schools Serve as Learning Nodes.** Continue and broaden the engagement between teachers in USAID-funded and neighboring schools as undertaken as part of the SKEP School Start-up program. However, USAID needs to recognize the potential benefits from such interactions across schools and within communities likely offset the slightly reduced differences in outcomes one might find in measuring differences in outcomes.
**Improve Inclusion for Students with Disabilities.** Make support of students living with disabilities a component of start-up school support and of sharing with neighboring schools.

**Promote Measurement of Competencies Beyond Traditional Academic Testing.** USAID and its implementers should work with the MoE to adopt and promote better measures of non-traditional skills aligned with ERfKE goals built through student-centered learning. Examples include teacher, self and peer assessment of agency and self-direction, learning and growth,\(^{44}\) collaboration, and communication/presentation. Off-the-shelf tools in the forms of rubrics, checklists, and others are available to customize. Inserting such measures as this and the next recommendation as requirements for principals and supervisors could help emphasize to the MoE and stakeholders the importance of 21st-century global competencies as a motivation for system-wide promotion of student-centered teaching and learning.

**Consider Promoting Skill-focused National Assessments.** USAID should consider discussing with the MoE developing a national-level assessment focusing on competencies developed in student-centered settings that are not focused primarily on traditional academic disciplines,\(^{45}\) which speak more-narrowly to student knowledge levels. In addition to emphasizing to stakeholders the importance of non-traditional skills to motivate wider adoption of student-centered teaching and learning, these recommendations also would help the Kingdom better assess progress towards ERfKE goals and provide better data to inform the Mission about the effects of construction on outcomes.

**Supplement International Assessments.** USAID should consider supplementing future international assessments in Jordan, such as PISA, that emphasize broader, global competencies and problem solving to increase the sample of USAID-funded schools, especially SKEP, perhaps JSP, and future schools due to higher expected effect size. Depending on available finances, consider neighboring schools as a superior comparator to all schools though not at the expense of including more USAID-funded schools. Undertake a power analysis based on clusters or hierarchical modeling\(^{46}\) to determine required sample size to assure that the funds are worth the investment and how many are required given a desired percent difference in scores.

**Self-assessment and Promotion of Student-centered Learning.** As assessment processes motivate behavior, USAID could consider funding efforts through its IPs if the MoE is willing to promote supervisors, principals, and teachers working together toward conducting broader self-assessment of student-centered learning and teaching effectiveness at not just the teacher but school level of student-centered teaching and learning. USAID may also encourage the Ministry to add to supervisor observation protocols examining student behavior outside traditional classrooms and assessments of the school community (principals, teacher committees, and staff) to encourage building true learning environments at the school level. Different high scorers each semester at a set of nearby schools or district level could be asked to present to other schools and teachers some key lessons and examples.

**Improve Timing and Reward Past Performance in Procurements.** Request the GoJ inserts into procurement awards a large proportion of points with respect to timely past performance in general and

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\(^{44}\) I.e., relative to self-established targets including through process portfolios, rather than relative to grade performance levels

\(^{45}\) This may be similar to some of what was measured in the 2014 NAFKE assessment, an Arabic-fluent educator would have to review to better ascertain their appropriateness beyond the categories of measurement made available to the evaluation team.

\(^{46}\) That is, recognizing students are nested within schools rather than using school-wide averages or analysis by students without clustering within classes or schools.
with JSP, JSEP, and SKEP school construction specifically. A recommendation with respect to procurement timing with respect to seasonality from the A&E Construction Management Contractor is provided in Appendix 5.13.

USAID may be considering limiting the size of award packages to 5 to 7 schools to limit the potential that large packages may increase burden on contractors during a period when credit might remain tight. However, the reason for doing so would be less due to a strong evidentiary basis and more for limiting the extensiveness of problems encountered from any single problematic contractor.

As this SOW, evaluation design, and data do not provide significant leverage on this issue, we present the recommendations as provided without revision.
5. APPENDICES
5.1. Appendix 1: Scope of Work
**TABLE OF CONTENTS**

1. REQUESTING DO ........................................ 1
2. PERIOD OF PERFORMANCE .......................... 1
3. EVALUATION TYPE .................................... 1
4. BACKGROUND ........................................... 1
5. EVALUATION OBJECTIVES ............................ 2
6. EVALUATION QUESTIONS .............................. 3
7. EVALUATION DESIGN AND METHODOLOGY ...... 5
8. UTILIZATION AND DISSEMINATION .............. 6
9. ROLES AND RESPONSIBILITIES ................... 7
10. DELIVERABLES ........................................ 8
11. PROPOSED EVALUATION TEAM STRUCTURE .... 10
12. CONTACTS ............................................. 11
### ACRONYMS & ABBREVIATIONS

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A/E Firm</td>
<td>Architect and Engineering Design Firm(s)</td>
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<td>COVID-19</td>
<td>Coronavirus Disease 2019</td>
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<td>ESMP</td>
<td>Enhancing School Management and Planning</td>
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<td>GOJ</td>
<td>Government of Jordan</td>
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<td>JSP</td>
<td>Jordan School Construction and Rehabilitation Project</td>
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<td>JSEP</td>
<td>Jordan School Expansion Program</td>
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<td>MELA</td>
<td>Monitoring, Evaluation and Learning Activity</td>
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<td>MoE</td>
<td>Ministry of Education</td>
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<td>MPWH</td>
<td>Ministry of Public Works and Housing</td>
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<td>RAMP</td>
<td>Early Grade Reading and Math Program</td>
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<td>SKEP</td>
<td>Schools for a Knowledge Economy Program</td>
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<tr>
<td>SOW</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>UNOPS</td>
<td>United Nations Office for Project Services</td>
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<td>USAID</td>
<td>United States Agency for International Development</td>
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JORDAN MONITORING, EVALUATION, AND LEARNING ACTIVITY
School Infrastructure Multi-Activity Evaluation

1. REQUESTING DO

☐ DO 1: EDE
☐ DO 2: Water
☐ DO 3: DRG
☐ DO 4: I: Health
☒ DO 4.2: Education
☐ DO 4.1: Vulnerable Populations
☐ DO 5: Women & Youth
☐ Other (specify):

2. PERIOD OF PERFORMANCE

Expected Start Date (on/about): January 2021
Anticipated End Date (on/about): June 2021

3. EVALUATION TYPE

☐ Performance
☐ Process
☐ Impact
☒ Other – multi-activity evaluation

4. BACKGROUND

4.1 DETAILS

<table>
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<tr>
<th>Activities to Evaluate</th>
<th>Start/End Dates of Activity</th>
<th>Architect /Engineering Firm</th>
<th>Number of New Schools Built</th>
<th>Number of Schools Expanded/Rehabilitated</th>
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<td>Camp Dresser and McKee International</td>
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<td>100*</td>
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<td>Bitar</td>
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<td>Schools for a Knowledge Economy Program (SKEP)</td>
<td>2015-2020</td>
<td>Engicon</td>
<td>25 (9 completed)</td>
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</tbody>
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* Schools rehabilitated under JSP will not be included in this evaluation
**Kindergarten classrooms and sports fields/facilities built or rehabilitated under JSEP will not be included in this evaluation.

4.2 PROBLEM STATEMENT AND ACTIVITY OVERVIEW

Due to rapid population growth, the influx of Syrian and other refugees, and economic constraints that have caused a migration of students from private to public schools, Jordanian public schools have been strained by overcrowding in recent decades. While there is near universal enrollment in the school at the primary level, public schools do not have sufficient capacity to safely accommodate all students, and access is particularly limited for students with disabilities. Over 720 schools currently operate double shifts in order to accommodate students, while many others operate with classrooms sizes beyond their intended capacity. The Ministry of Education (MoE) also operates 777 schools in
rented buildings that are often not designed to accommodate all learners. Both academic and non-academic learning outcomes across Jordanian public schools are affected by challenges in access to safe and engaging learning environments, with high rates of violence in schools and low performance in literacy and numeracy from Kindergarten through the upper grades. The Government of Jordan (GOJ) estimates that it will require approximately 600 new schools over the next decade to meet demand.

In response to the MoE efforts to increase access to schools as well as enhance the learning environment, USAID/Jordan launched infrastructure activities beginning in 2006 with the four-year Jordan School Construction and Rehabilitation Project (JSP), and continued in 2014 with the six-year Jordan School Expansion Program (JSEP), followed in 2015 by the five-year Schools for a Knowledge Economy Program (SKEP). The primary focus of these activities 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.

Schools designs and construction supervision are provided by Architect and Engineering Design Firms (A/E Firm), while construction is implemented through multiple construction contracts under the Ministry of Public Works and Housing (MPWH). Furnishings and construction management services are also provided through contracts or grants with other entities.

JSP had a total budget of $199 million to construct and furnish 28 new public schools and to rehabilitate 100 existing ones (including $11.4 million for A/E design services and supervision of construction, $172 million for construction, and $15 million for furnishings). JSEP’s budget is $180 million for A/E design services and construction to expand 120 Schools, construct 300 Kindergarten Classrooms and construct or rehabilitate 50 Sports Fields or Facilities, and SKEP has a budget of $102 million for A/E design services and the construction of 25 new public schools. Furnishings for JSEP and SKEP schools are provided through a separate $26 million grant to the United Nations Office for Project Services (UNOPS), and a $3.8 million Construction Management Contract with Trigon provides construction management services to both activities.

5. EVALUATION OBJECTIVES

USAID has made significant investments in school infrastructure in recent years and is planning to build an additional 30 schools over the next five years under its Inclusive Schools Program. This evaluation will examine data from recent and relevant USAID school infrastructure activities in order to 1) inform the design of the schools, and 2) determine how USAID infrastructure has affected students and communities. The focus will be on new schools built under JSP and SKEP but will also include an evaluation of schools which underwent significant rehabilitation or expansion under JSEP.

6. EVALUATION QUESTIONS

The primary areas of learning to be addressed by the evaluation relate to:

1) Use and Usability of the Physical Spaces Constructed
2) Patterns of School Occupancy in USAID Built and Neighboring Public Schools
3) Learning Outcomes of Students in USAID Built and Neighboring Public Schools

Each of these areas is described in further detail below.

1) Use and Usability of the Physical Spaces Constructed
Evaluation Question 1: What are the positive and negative aspects of the physical school environment (inside and outside spaces) that should be taken into consideration for future school construction?

Previous evaluations of JSP highlighted a number of issues with the utilization and functionality of different aspects of the school design, which were then taken into consideration in the design of SKEP and JSEP schools. This evaluation will revisit JSP schools to examine how those issues have impacted the school and its users since the last evaluation and will visit SKEP and JSEP schools to determine what aspects of the SKEP and JSEP school designs should be included or excluded from future school designs. The evaluation will consider, among other things:

- Layout/Teacher environmental competence
- Furnishings (JSP found that the size of the new furniture took up too much space)
- Utilization of technology features and labs in the schools
- Construction Materials
- Maintenance complexity and cost (JSP noted multiple issues with electromechanical systems)
- Construction materials (JSP noted quality of wooden doors, plaster on staircases, tiles, toilet sinks, indoor paint)
- Heat/Cold/Ventilation/Natural light (JSP noted air lock issue to maintain temp, aluminum window locks)
- Accessibility & movement of large volume of students through/around the space (JSP noted narrow main entrance, locked fire exits, bathroom odors)
- Safety
- Use/usability of all indoor space as intended (JSP noted inadequate book and toxic science material storage, inadequate size teacher lockers, size, design and location of canteens, use of libraries, size of computer rooms and nursery, location of administration office, use of planning room)
- Timeliness of construction/rehabilitation work. How long did it take to complete the construction work? In what ways did this deviate from the planned timeline?
- USAID has previously examined the benefits of the school start-up teacher/principal training programs at JSP schools, so it could be useful to explore in more detail how this has been going at the SKEP schools under the modified start-up program that is currently underway.
- Use/usability of outdoor space as intended (protection from the elements, adequate playground space and infrastructure) (JSP found that the outdoor space didn’t adequately accommodate morning assemblies that mean the whole school population is outside at once, gardening areas too far from school, security walls too low)
- Was ongoing maintenance of the new and rehabilitated schools consistent and adequate? These aspects are somewhat covered in JSP’s evaluation report. The evaluation team needs to refer to JSP’s evaluation report to identify issues related to engineering and learning environment that have not been addressed in JSP and/or need further exploration.

While focusing on the use and usability of the schools, the evaluation shall also examine, where possible and appropriate, the changes or modifications as a result of COVID-19 related social distancing and other safeguarding practices. Such questions will not be a direct focus of the evaluation and may be treated as a sub-question under the overall use and usability of schools.

As the design of the new schools will soon be underway, the evaluation must prioritize the collection and analysis of data relating to the physical aspects of school infrastructure so that it is available in time to inform the school design, including furnishings and outdoor spaces.
2) Patterns of School Occupancy

Evaluation Question 2: In what ways, if any, has the student body changed in USAID built and neighboring public schools?

The sites for JSP, JSEP, and SKEP construction were deliberately selected based on a number of factors, including the level of overcrowding of schools within a three-kilometer radius, with the intention that new school construction or expansion would increase access to safe and enhanced learning environments to students who need it most. The JSP evaluation examined this to some degree but was limited by issues in data collection and availability. Since the completion of JSP, USAID has invested in dedicated technical assistance to the MoE and MPWH, the Enhancing School Management and Planning (ESMP) activity to assist with data collection and analysis as well as planning for new school infrastructure. With the benefit of newly available data\(^1\), this evaluation will examine how the school construction and expansion affected students in JSP, JSEP, and SKEP schools and their neighboring schools, and will consider, among other things:

- Overcrowding at the school and classroom level
- Student dropout rates
- Enrollment of students with disabilities

3) Learning Outcomes of Students in USAID Built and Neighboring Public Schools

Evaluation Question 3: Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

In addition to increasing access to schools and easing overcrowding, USAID’s infrastructure investments anticipated that the enhanced learning environments would also impact student learning outcomes. This hypothesis was somewhat explored through the JSP evaluation as well as the EDY School Construction Assessment, which sought to study changes in student and teacher attitude and behavior, but challenges in data availability limited an examination of whether academic learning outcomes differed between USAID-built and neighboring schools. With the benefit of ESMP as well as data collected at the school level by USAID’s current Reading and Math Program (RAMP), this evaluation can reexamine the question related to academic and non-academic learning outcomes. It will study JSP, JSEP, and SKEP schools along with neighboring schools to consider whether there is any variation in among other things:

- Grade repetition rates
- Student scores in core subjects
- Violence and bullying in schools
- School vandalism
- Staff attitude or performance in schools

In addition to the above, identify the unintended positive or negative results of the program/project and its effects on school, students or local communities.

USAID believes that the availability, completeness and accuracy of data and factoring in an analysis of the available data and evaluability of the above listed issues is critical to addressing this question.

\(^1\) The evaluation team would refer to existing data of JSP/SKEP to establish the need for conducting a school-level survey related to school occupancy.
Therefore, as part of this evaluation, an evaluability assessment will be carried out to see whether it is possible to answer this evaluation question based on facts, evidence, and data with findings supported by quantitative and qualitative information that is available, reliable and valid – details are presented in the following section.

7. EVALUATION DESIGN AND METHODOLOGY

The focus of this evaluation is 37 completed USAID-built schools (9 under SKEP and 28 under JSP), and 80 schools that underwent USAID-funded rehabilitation and expansion work (completed so far under JSEP) across governorates in Jordan. A list of beneficiary schools along-with their locations will be provided to the contractor after the award.

To test the effect of its activities in the listed schools and surrounding communities, MELA anticipates undertaking a multi-activity performance evaluation. The evaluation must examine the set number of USAID-built and expanded schools to help inform the upcoming architectural design of new schools, and then separately from that conduct comparative analysis to assess school occupancy patterns and learning outcomes at USAID-built schools and neighboring schools within a three-kilometer radius to help inform USAID future intervention.

MELA anticipates that the evaluation design and methodology for this evaluation may use a mix of qualitative and quantitative methods, including a desk review, key informant interviews, technical assessment of school facilities, surveys and or focus groups with beneficiary students, teachers, school management and communities in the catchment areas. This evaluation will be completed in the following two parts.

Part-I: Focusing on Evaluation Questions 1 and II

During Part 1, the evaluation team will first look into the use and usability of the physical structures. This part will focus on the evaluation questions one and two, as listed above. As explicit from the questions itself, the first question does not involve comparative study, whereas the second question would be a comparative study on how the student body has changed between USAID built and neighboring public schools. MELA will develop the evaluation scope and methodology via engaging a MELA’s consultant. With the approval of USAID, MELA will identify and hire additional expertise needed for the evaluation team to develop data collection tools and implement the evaluation.

For Part-I, the evaluation team must submit an Inception Report that includes evaluation design and provides details on the following key elements:

- Detailed evaluation design matrix that links the Evaluation Questions from the SOW (in their finalized form) to data sources, methods, and the data analysis plan;
- Draft questionnaires and other data collection instruments or their main features;
- List of potential interviewees and sites to be visited and proposed selection criteria and/or sampling plan (must include sampling methodology and methods, including a justification of sample size and any applicable calculations);
- Limitations to the evaluation design

The data analysis plan shall clearly describe the evaluation team’s approach for analyzing quantitative and qualitative data (as applicable), including proposed sample sizes, specific data analysis tools, and any software proposed to be used, with an explanation of how/why these selections will be useful in answering the evaluation questions for this task. Qualitative data should be coded as part of the
analysis approach, and the coding used should be included in the appendix of the final report. Gender, geographic, age cohort, and role (beneficiary, implementer, government official, etc.) disaggregation must be included in the data analysis where applicable.

At the completion of Part-I, MELA will submit to USAID an Evaluation Report for Part-I.

**Part-II: Focusing on Evaluation Question-III**

During Part-II, the evaluation team will look into the concepts of learning outcomes and student/teacher behavior and wellbeing. This second part will entail a more comparative analysis with neighboring schools.

The Part-II of the evaluation will focus on the third evaluation question, as listed in the section above. This part will have two key steps. The first step will be an evaluability assessment to ascertain whether it is possible to answer the evaluation question based on facts, evidence, and data with findings supported by quantitative and qualitative information that is available, reliable and valid.

To do this, MELA will review the existing EMIS and RAMP data, coupled with consultation meetings and/or interviews with relevant stakeholders, factoring in an analysis of the availability, completeness and accuracy of the data on issues including grade repetition rates, student scores in core subjects, violence and bullying in schools, school vandalism, staff attitude or performance in schools.

USAID understands that the process of obtaining authentic data, especially the EMIS data, may involve a cumbersome process due to issues beyond MELA or USAID’s control. However, to an extent possible, USAID will facilitate the evaluation team in obtaining data from relevant entities.

The timeline presented below indicates the key activities for Part-II of the evaluation. A key deliverable for Part-II is preliminary Data Review Report that will be submitted to USAID, indicating availability, completeness and accuracy of the data on the key issues, as indicated above. In consultation with USAID, MELA will identify information gaps and ascertain whether there is a need for additional data collection to fill those gaps (if any). In case, the existing data and analysis meets USAID’s requirements, MELA will not carry out Step-II.

The Step-II, as listed in the following table, will only be launched, if and when, the existing available data is considered insufficient for addressing the requirements of the evaluation question. In such a case, MELA in close consultation with USAID, will finalize the activities and timelines for Step-II, which are currently kept as “To be Determined” (TBD) – see the table in the following section on evaluation timeline.

MELA expects that, at a minimum, that the evaluation team will:

- Familiarize themselves with documentation relevant to the activities covered under this evaluation as well as USAID’s current assistance in the education sector in the region. MELA will ensure that this documentation is available to the team at the beginning of their work, including maps of the new schools and rehabilitated classrooms.
- Review and assess the existing performance and effectiveness information or data;
- Conduct site visits for field testing evaluation instruments (when applicable and feasible) and collect data required for evaluation;
- Meet and interview beneficiaries, partners, and host government counterparts at appropriate levels;
- Interview USAID and implementer’s staff, and experts working in the sector;
8. UTILIZATION AND DISSEMINATION

The USAID Monitoring, Evaluation, and Learning Activity (MELA) has a focus on increasing the utilization of data it produces. To this end, the Evaluation Team is responsible for working with MELA and the United States Agency for International Development (USAID) in designing and implementing an evaluation that will produce actionable data for the purposes outlined in the table below.

<table>
<thead>
<tr>
<th>Utilization</th>
<th>Data Requirements for Utilization</th>
<th>Timing of Utilization</th>
<th>Stakeholders Involved in Utilization</th>
</tr>
</thead>
<tbody>
<tr>
<td>What decisions are to be informed using the evaluation results?</td>
<td>What data is required to make these decisions? What is the threshold that separates “actionable” from “un-actionable” data for these decisions?</td>
<td>When will these decisions take place?</td>
<td>What stakeholders and Mission members are involved in these decisions?</td>
</tr>
</tbody>
</table>

9. ROLES AND RESPONSIBILITIES

9.1 HUMAN SUBJECT PROTECTION

The independent evaluator(s) and/or evaluation team is responsible for the overall design, implementation, reporting and dissemination of the evaluation, including the following specific responsibilities:

- Statement that all information provided is confidential and information provided will not be connected to the individual
- Right to refuse to answer questions or participate in interview/discussion/survey
- Request consent prior to initiating data collection (i.e., interview/discussion/survey) or taking photos

In addition to the above, at each Phase, MELA will undertake extensive measures to ensure organizational conflict of interest (OCI) -- real or perceived -- are avoided. Consultants, firms, or others associated with this scope of work will be required to comply with the MELA OCI Mitigation Plan.

9.2 EVALUATION TIMELINE

The following table presents the timeline for the evaluation. Throughout the assessment, the evaluation team and MELA will update USAID/Jordan on a bi-weekly basis.

<table>
<thead>
<tr>
<th>Task</th>
<th>Deliverable/Product</th>
<th>Due Date (estimated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment</td>
<td>Recruitment of Evaluation Team</td>
<td>28-Jan-21</td>
</tr>
<tr>
<td>Kickoff Meeting</td>
<td>In-briefing with the Mission (kickoff)</td>
<td>1-Feb-21</td>
</tr>
<tr>
<td><strong>Part-1: Focusing on Evaluation Q1 and Q2</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inception Phase</td>
<td>Desk review and develop/finalize study methodology</td>
<td>15-Feb-21</td>
</tr>
<tr>
<td>Inception Report (this to include design, data collection tools, sampling, methodology and methods expected deliverables deadlines, data collection plans, data collection instruments (in English and Arabic), data collection training overview/curriculum, sampling, analysis)</td>
<td>24-Feb-21</td>
<td></td>
</tr>
<tr>
<td></td>
<td>USAID will review and provide feedback after 10 days. (March 4)</td>
<td></td>
</tr>
<tr>
<td>Submit Final Inception report incorporating USAID’s feedback (if any)</td>
<td>11-Mar-21</td>
<td></td>
</tr>
<tr>
<td>USAID to approve the Inception Report</td>
<td>18-Mar-21</td>
<td></td>
</tr>
</tbody>
</table>
### Data Collection
- Team orientation/training on data collection tools: 22-Mar-21
- Field data collection: 4/29/2021, 5 weeks of data collection

### Data Analysis
- Analysis of collected data: 5/3/2021, 3 weeks (part of this would be in parallel with the data collection)

### Preliminary Findings
- Preliminary finding presentation after field work: 6-May-21

### Evaluation Report of Part-I
- Draft Report to MELA: 16-May-21
- Draft Report to Mission: 23-May-21
- USAID/Stakeholder feedback with response: 30-May-21
- Final Report: 10-Jun-21

#### Part-II: Focusing on Evaluation Q3

### Step One: Evaluability Assessment

<table>
<thead>
<tr>
<th>Desk Review</th>
<th>Consultation meeting(s) with Mission to understand requirements and identifying the key data sources and stakeholders</th>
<th>2/10/2021, (These could start as early after the kick-off meeting, subject to USAID's availability)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Meetings with relevant stakeholders to help obtain and understand data</td>
<td>15-Feb-21</td>
</tr>
<tr>
<td></td>
<td>Obtain access to key data sources</td>
<td>20-Feb-21</td>
</tr>
<tr>
<td></td>
<td>Review the available datasets/systems (EMIS, RAMP, and others)</td>
<td>3/15/2021, 3 weeks of data review</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Analysis and Presentation</th>
<th>Analysis of available data (including which data is missing/needs to be collected)</th>
<th>3/30/2021, 4 weeks of data analysis (part of this would be in parallel with the data review)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Presentation of preliminary analysis to USAID</td>
<td>April 1-5, 2021 (subject to USAID's availability)</td>
</tr>
<tr>
<td></td>
<td>Incorporate USAID's feedback to inform analysis</td>
<td>4/15/2021 (This can be completed early, depending on the amount of analysis needed)</td>
</tr>
</tbody>
</table>

### Data Review Report
- Draft Report to MELA: 20-Apr-21
- Draft Report to USAID: 26-Apr-21
- USAID feedback with response: USAID will review and provide feedback after 10 days. (May 6)
- Submit Final Data Review Report: 17-May-21

#### Step Two: Additional Data Collection (if required)²³

<table>
<thead>
<tr>
<th>Methods for data collection</th>
<th>In collaboration with USAID, identify appropriate data collection methods</th>
<th>TBD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data Collection</td>
<td>Team orientation/training on data collection tools</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>Data collection</td>
<td>TBD</td>
</tr>
<tr>
<td>Analysis and Presentation</td>
<td>Analysis of collected data</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>Presentation of preliminary analysis to USAID</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>Incorporate USAID's feedback to inform analysis</td>
<td>TBD</td>
</tr>
</tbody>
</table>

² In case, USAID decides that the data from Step-1 of Part-II is sufficient and there is no need for Step-II, this report will be developed as a consolidated report both for Part-I and Part-II.
³ The activities and timelines will be finalized in consultation with USAID upon completion of the Step-I mentioned above.
10. DELIVERABLES

The following are key deliverables for the evaluation:

1. Inception Report
2. Preliminary Data Review Report
3. Final Data Review Report

The Evaluation Final Report must follow USAID’s criteria to ensure the quality of the Evaluation Report (found in Appendix I of the USAID Evaluation Policy).

- The report should not exceed 30 pages (excluding executive summary, table of contents, acronym list and annexes).
- The Executive Summary will be translated into Arabic (two versions: English and Arabic).
- The structure of the report should follow the Evaluation Report template, including branding.
- Draft reports must be provided electronically, in English, who will then submit it to USAID.
- For additional Guidance, please see the Evaluation Reports to the How-To Note on preparing Evaluation Draft Reports found here.

USAID Criteria to Ensure the Quality of the Evaluation Report (USAID ADS 201):

- Evaluation reports should be readily understood and should identify key points clearly, distinctly, and succinctly.
- The Executive Summary of an evaluation report should present a concise and accurate statement of the most critical elements of the report.

---

4 The timeline for the Final Evaluation Report may change subject to the time required for completion of Step-II of Part-II. In case, USAID decides that the data from Step-1 of Part-II is sufficient and there is no need for Step-II, the Final Evaluation Report will be submitted as per the below timelines.
Evaluation reports should adequately address all evaluation questions included in the SOW, or the evaluation questions subsequently revised and documented in consultation and agreement with USAID.

Evaluation methodology should be explained in detail and sources of information properly identified.

Limitations to the evaluation should be adequately disclosed in the report, with particular attention to the limitations associated with the evaluation methodology (selection bias, recall bias, unobservable differences between comparator groups, etc.).

Evaluation findings should be presented as analyzed facts, evidence, and data and not based on anecdotes, hearsay, or simply the compilation of people’s opinions.

Findings and conclusions should be specific, concise, and supported by strong quantitative or qualitative evidence.

If evaluation findings assess person-level outcomes or impact, they should also be separately assessed for both males and females.

If recommendations are included, they should be supported by a specific set of findings and should be action-oriented, practical, and specific.

**Reporting Guidelines:** The draft report should be a comprehensive analytical evidence-based evaluation/assessment report. It should detail and describe results, effects, constraints, and lessons learned, and provide recommendations and identify key questions for future consideration. The report shall follow USAID branding procedures. *The report will be edited/formatted and made 508 compliant as required by USAID for public reports and will be posted to the USAID/DEC.*

The findings from the evaluation/assessment will be presented in a draft report at a full briefing with USAID and at a follow-up meeting with key stakeholders. The report should use the following format:

- **Abstract:** briefly describing what was evaluated, evaluation questions, methods, and key findings or conclusions (not more than 250 words)
- **Executive Summary:** summarizes key points, including the purpose, background, evaluation questions, methods, limitations, findings, conclusions, and most salient recommendations (2-5 pages)
- **Table of Contents** (1 page)
- **Acronyms**
- **Evaluation/Analytic Purpose and Evaluation/Analytic Questions:** state purpose of, audience for, and anticipated use(s) of the evaluation/assessment
- **Project [or Program] Background:** describe the project/program and the background, including country and sector context, and how the project/program addresses a problem or opportunity
- **Evaluation/Analytic Methods and Limitations:** data collection, sampling, data analysis and limitations
- **Findings (organized by Evaluation/Analytic Questions):** substantiate findings with evidence/data
- **Conclusions**
- **Recommendations**
- **Annexes**
  - **Annex I: Evaluation/Analytic Statement of Work**
  - **Annex II: Evaluation/Analytic Methods and Limitations** (if not described in full in the main body of the evaluation report)
  - **Annex III: Data Collection Instruments**
  - **Annex IV: Sources of Information**
    - List of Persons Interviews
    - Bibliography of Documents Reviewed
The evaluation methodology and report will be compliant with the USAID Evaluation Policy and Checklist for Assessing USAID Evaluation Reports. The Evaluation Report should exclude any potentially procurement-sensitive information. As needed, any procurement sensitive information or other sensitive but unclassified (SBU) information will be submitted in a memo to USAID separate from the Evaluation Report.

All data instruments, data sets (if appropriate), presentations, meeting notes and report for this evaluation/analysis will be submitted electronically to the MELA Senior MEL Specialist. All datasets developed as part of this assessment activity will be submitted to MELA in an unlocked machine-readable format (CSV or XML). The datasets must not include any identifying or confidential information. The datasets must also be accompanied by a data dictionary that includes a codebook and any other information needed for others to use these data. Qualitative data included in this submission should not contain identifying or confidential information. Category of respondent is acceptable, but names, addresses and other confidential information that can easily lead to identifying the respondent should not be included in any quantitative or qualitative data submitted.

11. PROPOSED EVALUATION TEAM STRUCTURE

Key Staff 1: Team Lead/Evaluation Expert

This individual will have both technical and methodological expertise and will meet the requirements of a USAID evaluation specialist and educational consultant, with expertise in evaluating learning outcomes at the primary level. The team lead should have significant experience designing and conducting project evaluations and/or assessments.

Roles & Responsibilities: The team leader will be responsible for (1) finalizing evaluation design and methodology; (2) providing team leadership; (3) managing the team’s activities, (4) ensuring that all deliverables are met in a timely manner, (5) serving as a liaison between the USAID and the evaluation/assessment team, and (6) leading briefings and presentations.

Key Staff 2: Subject Matter Expert, Facilities Assessment

Roles & Responsibilities: The individual will serve as a member of the evaluation team, providing expertise in facilities assessment from use and usability perspective. This individual will be an educational facilities architect, with 10-15 years of experience in primary school construction and school facilities assessments inclusive of assessing use and useability. S/He will participate in planning and briefing meetings, design and conduct school facility assessment and contribute to writing of Evaluation Report. S/He will be responsible for assessing questions of the physical structure focusing on structural, mechanical, acoustic, and electrical engineering and other aspects as indicated in the evaluation questions. S/He would be also assisted by an educational programmer, who assess the demographics of school siting and the impact of the school on the community.

Key Staff 3: Subject Matter Expert, Data Analyst/Statistician

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5 The team structure will be reviewed/revised in light of the finalized methodology – MELA may engage an LMO or increase the number of researchers.
The Data Analyst/Statistician will be responsible for data review and analysis of the entire evaluation. He/she will be directly responsible for obtaining, review and analysis of EMIS and RAMP data and would need to work closely with USAID education/construction team. Specifically, he/she will contribute to areas including, 1) Obtain data from relevant government entities, with support from USAID; 2) Acquire data from other primary or secondary data sources and maintain databases/data systems; 3) Interpret EMIS and RAMP (and other) data, analyze results using statistical techniques; 4) Develop preliminary Data Review Report for MELA and USAID; 5) Incorporate USAID’s feedback to improve and or expand analysis; 6) Optimize statistical efficiency and quality through data analytics and other strategies; 7) Identify, analyze, and interpret trends or patterns in complex data sets especially on aspects contained in the evaluation questions; 8) Work with evaluation team and USAID to prioritize business and information needs.

Local Research Assistants (4) to assist the Evaluation/Assessment Team with data collection, analysis and data interpretation. They will have basic familiarity with educational sector in Jordan, as well as social research skills such as interviews, and focus group discussion, both facilitating and note taking. They will assist in preparation of data collection tools and transcripts, as needed. Local Data Collectors will also assist with logistics and administrative tasks, including arranging lodging, transportation, meeting and workspace (as needed), and setting appointments, and supporting the team with business center support (e.g., copying, internet, and printing). The Local Data Collectors will have a good command of English and Arabic. They will also assist the Team on logistics, as needed.

12. CONTACTS

<table>
<thead>
<tr>
<th>Primary Contact/Activity Manager</th>
<th>Technical Contact</th>
<th>MELA POC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name: Rand Milhem</td>
<td>Dr. Issam Omar&lt;br&gt;Mayada Shakkour Shideler</td>
<td>Shadia Nassar</td>
</tr>
<tr>
<td>Title: MEL Specialist</td>
<td>Program Management Specialist - Engineer&lt;br&gt;EDY/ USAID/Jordan (XLA)</td>
<td>Gender and Inclusion Advisor</td>
</tr>
<tr>
<td>USAID Mission: Program Office USAID/Jordan</td>
<td>Education Office USAID/Jordan</td>
<td>MELA</td>
</tr>
<tr>
<td>Email: <a href="mailto:rmilhem@usaid.gov">rmilhem@usaid.gov</a></td>
<td><a href="mailto:iomar@usaid.gov">iomar@usaid.gov</a>&lt;br&gt;<a href="mailto:mshakkour@usaid.gov">mshakkour@usaid.gov</a></td>
<td>snassar@jordanme la.com</td>
</tr>
</tbody>
</table>

12.1 SUPPORT FROM USAID

ESMP and construction activities are committed to supporting this evaluation and providing the needed data – as it may require some significant effort for some staff.

13. SUBMISSION OF DATASET(S) TO THE DEVELOPMENT DATA LIBRARY:

Per USAID’s Open Data policy (see ADS 579, USAID Development Data) the contractor must also submit to the COR and the Development Data Library (DDL), at www.usaid.gov/data, in a machine-readable, non-proprietary format, a copy of any dataset created or obtained in performance of this award, if applicable. The dataset should be organized and documented for use by those not fully familiar with the intervention or evaluation. Please review ADS 579.3.2.2 Types of Data To Be Submitted to the DDL to determine applicability.
14. SUBMISSION OF FINAL EVALUATION REPORT TO THE DEVELOPMENT EXPERIENCE CLEARINGHOUSE:

Per USAID policy (201.3.6.9 and 201.3.6.10b) the contractor must submit the evaluation final report and its summary or summaries to the Development Experience Clearinghouse (DEC) within three months of final approval by USAID.
5.2. Appendix 2: Inception Report Including Detailed Methods

USAID MONITORING, EVALUATION, AND LEARNING ACTIVITY
INCEPTION REPORT: SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION AND EVALUABILITY ASSESSMENT

APRIL 2021

DISCLAIMER: This report is made possible by the support of the American people through the United States Agency for International Development (USAID). The contents of this report are the sole responsibility of The Kajen Company, LLC and do not necessarily reflect the views of USAID or the United States Government.
# TABLE OF CONTENTS

1. REQUESTING DO .......................... 1
2. PERIOD OF PERFORMANCE ................. 1
3. EVALUATION TYPE ......................... 1
4. BACKGROUND AND PURPOSE OF EVALUATION .......................... 1
   4.2 Activity Details .......................... 1
   4.3 Context .................................. 1
   4.4 Programmatic Overview .................... 2
   4.5 Pandemic Context ......................... 3
   4.6 Evaluation Purpose ....................... 4
5. EVALUATION DESIGN ....................... 4
   5.2 Evaluation Questions ..................... 4
   5.3 Methodology ............................... 5
      5.3.1 Parts/Phases of the Evaluation ........ 5
      5.3.2 Sampling .............................. 6
      5.3.3 Methods and Analysis ................. 6
         5.3.3.1 General Methods .................. 6
         5.3.3.2 Quality Control Measures and Mitigating Remote Access Issues .......................... 7
         5.3.3.3 Part 1 Methods and Analysis ...... 8
            On-site visits ........................ 10
            Surveys ............................... 11
         5.3.3.4 Methods for Questions 1A and 1B ........ 12
         5.3.3.5 Part 2: Step 1 Methods and Analysis Plan ......................... 12
         5.3.3.6 Part 2: Step 2 Methods and Analysis Plan ............... 22
   5.4 Limitations and Challenges .............. 24
6. DELIVERABLES TIMELINE ................... 26
7. EVALUATION TEAM STRUCTURE ............. 27
   ▪ ANNEX 1: PISA 2018 GLOBAL COMPETENCE DESCRIPTION ................. 29
   ▪ ANNEX 2: EVALUATION DESIGN MATRIX ..................... 30
   ▪ ANNEX 3: INSTRUMENTS ........................ 32
   ▪ ANNEX 4: REVISED TIMELINE ................... 34
### ACronYMS & ABbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANOVA</td>
<td>Analysis of Variance</td>
</tr>
<tr>
<td>COVID-19</td>
<td>Coronavirus Disease 2019</td>
</tr>
<tr>
<td>EMIS</td>
<td>Education Management Information Systems</td>
</tr>
<tr>
<td>ESMP</td>
<td>Enhancing School Management and Planning</td>
</tr>
<tr>
<td>ERfKE</td>
<td>Education Reform for Knowledge Economy</td>
</tr>
<tr>
<td>GOJ</td>
<td>Government of Jordan</td>
</tr>
<tr>
<td>JSP</td>
<td>Jordan School Construction and Rehabilitation Project</td>
</tr>
<tr>
<td>JSEP</td>
<td>Jordan School Expansion Program</td>
</tr>
<tr>
<td>LEE</td>
<td>Local Education Expert</td>
</tr>
<tr>
<td>LMO</td>
<td>Local Monitoring and Evaluation Organization</td>
</tr>
<tr>
<td>MoE</td>
<td>Ministry of Education</td>
</tr>
<tr>
<td>MPWH</td>
<td>Ministry of Public Works and Housing</td>
</tr>
<tr>
<td>PISA</td>
<td>Programme for International Student Assessment</td>
</tr>
<tr>
<td>RAMP</td>
<td>Early Grade Reading and Math Program</td>
</tr>
<tr>
<td>SKEP</td>
<td>Schools for a Knowledge Economy Program</td>
</tr>
<tr>
<td>SME</td>
<td>Subject Matter Expert</td>
</tr>
<tr>
<td>SOW</td>
<td>Scope of Work</td>
</tr>
<tr>
<td>TIMSS</td>
<td>Trends in International Mathematics and Science Study</td>
</tr>
<tr>
<td>USAID</td>
<td>United States Agency for International Development</td>
</tr>
</tbody>
</table>
1. REQUESTING DO

4.2 Education

2. PERIOD OF PERFORMANCE

Expected Start Date (on/about): March 2021

Anticipated End Date (on/about): September 2021

3. EVALUATION TYPE

☐ Performance  □ Baseline
☐ Process       □ Mid
☐ Impact        □ End Line
X Other – multi-activity evaluation

4. BACKGROUND AND PURPOSE OF EVALUATION

4.2 Activity Details

Table 1: Details of Activities Underlying Evaluation

<table>
<thead>
<tr>
<th>Activities Included in Evaluation</th>
<th>Start/End Dates of Activity</th>
<th>Architect /Engineering Firm</th>
<th>Number of New Schools Built</th>
<th>Number of Schools Expanded/ Rehabilitated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan School Construction and Rehabilitation Project (JSP)</td>
<td>2006-2013</td>
<td>Camp Dresser and McKee International</td>
<td>28</td>
<td>1001</td>
</tr>
<tr>
<td>Jordan School Expansion Program (JSEP)</td>
<td>2014-2020</td>
<td>Bitar</td>
<td>--</td>
<td>- 120 Schools - 300 Kindergarten Classrooms - 50 Sports Fields/ Facilities2</td>
</tr>
<tr>
<td>Schools for a Knowledge Economy Program (SKEP)</td>
<td>2015-2020</td>
<td>Engicon</td>
<td>25</td>
<td>--</td>
</tr>
</tbody>
</table>

4.3 Context

Due to rapid population growth, the influx of Syrian and other refugees, and economic constraints that have caused a migration of students from private to public schools, Jordanian public schools have been strained by overcrowding in recent decades. While there is near universal enrollment in the school at the primary level, public schools do not have sufficient capacity to safely accommodate

1 Schools rehabilitated under JSP will not be included in this evaluation.

2 Kindergarten classrooms and sports fields/facilities built or rehabilitated under JSEP will not be included in this evaluation.
all students, and access is particularly limited for students with disabilities. Over 720 schools currently operate double shifts in order to accommodate students, while many others operate with classrooms sizes beyond their intended capacity. The Ministry of Education (MoE) also operates 777 schools in rented buildings that are often not designed to accommodate all learners. Both academic and non-academic learning outcomes across Jordanian public schools are affected by challenges in access to safe and engaging learning environments, with high rates of violence in schools and low performance in literacy and numeracy from Kindergarten through the upper grades. The Government of Jordan (GOJ) estimates that it will require approximately 600 new schools over the next decade to meet demand.

In response to these needs as well as broader concerns about helping the country’s population become more competitive within the region, the GOJ launched the Education Reform for Knowledge Economy (ERfKE) in 2003 in coordination with the MoE. 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 environments; and finally promoting learning readiness through early childhood education. 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. ERfKE is supported by many interventions including large scale infrastructure development, information technology, and professional training and service delivery.

4.4 Programmatic Overview

In response to the MoE efforts to increase access to schools as well as enhance the learning environment, USAID/Jordan launched infrastructure activities beginning in 2006 with the four-year Jordan School Construction and Rehabilitation Project (JSP), and continued in 2014 with the six-year Jordan School Expansion Program (JSEP), followed in 2015 by the five-year Schools for a Knowledge Economy Program (SKEP). The primary focus of these activities was 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. These outcomes are the primary, but not the only, focus of this evaluation.

Schools designs and construction supervision were provided by Architect and Engineering Design Firms (A/E Firm), while construction was implemented through multiple construction contracts under the Ministry of Public Works and Housing (MoPWH). Furnishings and construction management services were also provided through contracts or grants with other entities.

JSP had a total budget of $199 million to construct and furnish 28 new public schools and to rehabilitate 100 existing ones (including $11.4 million for A/E design services and supervision of construction, $172 million for construction, and $15 million for furnishings). JSEP’s budget is $180 million for A/E design services and construction to expand 120 Schools, construct 300 Kindergarten Classrooms and construct or rehabilitate 50 Sports Fields or Facilities, and SKEP had a budget of $102 million for A/E design services and the construction of 25 new public schools. Furnishings for JSEP and SKEP schools were provided through a separate $26 million grant to the United Nations Office for Project Services (UNOPS), and a $3.8 million Construction Management Contract with Trigon provides construction management services to both activities. USAID made significant
investments in school infrastructure and is planning to build an additional 30 schools over the next five years under its Inclusive Schools Program.

Table 2, below, presents the activities that were implemented, budgets, durations, interventions undertaken and those linked to this evaluation.

**Table 2: USAID projects for education sector under evaluation**

<table>
<thead>
<tr>
<th>USAID Projects</th>
<th>Project Duration</th>
<th>Cost (million USD)</th>
<th>Interventions</th>
<th>Linked to this Evaluation</th>
</tr>
</thead>
</table>
| Jordan School Construction and rehabilitation Project (JSP) | 2006-2013        | 199                | ● Built 28 schools  
● Rehabilitated 100 schools                                                  | 28 built schools         |
| Jordan Schools Expansion program (JSEP)              | 2014-2020        | 180                | ● Rehabilitate 120 schools (80 completed)  
● To expand / rehabilitate 300 kindergarten classrooms  
● To expand / rehabilitate 50 sports fields / facilities.                  | 80 rehabilitated schools  |
| Schools for a Knowledge Economy Program (SKEP)       | 2015-2020        | 102                | ● Build 25 schools (9 completed)                                               | 9 built schools           |

USAID supports ERfKE through other relevant activities in education. USAID and other development partners provide support with teacher training, management systems, training early-grade teachers to improve early-grade numeracy and literacy, and the application of ICTs for learning, improving pedagogy, implementing e-learning curriculum components, non-formal education centers, as well as support for remote learning through television and digital platforms during the pandemic. For example, ESP partnered with the MoE plus Intel Corporation and Microsoft Corporation to pilot interventions testing strategies to improve access to ICTs in schools and better prepare students for work. The Enhancing School Management and Planning (ESMP) activity is designed to enhance the planning, oversight, operation, and maintenance capabilities of the MoE through technical assistance, capacity building, collaboration facilitation, and training to improve existing management systems and procedures for the planning, implementation, and utilization of public schools in Jordan. USAID also supports non-formal education centers outside the standard school system for young people who left school early. The Education Reform Support Program undertook a comprehensive leadership training program for JSP school principals and teachers when they were new. For SKEP, similar programming was conducted under a host country compact with modifications to reflect changes determined appropriately based on the prior evaluation.

### 4.5 Pandemic Context

This evaluation occurs within the context of a global pandemic and in an increasing wave of cases within Jordan specifically. The outbreak of the COVID-19 pandemic has had a negative impact on different sectors in Jordan. In response, the Government of Jordan activated the defense law and
applied some restrictions including full lockdowns, strict curfew hours, and a shift to a more online-based function in some sectors such as education. During a pandemic, people have been sufficiently at risk that schools have operated since March 2020 with few or no in-person classes (depending on grade) and this closure is anticipated to continue through the period of the evaluation field work (May 2021 for Part 1). The Ministry of Education turned to distance learning and worked with the private sector to develop an online platform, “Darsak,” in order to facilitate the learning process in Jordan and accommodate all students, Jordanians and refugees. In addition, the local sports TV channels were channeled to broadcast lessons, and one of the channels was designated for secondary school (Tawjihi) students. There have been particular challenges concerning access, as students in rural and marginalized areas did not have access to the internet or devices including computers, laptops or mobile phones. However, after overcoming some of these challenges, according to the MoE statistics in November 2020, 1.3 million out of 1.5 million students have enrolled and followed their lessons on the Darsak platform, or about 88.5 percent. This restricts the choice in terms of measuring year-end outcomes that one expects to be affected differently across in-person classes to the 2019/2020 school year and earlier.

4.6 Evaluation Purpose

The sites for JSP, JSEP, and SKEP construction were deliberately selected based on a number of factors, including the level of overcrowding of schools within a one- to three-kilometer radius, with the intention that new school construction or expansion would increase access to safe and enhanced learning environments to students who need it most. The JSP evaluation examined this to some degree but was limited by issues in data collection and availability. Since the completion of JSP, USAID has invested in dedicated technical assistance to the MoE and the Ministry of Public Works and Housing (MPWH), with the ESMP activity assisting with data collection and analysis as well as planning for new school infrastructure. With the benefit of newly available data, this evaluation examines how the school construction and expansion affected students in JSP, JSEP, and SKEP schools and their neighboring schools.

More specifically, the purpose of this evaluation is to examine information from past USAID school infrastructure activities in order to 1) inform the design of the schools, and 2) determine how USAID infrastructure has affected students and communities. The focus will be on new schools built under JSP and SKEP but also includes an evaluation of schools which underwent significant rehabilitation or expansion under JSEP.

5. EVALUATION DESIGN

5.2 Evaluation Questions

This evaluation involves three questions, one with two sub-questions that fit into three categories that also map to the question number: 1) Use and Usability of the Physical Spaces Constructed, 2) Patterns of School Occupancy, and 3) Learning and Other Outcomes for Students and Communities from USAID Built and Neighboring Public Schools.

*Evaluation Question 1: What are the positive and negative aspects of the physical school environment (inside and outside spaces) that should be taken into consideration for future school construction?*

This evaluation question focuses on utilization and functionality of different aspects of the school design, so they can inform the design of the new planned schools. While focusing on the use and
usability of the schools, the evaluation will also examine, where feasible, the changes or modifications as a result of COVID-19 related social distancing and other safeguarding practices as an indicator. The SOW also provides the following questions that relate to but do not fit neatly under the rest of the question 1 data collection and analysis. We present them as questions 1A and 1B, below.

**Evaluation question 1 A)** How long did it take to complete the construction work? In what ways did this deviate from the planned timeline?

**Evaluation question 1 B)** is there evidence that SKEP school start teacher and principal training under the modified startup program has resulted in use by teachers of methods and approaches that build on what the newer schools are designed to facilitate?

**Evaluation Question 2:** In what ways, if any, has the student body changed in USAID built and neighboring public schools?

The evaluation analyzes how school’s occupancy in USAID built schools has changed in comparison with neighboring public schools (three-kilometer radius). This question was investigated in the previous JSP evaluation, but it encountered issues with data collection and availability. In response to inadequate data availability, USAID has provided technical assistance to the MoE and MoPHW, through the ESMP activity, to assist in data collection. This data (and any other relevant data) will be analyzed for the purpose of this evaluation.

**Evaluation Question 3:** Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

This evaluation question was explored in previous studies (JSP evaluation and EDY school construction assessment). However, there were challenges in data availability to understand if learning outcomes in USAID-built schools relative to neighboring public schools. This question benefits from different data sources, Education Management Information Systems (EMIS), the Early Grade Reading and Math Program (RAMP), ESMP, and others. The evaluation will also consider intermediate behavioral and wellbeing outcomes for schools, students, and local communities.

### 5.3 Methodology

#### 5.3.1 Parts/Phases of the Evaluation

The evaluation will be completed in two parts and phases. **Part 1** of the data collection involves data collection for question 1 including 1A and 1B. This will result in a draft evaluation report that covers just Part 1 initially, which focuses on question 1 and a few elements from question 2.

**Part 2** of the evaluation covers questions 3 and 2. Part 2 begins with **Step 1**, an evaluability assessment to determine whether it is possible to answer these evaluation questions based on existing evidence and data. The evaluation team will discuss with USAID during regular meetings its key interim findings to consider making decisions in real-time and end this phase by developing a data review presentation based on this information. The presentation will identify what variables are

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3 Question 1B has been modified from this original language from the SOW: “USAID has previously examined the benefits of the school start-up teacher/principal training programs at JSP schools, so it could be useful to explore in more detail how this has been going at the SKEP schools under the modified start-up program that is currently underway.”
available, what is missing, if these missing variables can be compensated through other proxy indicators, and what would be most needed to complete the evaluation. The analysis also will examine missing data in terms of observations (data) missing across variables, examining which types of observations (respondents or school/classroom features) are most frequently unavailable. The presentation will indicate potential next steps for managing the datasets and how to approach collecting additional data.

Utilizing this report, USAID will decide whether to undertake a second step of additional data collection or whether the evaluation team should rely on only existing data assessed but not fully analyzed under Part 2, Step 1. If additional data is to be collected requiring additional expertise, the evaluation team will be expanded as needed to develop additional data collection tools and complete the analysis for Part, Step 2.

5.3.2 Sampling

Broadly, the universe for this evaluation is constituted by two sets of schools presented earlier in Table 1: 1) **37 USAID-built schools** (9 under SKEP and 28 under JSP), and **80 renovated schools** that underwent USAID-funded rehabilitation and expansion work (under JSEP) across governorates in Jordan and 2) All other public schools not built or reconstructed by other development partners. However, for different analyses, the universe will be defined more narrowly, as indicated below.

The team plans to try to reach **all USAID-funded built and rehabilitated schools as part of Part 1 (EQ 1)** observational data collection, although it may sample fewer depending on resources and time available with the Local Monitoring and Evaluation Organization (LMO) to complete the full assignment. If sampling is required for Part 1, the sample may be clustered by district to reduce travel time as well as by geography (north, central, and south), gender of schools (male, female, mixed), and USAID-funded activity (JSP, JSEP, SKEP). All SKEP schools will be included in the final sample, as the number is small.

For EQ 2, the aim is to examine how the school construction and expansion affected students in JSP, JSEP, and SKEP schools and their neighboring schools, where positive spillover effects in reduced overcrowding were intended for the surrounding area. For EQ 3, the aim is to compare learning and behavioral outcomes and changes in attitudes between USAID-funded schools and neighboring public schools, where no positive spillover effects are expected, but demographics are expected to be similar. Resources permitting, the sample is planned to include **all 119 USAID-funded newly built or reconstructed schools and public schools in their surrounding areas**. For primary schools, the catchment area and thus its nearby neighborhood is expected to have been defined during planning as a 1 kilometer radius, while that for secondary schools, this is expected to have been defined by a 3 kilometer radius. The evaluation will use these thresholds to define neighborhoods. These schools were completed (defined as the year in which students first entered to complete a full year in the new or reconstructed schools) in different years.

5.3.3 Methods and Analysis

5.3.3.1 General Methods

The evaluation uses mixed methods, with some variation among the evaluation questions. Optimum methods follow from the evaluation questions. The questions for this evaluation do not follow that
of a typical performance evaluation (i.e. looking backward at activity performance and processes), but instead is forward-looking for programming in terms of physical structures and comparisons across school types in demographics and outcomes. Thus, the methods are predominantly quantitative with some qualitative data collected for triangulation with fewer interviews of individuals about their opinions on performance.

The evaluation started with a desk review of existing materials which included the prior evaluation of JSP from 2013 and an education assessment completed in 2018. **Question 1** is cross-sectional, and the team will collect and analyze data only from selected USAID-funded schools emphasizing structure and potential improvements. **Question 2** involves a comparative analysis between USAID-built schools and neighboring schools in terms of school occupancy patterns. It analyzes cross-sectionally and across two points in time. **Question 3** involves a comparative analysis of learning and behavioral outcomes between USAID-built schools and neighboring schools, but the analysis is expected to be only cross-sectional.

A few informal key informant discussions will be undertaken not as a part of the analysis per se but to provide additional context for Parts 1 and 2 including interviews about intended aims of the ERKE reforms relative to the learning environment from the government’s perspective. These are required as well to learn about information relevant to the appropriateness of datasets and gaining access. Currently, key informants may include officials from the MoE’s Development Coordination Unit, Secretary General for Education, Education Management, the Supervision and Educational Training Management, Queen Rania Center for Education and Information Technology, and Testing and Examination Management. These interviews serve to clarify context and provide opinions and ideas about data sources and strengths, but do not answer specifically any evaluation questions.

For question 1A, summary statistics will be provided regarding construction timelines using original construction plans or related information. Resources permitting, a limited number of online focus groups may be undertaken for SKEP schools to respond to evaluation question 1B to supplement responses from principals.

As indicated previously, the evaluation occurs within the context both of a global pandemic and during an increasing wave of cases within Jordan specifically with few or no in-person classes for students since March 2020. As evaluation team members and stakeholders may have health sensitivities that put them at a heightened risk, the evaluation team was required to adopt a “do no harm” policy of minimizing international travel and in-person meetings as much as possible. All data collections are planned to minimize exposure and will only conduct face-to-face data collection with stakeholders for whom no other option will work.

A year into the pandemic, the evaluation team members are very familiar with conducting evaluations remotely, and the Part 2 evaluability assessment data analysis is easily conducted without face-to-face work. While these methods may result in some cases with lower response rates than face-to-face interviews, the positive side of this tradeoff is that most or all of the key stakeholders are accessible by phone or Internet. As such, the evaluation team can reach out to more stakeholders at lower cost in a compressed period. Most stakeholders also have considerable familiarity with conducting their work electronically or remotely as well as familiarity with taking surveys via phone or computer.

### 5.3.3.2 Quality Control Measures and Mitigating Remote Access Issues
The pandemic has made international travel more perilous and has reduced the value of the presence of a Subject Matter Expert (SME) in learning environments to travel and observe first-hand the nuances of teacher and student use of schools as learning environments, as that is not occurring presently in Jordan. The data collection and methods used therefore are designed to minimize the need for direct international senior-level oversight and include a number of mitigation measures to increase the reliability of the Part 1 data collection. This includes:

- Having the SME design an instrument based on facility surveys and questions used previously by the SME across many other countries and design the instrument to be undertaken easily by non-experts and analyzed easily remotely as with any other data collection
- Engaging a strong LMO led by an seasoned engineer as field manager with experience in school-based assessments and a team of enumerators for school observations with backgrounds in engineering and experience with a similar data collection for ESMP
- Utilizing another team member, the local education expert (LEE), as a second supervisor to support the data collection and conduct spot checks
- Several discussions and training sessions led by the SME of the field manager and LEE prior to training the enumerators on every aspect and item of the data collection and planned analysis
- Live video walk through of a USAID-funded school with the SME
- Real-time oversight of and participation in the training of enumerators by the SME including question and answer sessions
- Pre-testing and pilot testing of data collection instruments as well as real-time norming sessions among enumerators, field manager, and SME
- Programming the instrument electronically to prevent out-of-range entries and other errors
- Collection of photographs by enumerators with SME and field manager conducting random checks of photographs
- Targeting a large number of teachers for the online survey to offset low response rates encountered by online surveys

These are discussed further in the following sections, where appropriate.

Taken together, the evaluation team are convinced that these measures are appropriate and sufficient to assure it can respond to all evaluation questions with the appropriate validity and reliability of data to provide the Mission the best analysis feasible given the context. The evaluation team further notes that the measures for Part 1 are appropriate given the level of precision required to provide the needed recommendations. The team will consider similar measures under the Part 2, Step 2 data collection if decided upon by the Mission.

5.3.3.3 Part 1 Methods and Analysis

The evaluation team will examine the physical structures among USAID-funded schools, designed to incorporate improved learning environments in line with ERfKE from the perspective of international research and best practice in designing educational learning spaces. The reason to align the questions this way is to look for ways to further improve school construction programming and the overall quality and characteristics of the learning environments. The data collection method for Part 1, will focus on only USAID-funded school and, involves three primary methods:

- on-site observational data collection,
- a survey of principals, and
- a brief survey of teachers.
The observational data collection plus the surveys combined will provide a comprehensive look at the design, use, and condition of all facilities in a safe method for all involved given the current pandemic conditions. The data collected are organized by indicators that are weighted by importance according to opinion based on the research and professional experience. Evaluation question 1 involves collection of data that the evaluation team grouped into the following overall indicators, which are developed more fully in the draft instruments.

School, equipment, learning environment

- School location attributes
- School site attributes
- Building condition
- General building structure and design
- Building Safety
- Classroom design elements
- General learning environment
- School program elements
- Expansion potential
- Entry and safety
- Specialty learning spaces (music, art, science)
- Availability of technology
- Efficient and flexible use
- Health and physical fitness
- Educationally appropriate furniture
- Availability and sharing of resources and equipment
- Indoor-outdoor connection
- Eating areas

Maintenance

- Utility infrastructure
- Construction materials and condition
- Upkeep, maintenance supplies, energy

Teaching and community connection

- Teacher learning environment
- Teaching and learning practices
- Community connection / engagement

The first two sets of indicators come from the on-site observational data collection and survey of principals. The third set of indicators are derived from the survey of principals and the survey of teachers. As part of the Monitoring, Evaluation and Learning Activity’s commitment to human subject protections, no sensitive information will be asked nor will individuals be identified in the report.
On-site visits

The purpose of on-site visits is to technically assess school facilities across the indicators above. Each indicator will be composed of multiple easy to assess items with only three ordinal rating options for each item and detailed explanations for the rankings. The observation list contains only questions and items that can easily be observed by someone without a technical background. The goal is to keep this survey easy to complete without depending on anyone to be present besides the surveyor.

This survey will contain three sections:

1. First, an assessment of building design: questions pertaining to how the building was designed and if it has sufficient resources present.
2. Second, and related to the first, an assessment of the building condition and main tenance.
3. Third, and educational adequacy assessment: questions pertaining to how effective the building was designed to support teaching and learning.

This observational data collection will require approximately a half day per school and will be conducted by the LMO. Under the Part 1 data collection, the LMO undertakes all elements of this data collection from programming the tool designed by the evaluation team, logistics, school field visits, data entry, and data cleaning.

The evaluation team will utilize as much as possible existing data from the ESMP 2020 facilities survey to use resources efficiently including survey items on buildings, classrooms, boiler rooms, and bathrooms. These tend to use four-point Likert scales.

The on-site data collection will include collection of some photographs to validate for key indicators. The existence of the extensive dataset and photographs from the ESMP dataset offsets the need for many photographs and also serves to help ground-truth the instrument prior to use at least with respect to classroom data. However, taking some photographs of key locations is planned to increase reliability of the data as a quality control check. The SME and field supervisor will develop a protocol to conduct random checks of photographs. The plan is for the LMO to also undertake at least one live video walk through of a USAID-funded school using a school’s WiFi system with the SME providing instructions on what to video record.

Each observation question and item is accompanied with as specific instructions as possible. As the SME will be available remotely only, the field team manager of the LMO and the local education expert will run through a school themselves to pre-test the instrument and generate some questions ahead. Remote training will be undertaken between the SME and the field manager and the local education expert, who also will serve to undertake some early spot checks of the data collection process. The SME will be available during the early hours in the US for the training session. The evaluation team will work with the LMO to program electronically the data collections such that the software restricts out-of-range entries and allows for other data checks.

The data collection process for field-based data collection will include training sessions as well as pilot-testing sessions. The plan is for the field team to visit a single school together as part of the norming process, with each individual rating information across the same school. The field team manager will pull the team together afterwards to see how each is rated to help everyone come to agreement on the same value. The pilot testing may also include data collectors proceeding to the
field again to separate schools and returning to discuss findings for any final adjustments of the instrument.

**Surveys**

The second method for Part 1 involves surveys of all 119 principals from USAID-funded schools to be undertaken by school principals and support staff, as relevant for the maintenance section, which is the core data collection aside from the on-site observational data collection. This survey will ask questions pertaining to the use of the building by the teachers and students from the perspective of the principal. The principal also will be asked to provide information related to teachers and the community. If the principal feels that they cannot accurately answer questions it will be up to them to reach out to these parties and gain answers so they can summarize in their survey. A comments section will give the school leaders a chance to say what they would have done differently / added to improve their facility.

The modality of the survey of principals in USAID-funded schools will be determined in coordination with the LMO to maximize response rates given their capacity and experience. This might include two modalities, such as online or WhatsApp survey. For safety, follow-up for non-completed or incomplete surveys may be undertaken remotely both electronically and by phone calls to solicit information directly. The school observation enumerators also will be asked to speak directly (but at a mandated distance with masks) with the principal at the beginning of their visits to encourage taking the surveys, with which they can help if just a few questions or another person by phone can help if more needs to be filled in. The follow-up calls are expected to help increase response rates. The follow-up will be designed such that the caller will attempt to collect information by phone unless the principal indicates they will do so the same hour or day electronically. This survey will be pilot tested with a principal out of the USAID sample as feasible and then tested with one principal in the sample.

It is up to the principal to decide if they can accurately answer the questions, or if they want to reach out to others to gain answers. This keeps the process running smoothly without having to hold workshops, focus groups, interviews, or schedule multiple parties to be present on any given day or time during a pandemic. Surveys will be designed so that respondents can return to the survey or a specific question if they require more information rather than stopping the survey and possibly not completing other, easier, questions. The team is aiming for a one-hour survey, as there are many issues to cover.

The team also plans a short electronic survey for teachers from USAID-funded schools on a subset of the same indicators and items given to principals for triangulation to ground truth responses from principals which may seem different from the teachers’ perspective. The sample for these surveys is not intended to include comparison public schools, so data collection on these indicators would not respond to the comparative aspect of question 3 without further data collection from other public schools. If there may be a separate survey of teachers for Part 2, Step

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4 If the principal is new, the data collection may be undertaken with an assistant or support staff potentially along with the area supervisor.

5 If it is clear data from indicators in Part 2/question 3 are of interest to USAID regardless of their comparative nature, the team could collect additional data from them at the same time unless it increases survey’s length substantially, which could affect response rates.
2, the sample for the Part 1 survey may represent a portion of the total number of teachers, for instance a third, with the remainder left for the Part 2, Step 2 survey related to outcomes.

As with principals, the modality of the teacher survey will be determined with the LMO. The universe of teachers in USAID-funded schools is unknown at the time of the inception report. As response rates generally are low for electronic surveys (often between 3 to 15 percent), the data collection is planned as surveying at least half of teachers from USAID-funded schools. Since teachers are secondary targets after principals and there are large numbers of them, three follow-ups are planned electronically only. Keeping the survey short will help with response rate. If resources permit, the LMO may undertake follow up calls to SKEP-funded schools by phone according to a randomized protocol stratified by school and subject in order to help answer evaluation question 1b.

Questions are expected to cover issues related to their classrooms and workrooms, equipment, use of internet technology, teacher coordination, teaching styles prior to moving to remote teaching, teacher/principal training programs (at SKEP schools but perhaps more broadly), and impediments to using newer methods. Contact information for teachers is expected to be solicited from principals, unless the MoE has updated contact information.

5.3.3.4 Methods for Questions 1A and 1B

To answer question 1A, documents will be gathered from USAID and possibly the former contractors regarding planned contractual timelines and actual completion dates as well as intermediate milestones. The method of analysis will be to calculate summary statistics across school construction timelines for completed school construction or reconstruction efforts by activity.

In order to answer question 1B, resources permitting, the data collection will include a few online focus groups of teachers from SKEP schools by subject (science, math, computer sciences, language). The exact number depends on resources available after discussions with the LMO. As online focus groups are more challenging to manage and engage participants the way typical focus groups do, the plan is to include a smaller number of participants (4 to 5) than typical focus groups.

5.3.3.5 Part 2: Step 1 Methods and Analysis Plan

Part 2 is designed within the SOW as composing two steps. The first step in the Part 2 analysis to conduct an evaluability assessment focused on secondary (existing) data sets to check the availability, completeness, and accuracy of the available databases to respond to the third and second evaluation questions. For evaluation question two, the evaluation team is requested to review existing information for its availability, completeness, and accuracy and provide information for the Mission to determine whether to collect additional information to complete the evaluation (Part 2, Step 2) or to complete the evaluation with only existing resources.

As it may be obvious early on that some ideal indicators are unavailable, USAID also may decide up front to collect additional information related to Part 2 when stakeholders to be contacted for Part 1 are being contacted already. This will be discussed further below.

In addition to increasing access to schools and easing overcrowding, USAID’s infrastructure investments anticipated that the enhanced learning environments (in combination with its capacity

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6 The evaluation team plans to reserve a portion of the teachers from USAID schools in case needed for Part 2 data collection to reduce the burden on any who may be selected for that survey.
building and other soft intervention support) also would impact student learning outcomes. Thus, evaluation questions 2 and 3 examine intended and potentially unintended effects across outcomes learning, behavioral, and environmental success metrics.

However, as the assignment is to examine relevant changes directly relevant to ERIKE and the type of outcomes USAID intends to influence in the long run through new and improved schools, the evaluation also will look for evidence related to indicators that are not readily available or may not be feasible. These will provide the Mission a more-complete picture of what it could look for moving forward if it is to understand more holistically the effects of its investments in infrastructure, as well perhaps as its other complementary soft investments in the sector.

For evaluation question 2, the evaluation team plans to attempt to access and review information that speak to the indicators that follow in table 3, below. Table 3 presents broad indicators by category, and presents expected sources and comments, particularly when there are weaknesses or issues with availability. Indicators that are not expected to be used are presented in grey.

The evaluation team recognizes that it will not be feasible to collect objective data across all indicators. As of this writing, indicators expected or considered for analysis under Part 2, Step 1 and potentially used under Step 2 appear on the following page along with preliminary comments and limitations. These comments are discussed briefly under Part 2, Step 2 and will be explained in greater detail in the evaluation report.

7 This information provides more detail for discussion than the evaluation design matrix
Table 3: Evaluation Questions 2 and 3 Indicators by Category, Expected Sources, and Preliminary Comments and Limitations

<table>
<thead>
<tr>
<th>EQ</th>
<th>Category</th>
<th>Indicator</th>
<th>Potential Source</th>
<th>Preliminary Comments / Limitations</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Number of (reduced) double shifts</td>
<td>EMIS</td>
<td>If not in EMIS, will add to principal survey</td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Number of rented schools in catchment areas (by primary/secondary)</td>
<td>EMIS</td>
<td>Different catchment area size by school level could be a complication</td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>School occupancy levels relative to design</td>
<td>EMIS</td>
<td>Unclear if design standards set specific level and seems there may not be clear definitions for this indicator</td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Class occupancy levels relative to design</td>
<td>EMIS</td>
<td>Unclear if design standards available disaggregate class across both USAID and comparison schools</td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>School oversubscription levels (number of students applying who are not accepted)</td>
<td>EMIS</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Student: teacher ratios</td>
<td>EMIS</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Perception there are too many students to use newer pedagogical methods</td>
<td>Teacher survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Field directorate supervisors online FGD</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Overcrowding</td>
<td>Student to classroom space ratios</td>
<td>EMIS + engineering firm plans and comparison to local schools with</td>
<td>Unlikely appropriate detail would be available consistently from engineering plans about consistently-defined catchment areas</td>
</tr>
<tr>
<td>measure</td>
<td>category</td>
<td>data source</td>
<td>notes</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>----------</td>
<td>-------------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>Number of refugee-only schools</td>
<td>Inclusion</td>
<td>EMIS</td>
<td>It would be challenging to conduct demographic analysis by localized geographic units based on catchment units themselves and is more efficiently done using EMIS data to represent student population demographics for schools identified as being in the catchment.</td>
<td></td>
</tr>
<tr>
<td>Enrollment with disabilities</td>
<td>Inclusion</td>
<td>EMIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School-age population and area demographics</td>
<td>Context</td>
<td>EMIS</td>
<td>Mapping interventions by type across schools to understand the confounding and complementary interventions that might affect outcomes. This may be used to disaggregate findings using t-tests.</td>
<td></td>
</tr>
<tr>
<td>Complementary educational interventions</td>
<td>Context</td>
<td>USAID-funded activities and other donors/development partners /document review</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grade repetition rates</td>
<td>General success metrics</td>
<td>EMIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dropout rates</td>
<td>General success metrics</td>
<td>EMIS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tawjih pass rates</td>
<td>General success metrics</td>
<td>EMIS</td>
<td>Available, though do not measure holistically intended outcomes of reforms</td>
<td></td>
</tr>
<tr>
<td>Other standardized class test measures</td>
<td>Core subject proficiency</td>
<td>EMIS</td>
<td>Probably unavailable</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Core subject proficiency</td>
<td>Course grades – Mathematics, Science, English, Arabic, Computer sciences</td>
<td>EMIS</td>
<td>Higher grades in core subjects are not themselves the aim of the interventions and include hidden biases.</td>
</tr>
<tr>
<td>3</td>
<td>Learning skills</td>
<td>Early grade reading/literacy skills</td>
<td>Lot Quality Assurance Survey (LQAS) Early Grade Reading Assessment</td>
<td>Do not appear to be paired with SES data for context. Do not speak to higher-grade level effects. Excludes schools built in prior 1.5 years Early Grade Assessments (Reading and Math) were not designed around USAID interventions and therefore likely provide insufficient numbers of USAID schools for generalization or representatives. Statistical tests may have too little power. Unlikely to be used in the analysis.</td>
</tr>
<tr>
<td>3</td>
<td>Learning skills</td>
<td>Early grade numeracy skills</td>
<td>LQAS Early Grade Math Assessment</td>
<td>See above</td>
</tr>
<tr>
<td>3</td>
<td>Learning skills</td>
<td>8th grade science and reasoning skills 8th grade math and reasoning skills</td>
<td>TIMSS 2019</td>
<td>In addition to content domains, results also account for cognitive domains of knowing, applying, and reasoning in a better-tested way than grades. See note below on data accessibility.</td>
</tr>
<tr>
<td>3</td>
<td>Learning skills</td>
<td>Fifteen-year old reading literacy, math, science, global competence, financial literacy, Internet and technology familiarity</td>
<td>PISA 2015 / 2018</td>
<td>In theory, this represents an ideal dataset for this analysis, especially the “global competence” assessment (defined further in appendix A) and a section on familiarity with and use of IT. The sample is designed to be representative at the governorate level, so may include insufficiently funded.</td>
</tr>
</tbody>
</table>

---

8 Examine not just how well students “can reproduce knowledge; it also examines how well students can extrapolate from what they have learned and can apply that knowledge in unfamiliar settings.”
schools. It is unclear yet how to access the data, from the National Center for Human Development or from PISA/OECD itself. Data should be paired with optional surveys of parents and teachers.

<table>
<thead>
<tr>
<th>Outcome Type</th>
<th>Skill Type</th>
<th>Measurement Method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 Learning skills</td>
<td>Information technology access/skills</td>
<td>PISA 2018</td>
<td>Likely no uniform measure of skills available and too complicated to assess in timeline required.</td>
</tr>
<tr>
<td>3 Learning skills</td>
<td>Team/group work skills</td>
<td>Classroom observation, Field directorate supervisor observation data</td>
<td>Likely no uniform measure available, too complicated and unreliable to assess remotely in timeline required. Could be assessed in the future through classroom observation though teacher practice measure may speak to the likelihood of developing the skills.</td>
</tr>
<tr>
<td>3 Learning skills</td>
<td>Project-based working skills</td>
<td>Classroom observation, Field directorate supervisor observation data</td>
<td>See above</td>
</tr>
<tr>
<td>3 Intermediate/teacher-level outcome</td>
<td>Teacher practice / classroom observation</td>
<td>Field directorate electronic supervisory program data</td>
<td>This indicator is an intermediate indicator of behavior that should help explain whether learning outcomes are likely to change. Involves 200 supervisors for grades K-3. Unclear how they map to USAID-funded schools. Our understanding is no wider availability across grades. Uncertain database location Uncertain how practice is rated / maps to training and learning taxonomies.</td>
</tr>
<tr>
<td>3</td>
<td>Intermediate/teacher-level outcome</td>
<td>Teacher practice / classroom observation</td>
<td>Field directorate paper-based supervisory program data</td>
</tr>
<tr>
<td>---</td>
<td>---</td>
<td>---</td>
<td>---</td>
</tr>
</tbody>
</table>
| 3 | Intermediate/teacher-level outcome | Teacher classroom practices | Teacher survey  
Principal survey | A few questions on teacher classroom practices could complement those listed immediately above as a proxy for actual practice. Only collecting for USAID (treatment) schools. Reliability is expected to be somewhat low and associated with a positive bias among teachers. |
| 3 | Intermediate/teacher-level outcome | Use of support materials | Supervisory program data  
Teacher survey | Might be picked up in measure above plus question to teachers about equipment availability and use Only collecting for USAID (treatment) schools |
| 3 | Intermediate/teacher-level outcome | Segmentation of large schools | Principal survey | Only collecting for USAID (treatment) schools |
| 3 | Intermediate/teacher-level outcome | Teacher morale | Teacher survey | Only collecting for USAID (treatment) schools |
| 3 | Intermediate/teacher-level outcome | Time on task | • Principal survey  
• Teacher survey | A question to these stakeholders is likely to be an unreliable measure of underlying indicator/issue but not costly to add to existing surveys. Only collecting for USAID (treatment) schools |
| 3 | Intermediate/teacher-level outcome | Non-violent disciplinary tactics | • Principal survey  
• Teacher survey | Only collecting for USAID (treatment) schools |
| 3 | Intermediate/teacher-level outcome | Inter-teacher cooperation | • Principal survey  
• Teacher survey | Only collecting for USAID (treatment) schools |
| 3 | Environmental outcomes | Bullying | PISA 2018 | Unclear if available for analysis |
| 3 | Environmental outcomes | Safety | • ESMP  
• Principal survey |
| 3 | Environmental outcomes | Participation in extracurricular activities | Principal survey? |
| 3 | Environmental outcomes | Vandalism | ESMP |
| 3 | Environmental outcomes | Social cohesion | • Principal survey  
• Teacher survey | Challenging to measure usefully Only collecting for USAID (treatment) schools |
| 3 | Community connection | Presence of life-long learning options | Principal survey | Only collecting for USAID (treatment) schools |
| 3 | Community connection | Parental involvement | • ESMP  
• Principal survey | If available only through evaluation, only collecting for USAID (treatment) schools |
The primary method planned for Part 2, Step 1, the evaluability assessment, is quantitative, reviewing available databases, triangulated as relevant with consultation meetings and potentially short interviews with relevant stakeholders (qualitative analysis). Primary data sources are EMIS, the database from ESMP on school infrastructure, and those from or associated with RAMP.

USAID and the Monitoring, Evaluation, and Learning Activity are facilitating access to the databases based in Jordan with discussions through meetings, virtual or in-person to discern how they can be analyzed to respond to the evaluation questions. The team will try to get electronic access to the databases at the MoE, mainly EMIS database, to discern format, what variables are included, linkages to GPS data or mapping systems, data availability by year and variable, feasibility of generating additional variables for analysis given data available, and more. Data from the RAMP and ESMP datasets will be analyzed similarly as well as how the databases can be mapped to the EMIS database or other databases, if feasible.

The evaluation team also will work on gaining access to anonymized data at the most disaggregated level permitted from two international assessments, the Programme for International Student Assessment (PISA) in 2018, which was designed to test applied reading, science and math skills in a problem-solving context and the Trends in International Mathematics and Science Study (TIMSS). The latter assessment was last undertaken in 2015 and so would apply only to JSP and JSEP schools. Access is expected to have to come from international sources, making access to those datasets more challenging and less likely in the time frame planned.

During the analysis of these databases, the team will focus on three criteria to guide analysis:

1) **Data availability**: The team will identify and understand whether all variables that are or might be required are available. The team will assess what are the available variables, which indicators can be developed based on these available variables, what is missing, and whether other databases can be used to complement each other.

2) **Database completeness**: While data can be available, it can be incomplete. All databases therefore will be analyzed to check their completeness and explore missing variables and observations, determine if variables and observations can be imputed, mapped or collected.

3) **Database accuracy**: Confirming that databases are accurate requires checking all variables for mistakes i.e. entry issues or calculations, and any extreme values. The DA/S will check the reliability of the databases through triangulating his analysis results with published reports or official figures from other sources, such as the Jordanian department of Statistics that publish reports and figures based on these databases analysis and calculations. This can also be checked using the qualitative analysis that will accompany these databases analysis, if needed, to check the accuracy of the data with relevant and different stakeholders.

The analysis plan for the Part 2, Step 2 evaluability assessment follows. Actual methods used may change or be added to based on the databases and issues encountered as well as database structure.

1) Run a descriptive analysis to analyze and ensure that these databases are complete. For example, investigating the number of schools included in these databases and ensuring their completeness. This analysis may include use of histograms, extreme value tests, and reliability
tests. Descriptive analysis will be the first and most important start of this analysis, as it will provide a starting point of analysis for USAID built schools and neighboring public schools.

2) This analysis also will involve identifying patterns in missing observation counts by different important characteristics, such as by class/grade level.

3) For data accuracy analysis, the team may cross-check across data sources if two datasets contain the same variable.

4) Derive all variables within each database (such as number of students, number of teachers, and school's area, etc.), to provide metadata analysis for these variables and provide a meaningful description.

5) Identify all possible indicators that can be formulated from these available databases where dummy tables will be developed explaining the variables included within each indicator with a description of these indicators that will be provided too.

6) To check the accuracy of these databases, the data collection tools will be checked to ensure that these variables are representing what they are tagged for, i.e. checking their reliability, then the derived indicators will be triangulated with other databases to check their validity.

7) Through exploring the databases, the team will check if there is any proxy indicators that they can be developed to cover any missing variables/indicators, if feasible.

Part of Step 1 will include undertaking some of the analysis planned as part of Step 2 to determine whether a more full analysis can be pursued. These steps include the following.

8) Cross-tabulation may be one of the methods to provide analysis of the data on different disaggregated levels, such as gender (male or female or mix schools), location (north, middle, south, rural, and urban), nationality of school (Jordanian or Syrian refugees or mixed schools), disability success (disabled students and other students), and any other variables that can be extracted from the databases.

9) Indicators will be developed using the available variables that are key in responding to this evaluation question, for example grade repetition rates which will be developed for USAID built schools and another one for neighboring public schools, then both indicators will be checked and analyzed if they have significant differences or not. To check the differences between these variables that are coming from two different groups, the team will check their distributions and characteristics, as these will determine the specific statistical analysis method that will be used. It has specific steps that can be followed as below:

   ▪ Check if these two groups (USAID built schools and neighboring public schools) are paired or unpaired groups. It is expected that they are paired, as their data are related (i.e. data influenced by each other) in both groups. This also will be confirmed as a measurement that will be used for a series of years (before and after the intervention across time), as discussed further in the next sub-section.
The team will match the appropriate test with the data type (continuous, ordinal, categorical, binary). For example, for continuous variables, the team will check the normality or skewness of the distribution. For normally-distributed variables, the team will use parametric tests, predominantly the paired t-test or the Pearson coefficient of correlation. If the data are not following normal distribution or it is unclear if they follow normal distribution, then the evaluation will undertake non-parametric tests such as the Wilcoxon’s rank-sum test.

Potential disaggregations follow, as relevant and feasible, for the Part 2 analysis (Step 1 and 2), although others might be added.

- Intervention activity (JSP, JSEP, SKEP)
- Sex
- Geography (north, middle, south)
- Age cohort/class level (basic/secondary, lower basic/other basic)
- Refugee status (Jordanian, mixed, refugee)
- Students with disabilities/others
- Year of school construction/renovation (Probably schools built 6+ years ago, more recent)

5.3.3.6 Part 2: Step 2 Methods and Analysis Plan

As indicated before, Part 2 Step 1 will help determine additional data collection to be considered by the Mission based on what data is missing as well as how deeply the Mission will want to understand the effects of their investments and thus additional methods and requirements to be determined later. However, some possible data collections become clear earlier. Given timelines to provide the Mission useful input for academic year 2021-'22 programming, existing datasets available for analysis are likely to compose all or almost all of the analysis.

The key issue facing the Part 2, Step 2 evaluation analysis is that the most methodologically appropriate way to analyze the effect of the infrastructure on students is to use individual-level data complete with socioeconomic data rather than classroom level data. Such data would allow for matching by socioeconomic background of individuals for whom we would expect similar outcomes barring the intervention across schools is unavailable. That is, one would want to account for these differences that are likely to confound or bias results measured at only the school or even classroom levels.9

However, it appears that individual-level data is unavailable to conduct this type of analysis for many of the key outcomes of interest. Creating or adapting a methodologically-appropriate assessment of higher-level skills in line with the goals of the ERiKE reforms would require more time and resources than appear feasible to provide results rapidly. Further, and be impractical to conduct during a pandemic plus partially confounded by over a year of remote learning. The resulting analysis that the

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9 There is controversy, however, in the literature about the ability of matching relative to having a true control, which is not available here, to filter out sufficiently this bias. However, were the Mission interested in testing more-rigorously the hypothesis that infrastructure combined with soft support services affects learning outcomes, it might consider whether it is feasible to work with the government moving forward towards randomly (and thus perhaps more fairly) selecting students for schools where there is over-subscription (too high interest among students) relative to school capacity.
evaluation team therefore plans to undertake is likely to include a bias that might understate the effects of the interventions if the new schools disproportionately benefit “higher/privileged” socioeconomic status or vice versa.

Another method for consideration under Part 2, Step 2 could involve a survey and potentially online focus groups among subject-matter field directorate supervisors across all 42 field directorates that include USAID-funded schools on issues such as extent to which teaching methods used in USAID-funded schools and other schools, facilities and equipment supporting learning, and corporal punishment. Online surveys would be programmed by the LMO and remote focus groups would be organized and undertaken by the LMO under the supervision of the team leader and data analyst/statistician.

Initial discussions confirmed that using data from the pandemic onward would not capture the differential effect of school infrastructure and teaching. This is both because the family unit becomes more important than the school in outcomes and because teaching practices for remote learning were not necessarily accommodated or trained for differently between USAID-funded and regular public schools.

The team and the Mission considered conducting the analysis with a single cross section of each USAID-funded school and the nearby schools the year before and after students entered the new school, with each school measured whatever year that represented. This might provide the most powerful statistical test of differences between USAID-funded and neighboring schools immediately after construction or reconstruction but does not help understand though trends over time. Therefore, the agreed-upon approach to capture the longer-term impact of the construction projects, therefore, is selecting specific cross-sectional years for all schools and check how these schools as a group have affected relevant indicators. The team plans to select as its three points of analysis 2010, 2015 and 2019. These years are designed to capture a broader effect of the USAID-funded schools. The rationale behind choosing these years is to ensure a point of time (2010/2011) before Syrian refugees’ influx that shows the overall status of the schools, especially in terms of learning outcomes (academic and non-academic). 2015/2016 is a point where one can capture the full impact of ISP and partially JSEP as it was fully under implementation at that time and how they influenced the analysis results. Finally, 2018/2019 is chosen to check the impact of USAID-funded projects on EQ2 and EQ3 outcomes.

Within each selected year, for example 2010, data such as school occupancy indicators will be taken from EMIS for both the USAID-built schools and the neighboring public schools (G1 and G2). After calculating each indicator for these two groups for 2010, unpaired t-tests (probably Mann-Whitney depending on normality of the data) will be used to test the hypothesis that there is no statistically significant difference between these two groups. The year 2010 is the year prior to waves of Syrian refugee populations arriving. This process will be repeated for the years 2015 and 2019. To check for statistically significant differences in average indicator measures (e.g., for crowdedness) across all three years – 2010, 2015 and 2019 – relative to their catchment areas, the team will use repeated measures ANOVA test.

Similarly, for EQ 3, the mean of the learning outcomes of the students between USAID-funded schools and neighboring public schools will be analyzed using t-test, after checking which t-test is suitable for these databases based on their normal distribution and variance differences. Then, repeated ANOVA will be used to check the differences between the learning outcomes of students in catchment areas within and between the selected years for this comparison.
The evaluation team and the Monitoring, Evaluation, and Learning Activity will take particular care with respect to sensitive and personally-identifying data it receives. These datasets will be uploaded into a separate secure folder with access limited to three or four individuals – two from the Monitoring, Evaluation, and Learning Activity and the data analyst and team leader from the evaluation team.

5.4 Limitations and Challenges

As the methodology is retrospective in nature and both does not afford the opportunity of selecting treatment and controls and occurs amid large exogenous contextual changes especially in terms of waves of refugees into the country that directly affect some of the key outcomes of interest, including schools occupancy. Further, comparisons between USAID-funded schools and other public schools inside the catchment area (accounting for any school renovated or constructed by the government or other development partners) in terms of crowdedness indicators is expected to be somewhat attenuated (understated). This is because the point of the construction projects is to lessen overcrowding, which should result in positive spill-over effects to other schools in the catchment area. Therefore, the research cannot discern well attribution of some of the outcomes of primary interest.

However, the study will examine the contextual changes affecting outcomes generally and specifically in catchments around USAID-funded facilities and make that a point of the analysis. The evaluation team also will attempt to net out similar investments in new or rehabilitated facilities from its analysis of catchment areas to strengthen the confidence in attribution of results.

Given that the evaluation occurred during a pandemic without students in schools since March 2020, this has affected the validity of data from 2020 onward on outcomes that would be affected by differentiation of outcomes due to different in-school environments and limited the ability to safely conduct additional in-person data collection or for international travel. The team thus will analyze secondary data on student outcomes from 2018 to 2019, which limits its ability to speak to outcomes for the most recently completed SKEP schools. The pandemic restricts the ability of the internationally-based team leader and SME to travel safely and for the team generally to conduct in-person training with multiple people, in-person surveys, or focus groups. Given that schools are not in session in person, the loss of information from not having in person supervision by the SME is reduced greatly. Further, the team has undertaken strong mitigation measures to ensure no loss of quality or learning. They will rely on locally-based staff, encourage remote interviews and discussions, and conduct no in-person focus groups. The team also has planned several methods to quality assure Part 1 training and data collection including the team lead and SME designing tools that do not require in-person visits, conducting extra training, attending training remotely, use of supervisors and enumerators with background in facilities and already experienced in similar data collections in schools, pre-training norming sessions among enumerators, in-person supervision, and taking of photographs in schools monitored by the SME and field manager for adherence to intended criteria.

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10 Another challenge is that it is not possible to define fully whether a classroom or even a school is over-crowded. Thus, the team follows the lead of RAMP of instead measuring occupancy.
The analysis of student outcomes centers on analysis of historical data prior to the pandemic rather than recall. This reduces both the potential for recall bias and the problem of disruptions associated with the pandemic at the cost of fewer observations of completed SKEP schools for some analyses.

As noted earlier, a key issue facing the Part 2 analysis is that the most methodologically appropriate way to analyze students-level outcomes would be to use individual-level data matched with socioeconomic data rather than classroom-level or school-level data to control for observable differences across student populations using propensity score matching and regression methods. Individual-level data available on learning outcomes were unavailable to conduct this type of analysis for many of the key outcomes of interest, however. The resulting analysis that the evaluation team therefore plans to undertake is likely to include a bias that might understate the effects of the interventions if the new schools disproportionately benefit “higher/privileged” socioeconomic status or vice versa. However, creating or adapting a methodologically-appropriate assessment of higher-level skills in line with the goals of the ERiKE reforms would require considerably more time than feasible to provide results for programmatic purposes prior to the next academic year.

Another smaller challenge is that the methods cannot be fully spelled out for the Part 2 analysis early, as it depends on what data are found to be available and useful for evaluative purposes.

Similarly, the LMO was not yet chosen nor negotiations undertaken with the LMO over feasibility of planned data collection and sampling plans for Part 1 given a fixed budget and uncertain timelines to visit schools and collect all data at the time of developing the methods. This meant that the exact methods and sampling may need to change somewhat, although what the resulting data can tell the Mission will remain robust.

As there are multiple activities funded by USAID as well as other development partners and a relatively modest number of schools, especially new SKEP-funded schools, the evaluation will not be able to parse the effect of the infrastructure alone. That is because if all schools received both types of interventions, rather than some schools receiving no soft skills support, one cannot separate neither theoretically nor statistically the effect of just one intervention. This is not entirely problematic as the evaluation is not designed to designate attribution by specific activity. Further, while the evidence in the literature suggests that investments in infrastructure alone can generate some changes in learning outcomes without investments in complementary “soft” interventions,11 these may be strengthened by the type of complementary capacity building support in soft skills in how to best utilize the new or upgraded facility and resources.

In terms of timing, evaluability assessment of existing data, there does not appear to be comparative data to assess database accuracy. Further, work and analysis with existing datasets often does not follow neatly desired schedules, especially when access to datasets is provided behind schedule. However, the team will analyze and report back to USAID whether it advocates additional time for analysis prior to presenting evaluability assessment findings.

Finally, the field-based data collection training and beginning of data collection overlaps with Ramadan. In addition, the analysis of so many discrete datasets with such a large number of variables requires more time than planned in the original SOW to provide solid findings and conclusions. This is even more the case with the entire team working remotely part-time in different time zones. The evaluation therefore hopes to compensate somewhat by trying to negotiate with its planned LMO

to use more enumerators to compress data collection timelines slightly and to plan for longer timelines in analysis prior to presenting findings. Slightly more time during analysis will allow the team to present the Mission more complete findings and even conclusions during its initial presentation as well as in the report.

6. DELIVERABLES TIMELINE

Each deliverable and some processes and their planned delivery dates are presented in Table 4, below. The timelines are contingent on when data is made available or feasible for the chosen LMO to collect as well as complications and additional manipulations required in analyzing them that will only be discovered while working with the data. For example, the data for Part 2 have been made available later than planned pushing back slightly the recommended delivery date for the initial Part 2 evaluability assessment findings.

This plan therefore is expected to change somewhat based upon mutual understandings between the Mission and the Monitoring, Evaluation, and Learning Activity. The evaluation team recommends a couple shifts in timelines to allow for sufficient time to analyze the many datasets available, but also hope to take measures to compress timelines if feasible and deliver earlier than indicated. Throughout the assessment, the evaluation team and the Monitoring, Evaluation, and Learning Activity plan to update USAID/Jordan and provide initial findings as available weekly or as the Mission is available.

Table 4: Deliverables or Processes and Planned Associated Delivery Dates

<table>
<thead>
<tr>
<th>Period</th>
<th>Deliverable or Process</th>
<th>Estimated or Actual Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inception</td>
<td>In-briefing</td>
<td>3/17/2021</td>
</tr>
<tr>
<td></td>
<td>Inception report delivered</td>
<td>4/11/2021</td>
</tr>
<tr>
<td></td>
<td>Final inception report delivered</td>
<td>4/22/2021</td>
</tr>
<tr>
<td>Data Collection</td>
<td>Field work period completed</td>
<td>6/20/2021</td>
</tr>
<tr>
<td>Preliminary Findings</td>
<td>Preliminary findings presentation, Part 2 evaluability</td>
<td>5/13/2021(^\text{12})</td>
</tr>
<tr>
<td></td>
<td>Preliminary findings presentation, Part 1</td>
<td>6/30/2021</td>
</tr>
<tr>
<td></td>
<td>Final presentation (Part 1 and Part 2)</td>
<td>TBD</td>
</tr>
<tr>
<td></td>
<td>Draft evaluation report, parts 1 &amp; 2 submitted to Mission</td>
<td></td>
</tr>
</tbody>
</table>

\(^{12}\) Earlier approved on date was on a weekend and did not account for slower than planned provision of data. The team therefore recommends presenting findings no earlier than a week later to provide the Mission more robust findings.
7. EVALUATION TEAM STRUCTURE

Team Lead/Evaluation Expert
This team is overseen by a team leader with experience designing and conducting education-related project evaluations. The team leader supervises all parts of the evaluation including developing the evaluation design, managing team activities, development of instruments, data collection, analysis, presentations and reports.

Subject Matter Expert, Facilities Assessment
The facilities assessment subject matter expert provides expertise in international research and best practice regarding educational facilities and learning environments from the use and usability perspective. This individual is responsible for working with the team leader to develop methods and instruments to assess the physical structure, learning and general spaces, and equipment. The expert will lead analysis and writing for relevant evaluation questions and contribute to the Part 2 analysis as relevant.

Data Analyst/Statistician
The data analyst provides analytic and technical skills necessary to handle the large number of datasets and data involved in the analysis. Working under the team leader, the data analyst provides input into the assessment and evaluation design and undertakes the evaluability assessment. The data analyst/statistician obtains, reviews and analyzes datasets, generates visualizations, and drafts sections of the report.

Local Education Expert
The local education expert provides expertise on the local educational context. This individual works under the team leader and with the Monitoring, Evaluation, and Learning Activity to discuss and coordinate with stakeholders in understanding the context, data availability, and data access. She provides input on processes and comments on written documents.

Local Monitoring and Evaluation Organization
The core evaluation team is complemented by a locally-hired LMO operating under a field team manager. The LMO organizes and undertakes the data collection according to the design with adjustments made according to field conditions and agreements with the evaluation team. This team includes enumerators and data-related staff as required, including a data analyst. The enumerators

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13 The recommended delivery dates for Part 1 account for the wide variety of data that need to be collected and analyzed for evaluation question 1, 1A and 1B and slightly longer timelines for Mission review, additional analyses, internal reviews, and revision.
are chosen such that they all have experience in infrastructure use and usability assessments related to schools. Those calling school representatives have a background in education.
ANNEX 1: PISA 2018 GLOBAL COMPETENCE DESCRIPTION

“The global competence assessment in PISA2018 is composed of two parts: a cognitive assessment and a background questionnaire. The cognitive assessment is designed to elicit students’ capacities to critically examine global issues; recognize outside influences on perspectives and worldviews; understand how to communicate with others in intercultural contexts; and identify and compare different courses of action to address global and intercultural issues.

In the background questionnaire, students will be asked to report how familiar they are with global issues; how developed their linguistic and communication skills are; to what extent they hold certain attitudes, such as respect for people from different cultural backgrounds; and what opportunities they have at school to develop global competence.

The four dimensions of global competence are supported by four inseparable factors: knowledge, skills, attitudes and values.”14

---

### ANNEX 2: EVALUATION DESIGN MATRIX

#### Overlap

<table>
<thead>
<tr>
<th>EQ#</th>
<th>Indicator Category</th>
<th>Potential Data Sources</th>
<th>Potential Data Collection Methods</th>
<th>Data Analysis Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Building design</td>
<td>● Key documents</td>
<td>● Document review</td>
<td>● Development and analysis of indices weighted by importance</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● On-site observations</td>
<td>● On-site observational school survey</td>
<td>● Disaggregated univariate analysis</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Ministry of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● EDY-funded activities</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety</td>
<td>● Key documents</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● On-site observations</td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Principals</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Ministry of Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Infrastructure and materials</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Educational appropriateness</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Maintenance and condition</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Community connection</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Technology availability</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Building use</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Teaching and learning</td>
<td>● EDY-funded activities</td>
<td>● Document review</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>● On-site observational school survey</td>
<td></td>
</tr>
<tr>
<td>1A</td>
<td>Construction timeliness</td>
<td>Construction plans and trackers</td>
<td>Document requests, review</td>
<td>Summary statistics</td>
</tr>
<tr>
<td>1B</td>
<td>Use of teaching methods</td>
<td>Teachers</td>
<td>Online focus groups of teachers from SKEP schools</td>
<td>Qualitative content analysis</td>
</tr>
<tr>
<td></td>
<td>School occupancy/crowding</td>
<td>● Key documents</td>
<td>● Accessing secondary data sources</td>
<td>● Review of data availability, completeness, and accuracy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Ministry of Education</td>
<td>● Document review</td>
<td>● Cross-year unpaired t-tests</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● EMIS</td>
<td>● Key informant discussions (context and data access only)</td>
<td>● Repeated ANOVA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● Construction plans (classroom size)</td>
<td></td>
<td>● Triangulating with consultative meetings, as relevant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>● ESMP database</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Success metrics</td>
<td>Key documents</td>
<td>Key informant discussions</td>
<td>Review of data availability, completeness, and accuracy</td>
</tr>
<tr>
<td>---</td>
<td>----------------</td>
<td>---------------</td>
<td>--------------------------</td>
<td>--------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>Subject proficiency</td>
<td>RAMP LQAS database</td>
<td>Accessing secondary data sources</td>
<td>Cross-year unpaired t-tests</td>
</tr>
<tr>
<td></td>
<td>Learning skills</td>
<td>TIMSS 2019</td>
<td>Document review</td>
<td>Repeated ANOVA</td>
</tr>
<tr>
<td></td>
<td>Teacher practices</td>
<td>PISA 2018</td>
<td>Principal surveys</td>
<td>Triangulating with consultative meetings, as relevant</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Principal</td>
<td>Teacher surveys</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Teacher</td>
<td>Supervisor classroom observation electronic data</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Field Directorate supervisors</td>
<td>Supervisor classroom observation paper data</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Online focus groups of supervisors</td>
<td></td>
</tr>
</tbody>
</table>
ANNEX 3: INSTRUMENTS

See attached Excel.
### ANNEX 4: REVISED TIMELINE

The following is the proposed timeline that was shared with USAID as of August 31, 2021

<table>
<thead>
<tr>
<th>Period</th>
<th>Deliverable or Process</th>
<th>Estimated or Actual Date</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Inception</strong></td>
<td>In-briefing</td>
<td>03/17/2021</td>
</tr>
<tr>
<td></td>
<td>Inception report delivered</td>
<td>04/11/2021</td>
</tr>
<tr>
<td></td>
<td>Final inception report delivered</td>
<td>05/31/2021</td>
</tr>
<tr>
<td><strong>Data Collection</strong></td>
<td>Field work period completed</td>
<td>08/22/2021</td>
</tr>
<tr>
<td><strong>Preliminary Findings</strong></td>
<td>Preliminary findings presentation, Part 2 evaluability</td>
<td>05/26/2021</td>
</tr>
<tr>
<td></td>
<td>Preliminary findings presentation, Part 1</td>
<td>08/17/2021</td>
</tr>
<tr>
<td></td>
<td>First draft of the complete final evaluation report, (inclusive of Q1, 1A &amp;1B, Q2 and Q3) submitted to Mission</td>
<td>09/16/2021</td>
</tr>
<tr>
<td></td>
<td>Second draft of the final evaluation report submitted to Mission</td>
<td>10/07/2021</td>
</tr>
<tr>
<td></td>
<td>Final Full evaluation report submitted to Mission</td>
<td>10/21/2021</td>
</tr>
<tr>
<td></td>
<td>Raw and analyzed files submitted to Mission</td>
<td>10/12/2021</td>
</tr>
</tbody>
</table>
5.3. **Appendix 3: Information Sources – List of Datasets Accessed, Interviews, Focus Groups**

**Secondary Datasets Accessed**

- Ministry of Education Student drop-out and repetition number
- Ministry of Education Tawjihi school-level pass rates, 2019
- USAID’s Enhancing School Management and Planning Activity public school data collection, 2018
- USAID’s Early Grade Reading and Mathematics Project Lot Quality Assurance Survey, 2018-19
- Field directorate supervisor early grade classroom observation dataset, 2018-2019
- The Trends in International Mathematics and Science Study, Jordan, 2015, 2019
- Programme for International Students Assessment, Jordan, 2015, 2018
- Tawjihi student-level scores, 2019
- National Assessment for the Knowledge Economy, 2014
- Educational Quality Control exam, 2018, 2019

| Table 5: Evaluation Team interviews, Meetings, and Calls with External Stakeholders |
|-------------------------------|-------------------------------|-----------------------------|-----------------------------|
| **Institution**               | **Persons**                   | **Position/Title**           | **Dates (2021)**            |
| Enhancing School Management Program ESMP | Jordan Mission, Evaluation Team, MELA |                            | March 28                   |
| Early Grade Reading and Math Program (RAMP) | Patric Fayaud, Suzan Salhi, Ahmad Tammam, Rula Al Jundi | CoP, DCoP, MEL Manager & Education Programs Officer | April 1                     |
| Queen Rania Center for Educational & Information Technology/ QRC/ MOE | Marwan Turman | Information Technology Directorate Manager | April 5                     |
| QRC/ MOE | Eng. Abd Razaq Awamleh | Engineer/ Information Technology Directorate | April 5                     |
| QRC/ MOE | Eng. Abd Rahim Mehyar | Engineer/ Information Technology Directorate | April 5                     |
| ESMP | Eng. Najd Hanahnah | Senior data and knowledge management specialist | April 13                    |
| Supervision & Educational Training Directorate | Jumaa Al Soud | Director | April 15                     |

49 The dataset provided included invalid data with more students taking the exam in USAID-funded schools than teachers and was not used.
### Table 6: Evaluation Team interviews, Meetings, and Calls with External Stakeholders

<table>
<thead>
<tr>
<th>Respondent Type</th>
<th>Number of FGDs held</th>
<th>Total Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers</td>
<td>7</td>
<td>44</td>
</tr>
</tbody>
</table>

Supervision & Educational Training Directorate  Jumaa Al Soud  Director  April 21

Early Grade Reading and Math Program (RAMP)  Patric Fayaud, Suzan Salhi, Ahmad Tammam, Rula Al Jundi  CoP, DCoP, MEL Manager & Education Programs Officer  April 22

Planning & Educational Research Management  MoE  Safa Albiruti  School Planning Directorate  April 22 and May 5

 QRC/ MoE  Marwan Turman  Information Technology Directorate Manager  April 27-28 & May 4-5

Leading Point Management Advisory Services  Ahlam Shabaneh  Leading Point Senior Partner  April 29 and many thereafter

School Development and Directorate Program  Dr. Zian Twaissi  Education Technical Adviser  April 28

Early Grade Reading and Math Program (RAMP)  Ahmed Abdelgawad  Senior Monitoring and Evaluation Manager - RTI  May 4 August 20

USAID/Jordan  Dr. Issam Omar  Project Management Specialist  May 6

MoE/ Development Coordination Unit (DCU)  Duaa Alsalah  KOICA Project Coordinator  May 16

Ministry of Education  Ali Hammad  Director of Examination & Testing Directorate  May 17

Ministry of Education  Mohammad Fiddah  Testing Directorate/ Department  May 18

Ministry of Education  Mohammad Shehadeh  Testing Directorate director  May 24

Ministry of Education  Mohammad Fiddah  Testing Directorate  May 24

Trigon Associates  Michael McGovern  Chief of Party  April 29

Trigon Associates  Michael McGovern  Chief of Party  April 29

SKEP Start-up Activity  Ibrahim Mahfouz  Team Leader  August 1
<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisors</td>
<td>4</td>
<td>28</td>
</tr>
<tr>
<td>Coaches</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>Grand Total</td>
<td>12</td>
<td>78</td>
</tr>
</tbody>
</table>
5.4. **Appendix 4: Information Sources – References**


https://pdf.usaid.gov/pdf_docs/PA00W7WZ.pdf


Engicon, n.d. “Technical Proposal (School Start-Up Activity - SKEP Phase 1 Schools)”. 
https://www.futureschool.com/jordan-curriculum/


MPWH, Engicon, and USAID, Jordan, n.d. “Schools for a Knowledge Economy Project, Phase-1 School Start-Up Activity -SKEP Phase 1 Schools”.


Nair, Prakash, 2014. From ‘Cells and Bells’ to Learning Communities. Harvard Education Letter. 30(5). 


“Section C- Description/Specifications/Statement of Work”. Jordan, n.d.

“Scope of Work for the School Start Up Advisor Team under the Schools for a Knowledge Economy Project (SKEP)”. Jordan, n.d.


5.5. Appendix 5: Broader Project Background

Monitoring, Evaluation, and Learning Activity

Rigorous monitoring, evaluation, and learning (MEL) of USAID interventions are a major focus of Agency practices to improve performance management, accountability, and evidence-based decision making. The Agency has most recently focused on improving evidence-based decision making by incorporating Collaborating, Learning, and Adapting (CLA) practices into MEL. As stated in Automated Directives System (ADS) 201.3.5, “the purpose of monitoring, evaluation and learning practices is to apply knowledge gained from evidence and analysis to improve development outcomes and ensure accountability for the resources used to achieve them.” By tying MEL to learning priorities, the Agency can rely on evidence to inform decision-making for management purposes, mid-course adjustments, and future designs.

To this end, USAID awarded the Monitoring, Evaluation, and Learning Activity (the Activity) to The Kaizen Company in February 2020 as a follow-on to the USAID Monitoring and Evaluation Support Program. The Activity is designed to ensure USAID’s activities in Jordan achieve their intended results through monitoring and evaluation, strategic assessments, and CLA. The Activity helps USAID/Jordan create a dynamic learning environment among development actors which is focused on innovation, quality, and knowledge sharing. Through the Activity Accelerator, a rapid procurement mechanism, a cohort of Jordanian organizations works with the Activity team to successfully deliver projects while simultaneously strengthening their management and compliance systems. This approach provides USAID with high-quality MEL services across its portfolio, builds the capacity of Local MEL Organizations (LMOs), and ensures programs meaningfully empower and enhance local participation. The Activity will ensure program sustainability by building the technical and institutional capacity of local organizations to be capable of managing follow-on MEL activities.

Country Context

Jordan faces multi-contextual issues as a developing country, surrounded by crises almost from all its directions; Syrian crises from the north, that has been ongoing for more than 10 years now, with huge influx of Syrian refugees that came to the country as one of the main gates of peace they ran for, this resulted with more than 1.3 million refugees that are currently residing in the country (less than 20% are living in camps). On its west side, it has the issue of Palestinian and Israel conflict and from the west, it has to maintain its border solid for any penetration from what is called Islamic State of Iraq and Levant (ISIL) that was defeated in 2017 in Iraq, but still has some territory and power in Iraq and Syria.

Moreover, Jordan has been experiencing a deep economic shocks since its independence, but the latest 21st century shocks, start from 2008 economic depression, increase cost of oil, as Jordan is an imported country of its energy, passing through what is called the “Arab spring”, Syrian refugees’ influx to the country, a dramatic increase in its debt, corruption, population growth, and finally it has been hit heavily with COVID-19 pandemic, have affected Jordan economy, general budget, and its public services.

Several compound factors have affected Jordan economy and its ability to invest in its infrastructure, especially on education sector, despite the desperate need for this investment as the country expects that they might need around 600 schools over the next decade. However, Figure 9 below shows that Jordan has a steady with slight decline in its expenditures (current and capital) on education sector.
(around 6.8% only). It has around 1% and 11.7% only from its budget as capital and current expenditures respectively, on education sector.

Figure 9: Ministry of education budget (total, current, and capital) of government budget (total, current, and capital) (%) - selected years

As the economic situation in the country deteriorates, public schools has witnessed an internal migration from students in the private schools, with the already crowded classes and schools, adding to it the Syrian refugees’ influx that has started in 2011, the public schools witnessed sharp increase in students numbers, which led for more crowdedness. These overcapacity numbers of students in public schools forced Ministry of Education (MOE) to increase number of double shift schools (over 720 schools), while many schools operate with classrooms over their capacity. The MoE also operates 777 schools in rented buildings that are often not designed to accommodate all learners. This has a negative impact on the students enrollment in their schools and classes, as this creates an unsafe environment, affects students ability to focus, thus their learning outcomes. It also creates the need of hiring new teachers and capital investment by building new schools and classes to accommodates all these numbers of students. This directly impacts the GOJ budget as they have to provide more resources for these urgent needs. Both academic and non-academic learning outcomes across Jordanian public schools are affected by challenges in access to safe and engaging learning environments, with high rates of violence in schools and low performance in literacy and numeracy from Kindergarten through the upper grades. The GOJ estimates that it will require approximately 600 new schools over the next decade to meet demand.

As a result, in addition to government increase need to invest and expenditures on education sector, the learning outcomes (both academic and non-academic) will be affected within the Jordanian public schools; this can be reflected in various ways including, but not limited to:

1. Challenges in accessing safe and engaging learning environment,
2. Lead to a low performance in literacy and numeracy for all levels in public schools,
3. Increase depreciation of schools and vandalism due to overuse in double shifts public schools and over capacity,
4. Increase level of violence in public schools.

In response to these needs, the GOJ launched the Education Reform for Knowledge Economy (ERfKE) in 2003 in coordination with the MoE 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 environments; and finally promoting learning readiness through early childhood education. ERfKE is supported by many interventions including large scale infrastructure development, information technology, and professional training and service delivery.

USAID/Jordan launched infrastructure activities beginning in 2006 with the four-year Jordan School Construction and Rehabilitation Project (JSP), and continued in 2014 with the six-year Jordan School Expansion Program (JSEP), followed in 2015 by the five-year Schools for a Knowledge Economy Program (SKEP). The focus of these activities was 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. These outcomes are the primary, but not the only, focus of this evaluation.

JSP had a total budget of $199 million to construct and furnish 28 new public schools and to rehabilitate 100 existing ones (including $11.4 million for A/E design services and supervision of construction, $172 million for construction, and $15 million for furnishings). JSEP’s budget is $180 million for A/E design services and construction to expand 120 Schools, construct 300 Kindergarten Classrooms and construct or rehabilitate 50 Sports Fields or Facilities, and SKEP had a budget of $102 million for A/E design services and the construction of 25 new public schools. Furnishings for JSEP and SKEP schools were provided through a separate $26 million grant to the United Nations Office for Project Services (UNOPS), and a $3.8 million Construction Management Contract with Trigon provides construction management services to both activities. USAID made significant investments in school infrastructure and is planning to build an additional 30 schools over the next five years under its Inclusive Schools Program.

Table 7, below, presents the activities that were implemented, budgets, durations, interventions undertaken and those linked to this evaluation.

<table>
<thead>
<tr>
<th>USAID Projects</th>
<th>Project Duration</th>
<th>Cost (million USD)</th>
<th>Interventions</th>
<th>Linked to this Evaluation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jordan School Construction and rehabilitation Project (JSP)</td>
<td>2006-2013</td>
<td>199</td>
<td>• Built 28 schools</td>
<td>28 built schools</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Rehabilitated 100 schools</td>
<td></td>
</tr>
<tr>
<td>Jordan Schools Expansion program (JSEP)</td>
<td>2014-2020</td>
<td>180</td>
<td>• Rehabilitate 120 schools</td>
<td>80 rehabilitated schools</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Expand / rehabilitate 300 kindergarten classrooms</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>• Expand / rehabilitate 50 sports fields / facilities.</td>
<td></td>
</tr>
<tr>
<td>Schools for a Knowledge Economy Program (SKEP)</td>
<td>2015-2020</td>
<td>102</td>
<td>• Build 25 schools (9 completed)</td>
<td>9 built schools</td>
</tr>
</tbody>
</table>

USAID supports ERfKE through other relevant activities in education. USAID and other development partners provide support with teacher training, management systems, training early-grade teachers to...
improve early-grade numeracy and literacy, and the application of ICTs for learning, improving pedagogy, implementing e-learning curriculum components, non-formal education centers, as well as support for remote learning through television and digital platforms during the pandemic. The Education Reform Support Program undertook a comprehensive leadership training program for JSP school principals and teachers when they were new. For SKEP, similar programming was conducted under a host country compact with modifications to reflect changes determined appropriately based on the prior evaluation.
5.6. Appendix 6: Learning Community Example

Learning Community

*Optimized for:* Curriculum organized around interdisciplinary themes, distributed democratic leadership, shared student responsibility, co-facilitated, cohort scheduling, highest levels of "community" and self-directed learning.
5.7. Appendix 7: Methods – Additional Detail on Sampling, Response Rates and Statistical Tests

For the teacher survey, contact information was problematic at two points, reaching principals and few principals providing incorrect information to reach teachers. Some principals also were unwilling to provide the team teacher contacts and instead offered to send links to the survey to teachers by WhatsApp. This made it difficult to calculate exact response rates. However, it appeared that about 55% of teachers whose contact information was provided were reached directly with 54% of those teachers responding, for a total response rate of about 30%, well higher than typical online survey response rates of between 3 and 15% for those contacted.

The observational data collection began later than planned, originally starting on June 16 and ended July 8. This created problems due to shorter working hours as schools were closing. Similarly, with the onset of Tawjihi exams for secondary students, many principals and all members of MoE staff assisting in providing responses or data were fully engaged most of that period, extending the timeline. The teachers survey was undertaken from June 21 to July 15.

Twelve online FGDs were conducted, seven with teachers across USAID-funded schools, primary, early primary, and secondary schools, and subjects (science, math, and IT; and humanities and other); four among directorate supervisors, across primary and secondary schools and subjects; and one with SKEP Start-up Activity coaches. For EQ 1A, the team received data on contractual timelines by school for all JSEP and SKEP schools and data by package rather than individual schools for only 7 of 28 JSP schools. As the JSP data was incomplete, incompatible with the data from other schools, and much older, the team was unable to merge in JSP school-level data for EQ 1A.

The observational data collection and principal surveys involved 104 USAID schools, approximately the entire universe and so statistical testing was not relevant. Statistical tests were undertaken for differences for the teacher survey and secondary data. Due to the large number of teacher respondents (3416 USAID and 2227 neighboring) and their high proportion relative to the overall number of teachers from these schools, even accounting for clustering among schools, all differences were found to be statistically significant at the $p=0.00$ level unless indicated. Thus, the analysis focuses only on substantively relevant differences. Whenever data was available at an individual level (teachers or students), statistical tests were undertaken using individual data accounting for clustering by school to appropriately scale the standard errors. The ESMP dataset, collected amid the COVID pandemic, includes $\frac{2}{3}$ of the USAID-funded schools and two-thirds of neighboring and so uses statistical testing with a finite population correction to extrapolate to the full sample of neighboring schools.

In terms of secondary data, one of the data sources was the 2014 National Assessment for the Knowledge Economy, which covered mathematics, Arabic, and science for grades 5, 9, and 11. Within those subjects, the assessment covered skills in communication, problem solving, knowledge, applying knowledge, and reasoning. The dataset provided by the MoE included all 28 JSP schools, at which point in time, the schools were new. The evaluation team did not get access to the original assessments or information development process to assess the extent to which the skills represented are as indicated.

The Kingdom undertakes annual Education Quality Control examinations each year in a selected grade (grade 10 in 2017, grade 4 in 2018, grade 8 in 2019) in Arabic, English, math, and science. Since 2018, they also have taken these exams for grade 3 in Arabic and math. The MoE provided school-level data
only and not as requested. As there were few schools from the neighboring school list provided, and the evaluation team did not receive alternative data, the evaluation team therefore compared JSP and SKEP schools for each exam with other schools, including the JSEP schools, neighboring, and any other schools provided. On the one hand, this makes the data less compatible with other comparisons. It compares just the new schools against others, which should provide a stronger test than combining them with JSEP schools. However, that also means the JSEP schools might bias upward the comparators, reducing the power of the comparison. Data analyzed included grades 3 in 2018 and 2019, grade 4 in 2018, grade 8 in 2019, and grade 10 in 2017, for which the number of JSP and SKEP schools ranged from 12 to 33 and 43 to 68 comparison schools.\footnote{The number of JSP + SKEP schools compared to JSEP and other schools by grade and year follow respectively: 20 (JSP + SKEP) and 65 (other) grade 3 2018, 21 and 66 grade 3 2019, 24 and 68 grade 4 2018, 33 and 66 grade 8 2019, 15 and 43 grade 10 2017.}

The GoJ undertakes Tawjihi graduation exams for secondary students in their penultimate year to enter universities. The evaluation team requested student-level data for the Tawjihi as student-level scores. This dataset included invalid data indicating 2 to 4 times more students taking the exam in USAID-funded schools than students eligible to take the exam, and so the data could not be used. Instead, the team used school-level data on pass rates also provided by the MoE. The number of USAID-funded schools and neighboring schools by year follows: 2016 32 USAID and 223 neighboring, 2018 62 and 445, 2019 36 and 229, 2020 39 and 236. Only one differences was statistically significant at the p=0.00, 0.73, 0.93, and 0.66 levels, as discussed in the main text.

The Programme for International Student Assessment (PISA) tests 15-year-old students in participating countries in science, reading, and math as well as other questions on the learning environment and underlying skills for those countries that participate such as global competence. The PISA assessment is designed for international reliability to engage higher-level skills within academic subjects and therefore should provide insight into how students at these schools perform in both respects. The evaluation team combined comparable scores across the 2015 and 2018 exams, which, combined, included 8 JSP, 14 JSEP, and 115 neighboring schools. These schools were selected to be representative nationally and not to be representative of USAID-funded schools, which limits the ability to generalize. The assessments are designed to compare scores across years given the attempts by PISA to create assessments resulting in relatively consistent overall average scores across years. However, PISA scores in Jordan were higher in 2018 than 2015 by 3 to 5% across subjects. To make 2015 and 2018 scores more fully comparable and avoid bias created by there having been a lower percentage of USAID-funded schools in the 2019 than 2015 samples, the 2015 scores were normalized by the nation-wide difference in mean by subject area.

The TIMSS assessment assesses fourth and eighth grade students in math and science across participating countries including Jordan in 2015 and 2019. Combining scores from the two assessments resulted in 13 schools and 441 students from USAID-funded schools compared to 93 schools and 3145 students from neighboring schools. Given the number of students in each school, the power was enough to run statistical tests with corrections for clustering. As with the PISA assessment, to make 2015 and 2019 scores more fully comparable and avoid bias, the 2015 scores were normalized by the nation-wide difference in mean by subject area.

The evaluation also uses data collected by RAMP from its Lot Quality Assurance Survey (LQAS) related to math and reading. Across datasets, matching resulted in 15 JSP schools, 45 JSEP schools, and 151 neighboring schools. The match was the same for MoE classroom observation dataset as well. For each of the secondary data sources where there were few observations, the evaluation team considered alpha levels up to 0.10 levels. A key caveat in the use of this data, as the RAMP staff point out, is that
the data was not intended to measure differences across students but to screen for problems at the school level. However, in this evaluation, the point is to screen for differences at a higher level yet – across a set of schools, and these schools allow one to. The issue therefore is whether the schools generalize across USAID and neighboring schools, if not others.

Data also was analyzed from the Classroom Observation dataset derived from field directorate supervisor observations of classrooms and made electronic by RAMP. RAMP only made electronic observations for early-grade teachers from 62 USAID-funded and 182 neighboring schools. The latter instruments and indices were developed by the MoE, and teachers were rated by field directorate supervisors. Instruments are presented in appendix section 5.26.
5.8. Appendix 8: Methods - Schools not Surveyed during the School Observations and Coding

[Redacted]
5.9. Appendix 9: Methods - Data Collection Tools

5.9.1. Focus Group Discussion Tools

EDY SIMAEA Teacher FGD Draft Protocol

[Note for reviewers: Wording and order to be revised slightly based on moderator expertise and comfortable translation into conversational Arabic. Questions will begin from easy to more involved. Not all probes may be necessary and not all groups may get through all questions.]

[Standard informed consent and waiver forms will be sent ahead of time by email prior as part of agreeing to participate and will include questions about both agreeing to participate in this study and to be recorded as well as that the recordings will be destroyed after analysis.]

[Introductions]

My name is ____, and I am part of a team working for Leading Point on an evaluation for USAID on how past USAID-supported school construction activities have affected school use, occupancy, and outcomes. The evaluation will help us improve future school construction and programming funded by USAID but will have no effect on you or your school. You’ve been invited to this online focus group to help us understand from the teacher’s perspective.

We are asking everyone to keep everything discussed today among ourselves. We also will treat this discussion as strictly confidential. That means none of your names will be associated with specific comments in our report, which will not be shared outside of USAID.

The group is planned for about 90 minutes.

You all work at schools funded by USAID and are [Category math/science/Arabic/English/technology/(not specified)] teachers [Or teachers at the same school]

[Standard self introductions]

Discussion Questions/Themes

● Thinking about your in-person classes before classes went online only, could you share the methods you used most often for teaching your students in a typical week?
○ And what methods do you use most frequently during remote teaching?
● Could you discuss broadly what you learned from others since you started teaching
in your current school on using newer methods and school resources effectively?
○ [Internal note: We are most interested in teacher pedagogy and resource use (technological and use of non-traditional learning spaces) but also on school/classroom management]
○ From whom or what source did you learn this?
○ Have you received coaching on those methods? [Probe as time allows: From whom?
Do you sense the coaching was coordinated with the principal or supervisor?]
● Why do you use the teaching methods you use most often?
● Is there anything else that complicates using those methods? [prompt only if needed: classroom size, furniture size, equipment, training, curriculum restrictions, time available, further training, coaching, school/supervisor support).
○ What else might teachers need to get more comfortable with these methods?
● Are the rooms and furniture appropriate and maintained sufficiently to use them well?
○ What could make them better?
○ If students could use some of the area outside of your fixed classrooms, might that be helpful?
○ Do you ever take or send your students outdoors as part of their learning?
○ If you had easier access to the outdoors from a classroom, do you think you might use that as part of your teaching?
● How well are students with handicaps integrated in the classes and school? [How could they be better integrated/supported?]
● As our last questions, could you speak about the extent to which parents are engaged with you and the school?
○ How is the community engaged beyond parents?

EDY SIMAEA Directorate Supervisors FGD Draft Protocol

[Note for reviewers: Wording and order to be revised slightly based on moderator expertise and comfortable translation into conversational Arabic. Questions will begin from easy to more involved. Not all probes may be necessary and not all groups may get through all questions.]

[Standard informed consent and waiver forms will be sent ahead of time by email prior as part of agreeing to participate and will include questions about both agreeing to participate in this study and to be recorded as well as that the recordings will be destroyed after analysis.]

[Introductions]
My name is , and I am part of a team working for Leading Point on an evaluation for USAID on how past USAID-supported school construction activities have affected school use, occupancy, and outcomes. The evaluation will help us improve future school construction and programming funded by USAID but will have no effect on you or the schools you supervise. You’ve been invited to this online focus group to help us understand more about teaching styles and principal leadership in schools from
what you have seen as a supervisor. We chose you because you supervise public schools that have been constructed with funding from USAID and others that have not.

We are asking everyone to keep everything discussed today among ourselves. We also will treat this discussion as strictly confidential. That means none of your names will be associated with specific comments in our report, which will not be shared outside of USAID.

The group is planned for about 90 minutes.

[Standard self introductions.]

Discussion Questions/Themes

[Overall goal in rough order of importance given time available find out about 1) extensiveness of use of student- versus teacher-centered pedagogy & classroom practices and comfort with teacher-centered methods, 2) barriers to using student-centered methods, 3) use of areas outside of classrooms for learning, 4) integration of students with disabilities, 5) extent to which teachers plan together or teach together, 6) disciplinary tactics used, 7) parental involvement, 8) ways USAID schools seem over-crowded]

Let’s think back to the in-person classes you observed in 2019 before classes went online only. Let’s talk first about the USAID-funded school or schools you supervise.

Norming questions

● What term do you use for methods when the teachers lecture, directly instruct, ask questions for individual students to answer? What about for methods that engage students working together in groups or where students engage each other or similar methods?

● Did you observe classes where the teacher did not plan with you ahead of time to use newer, [“student-centered” or other term they use] methods?

● [Any other norming questions needed here]

● [Have a plan ahead of time for how to deal with other dimensions along which they might characterize differentiation in outcomes, like second shift/refugee teaching or among new teachers that arrived since original training or by grade]

Data gathering questions

● Could you discuss the teaching methods you observed most often in the USAID-funded schools when you did not plan for them to use student-centered methods?

○ [Draw out each and roughly how often as feasible]

○ How often did you see them using any of the student-centered methods? How
comfortable did they seem they in using these methods?
○ Did the use of student-centered teaching differ in the other public schools in terms of frequency? Comfort using them?
● Is there anything that complicates using student centered methods in USAID-funded schools? [prompt only if needed: classroom size, furniture size, equipment, training, curriculum restrictions, time available, further training, coaching, school/supervisor support]
○ How about in other schools?
○ What might they need to better use and be comfortable with these methods?
● Do teachers and students use areas outside of fixed classrooms for learning?
[where?]
● How well are students with handicaps integrated in the classes and school? [How could they be better integrated/supported?]
● What type of disciplinary tactics do you see or hear about teachers using?
● How well do teachers seem to be using and maintaining the new technology provided in the schools?
● To what extent do you hear about teachers planning together or teaching together on their own [outside of supervisors encouraging that during their coaching sessions]? 
● Could you speak about the extent to which you understand parents are engaged with teachers and the school?
● Could you speak about the ways schools seemed over-crowded during in-person classes?

EDY SIMAEA SKEP Start-up Activity Coaches FGD Draft Protocol

[Note for reviewers: Wording and order to be revised slightly based on moderator expertise and comfortable translation into conversational Arabic. Questions will begin from easy to more involved. Not all probes may be necessary and not all groups may get through all questions.]

[Standard informed consent and waiver forms will be sent ahead of time by email prior as part of agreeing to participate and will include questions about both agreeing to participate in this study and to be recorded as well as that the recordings will be destroyed after analysis.]

[Introductions]
My name is , and I am part of a team working for Leading Point on an evaluation for USAID on how past USAID-supported school construction activities have affected school use, occupancy, and outcomes. You’ve been invited to this online focus group to help us understand more about the start-up teacher and principal support provided to the new schools from what you have seen as a coach. The evaluation will help us improve future school construction and programming funded by USAID but will have no effect on you or the schools you work with.
We are asking everyone to keep everything discussed today among ourselves. We also will treat this discussion as strictly confidential. That means none of your names will be associated with specific comments in our report, which will not be shared outside of USAID.

The group is planned for about 90 minutes.

[Standard self introductions.]

Discussion Questions/Themes

● What do you see as the biggest support/value additions of the coaching to teachers? [Could go in multiple directions along the line of discussions below, which is fine but redirect otherwise]

● Where do you see the biggest weaknesses among teachers?

● What are the strengths of the teaching and coaching program?

● What are the weaknesses of the teaching and coaching program?

● Where/how do you think the teaching and coaching sessions could be strengthened?

● Have you been able to observe in-person classes?
  ○ What methods did you see used most often?
  ○ How often did you see teachers using student-centered methods?
  ○ Which methods?

● To what extent do the teachers seem to be comfortable at this point using student-centered methods [in teaching in person, online]? 
  ○ Is there anything that complicates using those methods? [prompt only if needed: classroom size, furniture size, equipment, training, curriculum restrictions, time available, further training, coaching, school/supervisor support]
  ○ What might they need to better utilize these methods?

● How well do students with handicaps seem integrated in the classes and school? [How could they be better integrated/supported?] 

● What type of disciplinary tactics do you see or hear about teachers using?

● How well do teachers seem to be using and maintaining the new technology provided in the schools?

● To what extent do you hear about teachers planning together or teaching together on their own [outside of encouraging that during their coaching sessions]?

● Could you speak about the extent to which you understand parents are engaged with teachers and the school? Other community members aside from parents?
5.9.2. Evaluation and Evaluability Assessment Building Performance EFEI Survey

USAIJ Jordan - EFHEI - Draft

OBSERVATIONAL INSTRUMENT 3/4: BUILDING DESIGN ASSESSMENT

Completed by the Surveyor. Coding for each varies and is indicated for each question/item.

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Weight Factor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>SCHOOL LOCATION &amp; SITE ATTRIBUTES</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. How accessible is the school? (Foot connections such as road entrance is off a narrow alley or directly onto a busy street with nowhere to turn over?)</td>
<td>3</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>2. Are there separate entrances for main street and backstreet?</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>3. Is there a dedicated bus drop-off lane at the school? (Separate from outdoor play areas?) No bus drop-off lanes = 1, Dedicated lanes separate from parking = 2, Area set aside but with minor flows = 3, Area set aside but with major flows = 4</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>4. Are there separate pedestrian walkways along the building? No separate walkways = 1, Trimmed bushes = 2, Separate walkways = 3</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>5. Are there separate fire exits? No separate fire exits = 1, Trimmed bushes = 2, Separate fire exits = 3</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>6. Are there open spaces or playing areas that are protected or shaded by a building? No = 1, Yes = 2</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>7. Are there playing fields for football or other sports? No playing fields = 1, Unstriped fields = 2, Striped playing fields = 3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>8. Is there an area dedicated to outdoor learning in an area within 50m or connected to the building? No = 1, Yes = 2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>9. Building safety</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Are there windows in learning spaces able to be opened and closed? No = 1, Yes = 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pattern score: 20

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Description</th>
<th>Weight Factor</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>GENERAL BUILDING DESIGN &amp; LAYOUT OF AREAS</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. The school is easy to navigate between interior spaces (groupings of spaces / departments) No = 1, Easy to navigate = 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. Every dedicated learning space has access to a window (natural daylight) No = 1, Yes = 2</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. How many dedicated learning spaces have interior and exterior views beyond the immediate area? No = 1, Partial views = 2, Many windows = 3</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Are windows in learning spaces able to be opened and closed? No = 1, Yes = 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Pattern score: 20

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107 | SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION | USAID.GOV
1. Are all entries to the school secured (safety camera or security staff monitoring the entrance)? Poor: No. Can walk right in and see some students, side doors are open and not secured on Graal. Reception is secure, but in an inset area, side doors are closed, some kind of door locking system is available for one or all doors.
2. Is there a physical barrier (e.g., Ncing) between school and surrounding area? Poor: Low Barrier, easy to walk right in or out = Good. Gate & Fence = Good.
3. Are emergency exits from inside the school to the outside clearly marked with signage and are they easy to find? You could easily move from inside the building to outside the building in less than a minute? No = Poor. From Most Spaces = 2. From All Spaces = 2.
4. Are there more than a few accessible to students that are not easy for teachers and staff to maneuver? No = Poor. Yes = 2.
5. To what extent do stairways and hallways appear wide enough to handle a rush of students when classes let out at once? Many do not appear wide enough or appear designed so, allow may not be able to appropriately designed = 2, all appear wide enough = Good.
6. Are chemicals and cleaning supplies separated from the students? Poor. Stored in the hall or in an area to access area = Good. Dedicated room away from students = 2.

<table>
<thead>
<tr>
<th>Score of Notes (Refer)</th>
<th>Pattern Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENERAL INTERIOR DESIGN</td>
<td>25</td>
</tr>
<tr>
<td>1. The school has a pleasing and coordinated color pallette throughout? Poor: The school have not matching colors, Flooring type and finishes are varied. The school looks overall not coordinated or disorganized = Good: The school have matching colors, Flooring type and finishes are coordinated throughout the school including in flooring. Overall the school looks and looks bright and cheery.</td>
<td>3</td>
</tr>
<tr>
<td>2. The school's materials (Flooring, Paint, Furniture, Fabric, Light Fixtures, Ceiling Tile) seem modern and not outdated. No = Poor. Yes = 2</td>
<td>2</td>
</tr>
<tr>
<td>3. Is there adequate learning supply storage? No visible storage in the learning spaces, supplies are organized in piles = Good. Some storage unit or open shelving provided for the teachers but insufficient = 2. In addition to Teacher provided storage, there are some small storage cabinets provided by the school for learning spaces, might be insufficient. The school provide sufficient fixed and mobile storage for all learning spaces = 3</td>
<td>3</td>
</tr>
<tr>
<td>4. Does each student have an individual space for their personal items somewhere within the school? Poor: Limited areas for students to store belongings beyond class of hallway cubbies = Good: Minimal spaces for individual belongings, projects, supplies, hallways are not lined with lockers = 2</td>
<td>3</td>
</tr>
<tr>
<td>5. What is the quality of the lighting? Poor: classrooms are lit with low/high fluorescent lighting with little daylight = 2. There is still insufficient distribution of light fixtures but with some daylight = Good. There is sufficient distribution of fluorescent lighting with some dispersed/diffused distribution and some good level of daylight</td>
<td>3</td>
</tr>
<tr>
<td>6. What type of flooring is used? Polished concrete floors = 1. Ceramic tile, porcelain tile or VCT = 2. A mix of carpet tile, terrazzo, VCT or Ceramic.</td>
<td>3</td>
</tr>
<tr>
<td>7. What is the quality of the acoustic elements? Poor: all surfaces made from concrete and are highly reflective = 1. A mix of concrete surfaces and some limited use of absorptive materials such as wood, cork, carpet, etc. = Good: Some acoustical ceilings and absorptive floors or wall materials</td>
<td>2</td>
</tr>
<tr>
<td>8. What are the instructional elements in learning spaces? No blackboard or display boards = 1. Old blackboards and one display board = 2. Combination of blackboards, interactive whiteboards, limited display = 3. Interactive boards and several display screens</td>
<td>1</td>
</tr>
<tr>
<td>9. Is there ventilation or air conditioning in all learning spaces? There is little or no ventilation or air conditioning = 1. There are few fans and operable windows providing cross ventilation but no ac = 2. There is air conditioning and fans supplemented with air conditioning in all learning spaces.</td>
<td>1</td>
</tr>
<tr>
<td>10. Are the toilet facilities designed with everyone in mind? Poor: no proper, not hand-dapped accessible, open fixtures with no partitions = 1. Good: Handicap-Accessible, Provide adequate Privacy, Separated Staff Toilets</td>
<td>1</td>
</tr>
<tr>
<td>11. Are the toilet facilities centralized or evenly distributed throughout the school? No, they are scattered away from the learning spaces. Students would need a spend a considerable amount of time during class to score a toilet = 2. Yes = 1</td>
<td>2</td>
</tr>
<tr>
<td>12. Is student work displayed throughout the school in a pleasing and not overwhelming way (is there places to do so where school is in session) No = Poor. Yes = 2</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Score of Notes (Refer)</th>
<th>Pattern Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCHOOL DESIGN PROGRAM ELEMENTS</td>
<td>29</td>
</tr>
<tr>
<td>1. Does this school possess the typical related program elements (e.g., classrooms, required of most modern schools? Poor: There is no school program or doesn’t have proper classrooms or facilities = 1. There is a good program and classrooms or facilities</td>
<td>1</td>
</tr>
<tr>
<td>2. Meeting spaces: The school/committee have available meeting spaces for groups of 5-50 people. Most of the larger classrooms or the dining areas could be used for small meeting groups of up to 50 people = 1. There is a dedicated meeting space used for small meeting groups of up to 50 people = 2. There is a dedicated meeting area at the school that may be used for performances and large meetings of over 100 people = 3</td>
<td>3</td>
</tr>
<tr>
<td>3. Is there a variety of sized spaces throughout the school? Poor: The school is mostly just classrooms of the same size with the exception of some specialty rooms = 1. Good: There is a wide offering of areas for students to learn beyond the classrooms including rooms for small groupings, group meetings, large groupings</td>
<td>5</td>
</tr>
<tr>
<td>4. Are there Science Rooms (Elementary Schools) or Labs (Secondary Schools) in this school with evidence they are being used for the intended purpose? There is an excellent science lab = 1. There is a lab that is for science but not equipment or appropriate furnishings or evidence they are used to general lab space = 2. There is a lab that is for lab use but is not dedicated to lab use</td>
<td>2</td>
</tr>
<tr>
<td>5. Is there a dedicated music space for music and drama with evidence they are used for the intended purpose? There is no room = 1. There is a room used for music and drama but it is not dedicated = 2. There is a dedicated area but it is poorly equipped or under evidence it was used = 3. There is a dedicated area and is appropriately equipped with evidence it may have been used = 4</td>
<td>3</td>
</tr>
<tr>
<td>6. Is there a dedicated area for art with evidence it is used for the intended purpose? There is no area = 1. Is there is area used for art but it is not dedicated = 2. There is a dedicated area but it is poorly equipped or under evidence it was used = 3. There is a dedicated area and is appropriately equipped with evidence it may have been used = 4</td>
<td>3</td>
</tr>
<tr>
<td>7.</td>
<td>Is there a school library with a violence it is used for the intended purpose?</td>
</tr>
<tr>
<td></td>
<td>There is no dedicated library space or it is being used for other purposes.</td>
</tr>
<tr>
<td></td>
<td>There is a dedicated library used but is located to service the student.</td>
</tr>
<tr>
<td></td>
<td>There is a dedicated library with limited book collection, some computer work stations and</td>
</tr>
<tr>
<td></td>
<td>there is violence it may have been used.</td>
</tr>
<tr>
<td></td>
<td>8.</td>
</tr>
<tr>
<td></td>
<td>old or old computer and inappropriate work stations.</td>
</tr>
<tr>
<td></td>
<td>There is a computer lab with good quality new work stations, violence it may have been used.</td>
</tr>
<tr>
<td></td>
<td>9.</td>
</tr>
<tr>
<td></td>
<td>There are some workbenches, no technology in these areas. Hands on learning areas are properly outfitted with technology and varied equipment.</td>
</tr>
</tbody>
</table>

**Potential for Future Expansion**

| 1. Building Additions: The school has enough room on site to expand the existing building to accommodate additional program space. | 3   |
| 2. Courtyard/3rd: There are interior courtyards and places with potential for future expansion. | 3   |

**Construction/Materials Condition**

- The average current condition of the buildings is documented here:
- 1. What is the condition of the roofs? Outdated roofing with some leaks reported each year. 1 = Serviceable roof with occasional leaks reported. 2 = Relatively recent roof with minor or no reported leaks. 3 = 2. What is the condition of the exterior walls? 1 = Poor: Walls are cracked and falling in several places with visible settlement and settling. 3 = Fair: Some settlement or stress cracks and minor damage. 4 = Good: Walls appear stable, no major structural issues. 5 = 3. What is the condition of the interior walls? 1 = Poor: Most non-acceptable due to modifications, lack of paint removed, exposed surfaces, stained are needed. 3 = Good: Most windows are operable, no noticeable repair needed. 5 = 4. What is the condition of the doors? 1 = Poor: doors are a hazard or closing properly, hardware is failing on some doors due to ventilation. 3 = Good: Doors are in good working condition with minimal signs of wear. All doors have functional hardware. 5 = 5. What is the condition of the structural elements? 1 = Poor: Apparent sagging and structural cracks, walls appear to be moving, no repairs evident. 3 = Fair: Some sagging, but appears structurally stable, some water damage is evident. 5 = Good: No major cracks visible, appears structurally stable. 6. How adaptable is the structural system? 1 = Poor: Most interior walls are load bearing, removal will require additional structural reinforcement. 3 = Fair: The structural system allows for limited removal of interior walls/partitions. 5 = Good: Structural frame (Concrete or Steel) allows for removal of most interior wall partitions and some exterior panels. 7. Building Maintenance Condition: 1 = Poor: The ceiling is mostly in good shape, some stains and broken ceiling tiles. No = 0; Yes = 2 2 = Fair: One or two spots that require repairs. No = 0; Yes = 2 3 = Good: Ceilings are generally in good condition. No = 0; Yes = 2 4 = Is there a toilet room and sanitary conditions? 1 = Poor: Dirty, moldy, covered with white scribbles. No = 0; Yes = 2 2 = Fair: Dirty, moldy, covered with white scribbles. No = 0; Yes = 2 3 = Good: Ceilings are generally in good condition. No = 0; Yes = 2 4 = What is the condition of the interior wall materials at this school? Fair: Minor damage observed in some areas. 6 = Excellent: Damage observed in new places only. 5 = Good: Observe damage observed in new places only. 4 = Fair: Minor damage observed in some areas. 3 = Poor: Major damage observed in some areas. 2 = What is the condition of the interior wall coating? Oregon/3rd: Some peeling or minor discrepancies. 6 = Excellent: Oregon/3rd: No peeling or major discrepancies. 5 = Good: Oregon/3rd: Some peeling or minor discrepancies. 4 = Fair: Oregon/3rd: Minor damage observed in some areas. 3 = Poor: Major damage observed in some areas. 2 = What is the condition of the floor covering materials at this school? Peel/3rd: Some peeling or minor discrepancies. No = 0; Yes = 2 6 = Excellent: Oregon/3rd: No peeling or major discrepancies. 5 = Good: Oregon/3rd: Some peeling or minor discrepancies. 4 = Fair: Oregon/3rd: Minor damage observed in some areas. 3 = Poor: Major damage observed in some areas. 8 = School grounds are kept free of litter and garbage, except in designated containers. No = 0; Yes = 2

**Observational Instrument 2/4: Educational Adequacy Assessment**

| Raw Score | 109 |

| 9. | School grounds are kept free of litter and garbage, except in designated containers. | 109 |

**Observational Instrument 2/4: Educational Adequacy Assessment**

**Completed by the Surveyor**

**USAID.gov**
<table>
<thead>
<tr>
<th>Page 110</th>
<th>SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION</th>
<th>USAID.GOV</th>
</tr>
</thead>
</table>

### 1. WELCOMING ENTRY

- How well does the entrance to the school look?
  - The entrance to the school is blocked with some furniture: **1/3**
  - No visible blocks to the entrance: **1/3**
  - Signage is visible for the school: **1/3**
  - A safe environment for students to enter the school: **1/3**

### 2. SPECIFIC LEARNING SPACES (E.G. SCIENCE LABS, ART ROOMS, LIFE SKILLS, PERFORMANCE STUDIOS)

| Are the science labs equipped with the following essential features? (mark off those available/missing) |
|------|--------------------------------------------------|----------|
| **Science** | **Yes** | **No** | **Total** |
| Safety equipment | 1 | 2 | 3 |
| Proper safety procedures | 1 | 2 | 3 |
| Access to outdoor areas with tables | 1 | 2 | 3 |
| Access to outdoor areas with tables suitable for outdoor experiment | 1 | 2 | 3 |
| Proper ventilation and exhaust fans provided for fumes from dust, paint, and chemicals | 1 | 2 | 3 |
| Access to running water within the space | 1 | 2 | 3 |

### 3. GENERAL LEARNING SPACES (Classrooms/ Learning Studios)

- The learning spaces are comfortable with good lighting: **1/3**
- The learning spaces are not comfortable with poor lighting: **1/3**
- Examples of student work or projects are visible in the classroom: **1/3**
- There are more than one different types of furniture available: **1/3**
- There is a variety of equipment, technology, and learning resources available for use (Setup for more than just lecture): **1/3**
- Classrooms are better organized and groupings of 8 or 9 in learning communities to promote collaboration: **1/3**

### 4. TEACHERS AS PROFESSIONALS

- What extent does school treat teachers as professional environments for their tasks?
  - Shared teacher office/workrooms with at least a 2nd week worth of learning spaces: **1/3**
  - Office spaces provide lockers with conference tables, TVs, computers, and other personal and professional storage: **1/3**
  - School offers a variety of formal (e.g., seminars) and informal (e.g., brainstorming, workshops) training and professional development opportunities: **1/3**

### 5. SHARED LEARNING RESOURCES

- What extent are learning resources distributed versus centralized?
  - A central library/main resource center serves as a place for conducting research and a visible symbol for learning: **1/3**
  - Library/main resource center includes areas for casual reading (e.g., magazines, newspapers, books, soft seating) and study areas: **1/3**
  - Informal group tutoring and table groupings available: **1/3**
  - There is a separate storage area that is not a part of the school or resource center, student projects, personal effects, technology, and equipment available for use by all students: **1/3**

### 6. HEALTH & PHYSICAL FITNESS

- What extent are health and physical fitness areas supported?
  - Organized sports and exercise available in the school (basketball, football, etc.): **1/3**
  - Appropriate outdoor space (e.g., playgrounds): **1/3**
  - Access to walking paths or accessible to school site: **1/3**
  - Walking tracks or walking paths are accessible to school site: **1/3**

### 7. INDOOR/OUTDOOR CONNECTION

- What is the quality of the indoor/outdoor connection?
  - Key public spaces in the school have direct connections to the outdoors: **1/3**
  - School site contains one or more of the following: outdoor alternative features (nature walks, kitchen gardens, greenhouses, planned courtyards, designated natural play areas, outdoor shaded classrooms, exploration zones): **1/3**
  - There are outdoor seating and socializing areas: **1/3**
  - Each grade level classroom has direct access to outdoor (e.g., upper level classrooms have direct access to a terrace or balcony): **1/3**

### 8. EDUCATIONALLY APPROPRIATE FURNITURE

- Is there a variety of educational furniture available?
  - There is a variety of furniture available for use: **1/3**
  - Furniture is of appropriate size for the students: **1/3**

**Pattern Score:**
- WELCOMING ENTRY: **4**
- SPECIFIC LEARNING SPACES: **10**
- GENERAL LEARNING SPACES: **10**
- TEACHERS AS PROFESSIONALS: **5**
- SHARED LEARNING RESOURCES: **3**
- HEALTH & PHYSICAL FITNESS: **1**
- INDOOR/OUTDOOR CONNECTION: **0**
- EDUCATIONALLY APPROPRIATE FURNITURE: **0**

**Total Pattern Score:** **28**
### SURVEY 3/4: GENERAL USE & FUNCTION ASSESSMENT (PRINCIPAL SURVEY)

**Survey Information**
- **Completed by:** [Name]
- **Date:** [Date]
- **School:** [School Name]
- **Grade:** [Grade]
- **Program:** [Program Name]
- **Country:** [Country]
- **Type:** [Type]
- **Language:** [Language]
- **Version:** [Version]

#### CONNECTED TO COMMUNITY
- Is there a room or area designated for sharing with communities easily accessible and without creating safety issues? (Yes: 1, No: 2)
- Does the school have a social program for the local community? (Yes: 1, No: 2)
- Is the school facility used after school hours? (Yes: 1, No: 2)
- Are there any sports fields available for community use? (Yes: 1, No: 2)
- Are exterior areas provided for community use (e.g., playgrounds, community garden)? (Yes: 1, No: 2)
- Does the school take advantage of local community resources (e.g., public library, community center, universities)? (Yes: 1, No: 2)
- Do students volunteer to help the community (community services) through the school? (Yes: 1, No: 2)
- Does the school have an educational council involving community members beyond parents? (Yes: 1, No: 2)
- Has the community donated money or important resources to the school? (Yes: 1, No: 2)
- Do parents or community members volunteer at the school? (Yes: 1, No: 2)
- Answering the next question in a different way, how often do volunteers work with students in extracurricular activities outside the school's facilities? (Often: 1, Rarely: 2)

#### AVAILABILITY OF TECHNOLOGY
- What type of computer access is available throughout the campus? (Yes: 1, No: 2)
- Do students have access to relevant software on the computers pertaining to their education? (Yes: 1, No: 2)
- Do students have access to computer labs? (Yes: 1, No: 2)
- Do students have access to digital equipment such as cameras, video equipment, etc.? (Yes: 1, No: 2)
- Does the school utilize video conferencing tools to reach students? (Yes: 1, No: 2)

#### DESIGN/USE
- Does it seem that teachers have common areas to share resources? (Yes: 1, No: 2)
- Are students allowed to use electronic devices beyond the classroom? (Yes: 1, No: 2)
- Are libraries beyond the purpose of storing reading materials and reading? (Yes: 1, No: 2)
- Do teachers have adequate space to work without being disturbed by others? (Yes: 1, No: 2)
- Is student pickup and drop-off outside a difficult process? (Yes: 1, No: 2)
- Does outside noise affect teaching inside the classroom? (Yes: 1, No: 2)
- Does the school get too hot sometimes? (Yes: 1, No: 2)
- Is there a safe and secure area for students (inside)? (Yes: 1, No: 2)
- Are there areas where students can eat outdoors? (Yes: 1, No: 2)

#### FLOOR PLAN
- Are there areas that get consistently crowded and congested throughout the normal day? (Yes: 1, No: 2)

---

**Pattern Score**

111 | SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION

USAID.GOV
<table>
<thead>
<tr>
<th>Source of Notes</th>
<th>Follow-up</th>
<th>yes/no</th>
<th>%</th>
<th>pattern score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DINING AND EATING</strong></td>
<td>1. Has the food available in the school been healthy and generally well-received by students?</td>
<td>0</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>2. Are there casual eating areas available to all staff and students for at least half of the school population per lunch period?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Are there options for students to eat in groups of 4 or 6?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Are there outdoor seating areas directly adjacent to indoor eating areas?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Source of Notes</th>
<th>Follow-up</th>
<th>yes/no</th>
<th>%</th>
<th>pattern score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TEACHING &amp; LEARNING</strong></td>
<td>1. Does the school have sufficient teachers per grade and subject area? (core and extracurricular subjects)</td>
<td>1</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2. Are sufficient resources and equipment available to instruct all core and extracurricular subjects?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Are class sizes cancelled due to shortage of class rooms and teachers?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Do teaching plans include lessons that are in line with the maintenance of subject classes?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Are there sufficient library resources available for teachers to work and plan lessons?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Is there a general teacher, including but not limited to, guidance counselors, senior librarian, secretary, vice principal, and principal to manage the school?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Are some subjects taught in an interdisciplinary manner?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Do all teachers use the opportunity to use some level of project based learning each semester?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Do teachers act as an advisor to students helping them learn in their own pace?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Does your school have more than one teacher in each class and students rotate among different teachers within the school?</td>
<td>1</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Varied response options**

<table>
<thead>
<tr>
<th>Source of Notes</th>
<th>Follow-up</th>
<th>yes/no</th>
<th>%</th>
<th>pattern score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OVERALL DESIGN/ USE SATISFACTION</strong></td>
<td>1. How often do parents report that their child is unhappy with the school building?</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2. Does the majority of students seem well focused throughout the day?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Is the overall perception of the buildings positive?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Are students, teachers and teachers' staff safe and well satisfied at school?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Are students expected to teach how few complaints about the school's?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Does the school environment lead to a feeling of belonging among students?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Does the school environment lead to a feeling of belonging among teachers?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Does the school's experience require educational administration?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Do teachers and students play their appropriate roles maintaining school order?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Does the school environment lead to increased student attendance?</td>
<td>1</td>
<td>7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Are student outcomes affected positively by the current school environment? (Current school environment usage)</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Varied response options**

<table>
<thead>
<tr>
<th>Source of Notes</th>
<th>Follow-up</th>
<th>yes/no</th>
<th>%</th>
<th>pattern score</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ENERGY, MATERIALS, UP KEEP USE</strong></td>
<td>1. Does the school have sufficient equipment and a system to clean the school?</td>
<td>1</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>2. Is the process of daily cleaning and repairs to the building interior reasonable given its size?</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Is the process of maintaining the building reasonable given its size?</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Is the school's process of upkeep and maintenance of the building and grounds in the long-term?</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Is the energy use of the building higher than expected?</td>
<td>1</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*USAID, Jordan - DFID - Draft*
<table>
<thead>
<tr>
<th>Question</th>
<th>Score</th>
<th>Notes</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Is the heating or cooling cost of the building higher than expected?</td>
<td>4</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>2. Is the building insulated?</td>
<td>4</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>3. How well is the building insulated?</td>
<td>4</td>
<td></td>
<td>N/A</td>
</tr>
<tr>
<td>4. Is the vegetation and ground cover way to maintain proportionately to their size?</td>
<td>4</td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

**Special Notes:**

- **SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION**
- USAID.GOV

---

### SUBTOTAL SCORE TABULATION (GENERAL USE & FUNCTION ASSESSMENT)

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<thead>
<tr>
<th>Raw Score</th>
<th>Weight Factor</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N/A</td>
</tr>
</tbody>
</table>

---

### SURVEY 4/4: TEACHER USE & FUNCTION ASSESSMENT

*Completed by Teachers*

---

*Note: This survey is designed to be completed by teachers to assess the school's infrastructure multi-activity. It is part of a larger evaluation process.*

---

*USAID Jordan - DFID - Draft*
### SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION

**Response options to the following are yes/no**

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<thead>
<tr>
<th>Question</th>
<th>Code(s)</th>
<th>Value(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Wireless networking with internet provides access throughout campus</td>
<td></td>
<td>1, 7</td>
</tr>
<tr>
<td>2. Students are able to use connected computers</td>
<td></td>
<td>1, 7</td>
</tr>
<tr>
<td>3. Students have access to relevant software on the computers for lessons and exercises?</td>
<td></td>
<td>1, 7</td>
</tr>
<tr>
<td><strong>Response options to the following are &quot;often&quot;/&quot;on occasion&quot;/&quot;very rarely&quot;</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Computers are used in class-learning beyond computer lessons</td>
<td></td>
<td>1, 5</td>
</tr>
<tr>
<td>5. Students use portable digital equipment such as laptops, video cameras, etc. as part of their learning</td>
<td></td>
<td>1, 6</td>
</tr>
<tr>
<td>6. School utilizes video conferencing technology to invite outside experts to teach students</td>
<td></td>
<td>1, 5</td>
</tr>
</tbody>
</table>

### Notes

- **DESIGN USE**
  - Throughout the day, there are shared rooms weekly: 1, 7
  - Throughout the day, the classroom is clean and organized: 1, 8
  - Students have access to learning spaces beyond their classroom and are allowed easy access to use these spaces: 1, 8
  - Outside noise does not affect the learning in my classroom: 1, 7
  - My classroom can get too cold in winter: 1, 3
  - My classroom can get too hot in summer: 1, 3
  - My teaching plans get affected by maintenance-related issues (never, infrequently, sometimes, frequently, always): 1, 6
  - Do the above areas and fields to school size sufficient for the number of students? (No, Partially, Yes): 1, 6, 2

### Notes

- **TEACHING & LEARNING**
  - There are sufficient budgetary resources available for teachers to work and plan classes: 1, 5
  - Student behavior in my class is generally well-behaved in classroom: 1, 6
  - When teaching is in person, I tend to use similar teaching methods throughout the day all or most of the week: 1, 9
  - When teaching is in person, I tend to give direct instruction, ask questions for individual response, or provide written assignments for students to work on in their own: 1, 5
  - I think of myself as a learner educator helping them learn either on their own pace: 1, 7
  - I have some subject matter in my class that I do not understand: 1, 8
  - My students are allowed to move from one place to another with little supervision to learn as they see on task: 1, 8
  - Many students have the opportunity to do some form of independent learning each semester: 1, 7
  - To be different, in my class and for different students: is not exactly what I do in my classrooms: 1, 7
  - I interact regularly with teacher and school hours: 1, 7
  - I exhibit regular feedback with students: 1, 7
  - I exhibit regular feedback with students: 1, 7
  - I exhibit regular feedback with students: 1, 7
  - I exhibit regular feedback with students: 1, 7

### Notes

- **TEACHING & LEARNING!!**
  - Thinking back to your teaching in person in this school before the pandemic, Choose for each of the following how often you used each approach: 1, 5, 6, 8
  - Direct instruction/lecture and board (1) | 1, 1 |
  - Individual reading/typing assignments or worksheets (1) | 1, 1 |
  - Individual student responses to teacher questions (1) | 1, 1 |
  - Group discussion (1) | 1, 1 |
  - Small group work (1) | 1, 1 |
  - Hands-on activities/field trips (1) | 1, 1 |
  - Creative or project-based (1) | 1, 1 |
  - Assignments where students choose the subject and/or way to answer (1) | 1, 1 |

### Notes

- **OVERALL DESIGN/USE SATISFACTION/SOCIAL COHESION**
  - The majority of students seem well-focused throughout the day: 1, 7
  - The majority of students report to having a positive social, physical, and emotional well-being: 1, 6

---

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114 | SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION | USAID.GOV
<table>
<thead>
<tr>
<th>Pattern Score</th>
<th>57</th>
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**SUBTOTAL SCORE TABULATION (GENERAL USE & FUNCTION ASSESSMENT)**

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<tr>
<th>Raw Score</th>
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**GRAND TOTAL SCORE TABULATION (ALL FOUR ASSESSMENTS)**

<table>
<thead>
<tr>
<th>Raw Score</th>
<th>340</th>
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</table>

Total possible raw score = 340 Total possible weighted score = 340

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5.10. Appendix 10: COVID-related Adjustments in Schools

As part of the observational data collection, the evaluation team notes that, in response to the COVID-19 pandemic, most schools appeared to provide hand sanitizers, which more recently is not determined to be a strong means of preventing spread of the SARS Cov-2 coronavirus. Many also provided stations with masks and educational panels or leaflets on distancing, which are substantially more important for preventing spread. However, fewer appeared to adjust in terms of wider seat distancing, creating an isolation room, or developing instructions for dealing with COVID-19 infected patients. A few had stickers on the ground demonstrating safe distances. In one case, student parking spaces were revised to better ensure social distancing.

Substantially more of the USAID school teachers thought their schools were somewhat or very ready to handle COVID than neighboring schools. Overall, 56% of USAID school teachers thought their schools were very ready and 95% thought they were somewhat or very ready. This compares to 30% and 70% respectively for neighboring schools.

Figure 10: Teacher Response on School Readiness to Handle COVID with In-person Classes

According to teachers, the USAID-funded schools generally have been undertaking more procedures than their neighboring schools. Across schools, USAID teachers indicated that their schools undertook an average of 3 more protective measures (9 vs 6). Figure 2
5.11. Appendix 11: Evaluation Question 1A – Completion of Construction Work and Timeline Deviations

How long did it take to complete the construction work? In what ways did this deviate from the planned timeline?

This analysis focuses on timelines for just the basic and secondary educational facilities, although the findings were consistent regardless of whether kindergartens, which were smaller and quicker to construct, were included in analyzing timelines. The analysis focuses on JSEP and SKEP schools, both because this information is more recent and also is available on a school-by-school basis.\(^5\)

Timelines for construction work for the USAID-funded schools vary greatly by contractor, consistent with the assertion by the A&E contractor that commitment to schedule and contracts was the most important factor in delays beyond contract.\(^5\) The average for schools completed prior to the March 17, 2020 lockdown was 89 days, with contractors ranging from 0 to 213 days over schedule. One contractor, Elagileh operating across governorates outside of Amman, always delivered on time. A second, FAZ – constructing schools within Amman, averaged only 28 days beyond schedule before the COVID lockdown. Removing those two contractors, the average was 108 days among the other 13 contractors.

However, even among these contractors, the variation is considerable. Two of these contractors (Dijla and General Chart, which respectively built 3 and 10 schools outside of Amman) averaged 43 days over contract. Four others (Al Eidi – 12 schools, Al Joud – 21 schools, Al Tahaina – 9 schools, and Babel – 7 schools) averaged between 60 and 70 days over contract. The association between construction of basic and secondary schools outside Amman and longer schedule overruns is only statistically and substantively significant at an extra 35 days (44 days including kindergartens, p=0.02 for both)\(^5\) prior to the lockdown when more of the construction in Amman was being completed.

There association between number of schools contracted and delays is complicated by the lockdown. Two of the contractors with the longest over-runs, Sadeen and Samara & Yousef, indeed had a large number of projects with 20 and 27 schools under contract. However, another running well over contract (Al Rawashdeh) built only 3 schools. Meanwhile, two strong performers discussed above constructed 21 and 20 schools. A regression of number of contracts and overruns indicates no difference on this factor across all periods. However, examining only schools completed prior to the lockdown, the data finds each additional contract is associated with four additional days of contract overruns, a small amount of time unless the contractor is awarded a large number of contracts. This relationship is not statistically significant after the lockdown. The evaluation does not have data on prior construction success to discern the extent to which awarding many schools to a poor performing contractor worsens their performance, an obvious hypothesis otherwise worthy of exploration.

\(^5\) The information available for JSP schools was both partial (about a third) and included only the date of when the last school in a package of schools was completed, rather than when each school was completed. Timelines for JSP therefore would be exaggerated relative to and less informative than the data for JSEP and SKEP.

\(^5\) This analysis focuses on primary to secondary schools, although the patterns were similar including kindergartens. Also underlying the lack of commitment to contractual compliance is the lack of financial or reputational penalties to those contractors delivering well beyond timeline. The A&E firm estimates a 150-day delay on average across all contractors due to lack of commitment to contracts. The A&E firm also indicated that some contracts were probably set too short.

\(^5\) Statistic tests are presented in Appendix 5.24.
Timelines also varied considerably by whether they were completed before the COVID-19 lockdown March 17, 2019. The average was much higher for primary and secondary schools completed after the 44-day lockdown, averaging 243 days with a range of 79 to 584 days over schedule for individual schools. Aside from one contractor that had already largely completed its work, there were five contractors that completed any type of schools both before and after the lockdown. These five averaged 117 days to complete schools prior to lockdown and an additional almost 138 days for those completed after lockdown, or a total of almost 255 days. However, two of these contractors, Al Joud and FAZ, which began their additional schools two months after the lockdown and were among the contractors delivering closer to contract schedule prior to lockdown, required only 30 and 66 additional days beyond their pre-lockdown average. This implies that one to two additional months were required minimally at that point, as even stronger contractors required additional time.

The underlying causes for the shift to longer timelines after the pandemic outbreak are outlined by the Architecture and Engineering Construction Management Contractor (A&E) helping USAID oversee local construction of the JSEP and SKEP schools, as discussed below and in appendix 0. The document notes several causes for slow-downs during the pandemic, which included the actual lockdown and re-mobilization, disease outbreaks both on-site and in their offices, effects on construction material and equipment suppliers in terms of materials and the transition to working on a cash-only rather than credit basis as company cash reserves and offsetting projects dried up (aggravated by slow payment to contractors), and a reduction in the size and quality of the labor pool. To the extent that some of these factors remain in effect at the time of contracting future contractors, slightly longer timelines may be required.

The data analysis is hampered with respect to analyzing the effect of winter start-up, as virtually all the contracted work between 2018 and 2020 began just prior to or during the winter. Further, no contractors began some schools during the winter and others during spring or summer. Therefore, the data is insufficient to test the A&E contractor chief of party’s conclusion that all construction projects started just prior to or during the winter of 2018 and 2020 were delivered with longer timelines with “cold weather effects retarding labor engagement” and “wet weather causing delays in excavation and other outdoor construction activities.” The A&E contractor estimates this added 30 days to timelines and provided a recommendation on how to avoid such issues in the future, as shown in appendix 5.13. The data are insufficient to test the other explanations provided by the firm for longer timelines than contracted.

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54 The A&E contractor estimated 30 percent extensions on average, or 90 days for a 10-month contract.
55 These factors include Jordanian Class I Contractors are not well prequalified, MPWH and Supervisory Engineer lack contract compliance skills and depends still on paper files, site obstacles not being solved or handled appropriately during design, and contract durations being set too short in some cases.
The Delays to JSEP and SKEP construction can best be viewed and understood by looking at the quarterly financial performance illustration below – Figure 1. This graphic shows the large “dip” in progress between 2019 and 2021. It also shows the date of this graphic, February 28, 2021, and the end dates of the current and proposed Trigon/CMTO Task Order. Also, note that while the planned end date for JSEP and SEKP Construction shown here is the end of the 3rd calendar quarter of 2022, we estimate that the construction will be further delayed in early 2023.

1. **2020 COVID-19 PANDEMIC EFFECTS**: Clearly the negative impacts of the COVID-19 disease upon JSEP and SKEP construction implementation have been significant starting in March 2020 and continuing up to this day. The CMTO projects these delays to continue well into 2021 as well. Specifically:
   a. **The Lockdown** that occurred between March 17th and June 10th created an involuntary demobilization and remobilization on six construction Packages being executed by five Contractors who were mostly struggling to meet contracts schedules. These activities (demobilization and remobilization) take time and cost money.
b. **Construction Material/Equipment Manufacturers and Suppliers in Jordan who** typically produce, import, transport and otherwise sell cement, asphalt, steel, wood, fasteners, scaffolding, POL (petrol, oil and lubricants), floor, wall, and paving stone, bricks, paints, electrical and plumbing materials and fixtures, etc. have all been negatively affected. Some imported materials required are now unavailable. We expect this situation to continue well into 2021;

c. **Contractor Material and Equipment Suppliers Require Cash Business**: Up to the COVID-19 pandemic, Contractors were able to obtain equipment and materials using credit. Now suppliers and vendors require mostly cash payments. This is due to the effects of the Lock Down and the trickle-down damage to construction supply businesses nationwide. This cash only requirement is affecting all parties in the construction industry and causing delays as Contractors are sometimes finding it difficult and time consuming to arrange credit;

d. **Reduced Qualified Labor Pool**: Many construction jobs in Jordan are filled with expatriates from Egypt and Syria, perhaps more than 60%. As it is more difficult for these people to travel to Jordan, Contractors are having some difficulty finding qualified workers causing delays;

e. **Disease On-Site**: Approximately 20% of JSEP and SKEP construction sites have been affected and temporarily shut down by COVID-19 outbreaks on site. When this occurs work on site stops for more than one week in some instances; and

f. **MPWH and Supervisory Engineers Hard Hit by COVID-19**: The Ministry of Public Works and Housing (MPWH), the Employer of the Construction Contractors, and the Supervisory Engineers has been hard hit by COVID-19 disease incidence in their main offices. The Supervisory Engineer Offices (Mostaqbal and Bitar) have experienced outbreaks and thus affecting their work

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**General JSEP and SKEP Time Delay**: Roughly speaking, the COVID-19 pandemic has significantly slowed construction in 2020 and 2021, perhaps requiring additional 20-30% time extension to construction contracts durations in this period. Contractors have begun submitting Extension of Time Requests (EOTR) for COVID-19 delays. These EOTRs are for delays caused by suppliers, delays caused by disease on site, delays caused by lack of Commencement notification, GOJ not allowing work on weekends and lockdowns at 6:00 PM in the evening. *We estimate for an average project of 10 months in duration these delays are being submitted for 30% contract time extensions. Assume this is 90 days.*

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2. **COINCIDENTAL JSEP IV, SKEP II, JSEP V, SKEP II START-UP DURING THE WINTERS (LATE NOVEMBER, DECEMBER, JANUARY AND FEBRUARY) OF 2017 AND 2020**: Trigon started work on this Task Order in September 2018. Since then, a total of 178 JSEP and SKEP school projects have started, have been completed or are still ongoing. All of these projects coincidently started just prior to or during the winter months of 2018 and 2020. This means they have started slow due to the cold weather effects retarding labor engagement and as this is the rainy season also, the wet weather caused delays in excavation and other outdoor construction activities. Delays also occurred as some material availability is affected by the cold and the rain. All of these projects have had slow starts because of this, adding an average of 20 to 40 days delay to each school infrastructure project and to

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**General JSEP and SKEP Time Delay**: Contractors typically in JSEP IV requested time delays of 30-45 days for winter and rain weather. This does not include *We estimate for an average project of 10 months in duration these delays were responsible for a 30-day delay in 2019 and 2020, therefore* each Package Contract.
3. **MINISTRY OF PUBLIC WORKS & HOUSING SLOW JSEP V, SKEP III AND IV PROCUREMENT:** From August 2019 to December 2021 (14 months), the CMTO has assisted the MPWH with their Host Country Contracting duties for Construction and Supervisory Engineering Services for:

   a. JSEP V, Packages 1 and 2;
   b. JSEP V, Packages 3, 4 and 5;
   c. JSEP V, Packages 6, 7, and 8
   d. SKEP III, Packages 1 and 2; and
   e. SKEP IV, Packages 1 and 2.

This is 12 Construction Contracts and five (5) Supervisory Engineer Contracts valued at over $75 M. Construction and Engineer contracting under any tendering system takes time. This is a large amount of work that had to be processed by a small number of MPWH staff and through the MPWH and GOJ review, analysis and approval system and then through the USAID review and approval system. Because the procurement took longer than planned and included delays, this affected the starting dates of the work.

**General JSEP and SKEP Time Delay:** This exercise could have been carried out in say seven- or eight-months’ time by an experienced USAID implementing partner such as AECOM, Tetratech, Trigon, etc. But there were also COVID-19 delays in 2020. **We estimate that there was a 180 day delay due to procurement work being out of synch with past JSEP -SKEP implementation and the delay due to COVID-19.**

4. **GENERALLY SPEAKING, JSEP AND SKEP CONSTRUCTION CONTRACTORS SCHEDULE PERFORMANCE AND COMMITMENT HAS BEEN LACKING:** TABLE 1, on the following page, summarizes JSEP and SKEP construction Contractor time performance, since JSEP I and SKEP I began. Of the 21 completed and ongoing Construction Contracts, there has been a 67% delay (average 187 days per contract) in past contract completion dates – an. JSEP and SKEP Construction Contractors are habitually very late. There are two main reasons for this among others:

   a. **Contract Performance Times Have Been Set Too Short:** Many of these projects are schools on existing school sites where there are functioning schools. Sometimes the land available to build upon is adjacent to these schools, there are utilities on the lots and it is difficult to enter the sites and store materials effectively. The CMTO believes that this adds significant time to construction operations and this has not always been taken into account when setting contract performance times; and

   b. **Contractors Lack Commitment to Schedules:** The CMTO has been working hard assisting the MPWH and the Supervisory Engineers to understand that it is imperative that Contractors use their construction operation schedules daily, weekly and monthly and that they adhere to their schedules. Progress is being made regarding this issue and we are starting to see positive movement in the ongoing works under JSEP V and SKEP III and SKEP IV.

**General JSEP and SKEP Time Delay:** **We estimate that there is 150-day delay on average to every Construction Contract due to this issue.**
5.13. Appendix 13: USAID-funded School Procurement and Construction

Figure SEQ Figure 12. Proposed timeline by Current Construction Management Contractor

Timeline Proposed by Current Construction Management Contractor

<table>
<thead>
<tr>
<th>Delay Factor (Ordered by Most Severe 1st)</th>
<th>Details</th>
<th>Mitigation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Contractor lack of commitment to schedule and Contract Compliance in general</td>
<td>Contractors believe they do not have to be Contract Compliant</td>
<td>Needs USAID Focus of Emphasis on the and other Subsections in Pre-Bid and Preconstruction Meetings, plus Supervisory Engineer and MPAHIE reinforcement</td>
</tr>
<tr>
<td>Jordanian Class I Contractors not well-qualified</td>
<td>Some MPAHIE Class I Contractors believe that USAID-funded projects do not require professional training</td>
<td>USAID should prequalify MPAHIE Contractors</td>
</tr>
<tr>
<td>MEP/HV and Supervisory Engineer lack of Contract Compliance skill</td>
<td>Some MPAHIE Class I Contractors do not have enough Contract compliance knowledge and understanding</td>
<td>Education of Contractor and Supervisory Engineers</td>
</tr>
<tr>
<td>Long payment times</td>
<td>JSEP and SNAP are now at 50-70 days payment turn around times. The contributors to delays</td>
<td></td>
</tr>
<tr>
<td>MEP/HV construction management still depends on paper files</td>
<td>Seriously delays MEP/ HV Contract actions</td>
<td></td>
</tr>
<tr>
<td>Procurement time was not sequenced well during procurement/implementation</td>
<td>Procurement and construction cycles need to be well thought out and planned to fit in construction schedule</td>
<td></td>
</tr>
<tr>
<td>CV-19 Pandemic (Force Majeure) effects</td>
<td>Contractor call on hand labor has been severely damaged and there are several other issues due to the CV-19</td>
<td>Consider allowing a 25% Mobilization Advance, shorter payment times</td>
</tr>
<tr>
<td>Geotechnical Tests during construction</td>
<td>The tests are done during design. Testing is also done wrong</td>
<td>The need to be cured by all Stakeholders</td>
</tr>
<tr>
<td>Starting Commits in the Winter</td>
<td>Law stronger, difficult to get new labor to site, no construction work can begin</td>
<td>Avoid this: See sequence above</td>
</tr>
<tr>
<td>Site Obstacles not well solved or handled during design</td>
<td>Too many unforeseen pop up when new construction starts</td>
<td>Start doing documented Design Studies as part of the Design and attach these to the Specifications. The way Supervisory Engineer will know what Obstacles are there and what was done earlier to mitigate them (more or less)</td>
</tr>
<tr>
<td>Lag time between end of design and start of construction</td>
<td>Perhaps, two to three years. Site can change in this time - more obstacles</td>
<td>Same as above</td>
</tr>
<tr>
<td>Contract durations set too short in some cases</td>
<td>Contract construction durations need to be set with thought. Some JSEP and SNAP Durations have been too short</td>
<td></td>
</tr>
</tbody>
</table>

**Options**

- Assumes 30 schools, large full school construction, 3, 7-year project
- Assumes three months of activity, 10 schools early, 3 Packages, 1 Package - 2 schools, 1 Package - 4 schools
- Assumes 7 month procurement cycle for each Timeline, and 16 month construction
5.14. **Appendix 14: Scores by Index and Sub-indicator**

For the tables below, cells rated below 70% of maximum are shown in maroon. Any numbers that are below 70% reflect areas of deficiency that could be improved in future building and management programming, although some of the under-performing indicators have more to do with the way schools are maintained and operated rather than design. Light blue highlighted cells represent where either JSEP or SKEP+JSP scored on average at least 20 percentage points lower. Medium blue represents a 30-percentage point difference. Only the teacher’s use and teaching survey was conducted with neighboring schools as well, so an additional column is provided for that table.

Table 8 and Table 9 come from the school observation instruments and show strengths particularly among the newer schools (JSP and SKEP) across indicators including general design and layout, safety, interior design, construction, and shared resources. However, areas for improvement include the school location and site attributes, other design program elements, potential for expansion, maintenance, entry, general and specialty learning spaces, teacher rooms, health and fitness, indoor-outdoor connection, and furniture. The instrument that seeks information from principals (shown in Table 10) adds to this list dining and eating areas; utilities; and energy, materials and upkeep. These are discussed further under section 3.1. Indicator scores and responses from the teacher survey (Table 12) are discussed under section 3.4.

Table 8 and Table 9 show that the new SKEP schools had the highest scores with 78% and 81% in the Building Design and Educational Adequacy categories. JSP schools that were newly constructed between 2008 and 2013 had measurably lower scores of 62% for Building Design and 59% for Educational Adequacy. JSEP Schools scored much lower, receiving just 48% for building design on average (across both buildings) and 45% for educational adequacy. This is not surprising given that JSEP schools represent expansion projects of existing schools and did not include comprehensive building retrofits.

<table>
<thead>
<tr>
<th>Elements Assessed</th>
<th>USAID School Average</th>
<th>Expansion Schools (JSEP)</th>
<th>New Schools (SKEP, JSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Location and Site Attributes</td>
<td>40%</td>
<td>54%</td>
<td>33%</td>
</tr>
<tr>
<td>General Building Design &amp; Layout</td>
<td>71%</td>
<td>64%</td>
<td>84%</td>
</tr>
<tr>
<td>Building Safety</td>
<td>67%</td>
<td>62%</td>
<td>80%</td>
</tr>
<tr>
<td>General Interior Design</td>
<td>64%</td>
<td>56%</td>
<td>78%</td>
</tr>
<tr>
<td>School Design Program Elements</td>
<td>38%</td>
<td>25%</td>
<td>65%</td>
</tr>
<tr>
<td>Potential Future Expansion</td>
<td>31%</td>
<td>35%</td>
<td>25%</td>
</tr>
<tr>
<td>Construction/Materials Condition</td>
<td>74%</td>
<td>72%</td>
<td>78%</td>
</tr>
<tr>
<td>Building Maintenance Condition</td>
<td>58%</td>
<td>56%</td>
<td>61%</td>
</tr>
</tbody>
</table>

Items from the Building Design Index that are least concerning include general building design, building safety, and construction quality of both exterior and interior elements.
Top performing features include

▪ Learning spaces have operable windows (natural daylight / ventilation)
▪ Campuses are easy to navigate due to good organization and wayfinding
▪ High quality of interior design, construction materials, and lighting
▪ All basic building features are present
▪ SKEP schools and many JSP schools score particularly high on design

Areas that need significant improvement include those underlying the sub-index School Design Program Elements, which refers to inadequate specialized facilities such as STEM, music, art, technology, and design labs. Building maintenance, a complaint of principals, teachers, and other stakeholders with regard to the GoJ system, also scores poorly among JSEP and JSP schools, as is the lack of adequate landscaped areas for learning and play even among SKEP schools. Most of the schools, including SKEP schools, also were not planned properly for future expansion.56

<table>
<thead>
<tr>
<th>Elements Assessed</th>
<th>USAID School Average</th>
<th>Expansion Schools (JSEP)</th>
<th>New Schools (SKEP, JSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Welcoming Entry</td>
<td>53%</td>
<td>47%</td>
<td>67%</td>
</tr>
<tr>
<td>Specialty Learning Spaces</td>
<td>34%</td>
<td>20%</td>
<td>63%</td>
</tr>
<tr>
<td>General Learning Spaces</td>
<td>46%</td>
<td>38%</td>
<td>65%</td>
</tr>
<tr>
<td>Teachers as Professional</td>
<td>51%</td>
<td>42%</td>
<td>69%</td>
</tr>
<tr>
<td>Shared Learning Resources</td>
<td>51%</td>
<td>37%</td>
<td>81%</td>
</tr>
<tr>
<td>Health and Physical Fitness</td>
<td>40%</td>
<td>32%</td>
<td>56%</td>
</tr>
<tr>
<td>Indoor Outdoor Connection</td>
<td>49%</td>
<td>48%</td>
<td>52%</td>
</tr>
<tr>
<td>Educationally Appropriate Furniture</td>
<td>49%</td>
<td>37%</td>
<td>62%</td>
</tr>
</tbody>
</table>

The Educational Adequacy Index includes eight sub-indices. The USAID-funded schools generally did not perform as well on average in terms of the educational adequacy index, which is apparent given the larger number of figures in red, below USAID’s standard. However, the SKEP schools did not exhibit lower scores for this index than the Building Design Index.

Top performing features include

▪ Age-appropriate furniture used throughout campuses
▪ Enough furniture for all students
▪ Key public spaces have direct connections to outdoors
▪ Shared teacher offices/workrooms within a 30 second walk from their learning spaces

56 While the evaluation team recognizes that nine of the JSP schools already have been expanded upon under JSEP and that the JSEP school sites were not designed originally by USAID, even the SKEP schools were rated at only 22 percent of their maximum across three questions.
Learning space areas comfortable, well lit, pleasing

However, scores are too low in almost all the indices for all the categories of schools. Low-performing features include

- Specialty learning spaces were properly designed to meet the needs of 21st century learning, lacking flexibility and key features.
- Furniture lacks variety in type, height, and materials.
- Learning spaces do not connect to outdoors to extend learning space.
- Learning space that is outdoors is not properly shaded.
- Insufficient space for health and fitness

Table 11: Principals’ General Use and Function Index Scores by Sub-Indicator

<table>
<thead>
<tr>
<th>Elements Assessed</th>
<th>USAID School Average</th>
<th>Expansion Schools (JSEP)</th>
<th>New Schools (SKEP, JSP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connected to Community</td>
<td>63%</td>
<td>55%</td>
<td>78%</td>
</tr>
<tr>
<td>Availability of Technology</td>
<td>63%</td>
<td>59%</td>
<td>72%</td>
</tr>
<tr>
<td>Design Use</td>
<td>68%</td>
<td>64%</td>
<td>76%</td>
</tr>
<tr>
<td>Dining &amp; Eating</td>
<td>40%</td>
<td>38%</td>
<td>45%</td>
</tr>
<tr>
<td>Teaching &amp; Learning</td>
<td>72%</td>
<td>70%</td>
<td>77%</td>
</tr>
<tr>
<td>Overall Design/Use Satisfaction</td>
<td>91%</td>
<td>89%</td>
<td>94%</td>
</tr>
<tr>
<td>Utility Infrastructure</td>
<td>64%</td>
<td>62%</td>
<td>67%</td>
</tr>
<tr>
<td>Energy, Materials, Upkeep Use</td>
<td>60%</td>
<td>56%</td>
<td>67%</td>
</tr>
</tbody>
</table>

Principals among the JSP and SKEP schools generally gave their schools high scores. Surprisingly, even JSEP principals provided high scores in overall design and use. SKEP schools score well with fewer perceived problems. Within the Principals’ General Use and Function Index, top performing features follow.

- Throughout the day, teachers can easily share resources.
- Students are allowed to use learning spaces beyond classroom.
- Students sometimes are taught in interdisciplinary manner and allowed to learn at own pace.
- Principals perceive students generally as having positive social, physical, emotional well-being.

Lower-performing features follow:

- Wireless Internet is not available throughout all schools and video conferencing is not an option for most teachers to bring in outside teachers/speakers, such as outside teachers or community members with relevant experience, even with SKEP schools.
- School and classroom temperature swings - sometimes too cold, often too hot.
There are minimal options for students to eat beyond standard seating areas.

Principals indicate students spend most of their time listening to teacher lectures rather than student projects or activities.

Table 12: Teachers’ Use and Teaching Index Scores by Sub-indicator

<table>
<thead>
<tr>
<th>Elements Assessed</th>
<th>USAID School Average</th>
<th>Expansion Schools (JSEP)</th>
<th>New Schools (SKEP, JSP)</th>
<th>Neighboring Schools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Availability/Use of Technology</td>
<td>51%</td>
<td>43%</td>
<td>62%</td>
<td>38%</td>
</tr>
<tr>
<td>Design Use</td>
<td>63%</td>
<td>59%</td>
<td>70%</td>
<td>42%</td>
</tr>
<tr>
<td>Teaching &amp; Learning 1</td>
<td>63%</td>
<td>61%</td>
<td>66%</td>
<td>57%</td>
</tr>
<tr>
<td>Teaching &amp; Learning 2</td>
<td>55%</td>
<td>55%</td>
<td>55%</td>
<td>55%</td>
</tr>
<tr>
<td>Teaching and Learning 1 + 2 – Standard lecture, individual responses/tasks</td>
<td>28%</td>
<td>26%</td>
<td>29%</td>
<td>38%</td>
</tr>
<tr>
<td>Overall Design/Use Satisfaction/Social Cohesion</td>
<td>79%</td>
<td>77%</td>
<td>81%</td>
<td>55%</td>
</tr>
</tbody>
</table>

The Teachers’ Use and Teaching Index is examined in greater detail under section 3.4. Some highlights follow.

- Teachers know the goals of the Ministry and report they sometimes teach in interactive, interdisciplinary manner, acting as advisors helping students learn at their own pace.
- Teachers indicate they co-teach at times with other teachers.
- Teachers indicate they sometimes allow students to select assignments and move among spaces without constant supervision as long as are on task.
- SKEP school teachers indicate they interact regularly with neighboring school teachers to share ideas, lessons learned, and methods.

Some areas for improvement follow.

- Classrooms are not comfortable, with variations in cold and particularly heat, distracting for teaching and learning.
- Parental involvement and student engagement is lower than desired, even among SKEP schools.
- Technology is not regularly used as a teaching tool, and students do not learn about or use technology outside computer rooms.
- Outdoor learning and play options as extensions of the school are limited.
- Teacher resources are limited, though better among SKEP schools.
- Project-based learning and field trips seem limited.
5.15. Appendix 15: Summary Scores, Instruments 1 and 2 by USAID Activity
5.16. **Appendix 16: Summary Scores, Instruments 1 and 2 by Sex, Education Level, Urbanity, Region**

Scores overall are slightly lower among boys’ schools compared to girls/mixed schools for instruments 1 and 2 (51 versus 56%, 38 vs 48%, respectively) and from the teacher survey (60 vs 67%). Large differences (beyond 15 percentage points) are found across a modest number of the over 100 indicators across each of the observational sections.\(^5\) Across all schools, teachers who taught science, math, or computers rated themselves slightly higher in terms of using student-centered learning methods than those who teach in the humanities or other subjects, although there was no statistically significant difference among JSP and SKEP schools, as shown in Appendix 5.12

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\(^5\) These include worse or lower scores for boys’ schools on the following: sun-protected open and sandy play areas; interior glass and attractive views; student work displays; dedicated multiuse and performance spaces; visibility on entry by a receptionist; a mix of informal and formal spaces for teachers; public spaces having direct access to the outdoors; attractive outdoor features; accessible toilet access; signs of vandalism; grounds cleanliness; taking advantage of community resources, donations, and volunteering; easy pick-up and drop-off; teacher interaction across schools; maintenance funds; high temperature control costs; use of computers during lessons; free access to learning spaces and choice of learning approach; teachers using various methods across days; capital punishment; increased attendance and sense of belonging; parental engagement. However, they scored more than 15 points better in terms of community use such as field, exterior space, and after-hours availability.
5.17. Appendix 17: Summary Scores, Instruments 3 and 4 (Principal and Teacher Survey) by USAID Activity
5.18. Appendix 18: Summary Scores, Instruments 3 and 4 (Principal and Teacher Survey) by Sex, Education Level, Urbanity, Region
5.12. Appendix 19: Disaggregated Statistical Tests from Teacher Survey
5.13. Appendix 20: Additional Information on Teacher Support, Attitudes, and Behavior

Support and Attitudes

There are some notable differences between USAID-funded and neighboring schools. Teachers from USAID-funded schools scored the support they receive from their schools and their teaching skills higher than neighboring schools generally. The average weighted score for the index on school design and use (Table 4) was notably higher for USAID-funded schools (63%, 70% for JSP and SKEP) than neighboring schools (42%, p=0.00). Within that sub-index score, USAID schools rated much higher than neighboring schools on teachers sharing resources and spaces easily (85% and 59%, respectively, p=0.00). Temperature control, outside noise, maintenance issues lowered scores for USAID-funded schools within that index. Teachers at USAID-funded schools provided similar responses as principals (although slightly lower by 5% at 79%) with respect to overall design and use of the USAID-funded facilities.

However, USAID-funded school teachers indicate an average of 51% or 10% lower scores than principals with respect to availability and use of technology in their classrooms than principals respond for the buildings overall and 16% lower than principals in JSEP schools. Low scores included wireless access in their classrooms, use of computers beyond computer classes, availability of portable equipment, and video conferencing capacity. These scores reveal considerable room for improvement in use of technology in classrooms with some room for improvement even in SKEP schools, which scored 73%, with somewhat better wireless connectivity and computer access than other schools.

Teachers at USAID-funded schools report they are excited and have few complaints more often than do teachers at neighboring schools (74% and 59%, respectively). USAID-funded school teachers also more frequently report a sense of belonging than their neighboring school colleagues (83% and 68%, respectively).

Attitudes towards their schools also are more positive among USAID-funded school teachers than their neighbors. For instance, far more USAID (100%) than neighboring school (62%) teachers indicate a feeling of belonging. The sub-indicator on teacher perception of design, use, satisfaction, and social coherence attitudes include feelings of safety, well-being, and belonging among students and teachers, and sense of student outcomes, among others. This is shown in row six of Table 4. Overall, the sub-indicator on teacher perception of design, use, satisfaction, and social coherence is relatively strong at 79% across USAID-funded schools, which is 24% above their neighboring school colleagues. The lowest scoring questions within this sub-index include student focus, student attitudes and well-being, periodic bullying, and parental engagement, all rating between 43 and 65%. This points to both a weak point in the schools and the potential benefit of building designs that encourage a more student-centered learning environment.

Teaching Behavior

A second example is that two-thirds of USAID teachers reported they co-teach “sometimes” (versus infrequently or never). A quarter of USAID principals reported their teachers co-taught “often” in their view and 43% “on occasion.” Frequent co-teaching and true interdisciplinary teaching would be more likely in a situation where classrooms were configured as learning suites — where two adjacent

---

58 Due to the large number of respondents and their high proportion relative to the overall number of teachers from these schools, even accounting for clustering among schools, all differences were found to be statistically significant at the p=0.00 level unless indicated. Thus, the analysis focuses only on substantively relevant differences.
classrooms are connected via a movable partition. Co-teaching also allows for multiple modalities of learning and almost forces teachers off the traditional track. However, the enumerators found little evidence that classrooms were setup to facilitate frequent co-teaching, as visible in the Appendix 5.19, especially outside of the SKEP schools, for which design standards included early-grade clusters as a standard. About 62% of USAID-funded school principals report teachers co-teach lessons only on occasion rather than often. Further, a similar proportion (58%) of neighboring school teachers, who generally teach in truly old, traditional “cells-and-bells” classrooms report the same. This indicates little difference along this measure from the arrangement of classrooms in USAID funded schools and a need to better assess frequency of such behavior. One explanation given among supervisors in the FGD is that co-planning and co-teaching occurs mostly among the early grade teachers. Supervisors called such co-planning and co-teaching beyond early grades almost “non existent” despite teachers having been trained to do so with some limited exceptions within their own discipline. In fact, some supervisors indicate that many teachers buy the plans and do not prepare the plans themselves so do no planning alone or with colleagues with no difference noticed between USAID-funded and other schools.

USAID funded schools report teachers or staff resort to corporal punishment somewhat less often. 22% of USAID funded teachers versus 44% of neighboring school teachers indicated “teachers in the school use physical disciplinary methods to punish problematic student behavior” sometimes and 22% vs 32%, respectively indicated they do so infrequently. Supervisors and teachers in FGDs indicate that corporal punishment is seldom used as a disciplinary method generally and that more often parents are summoned and possibly fined.

The evaluation team also examined the average time students are involved in learning activities varied between USAID and neighboring schools. Responses were equivalent with about 45% of teachers indicating learning activities occurred for 20 to 30 minutes per class and 46% reporting learning activities for fewer than 20 minutes.
Existing Conditions 1: Outdoor Spaces

**Above:** A rare but good example of a shaded outdoor space. Even though this space is not furnished for outdoor activities, it affords some opportunities for active outdoor play. The paving material is more attractive for play than the concrete paved surfaces which were more typical of the schools surveyed (JSP - 8th Area Secondary Boys)

**Below:** Some schools have shaded entrances like the one pictured here from the same school with a suitable wheelchair ramp
Existing Conditions 2: Indoor Spaces

Above: Another unusual but good example of a well-maintained open stairwell in a typical SKEP school. The little touches to make the space more colorful and friendly go a long way toward creating a positive school climate. (SKEP – Um Maabad Al Khuza’eyah Comprehensive Secondary Mixed School)

Below: Any kind of soft seating like those featured here at the same SKEP school provides a welcome break from the hard plastic chairs or wooden benches on which students must sit for several hours each day. Adding seating variety should be a high priority for new USAID schools.
Existing Conditions 3: Toilets and Lockers

Above: While this is not typical of most of the surveyed schools outside of SKEP, some schools have taken extra effort to maintain clean bathrooms like the one Um Maabad Al Khuza'eyyah Comprehensive Secondary Mixed School.

Below: Most new schools have generously-sized individual student storage lockers as below at the same school. In the absence of personal laptops or tablets, students still rely on heavy textbooks that they would have to carry all day and having lockers like this for their textbook and other personal effects is a positive thing. Smaller locker groupings like this are preferable to lining up the entire corridor since they create “water-cooler”-like settings for informal socializing.
Existing Conditions 4: Project Space

Above and Below: Some schools have rooms like these from JSP’s 8th Area Secondary Boys above and JSEP Al-Thaminah Secondary Mixed School below that are suitable for hands-on project activities and art. They are deficient in that there are not enough power outlets or access to water. Good features include lots of daylight, large working surfaces and movable furniture.
Existing Conditions 6: SKEP School Classrooms

Above: Traditionally-arranged classroom in SKEP’s Khawla Bint AlAzwar Basic School for Girls

Right: Typical non-specialty classroom in Hamad Al Farhan Secondary for Boys

Below: Lots of space available for distancing amid a typical traditionally-arranged classroom Al Samt Basic for Boys
Existing Conditions 7: Computer Labs

**Above and Below:** Even when there is no money for individual student laptops, computer labs could be eliminated in favor of laptops on carts – with the potential to introduce essential technology into any classroom. The room above from JSEP’s Al-Zaa’tar Basic Boys School extension wing is narrow and long, preventing a good view of the screen at the front. Large windows cast a glare on computer screens unless the room is darkened. Placing computers in this linear arrangement reduces opportunities for collaboration and teamwork. (Bottom, SKEP’s Um Maabad Al Khuza’eyah Comprehensive Secondary Mixed School)
Existing Conditions 8: Outdoor Play Areas

**Above:** This football field from JSEP’s Um Romanah Secondary School for Boys school is usable but of poor quality and notably worse than found for JSP or SKEP.

**Below:** The early years play area below from the JSEP Al-Thaminah Secondary Mixed School is also very old paradigm and offers few choices. Modern play areas for the early years provide children many opportunities for imaginative active play.
Existing Conditions 9: Outdoors

Above: There are many such hardscaped areas that provide some essential outdoor play space. However, there are insufficient green areas, and very little attention paid to the provision of outdoor learning areas like vegetable gardens or shade trees (JSEP – Um Romanah Secondary School for Boys)

Below: This basic-level SKEP school, Khawala Bint Al Azwar Basic Girls School, provides a lot of outdoor area, but with limited features or shade.
Existing Conditions 10: Hallways and Labs

Right: Even SKEP schools (Khawa Bint AlAzwar Basic School for Girls pictured to right) largely seem to be built with a “cells-and-bells” model among contractors despite some flexibility in standards. This hallway space with classrooms on each side may be organized as clusters, but these hallway spaces are lost for learning purposes.

Below: The new SKEP schools (Al Samt Basic for Boys below) have science labs that are well provisioned, but the fixed table arrangement is limiting. A more dynamic space can be created by limiting services to the periphery of the room and having worktables that are mobile.
Existing Conditions 11: Early Grade Furnishing

Left: Early years spaces do have age-appropriate furnishings, such as schools like JSEP’s Al-Thaminah Secondary Mixed School KG extension. For this age group, pastel colors are preferred to primary colors. The classroom would also benefit from being divided into multiple learning centers each focusing on different interests and skills. They would include things like a reading corner, a wet and messy area with access to outdoor sand and water play, a social play space, a storytelling zone which doubles as floor seating, a writing area and so on.
5.15. Appendix 22: Photographs That Help Demonstrate Recommendations

The following pages illustrate and augment many of the ideas proposed in the recommendations section of the report with examples from schools outside of Jordan. For clarity, the recommendations in this appendix are assigned numbers where they correspond with numbers in the report. (Photos courtesy of Education Design International, Prakash Nair, Fielding Nair International)

### Recommendation # 1

**Design for Student-Centered Pedagogy**: Spaces should be designed to minimize lecture-based teaching which should only be used as a supplement to hands-on learning approaches. One way to do so is for USAID to require designs that move away from the obsolete “cells and bells” design invented during the first industrial revolution towards a student-centered model with fewer traditional classrooms and more spaces for active learning.

Larger tables in classrooms support small projects & all desk tasks. A variety of spaces and furnishings support a wider range of student-centered learning activities.
**Recommendation # 2**

**Add Specialized Learning Spaces:** Increase the number of specialized spaces such as maker labs and specialty labs, so the availability for practical learning on a day-to-day basis is increased. When a space is designed and available for student use, it should be outfitted with proper learning resources, furniture, equipment and supplies.

![Makers Labs](image1.png) ![Multiuse Labs](image2.png)

**Recommendation # 3**

**Create Inspiring, Multi-Use Spaces:** School buildings should include inspiring, imaginative and innovative spaces that are also highly functional and effective places to improve student academic achievement and contribute to their social and emotional development. Multi-use lab spaces with sufficient power outlets and water access for hands-on learning should be added to the standard program.

![This inspiring space serves as a café, a presentation and community forum, an art center, a wet and messy project area, a reading room and a large collaboration zone](image3.png)  
![This welcoming entry is the school’s “family room.” It abuts a “curiosity center” containing a variety of media and tools that students can access in order to imagine, research, design and implement their ideas](image4.png)
Recommendation # 4

**Boost Educational Technology:** Prioritize educational technology early in the planning process. Audio and video systems should be fully integrated throughout the building design. High-bandwidth WiFi, which was deficient in many of the surveyed schools, can become the catalyst for a variety of mobile technologies as well.

Modern media labs are setup to encourage collaboration

Mobile technology increases flexibility
Recommendation # 5

**Improve Teacher Offices:** Support and encourage teachers to work together by giving them access to better and more high-quality professional workspaces beyond the classroom and isolated teacher rooms that do not integrate with or oversee learning spaces.

Professional teacher offices can be located in areas where they can passively supervise student learning spaces. This is a teacher “open office” with a “help desk” that students can access as needed.
Recommendation # 6

*Increase Variety of Furniture:* Require variety, variation in heights, seating types, and materials for loose furnishings that are contractors procure. The ability for students to select preferred areas to work in and furniture to use improves the learning potential of each space. If the schools had more of a variety of seating and table selections their spaces would support a greater range of student learning activities. Currently, many rooms at USAID-funded schools are furnished with tablet armchairs, and even SKEP school general classrooms are organized to face the front of a classroom.

Regardless of Grade Level, Classrooms should have varied size, height and types of furnishings...
Recommendation # 7 and 8

**Increase Storage:** In new designs, include more storage for student projects and teaching and learning resources. The lack of adequate storage was evident during field observations.

**Plan for Future Expansion:** Require architects to include in the master plan where an expansion might go to adequately plan for future enrollment growth.

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**Recommendation # 9**

**Improve Eating Areas:** Add and improve areas for dining with varied types of seating, outdoor dining spaces, and even remote spaces to sit and eat away from the main café.
Recommendation # 10

Improve Outdoor Play and Learning Spaces and Indoor-outdoor Connections: Improve outdoor areas for play, sports, and learning. Add more shaded features to increase flexibility and opportunities for various activities that would not be possible in an indoor setting. Make outdoor learning areas directly accessible from instructional spaces.

Instead of the sterile plastic and metal playgrounds in which play is pre-determined by adults, this kind of an imaginative playground allows children to imagine and create their own play experiences. Sometimes the simplest places are also the most appealing. A place like this is inexpensive to build and can also be used for a variety of physical fitness activities like dance, yoga and aerobics.

Recommendation # 10 (contd.)

USAID should encourage school designers to maximize opportunities for outdoor learning. Such spaces are cost-effective, in many cases, more functional than indoor spaces, have more healthy access to daylight and fresh air, and feel less prison-like and oppressive than crowded indoor classrooms.

This previously unused space between two buildings was captured inexpensively for outdoor learning. This small deck outside a common space covered by a lightweight shade structure extends makes a seamless indoor-outdoor connection.
Recommendation # 11

Optimize number of informal learning spaces throughout schools, preferably one per four dedicated general learning spaces.

Informal learning spaces should be distributed throughout the school such as this kind of central shared reading room.

Ideally, there should be a mix of formal and informal areas even in the primary learning zones like classrooms.
Recommendation # 12

Create Greater Variety of Room Sizes and Connectivity: Add spaces of varying sizes including small group rooms, meeting rooms, seminar rooms, and quiet reading rooms. Provide meeting spaces of varying sizes in every school that are usable by teachers and students. Seminar rooms for 15 students, small group rooms for 6 students, quiet rooms for three students are some of the most popular sizes.

Small rooms like this permit groups of between two to six students to provide a learning atmosphere that is very different than in a classroom.

A large space like this central heart of school has several different “zones”, each acting like its own “room” and permitting varied size groups and a variety of learning activities.
Recommendation #14

Provide Indoor Fitness Areas: When possible, a multiuse indoor gymnasium and a fitness room for older students would improve student wellbeing and would make a great addition to the standard program of spaces.

Properly equipped indoor gymnasiums are essential for students of all ages. They permit a variety of physical fitness activities. If a wood floor is used, it should be protected in the event that the gym doubles as a large gathering space.

Fitness centers such as the one pictured here are essential for high school students who participate in competitive sports and should be provided if budgets permit.
Recommendation # 15

Provide and Improve Areas for Performance Arts: Add an area for performance / drama or multi-use area to enable performance. This could be as simple as a classroom-sized space suitable for plays with a very small audience.

It is not necessary to provide a large auditorium for drama and theater. Small multi-use areas like this can work extremely well as a performance and presentation space.

When funds are limited, a space like this entry to the school with a two-level gathering area can function as a good space for music, drama and theater as well as for formal presentations to a large audience.

Recommendation # 15, continued

Provide and Improve Areas for Performance Arts: Add a space for 2D and 3D visual arts to the standard program.

Dedicated art spaces like this that are properly equipped and daylit create the proper environment for students to excel at art and do professional quality work.

For the early years, ateliers like this that accommodate a variety of art-related activities are a good place for budding artists to explore and express their creative talents.
Recommendation # 16

**Make Science Labs More Flexible:** Science rooms should be designed with movable tables, with services and sinks along the perimeter of the room. This flexible layout will support a wider range of activities. Consider connecting lab / specialty spaces that are on level 1 directly to the outside and adding a small learning porch that will be directly accessible from the room.
5.16. Appendix 23: Teacher COVID-19 Responses

Figure 13: Proportion of Schools Where at Least 75% of Teachers Report Their Schools Undertaking Specific Protective Measures

Note: Responses organized by frequency of response among USAID-funded school teachers.

Figure 14: Proportion of Schools Where at Least 50% of Teachers Report Their Schools Undertaking Specific Protective Measures

Note: Responses organized by frequency of response among USAID-funded school teachers.
5.17. Appendix 24: Statistical Tests on Construction Timelines

Table 14: T-tests of Differences in Delays Days by Governorate with Kindergartens After COVID

<table>
<thead>
<tr>
<th>n</th>
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Table 15: T-tests of Differences in Delays Days by Governorate without Kindergartens After COVID

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Table 16: T-tests of differences in Delays Days by Governorate with Kindergartens Before COVID

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Table 17: T-tests of differences in Delays Days by Governorate without Kindergartens Before COVID

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Table 18: Regression Analysis for Delays Days by Number of Contractors Before and After COVID Lockdown Coefficients*
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*a. Dependent Variable: Delay_days*

**Table 19: Regression Analysis for Delays Days by Number of Contractors Before COVID Lockdown Coefficients*^a*

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*a. Dependent Variable: Delay_days*

**Table 20: Regression Analysis for Delays Days by Number of Contractors After COVID Lockdown Coefficients*^a*

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*a. Dependent Variable: Delay_days*
### Table 21: Construction or renovation reduced crowding issues at neighboring schools in first 1-2 academic years after construction completed

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<th>Frequency</th>
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<td>76.9</td>
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### Table 22: Were any rented buildings no longer needed?

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### Table 23: Were one or more double shifts no longer needed?

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### Table 24: Did class sizes become smaller?

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</table>

### Table 25: Principal Responses on Crowding
5.19. Appendix 26: MoE Supervisor Classroom Observation Tool in Arabic

بسم الله الرحمن الرحيم

وزارة التربية والتعليم
إدارة الإشراف والتدريب التربوي

أداة الملاحظة الصفية للصفوف الثلاثة الأولى في اللغة العربية والرياضيات

مبادرة القراءة والحساب للصفوف المبكرة

الملاحظة النهائية في ضوء كتاب الأدوات والنموذج الإشرافي رقم م ت 14/ 6/ 16244 بتاريخ 26/5/2020 وزارة التربية والتعليم، عمان
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الأداة الملاحظة الصفية للصفوف الثلاثة الأولى في اللغة العربية والرياضيات والتربية الخاصة

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**التعليمات الأساسية**

وقت انتهاء الملاحظة:
المجموع من 125

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**الوظائف المحددة في بطاقة الوصف الوظيفي: ويفعلها**

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**التعليمات المحددة في بطاقة الوصف الوظيفي: ويفعلها**

ملاحظات: (1) وصف مؤشرات الأداء في ملحق الملف

Effective Instruction Indicators)

الجوانب المشار لها بالنجمتين (***) هي الجوانب التي تمثل مؤشرات فعالية التدريس (**)
آلية تطبيق أداة الملاحظة الصفية (سلم التقدير اللفظي)

أولاً: تظهر أسئلة المعلومات الأساسية (أ – ح) على صفحة واحدة، ويقوم المشرف بتعبئتها على النحو الآتي:

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<thead>
<tr>
<th>المعلومات</th>
<th>الاستجابة</th>
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<tr>
<td>اسم ورقم المقيم:</td>
<td>بمجرد كتابة رقم المشرف الوزاري يظهر اسمه تلقائيًا ليتم اختياره</td>
</tr>
<tr>
<td>تاريخ اليوم:</td>
<td>يظهر اليوم والمقاليد تلقائيًا</td>
</tr>
<tr>
<td>اسم المدرسة ورقمها الوطني:</td>
<td>تظهر أسماء المدارس ورقمها الوطني التابعة للمشرف في منطقته</td>
</tr>
<tr>
<td>الصف الذي تقوم بزيارته:</td>
<td>يتم اختيار الصف من بين الصفوف الثلاثة الأولى □ 1 □ 2 □ 3</td>
</tr>
<tr>
<td>شعبة الصف الذي تقوم بزيارته:</td>
<td>يتم اختيار الشعبة من بين الشعب □ أ □ ب □ ج □ د □ هـ</td>
</tr>
<tr>
<td>اسم المعلم/ة الذي تقوم بزيارته/ها:</td>
<td>يظهر اسم المعلمين في المدرسة المختارة تلقائيًا، ويترك المجال لإضافة اسم المعلم ورقمه الوزاري إذا كان جديداً (مع إمكانية بدء الملاحظة الصفية)</td>
</tr>
<tr>
<td>مادة الحصة التي تقوم بزيارتها:</td>
<td>تظهر خيارات مواد الصف الذي تم اختياره</td>
</tr>
<tr>
<td>وقت بدء الملاحظة:</td>
<td>يظهر وقت بدء الحصة تلقائيًا</td>
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ثانيًا: تظهر علامة (٥) بجانب الوضوح الأدائي لدرجة التقدير لكل مؤشر أداء في سلم التقدير اللفظي ليختار المشرف منها (دون ظهور المجالات الرئيسية والفرعية).
تم ملاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤثر على أحد الخيارات الترتيبية في حال تم لاحظة أي أمر يؤث
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<td>1.</td>
<td>يُ使って المعلم/ة لغة غير واضحة، حيث يتبني استجابات الطلبة حول مادة التعليم ويختلط معهم عليها.</td>
</tr>
<tr>
<td>2.</td>
<td>يُعطِى المعلم/ة استراتيجيات محددة تتحور حوله (القفز)، ويتمتع الطلبة بالحياة اليومية حول مادة التعليم.</td>
</tr>
<tr>
<td>3.</td>
<td>يُقرِّب المعلم/ة همزة واحدها من واقع الحياة الاجتماعية، ويضمن تدريسهم حسب حاجاتهم.</td>
</tr>
<tr>
<td>4.</td>
<td>يُخصص المعلم/ة الوقت الكافى لتحقیق معلم الطلبة لكل ناجح تعليمي مع الإشارة إلى تحقیق الانتقال إلى النتائج الآخر حتى الانتهاء من تحقیق معلم الطلبة لمهمة التحصیل عند نهاية الحصة الصفية.</td>
</tr>
<tr>
<td>5.</td>
<td>يُستخدم المعلم/ة لغة سليمة، حيث يتباین استجابات الطلبة حول مادة التعليم ويتفق معهم عليها.</td>
</tr>
<tr>
<td>6.</td>
<td>يُعطِى المعلم/ة استراتيجيات متعددة نوعًا ما توزع بين المعلم والطالب، ويتفاصل الطلبة في التعلم باللغة فقط من خلال الأنشطة والمهمات الفردية.</td>
</tr>
<tr>
<td>7.</td>
<td>يقوم المعلم/ة بآملا محددة من واقع حياة الطالب اليومية حول مادة التعليم.</td>
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<tr>
<td>8.</td>
<td>يُراعي المعلم/ة اختلاف الطالب من حيث قدراتهم فقط حيث ينتمي الطلبة في مجموعاتهم العلاجية والمتوسطة والمتقدمة.</td>
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<td>9.</td>
<td>يُتبع استراتيجيات التقويم وأدواته لتشمل أساليب تشخيصية (إذا تحقق الفرق) ووظائف تطبيق، بالإضافة إلى أساليب وأدوات محددة لرصد مدى تحقيق نتائج التعليم.</td>
</tr>
<tr>
<td>10.</td>
<td>يُخصِب المعلم/ة/ة قراراته التدريبية بناء على مدى همزة الطلبة، ويبحث أساليب التقويم من فلم أعمال الطلبة.</td>
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**التعليم التقويم**

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<td>2.</td>
<td>يُعطِى المعلم/ة استراتيجيات متعددة نوعًا ما توزع بين المتعلم والمتعلم، ويتفاصل الطلبة في التعلم باللغة فقط من خلال الأنشطة والمهمات الفردية.</td>
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<td>يقوم المعلم/ة بآملا محددة من واقع حياة الطالب اليومية حول مادة التعليم.</td>
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<td>4.</td>
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<td>1.</td>
<td>يُعطِى المعلم/ة استراتيجية متعددة نوعًا ما توزع بين المتعلم والمتعلم، ويتفاصل الطلبة في التعلم باللغة فقط من خلال الأنشطة والمهمات الفردية.</td>
</tr>
<tr>
<td>2.</td>
<td>يقوم المعلم/ة بآملا محددة من واقع حياة الطالب اليومية حول مادة التعليم.</td>
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<td>يتجاهل المعلم تطبيق استراتيجيات الاستيعاب القرائي أو يطبقها بشكل خاطئ.</td>
<td>يطبق المعلم/ة استراتيجيات الاستيعاب القرائي بشكل صحيح مع إثارة الوقت الأكتر للطلبة للممارسة المستقلة.</td>
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<td>تبدو الأنشطة غير مألوفة لدى الطلبة حيث يضطج أنهم لم يطبقوها مسبقا.</td>
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<td>يُعطي المعلم/ة وقتًا لطلبة القراءة دون استخدام نصوص و كلمات من خارج الكتاب المدرسي.</td>
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<td>22. تطبيق أنواع القراءة المختلفة (التحرير التدريجي)</td>
<td>يعطي المعلم/ة الطلبة مسؤولية القراءة بشكل متدرج وحسب مستواهم، حيث يستفيد الطلبة ذوي القراءة الضعيفة من الطلبة المتقدمين في قراءتهم في تطبيق قراءة الشريك، ويتيح القراءة للطلبة حسب مستواهم مع مراقبة التقليل بينهم لتقدير الدعم المناسب لهم.</td>
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<td>23. تطوير مهارة المحادثة</td>
<td>يقتصر المعلم/ة في تطبيق أنشطة المحادثة على بعض الإجابات المحددة دون مراجعة مستويات الطلبة ودون تصحيحهم.</td>
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<td>24. متابعة حل تمارين كرása الطالب يوميًا أسبوعيًا ولكن حلولهم غير مصححة.</td>
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<td>25. تعزيز الإجابات الإيجابية نحو اللغة العربية</td>
<td>يستخدم المعلم/ة مفاهيم إيجابية لإكسكو من خلالها تقديره إيجابية استخدام اللغة العربية وجعلها دون تشجيع الطلبة لاستخدام هذه المفاهيم.</td>
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<td>26. تقييم الأداء العام</td>
<td>يخصص المعلم/ة للطلبة لعرض طرائفهم في الحل وفقًا لليلا لوقته فيما يشغله في عرض طرائفهم في الحل والزامهم بها.</td>
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<td>27. فحص المعلم/ة للطلبة من أجل عرض طرائفهم في الحل وفقًا مساويًا لوقته في عرض طرائفهم في الحل. يترك المعلم/ة الوقت الأكبر للطلبة لعرض طرائفهم في الحل مع الإشارة إلى الطرق الأكثر فاعلية.</td>
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**المالم Infrastructure Multi-Activity Evaluation**

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يقوم المعلم/ة بمسائل ضمن سياق الحياة ويدمج الطلبة في الحل دون تدخل المعلم، ويعرض المعلم حلول الطلبة المختلفة لتحفيز المفاهيم لدى جميع الطلبة. يُشرح المعلم/ة الطالب/ة عن كيفية توصلهم لنتائج إجابتهم. يُذكر المعلم/ة الطالب/ة عن مفاهيمه لحل المسألة، وكيفية التوصل لها. يقام المعلم/ة بالمفهوم الرياضياتي إيجابيًا مثل: (تكتسي الكلمات المفاهيمية والمفاهيمية/العملية الحسابية المناسبة) دون التأكد من أكسب المفاهيم. تدريجًا، طلاب المدرسة يكتسبون فهمًا للمفاهيم المفاهيمية وإيجاد الحلول في مجال الحياة، التكامل مع الطالب المبكرًا. يُشارك الطلاب في التدريس، ينتقد تدريس المعلم، يقترحون حلولًا إيجابيًا لحل المشكلات. يُقترح المعلم/ة استراتيجيات تساعد الطلبة على إيجاد الحلول من خلال استراتيجيات مثل الخوارزميات الحاسوبية، الشركاء، الإكلال الحضاري... الخ. يكتسب المعلم/ة فرصاً جديدة لحل أعمدة ومسائل ضمن مستوى الطلبة. يحل الطلبة تمارين كراءة الطلبة يوميًا، Workspace، حلول مفاهيم تدريس الحساب.) USAID.GOV

17. تنمية مهارة حل المسألة
18. تقاسم طرق التوصل للحل
19. دعم اكتساب الوسائط الرياضية
20. إيلام الطلبة بالأنشطة الروتينية
21. التدرج في المحور (الإسقاطات النمائية في تدريس الحساب)
22. التلاعب بالتوافد (الحساب الذري)
23. توفير فرص حل المسائل ضمن مستوى الطلاب
24. متابعة حل تمرين كراءة الطلاب.
<table>
<thead>
<tr>
<th>لا يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية والخطة التعليمية الفردية للمهارات الحياتية</th>
<th>ينفي المعلم/ة نتائج ومهارات بشكل عشوائي ليست من الخطة التربوية والخطة التعليمية الفردية والمهمات الأکاديمية.</th>
</tr>
</thead>
<tbody>
<tr>
<td>لا يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية والخطة التعليمية الفردية للمهارات النمائية.</td>
<td>ينفي المعلم/ة نتائج ومهارات بشكل عشوائي ليست من الخطة التربوية والخطة التعليمية الفردية للمهارات النمائية.</td>
</tr>
<tr>
<td>يتجاهل المعلم/ة تطبيق استراتيجيات تدريس ذوي الإعاقة وصعوبات التعلم.</td>
<td>يطبق المعلم/ة في تطبيق استراتيجيات تدريس ذوي الإعاقة وصعوبات التعلم (تحليل المهنة/تحدي الحواس بدون تعليق الفعل) وتفاعل الطلاب مع المهام.</td>
</tr>
<tr>
<td>يستخدم المعلم/ة مقاييس إيجابية يعكس من خلالها تقييمًا ل秦皇 استخدام الرياضيات والبلاغة، دون تشجيع الطلبة لاستخدام هذه المفاهيم.</td>
<td>لا يطبق المعلم/ة في تطبيق استراتيجيات تدريس ذوي الإعاقة وصعوبات التعلم (تحليل المهنة/تحدي الحواس بدون تعليق الفعل) وتفاعل الطلاب مع المهام.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>توزيع الأدوات التعليمية و sondة الرسمية والرسمية المناسبة للفئة</th>
<th>يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية الفردية والخطة التعليمية الفردية والمهمات الأکاديمية حسبما ورد في الخطة التربوية الفردية.</th>
</tr>
</thead>
<tbody>
<tr>
<td>يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية الفردية والخطة التعليمية الفردية والمهمات الأکاديمية حسبما ورد في الخطة التربوية الفردية.</td>
<td></td>
</tr>
<tr>
<td>يطبق المعلم/ة/الخطة التربوية الفردية والخطة التعليمية الفردية والمهمات التربوية الفردية حسبما ورد في الخطة التربوية الفردية.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>مؤشر الأداء</th>
<th>المجال الفرعي</th>
<th>رقم</th>
</tr>
</thead>
<tbody>
<tr>
<td>لا يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية والخطة التعليمية الفردية للمهارات الأکاديمية.</td>
<td>درجة التقدير والوصف الأدائي لكل منها</td>
<td>16. تطبيق أدوات الكشف والتشخيص الرسمية وغير الرسمية المناسبة للفئة</td>
</tr>
<tr>
<td>لا يطبق المعلم/ة البرنامج التربوي الفردي والخطة التربوية والخطة التعليمية الفردية للمهارات النمائية.</td>
<td></td>
<td>17. تطبيق أنظمة التدريس الفردية والمهمات الفردية والأکاديمية للمهارات النمائية حسبما ورد في الخطة التربوية الفردية.</td>
</tr>
<tr>
<td>يتجاهل المعلم/ة تطبيق استراتيجيات تدريس ذوي الإعاقة وصعوبات التعلم.</td>
<td></td>
<td>18. تطبيق استراتيجيات تدريس ذوي الإعاقة وصعوبات التعلم (تحليل المهنة/تحدي الحواس بدون تعليق الفعل) وتفاعل الطلاب مع المهام.</td>
</tr>
</tbody>
</table>
إعداد السجلات المحددة في بطاقة الوصف الوظيفي (7 سجلات) ويفعلها.

يعد المعلم/ـة معظم السجلات المحددة في بطاقة الوصف الوظيفي.

يعد المعلم/ـة بعض السجلات المحددة في بطاقة الوصف الوظيفي دون تفعيلها.

يعد المعلم/ـة بعض السجلات المحددة في بطاقة الوصف الوظيفي.

يتجاهل المعلم/ـة أعداد وتقييم السجلات المحددة.

رابعًا: بعد مؤشر الأداء رقم (25)، يضغط المشرف على زر "التالي" لينتقل إلى صفحة أسئلة التحقق من مهارات الطلبة القرائية (الطلاقة) إذا كانت الحصة حصة لغة عربية، أو الحسابية إذا كانت الحصة حصة رياضيات.

**أسئلة للتحقق من مهارات الطلبة القرائية (الطلاقة)**

سيتم توفير 3 نماذج من الأسئلة لتتغطي مع تغيير الطلب.

يتم اختيار 3 طلبة عشوائيًا من الصف ويطلب منهم المشرف قراءة الكلمات والجمل الآتية (ينبغي أن يكون الطلبة مختلفي في كل مرة):

**أول الفصل الثاني**

نسبة عدد ممكن من المقاطع الصوتية والكلمات والجمل الآتية (بالإشارة إلى الترتيب من 앞 اليمين إلى اليسار عند كل سطر من الأعلى إلى الأسفل) لديك دقيقة واحدة... ابدأ.

| نفتسين | ذيفنتي | خنتي | سننتي | متننتي | بتننتي | لتننتي | زنتي | تيبي | بازيا | مزيا | شيز | فوشين | شيزفوش | ذيفرن | ذيفن | عينن | حانن | عانن | نانن | تينن | نتنن | هنن | نتنن | دوتتنن | سلنن | ظفلن |
The text in the image is not legible due to the quality of the scan. It appears to be a page from a book or a document, but the content is not discernible. The page includes text and possibly a table or chart, but the specific details cannot be accurately transcribed.
أسئلة للتحقق من مهارات الطلبة الحسابية

سيتم توفير 3 نماذج من الأسئلة لتنغيث مع تغيير الطالب.

يتم اختيار 3 طلبة عشوائيًا من الصف ويطلب منهم المشرف قراءة وحل المسائل الآتية (ينبغي أن يكون الطلبة مختلفي فالأول، الفصل الأول):

الفصل الأول، الفصل الأول

 أكبر عدد ممكن من الأعداد الآتية (بالإشارة إلى الترتيب من اليسار إلى اليمين عند كل سطر من الأعلى إلى الأسفل). لديك دقيقة واحدة... ابدأ.

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>9</td>
<td>8</td>
<td>0</td>
<td>13</td>
<td>3</td>
<td>8</td>
<td>7</td>
<td>1</td>
<td>12</td>
</tr>
<tr>
<td>20</td>
<td>16</td>
<td>29</td>
<td>4</td>
<td>53</td>
<td>10</td>
<td>17</td>
<td>24</td>
<td>45</td>
<td>63</td>
</tr>
<tr>
<td>38</td>
<td>40</td>
<td>54</td>
<td>9</td>
<td>62</td>
<td>33</td>
<td>50</td>
<td>56</td>
<td>87</td>
<td>60</td>
</tr>
<tr>
<td>77</td>
<td>85</td>
<td>75</td>
<td>9</td>
<td>100</td>
<td>99</td>
<td>74</td>
<td>81</td>
<td>100</td>
<td>92</td>
</tr>
</tbody>
</table>

<p>| | | | | | | | | | |</p>
<table>
<thead>
<tr>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>0</td>
<td>6</td>
<td>2</td>
<td>11</td>
<td>30</td>
<td>15</td>
<td>29</td>
<td>42</td>
<td>64</td>
</tr>
<tr>
<td>44</td>
<td>67</td>
<td>78</td>
<td>84</td>
<td>100</td>
<td>91</td>
<td>75</td>
<td>82</td>
<td>99</td>
<td>68</td>
</tr>
</tbody>
</table>
الصف الأول، الفصل الثاني

العمليات الحسابية الآتية (بالإشارة إلى الترتيب من الأعلى إلى الأسفل عند كل عمود من اليسار إلى اليمين). لديك دقيقة واحدة... ابدأ.

<table>
<thead>
<tr>
<th>2 + 5</th>
<th>8 + 6</th>
<th>2 - 1</th>
<th>15 - 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 + 4</td>
<td>9 + 8</td>
<td>5 - 2</td>
<td>16 - 9</td>
</tr>
<tr>
<td>3 + 6</td>
<td>7 + 7</td>
<td>4 - 3</td>
<td>14 - 2</td>
</tr>
<tr>
<td>14 + 2</td>
<td>2 + 12</td>
<td>10 - 2</td>
<td>17 - 7</td>
</tr>
<tr>
<td>11 + 6</td>
<td>10 + 4</td>
<td>17 - 11</td>
<td>15 - 10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1 + 6</th>
<th>9 + 5</th>
<th>3 - 2</th>
<th>16 - 7</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 + 5</td>
<td>8 + 7</td>
<td>6 - 3</td>
<td>17 - 10</td>
</tr>
<tr>
<td>4 + 5</td>
<td>6 + 8</td>
<td>5 - 4</td>
<td>15 - 3</td>
</tr>
<tr>
<td>11 + 5</td>
<td>1 + 13</td>
<td>9 - 1</td>
<td>18 - 8</td>
</tr>
<tr>
<td>13 + 4</td>
<td>4 + 10</td>
<td>18 - 12</td>
<td>16 - 11</td>
</tr>
<tr>
<td>5 + 2 =</td>
<td>6 + 8 =</td>
<td>4 - 3 =</td>
<td>17 - 9 =</td>
</tr>
<tr>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
</tr>
<tr>
<td>4 + 3 =</td>
<td>8 + 9 =</td>
<td>7 - 4 =</td>
<td>15 - 8 =</td>
</tr>
<tr>
<td>6 + 3 =</td>
<td>7 + 7 =</td>
<td>6 - 5 =</td>
<td>13 - 1 =</td>
</tr>
<tr>
<td>2 + 14 =</td>
<td>12 + 2 =</td>
<td>12 - 4 =</td>
<td>16 - 6 =</td>
</tr>
<tr>
<td>6 + 11 =</td>
<td>4 + 10 =</td>
<td>19 - 13 =</td>
<td>14 - 9 =</td>
</tr>
</tbody>
</table>

| 24 + 15 = | 15 + 24 = | 25 + 14 = |
| 34 + 46 = | 46 + 34 = | 35 + 45 = |
| 27 - 14 = | 28 - 15 = | 30 - 17 = |
| 50 - 24 = | 40 - 14 = | 45 - 19 = |
| 44 - 26 = | 45 - 27 = | 43 - 25 = |
الصف الثاني، الفصل الثاني:

عمليات الحسابية الآتية (بالإشارة إلى الترتيب من الأعلى إلى الأسفل). لديك دقيقة واحدة... ابدأ.

<table>
<thead>
<tr>
<th>247 + 159 =</th>
<th>159 + 247 =</th>
<th>158 + 248 =</th>
</tr>
</thead>
<tbody>
<tr>
<td>304 + 46 =</td>
<td>46 + 304 =</td>
<td>47 + 303 =</td>
</tr>
<tr>
<td>207 − 84 =</td>
<td>208 − 85 =</td>
<td>206 − 83 =</td>
</tr>
<tr>
<td>520 − 240 =</td>
<td>522 − 242 =</td>
<td>521 − 241 =</td>
</tr>
<tr>
<td>425 − 296 =</td>
<td>426 − 297 =</td>
<td>423 − 295 =</td>
</tr>
</tbody>
</table>

الصف الثالث، الفصل الأول:

عمليات الحسابية الآتية (بالإشارة إلى الترتيب من الأعلى إلى الأسفل). لديك دقيقة واحدة... ابدأ.

<table>
<thead>
<tr>
<th>٧٤٢ + ٩٥١ =</th>
<th>٩٥١ + ٧٤٢ =</th>
<th>٨٥١ + ٨٤٢ =</th>
</tr>
</thead>
<tbody>
<tr>
<td>٤٠٣ + ٦٤ =</td>
<td>٦٤ + ٤٠٣ =</td>
<td>٧٤ + ٣٠٣ =</td>
</tr>
<tr>
<td>٧٠٢ − ٤٨ =</td>
<td>٨٠٢ − ٥٨ =</td>
<td>٦٠٢ − ٣٨ =</td>
</tr>
<tr>
<td>٠٢٥ − ٠٤٢ =</td>
<td>٢٢٥ − ٢٤٢ =</td>
<td>١٢٥ − ١٤٢ =</td>
</tr>
</tbody>
</table>
الصف الثالث، الفصل الثاني

عمليات الحسابية الآتية (بالإشارة إلى الترتيب من الأعلى إلى الأسفل). لديك دقيقة واحدة... ابدأ.

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>٥٦٠٩ + ١٢٤٧</td>
<td>٢٤٧٧ + ٥١٠٩</td>
<td>٥١٦٦ + ١٢٤٩</td>
</tr>
<tr>
<td>= ٥٠٦٤ + ٣٠٠٤</td>
<td>= ٤٠٠٥ + ٣٠٠٥</td>
<td>= ٤٠٤ + ٣٠٠٤</td>
</tr>
<tr>
<td>= ٨٨٤ - ٨٧٠٧</td>
<td>= ٨٨٥ - ٨٧٠٨</td>
<td>= ٨٨٣ - ٨٧٠٦</td>
</tr>
<tr>
<td>= ٢٤٠٩ - ٠٠٦٦</td>
<td>= ٢٤٠٦ - ٠٠٦٦</td>
<td>= ٢٤٩١ - ٠٠٦٦</td>
</tr>
<tr>
<td>= ٣٣٩٦ - ٢٤٦٩</td>
<td>= ٣٣٩٧ - ٢٤٦٩</td>
<td>= ٣٣٩٨ - ٢٤٦٩</td>
</tr>
</tbody>
</table>

خامسًا: بعد الانتهاء من أسئلة التحقق من مهارات الطلبة القرائية/الحسابية، يضغط المشرف على زر الرمز (ط) وقت انتهاء الملاحظة الذي يُحدّد تلقائيًا لإنهاء الملاحظة، وينتقل إلى صفحة التغذية الراجعة حول نتائج الطلبة.
الصف الأول/ الفصل الأول (الرياضيات)

إذا قرأ الطلبة 15 رقماً صحيحًا فأكثر، فإن الطلبة يمتلكون مهارة قراءة الأعداد، شجّع المعلم في الاستمرار في التركيز عليها.

إذا قرأ الطلبة أقل من 15 رقماً صحيحًا، فإن الطلبة لا يمتلكون مهارة قراءة الأعداد، ف ينبغي على المعلم التركيز عليها من خلال تقديم المفهوم بطريقة محسوسة ومجردة.

الصف الثاني/ الفصل الأول والثاني (الرياضيات)

إذا أجاب الطلبة 12 إجابة صحيحة فأكثر، فإن الطلبة يتقنون مهارة التلاعب بالأعداد والعمليات عليها، شجّع المعلم في الاستمرار في التركيز عليها.

إذا أجاب الطلبة أقل من 12 إجابة، فإن الطلبة لا يتقنون مهارة التلاعب بالأعداد والعمليات عليها، ف ينبغي على المعلم التركيز عليها.

الصف الثالث/ الفصل الأول والثاني (الرياضيات)

إذا أجاب الطلبة 3 إجابات صحيحة فأكثر، فإن الطلبة يتقنون مهارة التلاعب بالأعداد، شجّع المعلم في الاستمرار في التركيز عليها.

إذا أجاب الطلبة أقل من 3 إجابة صحيحة، فإن الطلبة لا يتقنون مهارة التلاعب بالأعداد، ف ينبغي على المعلم التركيز عليها.

الصف الأول/ الفصل الثاني (اللغة العربية)

إذا قرأ الطلبة 24 مقطعاً صوتياً فأكثر خلال الدقيقة الواحدة، يكون الطلبة ضمن المتوسط، ف ينبغي على المعلم البحث عن الدعم للطلبة للقراءة أكثر.

إذا قرأ الطلبة أقل من 24 مقطعاً صوتياً خلال الدقيقة الواحدة، يكون الطلبة أقل من المتوسط، ف ينبغي أن يركز المعلم على تدريبات لطلبه بما يتعلق بأصوات الحروف والمسموع.

الصف الثاني/ الفصل الأول والثاني (اللغة العربية)

إذا قرأ الطلبة 26 كلمة فأكثر خلال الدقيقة الواحدة، يكون الطلبة ضمن المتوسط المقبول، ف ينبغي على المعلم البحث عن الدعم للطلبة للقراءة أكثر.

إذا قرأ الطلبة أقل من 26 كلمة خلال الدقيقة الواحدة، يكون الطلبة أقل من المتوسط، ف ينبغي أن يركز المعلم على تدريبات أكثر لطلبه بما يتعلق بالقراءة وتوفير فرص أكثر لهم للتدريب على القراءة.

الصف الثالث/ الفصل الأول والثاني (اللغة العربية)

إذا قرأ الطلبة 30 كلمة فأكثر خلال الدقيقة الواحدة، يكون الطلبة ضمن المتوسط المقبول، ف ينبغي على المعلم البحث عن الدعم للطلبة للقراءة أكثر.

إذا قرأ الطلبة أقل من 30 كلمة خلال الدقيقة الواحدة، يكون الطلبة أقل من المتوسط، ف ينبغي أن يركز المعلم على تدريبات أكثر لطلبه بما يتعلق بالقراءة وتوفير فرص أكثر لهم للتدريب على القراءة.
حدد الإجابة: بعد الانتهاء من نتائج أداء الطلبة، يضغط المشرف على زر "التالي" لينتقل إلى صفحة التأمل (1) حول تطبيق مواد مبادرة القراءة والحساب التعليمية:

<table>
<thead>
<tr>
<th>التأمل (1): تطبيق مواد مبادرة القراءة والحساب التعليمية</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>بصفة عامة، هل طبق المعلم مبادئ مبادرة القراءة والحساب؟</strong></td>
</tr>
<tr>
<td>□ نعم □ لا</td>
</tr>
<tr>
<td>إذا كانت الإجابة لا، لا يظهر السؤال رقم (2).</td>
</tr>
<tr>
<td><strong>ما مادة الحصة التي قمت بزيارتها؟</strong></td>
</tr>
<tr>
<td>خيارات</td>
</tr>
<tr>
<td>إذا حصة اللغة العربية تظهر:</td>
</tr>
<tr>
<td>ما المهارات التي تتناولها المعلم خلال الحصة؟ □ الوظيفي الصوتي □ صوت الصرف □ المفردات □ الاستيعاب القرائي □ الكتابة □ كتابة القصة الشخصية المصورة (مهارات غير أساسية)</td>
</tr>
<tr>
<td>إذا حصة الرياضيات تظهر:</td>
</tr>
<tr>
<td>ما المهارات التي تتناولها المعلم خلال الحصة؟ □ العد □ التلاعب بالأعداد □ المسائل الكلامية □ الكسور (مهارات غير أساسية)</td>
</tr>
<tr>
<td><strong>هل استخدمت/ وظفت دليل المعلم (لا يشترط وجود الدليل أمام المعلم، ولكن يشترط توفره في المدرسة؟</strong></td>
</tr>
<tr>
<td>□ نعم □ لا</td>
</tr>
<tr>
<td>إذا نعم:</td>
</tr>
<tr>
<td>استخدم المعلم واحد أو أكثر من الأنشطة من دليل المعلم بشكل صحيح □ استخدم المعلم واحد أو أكثر من الأنشطة من دليل المعلم مع بعض الأخطاء □</td>
</tr>
<tr>
<td><strong>هل تتوفر كراسة لكل طالب منذ بداية الفصل الدراسي؟</strong></td>
</tr>
<tr>
<td>□ نعم □ لا [إذا كانت الإجابة لا، تظهر الرسالة: أطلب من مدير المدرسة استلامها من الإدارة وتوسيعها بأقرب وقت</td>
</tr>
<tr>
<td>برنامج تشجيع القراءة:</td>
</tr>
<tr>
<td>□ نعم □ لا</td>
</tr>
</tbody>
</table>

*يتوفر عدد كاف من القصص في المدرسة/ الصف.
يتوفر عدد كاف من سجل القراءة للطالب.

يتوفر سجل القراءة للطالب قبل بدء الفصل الدراسي.

يُوثّق الطالب قراءاته على سجل القراءة للطالب.

يتوفر عدد كاف من سجل المعلم.

يتوفر سجل المعلم قبل بدء الفصل الدراسي.

يُوثّق المعلم استخدام الطلبة للقصص على سجل القراءة للطالب.

هل تم تطبيق أداة تشخيص القدرات القرائية/الحسابية في بداية الفصل الدراسي؟

هل تم تحديد الطلبة ذوي القدرات الأعلى والأدنى (لا تظهر إذا كانت إجابة الفقرة السابقة لا).

هل تم تطبيق أداة التقييم الخاصة?

هل تم تحديد مستوى مهارة الطالب (لا تظهر إذا كانت إجابة الفقرة السابقة لا).

هل حضرت عملية تقييم داخل الحصة الصفية؟

إذا كانت الإجابة نعم، ما الذي احترمه خلال عملية التقييم؟

- اتبع المعلم الإرشادات بدقة
- اتبع المعلم الإرشادات مع بعض الأخطاء
- لم يتبع المعلم الإرشادات إطلاقًا
- استرق بعض الطلبة النظر إلى أوراق بعضهم البعض
سابعًا: بعد الانتهاء من التأمل (1) حول تطبيق مبادرة القراءة والحساب، يضغط المشرف على زر "التالي" لينتقل إلى صفحة التأمل (2) حول أداء المعلم، فيسأل المشرف المعلم أسئلة تأملية حول أدائه من حيث الجوانب التي أنفق المعلم التعامل معها والجوانب التي يحتاج المعلم إلى تطويرها في ضوء الملاحظات (الأدلة من المواقف الصفية) ثم يناقشهما فيها، ويعرض له النتائج والتوصيات في الجدول الآتي:

التأمل (2): أداء المعلم

<table>
<thead>
<tr>
<th>الجوانب التي يحتاج المعلم إلى تطويرها</th>
<th>الجوانب التي يتقن المعلم التعامل معها</th>
</tr>
</thead>
</table>

وضع دائرة حول أرقام المؤشرات التي حصل فيها المعلم على درجة أو درجتين:

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td>11</td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>18</td>
<td>17</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

ثلاث مؤشرات ذات أولوية هامة حصل فيها على درجة أو درجتين:

<table>
<thead>
<tr>
<th></th>
<th>5</th>
<th>4</th>
<th>3</th>
<th>2</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>9</td>
<td>8</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>14</td>
<td>13</td>
<td>12</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>19</td>
<td>18</td>
<td>17</td>
<td>16</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>24</td>
<td>23</td>
<td>22</td>
<td>21</td>
<td></td>
</tr>
</tbody>
</table>

مؤسسات ذات أولوية هامة حصل فيها على 5 درجات.
<table>
<thead>
<tr>
<th>School Infrastructure Multi-Activity Evaluation</th>
<th>USAID.GOV</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>SCHOOL INFRASTRUCTURE MULTI-ACTIVITY EVALUATION</th>
<th>USAID.GOV</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>علامة فعالية التدريس للزيارة السابقة:</th>
<th>علامة فعالية التدريس للزيارة الحالية:</th>
</tr>
</thead>
<tbody>
<tr>
<td>% ..............................................</td>
<td>% ..............................................</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>علامة الكلية للزيارة السابقة:</th>
<th>علامة الكلية للزيارة الحالية:</th>
</tr>
</thead>
<tbody>
<tr>
<td>% ..............................................</td>
<td>% ..............................................</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>علامات المفترضة من المشرف التربوي (يجب على المشرف تنفيذها في زياراته اللاحقة لاسناد المعلم في الأداء):</th>
</tr>
</thead>
<tbody>
<tr>
<td>% ..........................................................</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>توقيع رئيس قسم الإشراف التربوي</th>
<th>توقيع المشرف التربوي</th>
<th>توقيع مدير المدرسة</th>
<th>توقيع المعلم</th>
</tr>
</thead>
<tbody>
<tr>
<td>________________________________</td>
<td>____________________</td>
<td>____________________</td>
<td>______________</td>
</tr>
</tbody>
</table>

ملاحظة (طريقة احتساب العلامة الكلية ومؤشر فعالية التدريس):

- أولًا: العلامة الكلية
- تحتسب العلامة الكلية بحساب مجموع تحصيل المعلم في جميع الجوانب المذكورة (25٪) (125 / 5 =)
يُحتسب أداء المعلم المجموع بتقسيم المجموع من 125 على 5 :

\[
\text{العلامة الكلي} = \frac{\text{المجموع}}{5}
\]

يُحسب العلامة الكلية من 100 بضرب المجموع من 25 في :

\[
\text{العلامة الكلية} = \frac{\text{المجموع}}{25} \times 100
\]

يُحسب مؤشر فعالية التدريس بحساب مجموع تحصيل المعلم على مؤشرات الأداء (1، 3، 5، 6، 8، 10، 12، 16، 18، 17، 19، 20) وضربه في 1.67:

\[
\text{مؤشر فعالية التدريس} = \frac{\text{المجموع}}{1.67}
\]

إذا كان نسبة مجموع تحصيل المعلم في الجوانب المستهدفة 65% فأكثر، يكون المعلم معلّمًا فعالًا (درجة القطع 65%)

ثالثًا: مؤشر فعالية تطبيق المواد التعليمية (للمبادرة):

يُشترط في تحقيق المعلم لمؤشر فعالية تطبيق المواد التعليمية:

- يكون درجة تقديره على الجانب (24) أو 5 
- بأنه قد طبق مهنيات المبادرة (نعم) في سؤال الرمز (ي).
- بأنه قد طبق واحد أو أكثر من الأنشطة من الدليل بشكل صحيح أو مع بعض الأخطاء عند سؤال الرمز (ك).
- بأنه قد طبق واحد أو أكثر من مهارات القراءة/الحساب على الأقل عند سؤال الرمز (ل).
- بأنه قد وفر كراسة لكل طالب عند بداية الفصل الدراسي عند سؤال الرمز (م).
- بأنه أجاب بنعم على جميع فقرات برنامج تشجيع القراءة عند سؤال الرمز (ن).
- بأنه قام بتطبيق أداء تشخيص القدرات القرائية والحسابية والأداة الخاصة عند سؤال الرمز (س).
- بأنه قد تبع المعلم إرشادات التقييم بدقة أو مع بعض الأخطاء عند سؤال الرمز (ع).

رابعًا: قياس التقدم

يُحتسب قياس التقدم بمقارنة نتائج المعلم على أداة الملاحظة الصيفية في الزيارة الأخيرة والزيارة التي سبقتها كثا (النتائج الرقمية) ونوعًا (مؤشرات الأداء التي أتقن المعلم التعامل معها والتي

يحتاج إلى تطويرها)
ملحق (1): وصف مؤشرات الأداء

<table>
<thead>
<tr>
<th>الوصف</th>
<th>مؤشر الأداء</th>
<th>المجال الفرعي</th>
<th>المجال الرئيسي</th>
</tr>
</thead>
<tbody>
<tr>
<td>تبني المعلم/سـة خطة يومية للدرس وتلكم دقيق ومستمر ينفذها في الموظف التعليمي ويعمل على تنفيذ المهام المنسدة إليه في خطط الدسـرة والتي تتضمن على أداء وتحصيل الطلبة حيث تحقق النتـائج المرجوة للطلبة وفق مجال التعلم والتـعلم في الخطة التدريبية.</td>
<td>تنفيذ الخطة المدرسية في الخطة الصيفية (الفرعية) من الخطة الصيفية وليس من الخطة المدرسية</td>
<td>التخطيط للتعلم</td>
<td>التخطيط المفاهيم في الخطة الصيفية (الفرعية) وفي الخطة المدرسية.</td>
</tr>
<tr>
<td>يتناول المعلم/ة مفاهيمًا تتكامل مع مفاهيم الدسـرة من مواد أخرى من نفس المرحلة (تكامل العقـد) ومن الصيف السابق/الألفاق (تكامل المهام العاطفي) ويكتب المعلم/ة الأهداف المخططة لهذا الدسـرة على اللوح مع مرونة إضافية أهداف أخرى تحتاج الطلبة لتعلمها كمثبط لتعليم الدسـرة ويتشارك طلبه في تحقيقها وتدفق أنشطة تناشد مع ممثالة الطلبة السابق/اللاحق.</td>
<td>مراعاة التكامل الرأسى والأففري في التسـلسل التدريبي للدرس</td>
<td>التدريس والتراجع</td>
<td>مراعاة التسلسل التدريبي للدرس وتعاليم الدسـرة من المواد التالية من نفس المرحلة واعتراف مع مثلا دراسيًا في الدسـرة.</td>
</tr>
<tr>
<td>يراعى المعلم/ة تسلسل المفاهيم بينهم مع مساعدة المعلم من الفضائي المعلوم، المعتمد، في الدسـرة المتضمنة للمنطق في الدراسات المرتبطة بثمة طالب معه. ويتركز في المعلم/ة الأهداف المخططة في الدرس على اللوح مع مرونة إضافية أهداف أخرى تحتاج الطلبة لتعلمها كمثبط لتعليم الدسـرة، وتشارك طلبه في تحقيقها وتدفق أنشطة تناشد مع ممثالة الطلبة السابق/اللاحق.</td>
<td>مراعاة التسلسل المنطقي في تدريس المحتوي التعليمي في الدرس</td>
<td>التدريس والتراجع</td>
<td>مراعاة التسلسل المنطقي في الدرس مع مثلا دراسيًا في الدسـرة.</td>
</tr>
<tr>
<td>يخصص المعلم/ة الوقت الكاف لتفتح جميع الطلبة لتنفذ جميع النتائج في خطة الدسـرة عند نهاية الخطة الصيفية.</td>
<td>الاستمـان الأمثل للوقت لتفتح النتائج التعليمية في الدراسات المتضمنة في الدرس</td>
<td>التدريس والتراجع</td>
<td>الاستمـان الأمثل للوقت لتفتح النتائج التعليمية في الدراسات المتضمنة في الدرس.</td>
</tr>
<tr>
<td>يستخدم المعلم/ة تعلّم سهلة وملتعددة، حيث تتشابه استجابات الطلبة حسب مادة التعلم وتتفرع جميع ثكالها حسب استخدام فعال للمسائل والمسائل اتصالات أخرى. تعلـم على تنفيذ استجابات الطلبة.</td>
<td>استخدام الاتصال الفعال</td>
<td>التدريس والتراجع</td>
<td>استخدام الاتصال الفعال.</td>
</tr>
<tr>
<td>يُوظـف المعلم/ة استراتيجيات متعددة تنمية حول المتطلـب وتنسب مع حاجاتهم، وتتناسب الطلبة في التعلم فيما بينهم في مجموعات تعاونية ومع المعلم/ة من خلال الشـكل وممارستهما جماعية.</td>
<td>التدريس والتراجع</td>
<td>التدريس والتراجع</td>
<td>التدريس والتراجع.</td>
</tr>
</tbody>
</table>

من خلال هذه العملية، يُبقي الطلاب طفلة متعلّمًا طفولياً من واقع حياتهم اليومية حول مادة التعلم.

يراعي المعلم/ة احترام الطلبة من حيث قدراتهم وقضاياهم واحتياجاتهم، ويفرز الدسم والوقت له حسب حاجاتهم في مجموعات التعلّم المتواجدة والممتدرة.

8. الدعم المتمايز

وراعي المعلم/ة احترام الطلبة من حيث قدراتهم وقضاياهم واحتياجاتهم، ويفرز الدسم والوقت له حسب حاجاتهم في مجموعات التعلّم المتواجدة والممتدرة.
<table>
<thead>
<tr>
<th>رقم</th>
<th>الوصف</th>
<th>تقييم التعلم</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>توظيف التعليم بأنواع المختلفة واستخدام استراتيجيات التقويم وأدواته بالإضافة إلى أساليب وأدوات مبتكرة لمددة تحقيق نتائج التعلم.</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>2</td>
<td>يُدْخِل المعلم/ة قراراته التدريسية بناءً على البيانات التي يحصل عليها نتيجة استراتيجيات التقويم المختلفة وشهادات جملة وملف أعمال الطلبة.</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>3</td>
<td>يوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>4</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>5</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>6</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>7</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>8</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>9</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>10</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>11</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>12</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>13</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>14</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>15</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>16</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>17</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>18</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>19</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>20</td>
<td>يُوفر المعلم/ة بيئة محفزة للإبداع حيث يُقدم الكثير من الطلبة أفكار جديدة وطرق متنوعة غير مألوفة (مرنة)، وسرعة في الأداء (طلاقة).</td>
<td>تقييم التعلم</td>
</tr>
<tr>
<td>الصف</td>
<td>المهمة</td>
<td></td>
</tr>
<tr>
<td>------</td>
<td>-------</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>توفير فرص قراءة مناسبة لمستوى الطلبة</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>تطبيق أنواع القراءة المختلفة (التحرير التدريجي)</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>تطوير مهارة المحادثة</td>
<td></td>
</tr>
<tr>
<td>24.</td>
<td>متابعة حل تمارين قراءة الطالب</td>
<td></td>
</tr>
<tr>
<td>25.</td>
<td>تعزيز الاتجاهات الإيجابية نحو اللغة العربية</td>
<td></td>
</tr>
<tr>
<td>16.</td>
<td>استخدام الطلبة لطرائقهم الحسابية الخاصة</td>
<td></td>
</tr>
<tr>
<td>17.</td>
<td>تنمية مهارة حل المسألة</td>
<td></td>
</tr>
<tr>
<td>18.</td>
<td>نقاش طرق التوصل للحل</td>
<td></td>
</tr>
<tr>
<td>19.</td>
<td>دعم اكتساب الطالبة لقراءة الأسئلة ذات المعنى العميق في مسائل الرياضيات</td>
<td></td>
</tr>
<tr>
<td>20.</td>
<td>إعداد الطلاب بالأنشطة الروتينية والرياضيات</td>
<td></td>
</tr>
<tr>
<td>21.</td>
<td>التدرج من اللمعان إلى المجرد (الإسقاطات النمائية في تدریس الحساب)</td>
<td></td>
</tr>
<tr>
<td>22.</td>
<td>التلاعب بالأعداد (الحساب الذهني)</td>
<td></td>
</tr>
<tr>
<td>23.</td>
<td>توفير فرص حل المسائل ضمن مستوى الطلبة</td>
<td></td>
</tr>
</tbody>
</table>

من المصدر: USAID.GOV
<table>
<thead>
<tr>
<th>24. متابعة حل تمارين كراسة الطالب 4-5 أيام أسبوعياً وحلولهم مفصلة.</th>
</tr>
</thead>
<tbody>
<tr>
<td>25. تعزيز الاتجاهات الإيجابية نحو الرياضيات.</td>
</tr>
<tr>
<td>16. تطبيق أدوات الكشف والتشخيص الرسمية وغير الرسمية المناسبة للفئة التدريسية الخاصة.</td>
</tr>
<tr>
<td>17. تطبيق البرامج التدريسية الفردية.</td>
</tr>
<tr>
<td>18. تطبيق استراتيجيات التدريس المناسبة لفئة الطلبة.</td>
</tr>
<tr>
<td>19. بناء المعلم خطة تدريس الطلاب مكتوبة وينفذها حسب حاجات الطلاب.</td>
</tr>
<tr>
<td>20. توظيف المعلم الوسائل التعليمية الحساسة وشبه الحساسة وملائمتها للنتائج التعليمية.</td>
</tr>
<tr>
<td>21. تطبيق أوراق عمل تستعدد وتراعي طبيعة ومستوى ونوع ودرجة الصعوبات والإعاقة لجميع الطلاب المستهدفين في الجلسة.</td>
</tr>
<tr>
<td>22. تفعل برامج التحفيز المناسبة والمتنوعة والملموسة لمستوى الطالب.</td>
</tr>
<tr>
<td>23. متابعة تنفيذ الوظائف والمهارات التعليمية عند الطلاب.</td>
</tr>
<tr>
<td>24. تطبيق المعلم النموذج المتبع المشترك اليومي مع الطلبة في كل حصة/جلسة تدريبية بطريقة صحيحة.</td>
</tr>
<tr>
<td>25. إعداد السجلات المحددة في بطاقة الوصف الوظيفي (7 سجلات ويفعلها).</td>
</tr>
</tbody>
</table>
5.20. Appendix 27: ESMP Data on Facilities

### Table 25: Chi-Square of Differences in extra_curricular/Sports by Schools

<table>
<thead>
<tr>
<th>Presence of Sports</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sports</strong></td>
<td><strong>No Sports</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USAID</strong></td>
<td>Count 98</td>
<td>1</td>
<td>99</td>
<td>.853(^a)</td>
</tr>
<tr>
<td></td>
<td>% of Total 21.7%</td>
<td>.2%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Neighborin g</strong></td>
<td>Count 343</td>
<td>9</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 76.1%</td>
<td>2.0%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count 441</td>
<td>10</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 97.8%</td>
<td>2.2%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 26: Chi-Square of Differences in extra_curricular/Art by Schools

<table>
<thead>
<tr>
<th>Presence of Art</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Arts</strong></td>
<td><strong>No Arts</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USAID</strong></td>
<td>Count 93</td>
<td>6</td>
<td>99</td>
<td>3.483(^a)</td>
</tr>
<tr>
<td></td>
<td>% of Total 20.6%</td>
<td>1.3%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Neighborin g</strong></td>
<td>Count 307</td>
<td>45</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 68.1%</td>
<td>10.0%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count 400</td>
<td>51</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 88.7%</td>
<td>11.3%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 27: Chi-Square of Differences in rate vandalism as a problem by Schools

<table>
<thead>
<tr>
<th>Rating of Vandalism as a Problem</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Moderate to Severe problem</strong></td>
<td><strong>Slight or no problem</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>USAID</strong></td>
<td>Count 32</td>
<td>67</td>
<td>99</td>
<td>.029(^a)</td>
</tr>
<tr>
<td></td>
<td>% of Total 7.1%</td>
<td>14.9%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Neighborin g</strong></td>
<td>Count 117</td>
<td>235</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 25.9%</td>
<td>52.1%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Count 149</td>
<td>302</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total 33.0%</td>
<td>67.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>
### Table 28: Chi-Square of Differences in rate student involvement in school activities by Schools

<table>
<thead>
<tr>
<th></th>
<th>Rating of Student Involvement in School Activities</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>df</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderate to exemplary student involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slight to no student involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USAID</td>
<td>Count</td>
<td>89</td>
<td>10</td>
<td>99</td>
<td>.125^a</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>19.7%</td>
<td>2.2%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td>Neighborin g</td>
<td>Count</td>
<td>312</td>
<td>40</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>69.2%</td>
<td>8.9%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>401</td>
<td>50</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>88.9%</td>
<td>11.1%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 29: Chi-Square of Differences in rate parental involvement in school activities by Schools

<table>
<thead>
<tr>
<th></th>
<th>Rating of Parental Involvement in School Activities</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>df</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Moderate to exemplary parental involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Slight to no parental involvement</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USAID</td>
<td>Count</td>
<td>67</td>
<td>32</td>
<td>99</td>
<td>5.450^a</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>14.9%</td>
<td>7.1%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td>Neighborin g</td>
<td>Count</td>
<td>192</td>
<td>160</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>42.6%</td>
<td>35.5%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>259</td>
<td>192</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>57.4%</td>
<td>42.6%</td>
<td>100.0%</td>
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</tr>
</tbody>
</table>

### Table 30: Chi-Square of Differences in Toilets by Schools

<table>
<thead>
<tr>
<th></th>
<th>Toilets</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>df</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Major Issue</td>
<td>Minor to No Issue</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>USAID</td>
<td>Count</td>
<td>23</td>
<td>76</td>
<td>99</td>
<td>.225^a</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>5.1%</td>
<td>16.9%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td>Neighborin g</td>
<td>Count</td>
<td>90</td>
<td>262</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>20.0%</td>
<td>58.1%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>113</td>
<td>338</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>25.1%</td>
<td>74.9%</td>
<td>100.0%</td>
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</tr>
</tbody>
</table>
### Table 31: Chi-Square of Differences in Internet by Schools

<table>
<thead>
<tr>
<th></th>
<th>Internet Major Issue</th>
<th>Internet Minor and No Issue</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d.f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USAID</td>
<td>Count</td>
<td>21</td>
<td>78</td>
<td>99</td>
<td>.125(^a)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>4.7%</td>
<td>17.3%</td>
<td>22.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neighbor</td>
<td>Count</td>
<td>69</td>
<td>283</td>
<td>352</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>15.3%</td>
<td>62.7%</td>
<td>78.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>90</td>
<td>361</td>
<td>451</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>20.0%</td>
<td>80.0%</td>
<td>100.0%</td>
<td></td>
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</tr>
</tbody>
</table>

### Table 32: Chi-Square of Differences in Solid Waste Management - Collection by Schools

<table>
<thead>
<tr>
<th></th>
<th>Solid Waste Management - Collection</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d.f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USAID</td>
<td>Count</td>
<td>10</td>
<td>89</td>
<td>99</td>
<td>.157(^a)</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>2.2%</td>
<td>19.7%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td>Neighbor</td>
<td>Count</td>
<td>31</td>
<td>321</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>6.9%</td>
<td>71.2%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>41</td>
<td>410</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>9.1%</td>
<td>90.9%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

### Table 33: Chi-Square of Differences in External disability access ramps by Schools

<table>
<thead>
<tr>
<th></th>
<th>External disability access ramps</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d.f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>USAID</td>
<td>Count</td>
<td>84</td>
<td>15</td>
<td>99</td>
<td>25.575(^a)</td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>18.6%</td>
<td>3.3%</td>
<td>22.0%</td>
<td></td>
</tr>
<tr>
<td>Neighbor</td>
<td>Count</td>
<td>201</td>
<td>151</td>
<td>352</td>
<td></td>
</tr>
<tr>
<td></td>
<td>% of Total</td>
<td>44.6%</td>
<td>33.5%</td>
<td>78.0%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>285</td>
<td>166</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td>Internet connection / bandwidth</td>
<td>USAID</td>
<td>Neighborin g</td>
<td>Total</td>
<td></td>
<td></td>
</tr>
<tr>
<td>--------------------------------</td>
<td>-------</td>
<td>--------------</td>
<td>-------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Available and fast connection</td>
<td>Count</td>
<td>45</td>
<td>153</td>
<td>198</td>
<td></td>
</tr>
<tr>
<td>Available and slow connection and No Internet</td>
<td>% of Total</td>
<td>10.0%</td>
<td>33.9%</td>
<td>43.9%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>Count</td>
<td>99</td>
<td>352</td>
<td>451</td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td></td>
<td>22.0%</td>
<td>78.0%</td>
<td>100.0%</td>
<td></td>
</tr>
</tbody>
</table>

Table 34: Chi-Square of Differences in Internet connection / bandwidth by Schools

<table>
<thead>
<tr>
<th>Available and fast connection</th>
<th>Available and slow connection and No Internet</th>
<th>Total</th>
<th>Pearson Chi-Square</th>
<th>d f</th>
<th>Asymptotic Signif. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>45</td>
<td>54</td>
<td>99</td>
<td>.124&lt;sup&gt;a&lt;/sup&gt;</td>
<td>1</td>
</tr>
<tr>
<td>% of Total</td>
<td>10.0%</td>
<td>12.0%</td>
<td>22.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>153</td>
<td>199</td>
<td>352</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>33.9%</td>
<td>44.1%</td>
<td>78.0%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Count</td>
<td>198</td>
<td>253</td>
<td>451</td>
<td></td>
<td></td>
</tr>
<tr>
<td>% of Total</td>
<td>43.9%</td>
<td>56.1%</td>
<td>100.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.21. Appendix 28: LQAS Statistical Test Tables

Note: Scores for Mathematics included unreliable data. Data for several USAID-funded schools which had reading comprehension scores averaging between 3 and 4 had scores listed as only between 0 and 1 and averaging below 0.5 on a scale of 0 to 10.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>26.820</td>
<td>.460</td>
<td>25.919 - 27.722</td>
<td></td>
<td>58.353</td>
<td>4033.000</td>
<td>0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>.335</td>
<td>.842</td>
<td>-1.316 - 1.986</td>
<td></td>
<td>.398</td>
<td>4033.000</td>
<td>.691</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* a. Model: ORF = (Intercept) + Funded1

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>26.820</td>
<td>.460</td>
<td>25.919 - 27.722</td>
<td></td>
<td>58.353</td>
<td>4033.000</td>
<td>0.000</td>
</tr>
<tr>
<td>JSEP</td>
<td>.022</td>
<td>.943</td>
<td>-1.828 - 1.871</td>
<td></td>
<td>.023</td>
<td>4033.000</td>
<td>.982</td>
</tr>
<tr>
<td>JSP</td>
<td>1.254</td>
<td>1.441</td>
<td>-1.571 - 4.079</td>
<td></td>
<td>.870</td>
<td>4033.000</td>
<td>.384</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* a. Model: ORF = (Intercept) + Funded

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
<th>t</th>
<th>df</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>26.820</td>
<td>.460</td>
<td>25.919 - 27.722</td>
<td></td>
<td>58.353</td>
<td>4033.000</td>
<td>0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>1.254</td>
<td>1.441</td>
<td>-1.571 - 4.079</td>
<td></td>
<td>.870</td>
<td>4033.000</td>
<td>.384</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* a. Model: ORF = (Intercept) + Funded1

b. Set to zero because this parameter is redundant.
### Table 38: Reading Comprehension JSP, JSEP vs Neighboring Parameter Estimates

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>2.294</td>
<td>.034</td>
<td>2.227 - 2.361</td>
<td>67.198</td>
</tr>
<tr>
<td>JSEP</td>
<td>.132</td>
<td>.070</td>
<td>-.005 - .268</td>
<td>1.893</td>
</tr>
<tr>
<td>JSP</td>
<td>.369</td>
<td>.107</td>
<td>.160 - .579</td>
<td>3.450</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Reading Comprehension Score = (Intercept) + Funded

b. Set to zero because this parameter is redundant.

### 5.22. Appendix 29: PISA Statistical Test Tables

#### Table 39: PISA Parameter Estimates, Mathematics Boys vs Girls

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>402.011</td>
<td>1.276</td>
<td>399.510 - 404.511</td>
<td>315.143</td>
</tr>
<tr>
<td>[Funded=2]</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Math = (Intercept) + Funded

b. Set to zero because this parameter is redundant.

#### Table 40: PISA Parameter Estimates, Mathematics, Gender

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>408.396</td>
<td>1.469</td>
<td>405.516 - 411.276</td>
<td>278.004</td>
</tr>
</tbody>
</table>

a. Model: Math = (Intercept) + Funded

b. Set to zero because this parameter is redundant.
### Table 41: PISA Parameter Estimates, Mathematics, Urban/Rural

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>370.001</td>
<td>4.702</td>
<td>360.782 - 379.219</td>
<td>78.687</td>
</tr>
<tr>
<td>Urban</td>
<td>35.214</td>
<td>4.854</td>
<td>25.697 - 44.731</td>
<td>7.254</td>
</tr>
<tr>
<td>Rural</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Math = (Intercept) + Area_classification  
b. Set to zero because this parameter is redundant.

### Table 42: PISA Parameter Estimates, Reading, USAID vs Neighboring

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>427.373</td>
<td>1.381</td>
<td>424.665 - 430.081</td>
<td>309.368</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Reading = (Intercept) + Funded  
b. Set to zero because this parameter is redundant.

### Table 43: PISA Parameter Estimates, Reading, Gender

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>440.027</td>
<td>1.548</td>
<td>436.993 - 443.061</td>
<td>284.318</td>
</tr>
<tr>
<td>Girls + mixed</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Reading = (Intercept) + School_Gender  
b. Set to zero because this parameter is redundant.

### Table 44: PISA Parameter Estimates, Reading, Urban/Rural

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Reading = (Intercept) + School_Gender  
b. Set to zero because this parameter is redundant.
### Table 45: PISA Parameter Estimates, Science, USAID vs Neighboring

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>434.734</td>
<td>1.325</td>
<td>432.137 - 437.332</td>
<td>4140.000</td>
</tr>
<tr>
<td>USAID</td>
<td>-3.433</td>
<td>3.537</td>
<td>-10.367 - 3.502</td>
<td>4140.000</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000°b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Science = (Intercept) + Funded

b. Set to zero because this parameter is redundant.

### Table 46: PISA Parameter Estimates, Science, Gender

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>443.919</td>
<td>1.541</td>
<td>440.898 - 446.940</td>
<td>4140.000</td>
</tr>
<tr>
<td>Boys</td>
<td>-23.754</td>
<td>2.504</td>
<td>-28.663 - -18.846</td>
<td>4140.000</td>
</tr>
<tr>
<td>Girls + mixed</td>
<td>.000°b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Science = (Intercept) + School_Gender

b. Set to zero because this parameter is redundant.

### Table 47: PISA Parameter Estimates, Science, Urban/Rural

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>402.392</td>
<td>4.419</td>
<td>393.728 - 411.057</td>
<td>4140.000</td>
</tr>
<tr>
<td>Urban</td>
<td>34.479</td>
<td>4.599</td>
<td>25.463 - 43.495</td>
<td>4140.000</td>
</tr>
<tr>
<td>Rural</td>
<td>.000°b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: Science = (Intercept) + Area_classification

b. Set to zero because this parameter is redundant.
### 5.23. Appendix 30: NAfKE Statistical Test Tables

#### NAfKE Cross-cutting Skills Assessment Sub-indicators Across All Grades

<table>
<thead>
<tr>
<th>Table 48: NAfKE Parameter Estimates, Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
</tr>
<tr>
<td>USAID</td>
</tr>
<tr>
<td>Neighboring</td>
</tr>
</tbody>
</table>

Note: Model: communication percent score = (Intercept) + USAID  

b. Set to zero because this parameter is redundant.

<table>
<thead>
<tr>
<th>Table 49: NAfKE Parameter Estimates, Problem Solving</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
</tr>
<tr>
<td>USAID</td>
</tr>
<tr>
<td>Neighboring</td>
</tr>
</tbody>
</table>

a. Model: problem solving percent score = (Intercept) + USAID  

b. Set to zero because this parameter is redundant.

<table>
<thead>
<tr>
<th>Table 50: NAfKE Parameter Estimates, Applying Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
</tr>
<tr>
<td>USAID</td>
</tr>
<tr>
<td>Neighboring</td>
</tr>
</tbody>
</table>

a. Model: applying percent score = (Intercept) + USAID  

b. Set to zero because this parameter is redundant.

<table>
<thead>
<tr>
<th>Table 51: NAfKE Parameter Estimates, Knowledge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>(Intercept)</td>
</tr>
<tr>
<td>Parameter</td>
</tr>
<tr>
<td>-----------</td>
</tr>
<tr>
<td>USAID</td>
</tr>
<tr>
<td>Neighboring</td>
</tr>
</tbody>
</table>

**Table 52: NAfKE Parameter Estimates, Reasoning**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>33.720</td>
<td>.137</td>
<td>33.450</td>
<td>33.989</td>
</tr>
<tr>
<td>USAID</td>
<td>1.187</td>
<td>.565</td>
<td>.080</td>
<td>2.295</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: knowing percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

### NAfKE Science Subject Assessment Sub-indicators Across All Grades

#### Table 53: NAfKE Parameter Estimates, Science Communication

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>43.507</td>
<td>.240</td>
<td>43.037</td>
<td>43.978</td>
</tr>
<tr>
<td>USAID</td>
<td>1.877</td>
<td>.984</td>
<td>- .053</td>
<td>3.806</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: communication percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

#### Table 54: NAfKE Parameter Estimates, Science Problem Solving

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>37.760</td>
<td>.228</td>
<td>37.312</td>
<td>38.208</td>
</tr>
<tr>
<td>USAID</td>
<td>2.475</td>
<td>.979</td>
<td>.557</td>
<td>4.394</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: problem solving percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.
### Table 55: NAfKE Parameter Estimates, Science Application of Knowledge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>41.204</td>
<td>.251</td>
<td>40.712-41.697</td>
<td>164.025</td>
</tr>
<tr>
<td>USAID</td>
<td>2.376</td>
<td>1.003</td>
<td>.410-4.343</td>
<td>2.368</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: applying percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

### Table 56: NAfKE Parameter Estimates, Science Knowledge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>43.936</td>
<td>.239</td>
<td>43.467-44.405</td>
<td>183.660</td>
</tr>
<tr>
<td>[USAID=1]</td>
<td>1.596</td>
<td>.962</td>
<td>-.290-3.482</td>
<td>1.659</td>
</tr>
<tr>
<td>[USAID=2]</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: knowing percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

### Table 57: NAfKE Parameter Estimates, Science Reasoning

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>38.221</td>
<td>.224</td>
<td>37.782-38.659</td>
<td>170.823</td>
</tr>
<tr>
<td>[USAID=1]</td>
<td>2.405</td>
<td>.948</td>
<td>.546-4.263</td>
<td>2.536</td>
</tr>
<tr>
<td>[USAID=2]</td>
<td>.000b</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: reasoning percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

### Table 58: NAfKE Parameter Estimates, Arabic Communication

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>48.220</td>
<td>.281</td>
<td>47.670-48.770</td>
<td>171.876</td>
</tr>
</tbody>
</table>

NAfKE Arabic Subject Assessment Sub-indicators Across All Grades
### Table 59: NAfKE Parameter Estimates, Arabic Problem Solving

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>39.199</td>
<td>.296</td>
<td>38.619-39.780</td>
<td>132.351 7853.000 0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>1.253</td>
<td>1.176</td>
<td>-1.053-3.559</td>
<td>3.559 1.065 7853.000 .287</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000p</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: problem solving percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.

### Table 60: NAfKE Parameter Estimates, Arabic Application of Knowledge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>48.760</td>
<td>.378</td>
<td>48.018-49.501</td>
<td>128.892 3920.000 0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>.737</td>
<td>1.429</td>
<td>-2.065-3.539</td>
<td>3.539 .515 3920.000 .606</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000p</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: applying percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.

### Table 61: NAfKE Parameter Estimates, Arabic Knowledge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>46.875</td>
<td>.368</td>
<td>46.155-47.596</td>
<td>127.488 3920.000 0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>2.674</td>
<td>1.460</td>
<td>-1.188-5.536</td>
<td>5.536 1.832 3920.000 .067</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000p</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: knowing percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.
### Table 62: NAfKE Parameter Estimates, Arabic Reasoning

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>31.905</td>
<td>.313</td>
<td>31.292 - 32.518</td>
<td>102.059</td>
</tr>
<tr>
<td>USAID</td>
<td>.155</td>
<td>1.180</td>
<td>-2.158 - 2.468</td>
<td>.132</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: reasoning percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.

### NAFKE Mathematics Subject Assessment Sub-indicators Across All Grades

### Table 63: NAfKE Parameter Estimates, Mathematics Communication

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>35.814</td>
<td>.197</td>
<td>35.428 - 36.200</td>
<td>181.912</td>
</tr>
<tr>
<td>USAID</td>
<td>2.539</td>
<td>.790</td>
<td>.990 - 4.088</td>
<td>3.213</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: communication percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.

### Table 64: NAfKE Parameter Estimates, Mathematics Problem Solving

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>31.295</td>
<td>.202</td>
<td>30.899 - 31.691</td>
<td>154.909</td>
</tr>
<tr>
<td>USAID</td>
<td>.293</td>
<td>.791</td>
<td>-1.257 - 1.843</td>
<td>.370</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Model: problem solving percent score = (Intercept) + USAID
b. Set to zero because this parameter is redundant.

### Table 65: NAfKE Parameter Estimates, Mathematics Application of Knowledge

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>33.419</td>
<td>.193</td>
<td>33.040 - 33.797</td>
<td>173.103</td>
</tr>
<tr>
<td>USAID</td>
<td>2.920</td>
<td>.791</td>
<td>1.369 - 4.472</td>
<td>3.690</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
a. Model: applying percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>38.233</td>
<td>.216</td>
<td>37.809-38.657</td>
<td>t = 176.681, df = 7826.000, Sig. = 0.000</td>
</tr>
<tr>
<td>[USAID=1]</td>
<td>1.794</td>
<td>.876</td>
<td>0.877-3.510</td>
<td>t = 2.049, df = 7826.000, Sig. = 0.041</td>
</tr>
<tr>
<td>[USAID=2]</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 66: NAfKE Parameter Estimates, Mathematics Knowledge

a. Model: knowing percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>30.082</td>
<td>.196</td>
<td>29.697-30.467</td>
<td>t = 153.119, df = 7826.000, Sig. = 0.000</td>
</tr>
<tr>
<td>USAID</td>
<td>.530</td>
<td>.792</td>
<td>-1.023-2.083</td>
<td>t = .669, df = 7826.000, Sig. = .503</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 67: NAfKE Parameter Estimates, Mathematics Reasoning

a. Model: reasoning percent score = (Intercept) + USAID

b. Set to zero because this parameter is redundant.
### 5.24. Appendix 31: Educational Quality Control Statistical Test Tables

#### Table 68: Grade 3, 2018, Arabic T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>20</td>
<td>61.25</td>
<td>10.114</td>
<td>1.119</td>
<td>82</td>
<td>0.269</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>64</td>
<td>58.08</td>
<td>13.662</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>20</td>
<td>60.1</td>
<td>5.911</td>
<td>1.422</td>
<td>70</td>
<td>0.16</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>52</td>
<td>58.15</td>
<td>4.913</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Table 69: Grade 3, 2018, Mathematics T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>20</td>
<td>59.7</td>
<td>12.101</td>
<td>0.35</td>
<td>82</td>
<td>0.727</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>64</td>
<td>58.41</td>
<td>15.045</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>20</td>
<td>59.6</td>
<td>6.613</td>
<td>1.353</td>
<td>70</td>
<td>0.18</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>52</td>
<td>57.58</td>
<td>5.296</td>
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<td></td>
</tr>
</tbody>
</table>

#### Table 70: Grade 3, 2018, Mathematics T-tests of Differences Across Subject by Gender and Urbanization

<table>
<thead>
<tr>
<th>School gender</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Girls or Mixed</td>
<td>339</td>
<td>19.28</td>
<td>7.88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>203</td>
<td>17.04</td>
<td>6.63</td>
<td>-3.387</td>
<td>540</td>
<td>.001</td>
</tr>
<tr>
<td>Area classification</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>446</td>
<td>19.37</td>
<td>7.45</td>
<td>6.421</td>
<td>540</td>
<td>.000</td>
</tr>
<tr>
<td>Rural</td>
<td>96</td>
<td>14.14</td>
<td>6.18</td>
<td></td>
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</tr>
</tbody>
</table>

#### Table 71: Grade 3, 2019, Arabic T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>66.19</td>
<td>10.879</td>
<td>1.541</td>
<td>84</td>
<td>0.127</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>65</td>
<td>61.49</td>
<td>12.52</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>66.24</td>
<td>5.898</td>
<td>2.179</td>
<td>71</td>
<td>0.036</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>52</td>
<td>62.92</td>
<td>5.851</td>
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</tr>
</tbody>
</table>

#### Table 72: Grade 3, 2019, Mathematics T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>66.14</td>
<td>12.236</td>
<td>1.273</td>
<td>84</td>
<td>0.206</td>
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<tr>
<td>JSEP+Neigh.+other</td>
<td>65</td>
<td>61.42</td>
<td>15.507</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>66.33</td>
<td>6.028</td>
<td>2.11</td>
<td>71</td>
<td>0.041</td>
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<td>Funded Type</td>
<td>n</td>
<td>Mean</td>
<td>Std. Deviation</td>
<td>t</td>
<td>df</td>
<td>Signif.</td>
</tr>
<tr>
<td>------------------------</td>
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<td>------</td>
<td>----------------</td>
<td>-----</td>
<td>----</td>
<td>---------</td>
</tr>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>55.46</td>
<td>15.337</td>
<td>0.745</td>
<td>91</td>
<td>0.458</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>69</td>
<td>52.78</td>
<td>15.089</td>
<td>1.02</td>
<td>77</td>
<td>0.311</td>
</tr>
<tr>
<td>Total Score by Directorate</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>52.5</td>
<td>5.381</td>
<td>1.02</td>
<td>77</td>
<td>0.311</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>55</td>
<td>51.15</td>
<td>5.445</td>
<td>1.02</td>
<td>77</td>
<td>0.311</td>
</tr>
</tbody>
</table>

Table 74: Grade 4, 2018, Mathematics T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>53.83</td>
<td>15.159</td>
<td>1.773</td>
<td>91</td>
<td>0.085</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>69</td>
<td>47.78</td>
<td>11.943</td>
<td>0.68</td>
<td>77</td>
<td>0.498</td>
</tr>
<tr>
<td>Total Score by Directorate</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>51.04</td>
<td>5.614</td>
<td>0.68</td>
<td>77</td>
<td>0.498</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>55</td>
<td>50.13</td>
<td>5.44</td>
<td>0.68</td>
<td>77</td>
<td>0.498</td>
</tr>
</tbody>
</table>

Table 75: Grade 4, 2018, Science T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>53.42</td>
<td>13.439</td>
<td>1.061</td>
<td>90</td>
<td>0.292</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>68</td>
<td>50.24</td>
<td>12.342</td>
<td>0.94</td>
<td>71</td>
<td>0.355</td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>53.4</td>
<td>3.602</td>
<td>0.94</td>
<td>71</td>
<td>0.355</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>58</td>
<td>52.33</td>
<td>5.031</td>
<td>0.94</td>
<td>71</td>
<td>0.355</td>
</tr>
</tbody>
</table>

Table 76: Grade 4, 2018, English T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>JSP+SKEP</td>
<td>24</td>
<td>54.17</td>
<td>16.776</td>
<td>1.843</td>
<td>90</td>
<td>0.069</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>68</td>
<td>46.9</td>
<td>16.559</td>
<td>1.843</td>
<td>90</td>
<td>0.069</td>
</tr>
<tr>
<td>Total Score by Directorate</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>50.13</td>
<td>5.514</td>
<td>1.081</td>
<td>71</td>
<td>0.283</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>58</td>
<td>48.21</td>
<td>6.299</td>
<td>1.081</td>
<td>71</td>
<td>0.283</td>
</tr>
</tbody>
</table>

Table 77: Grade 4, 2019, Arabic T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
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<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>53.57</td>
<td>12.488</td>
<td>1.136</td>
<td>73</td>
<td>0.26</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>54</td>
<td>49.54</td>
<td>14.276</td>
<td>1.136</td>
<td>73</td>
<td>0.26</td>
</tr>
<tr>
<td>Total Score by Directorate</td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>21</td>
<td>49.48</td>
<td>4.07</td>
<td>0.541</td>
<td>64</td>
<td>0.591</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>45</td>
<td>48.89</td>
<td>4.13</td>
<td>0.541</td>
<td>64</td>
<td>0.591</td>
</tr>
</tbody>
</table>
Table 78: Grade 4, 2019, Mathematics T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
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<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>12</td>
<td>34</td>
<td>5.009</td>
<td>-1.077</td>
<td>73</td>
<td>0.288</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>63</td>
<td>36.24</td>
<td>11.851</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total Score by Directorate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>6</td>
<td>34</td>
<td>4.517</td>
<td>-1.224</td>
<td>58</td>
<td>0.226</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>54</td>
<td>36.15</td>
<td>4.035</td>
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</tr>
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</table>

Table 79: Grade 4, 2019, Science T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
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</thead>
<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>12</td>
<td>46.83</td>
<td>5.844</td>
<td>0.395</td>
<td>73</td>
<td>0.694</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>63</td>
<td>45.46</td>
<td>11.721</td>
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</tr>
<tr>
<td>Total Score by Directorate</td>
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<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>6</td>
<td>44.5</td>
<td>3.332</td>
<td>-0.645</td>
<td>58</td>
<td>0.521</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>54</td>
<td>45.3</td>
<td>2.819</td>
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</tr>
</tbody>
</table>

Table 80: Grade 4, 2019, English T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th></th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
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<tbody>
<tr>
<td>Total Score by School</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>12</td>
<td>53.33</td>
<td>12.78</td>
<td>0.577</td>
<td>73</td>
<td>0.565</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>63</td>
<td>50.49</td>
<td>16.074</td>
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<tr>
<td>Total Score by Directorate</td>
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<tr>
<td>JSP+SKEP</td>
<td>12</td>
<td>50.17</td>
<td>5.718</td>
<td>0.612</td>
<td>64</td>
<td>0.542</td>
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<tr>
<td>JSEP+Neigh.+other</td>
<td>54</td>
<td>49.13</td>
<td>5.216</td>
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Table 81: Grade 4, 2019, Arabic T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
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<th></th>
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<th>Mean</th>
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<tbody>
<tr>
<td>Total Score by School</td>
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</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>46.53</td>
<td>10.816</td>
<td>-0.796</td>
<td>57</td>
<td>0.429</td>
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<tr>
<td>JSEP+Neigh.+other</td>
<td>44</td>
<td>49.32</td>
<td>11.974</td>
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</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>48.07</td>
<td>2.789</td>
<td>1.317</td>
<td>49</td>
<td>0.194</td>
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<tr>
<td>JSEP+Neigh.+other</td>
<td>36</td>
<td>46.61</td>
<td>3.871</td>
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</table>

Table 82: Grade 10, 2017, Mathematics T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
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<th></th>
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<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
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</thead>
<tbody>
<tr>
<td>Total Score by School</td>
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<td></td>
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<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>32.4</td>
<td>7.519</td>
<td>-0.725</td>
<td>57</td>
<td>0.471</td>
</tr>
<tr>
<td>JSEP+Neigh.+other</td>
<td>44</td>
<td>34.89</td>
<td>12.483</td>
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</table>
### Table 83: Grade 10, 2017, Science T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Significance</th>
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</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>38.87</td>
<td>5.939</td>
<td>-0.449</td>
<td>57</td>
<td>0.655</td>
</tr>
<tr>
<td>JSEP + Neighboring + other</td>
<td>44</td>
<td>39.8</td>
<td>7.213</td>
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<tr>
<td><strong>Total Score by Directorate</strong></td>
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<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>39.33</td>
<td>2.024</td>
<td>1.346</td>
<td>49</td>
<td>0.184</td>
</tr>
<tr>
<td>JSEP + Neighboring + other</td>
<td>36</td>
<td>38.44</td>
<td>2.197</td>
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</tr>
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</table>

### Table 84: Grade 10, 2017, English T-tests of Differences in Total Scores by Funded Type

<table>
<thead>
<tr>
<th>Funded Type</th>
<th>n</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>t</th>
<th>df</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Score by School</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>57.07</td>
<td>15.636</td>
<td>1.676</td>
<td>57</td>
<td>0.099</td>
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<tr>
<td>JSEP + Neighboring + other</td>
<td>44</td>
<td>49.98</td>
<td>13.625</td>
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</tr>
<tr>
<td><strong>Total Score by Directorate</strong></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>JSP+SKEP</td>
<td>15</td>
<td>52.6</td>
<td>3.851</td>
<td>1.127</td>
<td>49</td>
<td>0.265</td>
</tr>
<tr>
<td>JSEP + Neighboring + other</td>
<td>36</td>
<td>50.61</td>
<td>6.344</td>
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</table>
### Table 85: Parameter Estimates, TIMSS Math

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>407.830</td>
<td>1.586</td>
<td>404.721 - 410.940</td>
<td>257.132 - 3585.000</td>
</tr>
<tr>
<td>USAID</td>
<td>-2.517</td>
<td>4.732</td>
<td>-11.795 - 6.760</td>
<td>-.532 - .532 3585.000</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Model: Math = (Intercept) + Funded
- b. Set to zero because this parameter is redundant.

### Table 86: Parameter Estimates, TIMSS Science

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Estimate</th>
<th>Std. Error</th>
<th>95% Confidence Interval</th>
<th>Hypothesis Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Intercept)</td>
<td>441.071</td>
<td>2.129</td>
<td>436.895 - 445.248</td>
<td>207.125 - 1839.000</td>
</tr>
<tr>
<td>Neighboring</td>
<td>.000&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- a. Model: Science = (Intercept) + Funded
- b. Set to zero because this parameter is redundant.
School Infrastructure Multi-Activity Evaluation: Evaluation Question 1 Presentation

August 17, 2021
Prakash Nair, AIA; Marc D. Shapiro, Ph.D.; Muna Al Ghoul
USAID Monitoring, Evaluation, and Learning Activity

Agenda

1. Scope and Methods
2. Evaluation Question 1
   A. Findings and Conclusions
   B. Recommendations
   C. Discussion
3. Evaluation Question 1A (construction timelines), COVID-related measures
   A. Discussion
5.27. Appendix 34: Team Members
Marc Shapiro, PhD.

PROFESSIONAL PROFILE

Dr. Marc Shapiro has 20 years of experience working across 23 countries in the design, implementation, and management of Monitoring, Evaluation, and Learning (MEL) initiatives in the Education, Gender Equity and Social Inclusion, and Energy & WASH Infrastructure sectors, including 11 years in leadership positions as a Chief of Party, Team Lead and Senior Education Specialist. Having served as the Project Director on 7 education reform projects, he has extensive experience in technical oversight, designing, leading, and implementing sector-wide primary to secondary school evaluations. Dr. Shapiro has served as a senior MEL consultant with cross-sectoral and regional experience, having overseen 40 studies and data collections including third-party monitoring, with expertise in quantitative and qualitative research and analysis, developing results frameworks, MEL systems, indicators and local capacity development in MEL. As Senior Education Specialist for QED and USAID/Iraq, Dr. Shapiro co-led a four-person team assessing the education sector in Iraq, emphasizing basic education. The assessment was designed to inform USAID’s new strategy to assist the Government of Iraq after the US political transition. In these senior-level leadership roles, he led and mentored project teams while overseeing technical implementation. Dr. Shapiro holds a PhD in Political Science.

EDUCATION

PhD, Political Science, University of Rochester, USA, 2000
MA, Political Science, University of Rochester, USA, 1996
BA, Political Science and Economics, Washington University, USA, 1991

PROFESSIONAL EXPERIENCE

<table>
<thead>
<tr>
<th>September 2017 to November 2020</th>
<th>Chief of Party, CAMRIS International, Kathmandu, Nepal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provided technical and program oversight to the USAID/Nepal’s Monitoring, Evaluation and Learning Project ($11.75m).</td>
</tr>
<tr>
<td></td>
<td>Oversaw multiple method performance evaluations and assessments in education, democracy, gender equality, environment and private sector engagement project.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>November 2016 to August 2017, and June 2015 to August 2015</th>
<th>Consultant/ Team Lead, USAID, Nepal, Tajikistan, and Pakistan</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Provided technical and program oversight to monitoring and evaluation of Jordan-based USAID MEL Platform Yemen project ($9.5m).</td>
</tr>
<tr>
<td></td>
<td>Oversaw evaluation design kickoff for an impact evaluation for USAID/Nepal.</td>
</tr>
<tr>
<td></td>
<td>Led a performance evaluation of a Feed the Future-funded rural/agricultural land use rights project to inform the Central Asia Regional Mission with respect to agricultural productivity and anti-corruption issues.</td>
</tr>
<tr>
<td></td>
<td>Served as evaluation team leader for a six-person team conducting a final qualitative performance evaluation of the $300 million USAID/Pakistan’s Energy Policy Program.</td>
</tr>
<tr>
<td>Date</td>
<td>Role and Location</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------------------</td>
</tr>
</tbody>
</table>
| August 2015 to November 2016 | Chief of Party, QED Group, Cairo, Egypt  | • Led client liaison and reporting to USAID missions in Egypt for $24.5m USAID-funded project to improve performance management of MEL.  
• Provided technical and programmatic oversight to monitoring, evaluation activities.  
• Established internal systems, hired staff, and put together a complicated work plan  
• Led the country office including human resources, operations and accounting, and programming.  
• Provided financial oversight including annual budget and budget monitoring.  
• Managed project reporting.  |
| March 2012 to May 2015 | Chief of Party, Dts, Inc., Arlington, USA  | • Managed and oversaw $12m M&E Project for USAID’s Global Climate Change Office.  
• Provided vision regarding both impact evaluation and monitoring indicators  
• Grew the staff from three to fifteen plus two primary subcontractors, several local data collection agencies, and a portfolio of short-term consultants.  
• Established internal systems, hired staff, and put together a complicated work plan  
• Led the country office including human resources, operations and accounting, and programming.  
• Provided overall technical leadership and direction for all tasks, work planning, technical delivery, and reporting across four tasks. Oversaw and provided quality assurance of technical reports, budgets, and financials creating quality control processes  |
| March 2009 to March 2012 | Director of Monitoring, Evaluation, and Economics, Millennium Challenge Corporation, Washington, D.C., USA  | • Oversaw the implementation of impact evaluation plans and monitoring systems for over 20 MCC projects and activities worth over $1.5 billion for Mongolia, Georgia, Lesotho, and Ghana.  
• Involved with over 20 surveys including household income and consumption, traffic/origin-destination, environmental behavior, village-level, farm-based-organizations, business/employers, water use, health facilities and clients, livestock health, agricultural value chains, rangeland quality, and others.  
• Designed monitoring plans and ensured timely and relevant monitoring data on program performance for country portfolios across hundreds of indicators.  
• Advised working group updating the organization’s management information system on M&E-related functional requirements.  
• Helped design learning processes and tools to lead to collaboration, learning, and adapting-like objectives for country missions and home office staff.  |
| December 2008 to March 2009 | Principal Investigator, UN Office for the Coordination of Humanitarian Affairs, USA  | • Evaluated the effectiveness, relevance and efficiency of the longest-running and one of the OCHA’s largest public-private partnerships to provide  |
emergency telecommunications capabilities to humanitarian relief operations.

2008-2009 Senior Education Specialist, QED Group, Iraq
  • Co-led four-person team assessing the education sector in Iraq, emphasizing basic (primary to secondary and pre-service) education.
  • Assessment was designed to inform USAID’s new strategy to assist the Government of Iraq after the US political transition.
  • Assessment reviewed donor investments in the sector to date, identified strategic gaps, and indicated areas for additional intervention.

  • Provided technical assistance on an assessment of all U.S. civilian capacity development programs across sectors and outstanding needs among Iraqi ministries to inform development of US Embassy’s strategic plan for ministerial capacity building.

2008 - 2008 Team Leader, AMEX International, USA and Tanzania
  • Led an evaluation focused on effectiveness and efficiency, relevance, sustainability, and governance and management structure of a World Bank-launched organization working on information and communication technology for development.
  • Examined Web-based tools to make aid and development efforts more effective using open-source software, common systems and open standards.
  • Developed a strategic review focusing on improving mission and strategic direction, strategic coherence, NGO business models, competitive environment, strategic planning processes, and revisions to the M&E framework.
  • Data collection included surveys and site visits to program implementations in Tanzania.

2007 - 2008 Survey and Statistical Consultant, Internews Network, USA
  • HIV/AIDS Radio Programming Intervention in Africa and Asia:
  • Provided technical advice to Internews Network regarding research design, sampling, indicators, measurement, and implementation to develop an M&E system for organization’s first measurement of outcomes of radio programming training programs in PEPFAR countries in East Africa and Asia.

  • USAID/Iraq Capacity Building Office: Program Assessment and Design.
  • Served as M&E expert in three-person team assessing two public administration capacity development programs worth over $750 million to designing a new program to improve delivery of essential services at the provincial level.
Shapiro, Marc

- Met donors and governmental counterparts across Iraq from the governorate to ministerial levels to assess capacity development needs of ministries’ representatives in the provinces
- Coordinated and conducted most team’s interviews in the governorates
- Designed project’s central mechanisms to maximize flexibility and variation in technical assistance desired by counterparts.

2007 - 2008
Survey and Statistical Consultant, Campaign for Female Education
International, USA, England, East Africa
- M&E System and Survey in Rural Africa.
- Designed sampling approach and advised on research design and questionnaire for organization’s first baseline surveys to both improve girls’ primary to secondary education and to increase young women’s empowerment in rural Tanzania, Zimbabwe, Zambia, and Uganda.

2007 - 2008
Evaluation Team Leader, Global Development Network, Multiple Countries
- Led an evaluation of the effectiveness, impact, relevance, cost-effectiveness, sustainability, and governance and management structure of this World Bank-launched research capacity building international organization spanning all developing regions.

2007 - 2007
Evaluation Team Leader, PADECO, Ltd., Georgia
- Evaluation of World Bank-funded Georgia Education System Realignment and Strengthening Program.
- Designed and led an evaluation examining outcomes and impact for a $24 million four-year primary to secondary reform program including Bank-funded and independent Ministry-sponsored reforms.
- Evaluation was designed to assess at system and school levels quality of teaching and learning; school physical and social environments; school decentralization and consolidation; and school management and finance.
- Managed technical proposal, negotiations over scope with client, research design, staffing a team of eight, implementation, and analysis.
- Developed almost 200 indicators and designed and pilot tested instruments with stakeholder input for implementation.

2006 - 2007
Consultant, World Bank Institute Evaluation Group, USA
- Evaluated cross-national pilot projects of information disclosure practices in developing country strategies and for projects under implementation as input into new policy proposals before board.
- Reviewed data collection procedures and analysis for a survey from a World Bank training course and drafted recommendations for improved analysis and reporting on results.

2006 - 2007
Evaluation and M&E Consultant, Fundación para el Desarrollo Integral de Programas Socioeconómicos, Guatemala
- Monitoring and Evaluation (M&E) System Capacity Building. Increased capacity in evaluation and M&E systems involving the PEVI/SALUD
(education and health sectors) division, training staff in evaluation and developing program impact surveys for four new projects across three districts.

**2005 - 2006**

**Senior Research Scientist, American Institutes for Research, USA and Macedonia**

- Designed and supervised ongoing evaluation at the strategic objective level of USAID-sponsored secondary education projects in Macedonia.
- Implemented culturally appropriate surveys for students and teachers and an assessment of critical thinking skills.
- Managed the Secondary Education Activity (SEA) Project, a $10 million USAID-sponsored vocational educational and decentralization reform project in Macedonia including teacher training, career skills development, and director training components.
- Oversaw addition of a novel mentoring activity to support training component and a new school board development and training component, creating a new association to increase program sustainability.
- Supervised and provided technical assistance on monitoring for all project components.

**LANGUAGES**

- English (5S, 5R), Spanish (3S, 4R), French (2S, 2R)

**CITIZENSHIP**

- United States
PRAKASH NAIR, AIA
Founding President & CEO
Education Design International

Prakash helped build Education Design International into one of the world’s leading change agents in school design. He has led consultations in 52 countries on six continents.

He has over 30 years of experience in construction/rehabilitation of public and private schools. Over the past 15 years, hundreds of schools worldwide have used the quantitative and qualitative assessment instruments designed by Prakash as part of their infrastructure planning & design efforts.

RELEVANT EXPERIENCE

ASSESSMENTS
As Director of Operations for New York City’s $10 Billion School Construction Program (1989 – 1999), Prakash was responsible for the execution of its Building Condition Assessment System that utilized quantitative and qualitative tools to assess over 1,400 school buildings.

As Founding President & CEO of Fielding Nair International (2003, 2019), Prakash led the following Infrastructure Assessments:

Washington DC Public Schools –
Over 200 schools
Puerto Rico Public Schools
Over 100 schools
Cayman Islands Public Schools
15 Schools
New Zealand Ministry of Education
15 schools

Assessment Tools:
Prakash designed the Educational Facilities Effectiveness Instrument that was used to assess the educational efficacy of more than $1 billion worth of schools internationally. Over the past two years, he has designed two other sophisticated assessment tools that are available both as desktop systems as well as APPS on the Apple iOS and Android Platforms.

OTHER
Abu Dhabi Education Council:
Prakash was responsible for the development of their Education Facilities Design Manual applicable to over 300 government schools.

Boulder Valley School District:
Prakash Nair led an Innovation Consulting Contract in order to maximize the educational benefits of a $575 million school construction program including dozens of infrastructure improvements projects and several new schools.

Puerto Rico Public Private Partnership Authority:
Prakash Nair was the consultant team leader responsible for the execution of their $800 million School Infrastructure Rebuilding Program that resulted in capital improvements to 127 schools across the commonwealth.

Government & Private Schools Worldwide:
Over the past 20+ years, Prakash Nair has worked on the design of hundreds of innovative public and private construction and rehabilitation projects for schools. Clients include local, state and national governments as well as prestigious private institutions.

“Over four decades of work in education, I have rarely encountered a thought leader with more wisdom and expertise than Prakash Nair. I have cherished the opportunity to interact with Prakash. He is the rare combination of visionary and practitioner.”

-GARY STAGER, FOUNDER & CEO
Constructing Modern Knowledge
PRAKASH NAIR — Page two

PUBLICATIONS (Sample Only)

BOOKS (hard copies available on Amazon.com)

Learning by Design (Co-authored with Harvard Professor Richard Elmore, Preface by Heidi Hayes Jacobs)
https://www.dropbox.com/s/t2h7g6m60oinbz/Learning%20by%20Design%202020%20E-Book.pdf?dl=0

Blueprint for Tomorrow -- Harvard Education Press (I don’t have a free electronic copy of this book but you can get a Kindle version here):
https://www.amazon.com/Blueprint-Tomorrow-Redesigning-Student-Centered-Learning-ebook.do-B07MTLQNKW/dp/B07MTLQNKW/ref=mt_other? encoding=UTF8&me=&qid=

Language of School Design
https://www.dropbox.com/s/9zk5uwxupkl/w4/LOSD%20Fo%20Amazon%20Print.pdf?dl=0

RECENT ARTICLES

Open Letter to President Joe Biden, Education Secretary Miguel Cardona and Dr. Jill Biden

School Buildings -- The Last Domino -- Harvard Education Publishing
https://www.hepg.org/blog/school-buildings-%E2%80%93-the-last-domino-it%E2%80%99s-time-for-

Transforming School Design in a Post-COVID World

From Cells and Bells to Learning Communities -- Harvard Education Letter

Outdoor Learning -- Leave the Classroom Behind -- Association for Learning Environments
https://media.a4le.org/COVID/Outdoor%20Learning.pdf

TALKS

Dozens of Keynote and Plenary presentations at national and international conferences, including Plenary talk at EduTech Australia (2017, 2018 and 2019), where Prakash presented to a live audience of over 7,000 attendees.

TEDx Presentation about School Design
https://www.youtube.com/watch?v=6rA92x_Y9A&t=84s

EDUCATION

Master of Architecture: University of Illinois, Urbana-Champaign
Master of Urban Planning: City University of New York
Bachelor of Architecture: JNT University, Hyderabad India

REGISTRATIONS & AFFILIATIONS

Registered Architect, State of New York, USA
Member, American Institute of Architects
Member, Association for Learning Environments
Muna Mohammad AL-Ghoul

Tel. 0096279 580 5719
Email: Muna.gl@hoemail.com
Address: Amman-Jordan

KEY QUALIFICATIONS:

An experienced Jordanian development professional with nearly 30 years of experience in the Jordanian education sector. After developing expertise in education management as HR manager and Kindergarten Principal for Rawdat Al Ma’aref Schools & College in Amman, I transitioned into managing education programming in the development sector in 2007. My experience in the sector has included six national-level projects spanning early childhood education, TOT for capacity building, and child protection including USAID-funded ESFP and ECE programming for Save the Children and multimedia in ECE programming for INTEGRATED’s project with UNICEF, as well as managing Plan International’s Jordan programs. Delivered training in education on many occasions, including facilitating a high-intensity, week-long Emergency Foundation Course training course delivered to Save the Children staff as part of the Humanitarian Operations Program (HOP) accredited by Oxford Brookes University, and the two-week long Advanced Field Training in Emergency Response delivered to Save the Children staff in Wales, The UK. I hold a high diploma in School Management from the University of Jordan and a Bachelor of Arts from Yarmouk University in English Literature.

PROFESSIONAL EXPERIENCE:

<table>
<thead>
<tr>
<th>From-To</th>
<th>Position/ Organization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>July 2020-</td>
<td>National Consultant/ Education Development Center, Inc. (“EDC”) -</td>
<td>EDC Consultant - National Consultant for the Supply Chain Analysis (SCA) under the USAID Global Book</td>
</tr>
<tr>
<td>November 2020</td>
<td>Washington</td>
<td>Alliance in Action Project (GBAIA) – Jordan</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Responsible for:</td>
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<tr>
<td></td>
<td></td>
<td>• Providing expertise to the planning, implementation, and analysis of the book supply chain in Jordan;</td>
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<tr>
<td></td>
<td></td>
<td>• Conducting interviews with key stakeholders (Ministry of Education (MoE); NGOs, and Private sector);</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Providing assistance to the Technical Director for the Supply Chain Analysis to refine the data collection methodology within the Jordan context;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Contributing to the final report including writing sections as agreed with GBAIA</td>
</tr>
<tr>
<td>April 2018 –</td>
<td>Program Manager/ Educational Advisor Integrated Services, Indigenous</td>
<td>UNESCO – Research on Promising Policies for Teacher Management in Refugee Contexts in Jordan</td>
</tr>
<tr>
<td>April 2020</td>
<td>Solutions (INTEGRATED) Amman, Jordan</td>
<td>• Responsible for overall management of the contract, including recruitment of the research team, arranging logistics for field operations, and management of field operations;</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Participated in the filed work through the facilitation of Key Informant Interviews and Focus Group Discussion;</td>
</tr>
</tbody>
</table>
- Supported the writing of the findings report and finalizing it as per comments from the UNESCO Team.

**Plan International – Baseline Study for the Worst Forms of Child Labour in Jordan and Lebanon**
- Responsible for the overall management of the assignment and assigning tasks to team members;
- Supported the writing of the findings report and finalizing it as per comments from the Plan International Team.

**USAID Jordan – Data and Evidence in Educational Programs (DEEP) Project**
- Supported conducting DEEP’s needs assessment at the Ministry of Education, including assessing capacities, and needs against the Educational Strategic Plan.

**The Jordanian National Commission for Women (JNCW) - The National Strategy for Women in Jordan 2020-2025**
- Participated in conducting the participatory sessions in the governorates, in an effort to collect data to inform the strategic priorities of The Government of Jordan and JNCW for the upcoming strategy;
- Supported writing the Field Findings Report to aggregate the data from the field.

**UNICEF – Development of Multimedia Education Materials and Teaching Aids Project;**

*The project aimed to develop a comprehensive set of multi-media educational materials and teaching aids to support children's learning in 100 Double Shifting Public Schools, in the North, South and Centre of Jordan, and other educational settings served by UNICEF.*

**Responsible for:**
- Managing the UNICEF project, including managing relations with UNICEF, the consortium partners, and the Ministry of Education and other stakeholders;
- Ensuring the roll-out of the project goes according to schedule and plan;
- Designing the work plan, heavily involved in developing the project management documents, reporting to the donor, working with the project team, and facilitating smooth operations;
- Managing activities, resources, and team members’ performance to meet objectives;
- Participating in the needs assessment by conducting qualitative data collection; producing KILs and focus group discussion notes, and ensuring that KILs/focus group discussion notes are produced in a timely and consistent manner;
<table>
<thead>
<tr>
<th>Role/Position</th>
<th>Dates</th>
<th>Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supporting logistics in the field, and conduct regular visits to the Double Shifting Schools and Makani centres as needed for proper project implementation; Leading and managing the MoE steering committee, which was responsible for reviewing and approving the multimedia content, and the project consortium for the UNICEF project; Supporting training 400 teachers in the targeted schools on the delivery of the multimedia content and implementation in the classroom; Leading the follow-up team and conducting field visits to provide support to teachers implementing the project at the targeted schools.</td>
<td>May 2017 – April 2018</td>
<td>Programs Manager PLAN International Amman, Jordan</td>
</tr>
<tr>
<td>Closely monitor existing partners with regular field visits and follow up; Attend relevant programme coordination and interagency meetings; Manage existing budgets and funding pipelines, &amp; follow up on other related funding matters for the National Offices (Nos); Lead on programme implementation ensuring compliance with donor requirements and Plan Inc. procedures and policies; Lead proposal development process in coordination with NOs and Head of Mission; Maintain relationships with key Government Ministries. Ensure accountability and feedback mechanisms are a core aspect of the programme cycle; Work with local partners to support capacity development and programme quality; Manage the sectors senior coordinators (Education and child protection).</td>
<td>August 2009 – May 2017</td>
<td>Save the Children International Amman, Jordan</td>
</tr>
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</table>

OTHER QUALIFICATIONS:

FORMAL EDUCATION

<table>
<thead>
<tr>
<th>Date</th>
<th>Degree</th>
<th>Educational Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>High Diploma School Management</td>
<td>Jordan University</td>
</tr>
<tr>
<td>1989</td>
<td>B.A. in English Literature</td>
<td>Yarmouk University</td>
</tr>
</tbody>
</table>

AWARDS, MEMBERSHIPS, PROFESSIONAL ACTIVITIES AND LANGUAGES

- The Conflict Between Corona Virus and The Immune System
  Edrak, April 2020

- Principals of Scientific Research
  Edrak, April 2020

- Plan International
  Budget Recovery Workshop- Nairobi Jan 10th- 12th, 2018

- Plan International
  SAP Orientation Workshop- Egypt Jan 28th- 31st, 2018

- Plan International
  Programs Development Quality Workshop- Egypt June 18th- 22nd, 2017

Trainings

- Safety & Security Online Training
  Save the Children International (SCI- JCO) May 2015

- Institutional Governance, Project Cycle Management
  SCI- JCO 9-12 March 2015

- Literacy Boost Community Action Training of Trainers Workshop
  SCI- JCO 8-12 Feb. 2015

- Managing for High Performance
  SCI- JCO, 1-4 December 2014

- Conflict Sensitive Programming & Peace Building Training
  SCI- JCO, 11- 13 November 2015

- Psychological First Aid for children & Caregivers Training
  SCI JCO, August 2014

- Stress Management for staff Training
  SCI JCO, August 2014

- Child Safeguarding TOT
  SCI JCO, June 2014
<table>
<thead>
<tr>
<th>Event</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Budget Holder Training</td>
<td>SCI-JCO, September 2013</td>
</tr>
<tr>
<td>Policy Advocacy Workshop</td>
<td>Save the Children, 2012</td>
</tr>
<tr>
<td>Presentation Skills Workshop</td>
<td>Whiz Kids, 2007</td>
</tr>
<tr>
<td>Training of the Trainer Workshop</td>
<td>Whiz Kids, 2007</td>
</tr>
<tr>
<td>Better Parenting</td>
<td>Ministry of Education, 2006</td>
</tr>
<tr>
<td>Safe Environment for a Quality School: Third Leadership Conference</td>
<td>Private School Council, 2005</td>
</tr>
<tr>
<td>International Computer Driving License (ICDL)</td>
<td>IT University Center, 2005</td>
</tr>
<tr>
<td>Different Teaching Styles &amp; Assessment of Student Learning</td>
<td>Amman Baccalaureate School, 2004</td>
</tr>
<tr>
<td>Drama for KG Children</td>
<td>Amman Baccalaureate School, 2004</td>
</tr>
<tr>
<td>Learning Disabilities and Dyslexia</td>
<td>RAMS Anman, 2000</td>
</tr>
</tbody>
</table>

**Languages**
- Arabic – Native
- English – Fluent

**Other relevant skills:**
- Critical thinking and analytical skills
- High attention to details
- Ability to work under pressure
- Time management, and ability to meet deadlines
- Excellent communication and socializing skills
5.28. Appendix 35: Statements of Difference
MEMORANDUM

TO: XXXXX
FROM: XXXXXX
DATE: XXXXX

SUBJECT: Statements of Difference for School Infrastructure Multi-Activity Evaluation Conducted by the USAID Monitoring, Evaluation, And Learning (MELA) Activity

A. BACKGROUND

USAID developed a scope of work for a task order under the MELA contract to study different aspects of the Education and Youth Team’s construction portfolio. The evaluation considered schools constructed under the Jordan School Construction and Rehabilitation Project (JSP) and Schools for a Knowledge Economy Project (SKEP), as well as schools that were expanded under the Jordan School Expansion Program (JSEP). The evaluation questions (EQ) were as follows:

- EQ 1 – What are the positive and negative aspects of the physical school environment (inside and outside spaces) that should be taken into consideration for future school construction?
  - EQ 1A – How long did it take to complete the construction work? In what ways did this deviate from the planned timeline?
  - EQ 1B – Is there evidence that SKEP school start-up teacher and principal training under the modified start-up program has resulted in use by teachers of methods and approaches that build on what the newer schools are designed to facilitate?
- EQ 2 – In what ways, if any, has the student body changed in USAID built and neighboring public schools?
- EQ 3 – Do learning outcomes (academic and non-academic) of students in newly built schools and school expansions differ from their peers in neighboring schools?

While USAID is now satisfied with the majority of the draft report, there was a need for several rounds of edits and clarifications due to inaccurate or unclear language. The draft report nevertheless still includes some statements USAID considers to be inconsistent, misleading, or not relevant for public distribution. In particular, the specialist architect contracted to oversee the data collection and analysis for EQ 1 did not travel to Jordan due to Covid-19 concerns, and therefore did not personally observe any of the schools. In light of this, USAID has removed some of the unusually strong language that appeared in the draft report and that also does not align with the findings from the evaluation tools used.
In addition, misunderstandings between USAID and MELA on the methodology the evaluation team was using for data collection and analysis for EQ 2 resulted in a narrative that only partially addressed USAID’s question. USAID has therefore removed text that is not relevant to answering the question and would create confusion for an external reader.

B. PURPOSE

The purpose of this memo is to document the sections of the draft report that have been removed by USAID from the final public version because they are either:

a) unclear and would create confusion,
b) inconsistent with MELA’s other findings within the report, or
c) are based on inaccurate data.

C. USAID EDITS FOR THE FINAL REPORT

The following table outlines the text or sections within the draft report that USAID has edited or removed from the final public report.

<table>
<thead>
<tr>
<th>Page</th>
<th>Original Text from Draft Report</th>
<th>USAID’s Rationale for Removal</th>
</tr>
</thead>
<tbody>
<tr>
<td>p.2</td>
<td>“There was an absence of specialty learning spaces in many schools, including indoor gymnasiums, meeting spaces, and multi-use/hands-on learning rooms”</td>
<td>This note in the executive summary creates an impression that school designs as a whole did not include such spaces, but fails to clarify that JSEP school expansions were designed to add extra classrooms rather than other types of spaces to an existing school, and also that new schools were designed to have either an indoor gymnasium or a multi-purpose hall. This is then repeated again on page 8 under program deficiencies.</td>
</tr>
<tr>
<td>p.2</td>
<td>“Site designs generally did not consider the possibility of future expansion.”</td>
<td>This statement in the executive summary is misleading. USAID built and expanded schools to the maximum capacity of the available land, therefore school designs were not required to take into account additional expansion.</td>
</tr>
<tr>
<td>p.2</td>
<td>“Wireless Internet was not available across and within all schools.”</td>
<td>This statement remains in the executive summary and is misleading, because it is explained further in the main text that MoE policy currently allows only a wired network within schools and therefore there is no wireless network.</td>
</tr>
<tr>
<td>Page</td>
<td>Natural Text</td>
<td></td>
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<td>------</td>
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</tr>
<tr>
<td>1</td>
<td><strong>Most classrooms outside of early grades are designed predominantly with an orientation towards a teacher-centered, top-down “delivery of content” rather than active learning or team teaching. Enumerators observed that only 62% of JSP schools were organized to facilitate more than just lectures, as compared to 89% of SKEP schools. Additionally, JSP lacked learning community spaces or classroom groupings at 74% of their schools, and only 64% of JSP schools had informal group tutoring and table groupings available adjacent resource areas.”</strong></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>This statement fails to consider that classroom furniture and layouts can accommodate different configurations, and that resource areas within the clusters provide opportunities for students to work on projects outside of the classroom. The comments that were provided in the sidelines but not in the main text of the report were more understandable, for example that the large number of students per classroom limited the possibility of an ideal number of configurations of furniture within the classrooms. The current narrative is misleading because it implies that the school building is itself inadequate because of the direction that the furniture was positioned.</td>
<td></td>
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<tr>
<td>3</td>
<td><strong>Evaluation Question 2: Student Body Changes in USAID-built and Neighboring Schools</strong> The construction of the USAID-funded schools seems to have led to decreases in crowding among neighboring schools, with indicators between USAID-funded and neighboring schools varying only modestly over time between the two sets of schools.</td>
<td></td>
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<td>4</td>
<td>The second part of this statement is unclear and is replaced with “in the first two years after construction was completed”. USAID schools were built in order to reduce overcrowding in neighbouring schools by drawing students away from existing schools and therefore it was already expected that there would be a balancing out class sizes across USAID and neighbouring schools over time. The examination situation at the schools at a later time is not relevant for the purposes of answering the evaluation question. Rather, the evaluation collected data from principal interviews to compare the situation at the neighbouring schools in the year before and immediately after USAID construction provides the more relevant data about whether students from neighbouring schools were transferred to the new schools to relieve some overcrowding, per the intention of the activity.</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td><strong>The difference between USAID-funded and neighboring schools in terms of numbers of students per room (counting each shift separately) declined to parity by 2018/19.”</strong></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>As above, this is a confusing way of presenting the information. The aim of the new construction was to reduce overcrowding in existing schools and therefore to have a more evenly spread out student population - i.e. parity. This is presented in a way that indicates that this is an unexpected or a negative outcome.</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>According to EMIS data, a few USAID-</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>This statement is inaccurate, as none of the</td>
<td></td>
</tr>
<tr>
<td>P. 4</td>
<td>“Either double shifts or rented buildings suggests lower quality of learning spaces than many students experience now with details on impact across basic and secondary education depending on the strategy that would have been employed by the government.”</td>
<td>This is very confusingly worded and therefore is removed. The concept is explained again later in the report and that is sufficient.</td>
</tr>
<tr>
<td>P. 8</td>
<td>JSEP schools rated poorly on gymnasiums with enumerators reporting that few of even the new schools having a modern, indoor, gym with bleachers, and 12 of the JSP schools and one of the SKEP schools had no gym. Enumerators rated f. Few schools outside of some SKEP schools had areas available for large group meetings of over 100, with most approximately 75% of JSP new schools having dedicated or make-shift space for between 50 and 100.</td>
<td>These statements are misleading and incorrect. USAID expanded JSEP schools by adding classrooms, and the lack of a gymnasium was not a part of the scope or purpose. Including such a statement can create a false impression for an external reader. With respect to meeting areas for 100 persons, every new school has a multipurpose hall or gym that is designed to accommodate 100+ people. It is not evident that the enumerators or the contracted architect measured the space or reviewed the design drawings and so these statements are removed.</td>
</tr>
<tr>
<td>P. 10</td>
<td>the classrooms were furnished with tablet armchairs, a desk that could accommodate one to two students, or longer bench-type desks for three to four students. Plastic and metal chairs are durable but not ergonomic and not suitable for students to sit in for long periods of time. Soft or other comfortable seating like lounge chairs, sofas and foam seating were extremely rare.</td>
<td>This statement has been modified to reflect the fact that USAID did not provide JSEP schools with new furnishing for the entire school and so tablet armchairs and benches for 2-3 students were in the existing part of the school.</td>
</tr>
<tr>
<td>p. 12</td>
<td>Traditional or even partially modernized school buildings fell short when evaluated against the goals of 21st century learning.</td>
<td>This statement is extreme, and does not align with the data presented, in particular considering that the SKEP (and to some extent the JSP) schools scored so highly on the tool that was used in...</td>
</tr>
</tbody>
</table>

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1 Although USAID indicates that there are no rented buildings among USAID-funded schools, it was not within the scope of the evaluation team to independently verify all data from EMIS.
This observation applied to a greater or lesser degree to the design of all buildings (JSEP, JSP and SKEP) and not to the way they were being utilized. These findings were not surprising because older school buildings were not designed to facilitate modern methods of teaching and learning. In fact, an older school building prevents the delivery of a true 21st century education in line with ERfKE goals. If school buildings are the “hardware” within which the “software” of education runs, like any piece of hardware, every school building also has limitations on what kinds of software it can run.

On the face of it, most would argue that school buildings should not dictate how we educate our children – that “construction should not drive instruction.” However, it is true with the USAID schools in Jordan as it is with most schools worldwide that construction, in fact, drives, or at least defines the limits of, instruction. Given the information collected from the field observations, and with the exception of the early grade SKEP schools, all of the 104 schools surveyed could be considered “cells-and-bells” schools – that is, buildings in which students occupied and moved between relatively identical cells when the bell went off. This made them educationally obsolete on the day they opened relative to the Kingdom’s goals and posed a problem, because each school that was constructed like this extended a

accordance with the 75% benchmark that the contracted architect indicated would be adequate and achievable. While there are a number of recommended adjustments that could be made to the designs that would make them score better, it does not logically follow that their absence indicates that the entire physical school structure is obsolete. In particular, it is not clear that teaching practices being less collaborative, despite the inclusion of clusters with multipurpose spaces, is an inherent problem in the structure that makes the school building “obsolete”. The reliance of the lead architect on photographs of parts of the schools rather than on-site visits is also problematic, as it appears that he was often referring to the existing older portions of schools that were expanded under JSEP and that were not the subject of the evaluation.

2 The SKEP schools were designed around clusters of 3 to 8 classrooms, and the design standards suggested designs that might facilitate open design and co-teaching. Three-quarters of the enumerators indicated the SKEP school classrooms “appeared to be organized in groupings of 4-6 or in learning communities to promote collaboration”, which was well above the 26% for JSP and 7% for JSEP, but still not universal. However, the photographs and enumerators ratings indicated that the contractors’ ultimate designs were a bit conservative, for instance constructing few examples of openable partitions. There were examples of resource areas for dealing with special needs within clusters with theoretical capacity to use multiple classrooms in limited cases, although doing so appeared to be out of the comfort zone of some principals and teachers.
<table>
<thead>
<tr>
<th>Page</th>
<th>Section/Comment</th>
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<tbody>
<tr>
<td>p. 13</td>
<td>EQ 2: Student Body Changes in USAID-built and Neighboring Schools&lt;br&gt;defunct model of education for at least 30 years or more.&lt;sup&gt;3&lt;/sup&gt;</td>
</tr>
<tr>
<td>p. 25</td>
<td>“94% of ramps at USAID-funded schools were properly-designed,”</td>
</tr>
<tr>
<td>p. 31</td>
<td>“One way to do so is for USAID to require designs that move away more completely from the obsolete “cells and bells” design invented during the first industrial revolution, beyond even the still somewhat-outdated SKEP school designs, towards a student-centered model with fewer traditional classrooms and more spaces for active learning.”</td>
</tr>
<tr>
<td>P. 52</td>
<td>Appendix 8: Methods - Schools not Surveyed during the School Observations and Coding</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>P 68</th>
<th>Appendix 11: Evaluation Question 1A – Completion of Construction Work and Timeline Deviations</th>
</tr>
</thead>
<tbody>
<tr>
<td>P. 91</td>
<td>The photos and captions are misleading. USAID did not supply the older bench style desks, those photographs were from the older, existing parts of JSEP schools that were expanded. In addition, the image of a newer school with desks facing the front, with the caption that they are indicative of “obsolete” teaching methodologies is extreme. The desks were set up for Tawjihi exams that took place when the evaluators visited the schools, and in addition they are not fixed to the ground and schools often move furniture around depending on the lessons, as is often observed by USAID during site visits.</td>
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<tr>
<td>P. 119</td>
<td>Appendix 26: MoE Supervisor Classroom Observation Tool in Arabic</td>
</tr>
<tr>
<td>P. 150</td>
<td>Appendix 27 ESMP Data</td>
</tr>
</tbody>
</table>
| P. 154-168 | Appendix 28: LQAS Statistical Test Tables  
Appendix 29: PISA Statistical Test Tables  
Appendix 30: NAfKE Statistical Test Tables  
Appendix 31: Educational Quality Control Statistical Test Tables  
Appendix 32: TIMSS Statistical Test Tables |
| Appendix 27 ESMP Data | The data from ESMP is laid out in a way that is not useful. The percentages for USAID and neighbouring schools are given as a percentage of the total rather than what percentage within each type of schools showed that there were problems with vandalism, etc. |
The Monitoring, Evaluation, and Learning Activity (the Activity) acknowledges the points raised in the statement of difference issued by USAID.

With reference to USAID’s comment around the need for several rounds of edits and clarification, the Activity would like to note that evaluation team submitted the first draft of the evaluation report on September 16, 2021, with two rounds of edits provided on October 21 and November 25, 2021. This was not considered to be outside the norm for report review and response by USAID on evaluations. The evaluation team has undertaken USAID’s feedback from the statement of difference and has submitted the final version of the report in conjunction with this letter.

As mentioned, the subject matter expert (SME) for this assignment did not travel to Jordan due to COVID-19 concerns and did not personally observe the school structures. That said, the SME designed the data collection tools for direct observation by enumerators that was reviewed and approved by USAID. Additionally, the SME reviewed photos taken by the enumerators to provide additional insights to the key findings in the final report. That said, the evaluation team softened the language based on USAID’s recommendation (as outlined in Section A).

With reference to differences in understanding under evaluation question (EQ) 2, the Activity would like to note that no formal documentation of changes in approach for said evaluation question could be provided by the Mission. As such, the evaluation team followed the methodology as outlined and approved under the inception report. As a lesson identified under this assignment, the Activity has agreed with USAID to use inception reports to document any proposed modifications by either USAID or the assignment teams. Additionally, the Activity will seek USAID’s written approval via email for changes documented in the inception report to be considered final.

### A. USAID EDITS FOR THE FINAL REPORT AND ACTIVITY RESPONSE

To respond to USAID’s edits for the final report, the team has built upon the initial table shared below and have included additional changes made to the report to ensure its finalization for public viewing. Please note that the evaluation team updated the page numbers to reflect the final version of the report to be shared with USAID.

<table>
<thead>
<tr>
<th>Page</th>
<th>Original Text from Draft Report</th>
<th>USAID’s Rationale for Removal</th>
<th>Evaluation Team Response</th>
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<tbody>
<tr>
<td>p. viii</td>
<td>“There was an absence of specialty learning spaces in many schools, including indoor gymnasiums, meeting</td>
<td>This note in the executive summary creates an impression that school designs as a whole</td>
<td>The evaluation team agrees with the proposed deletion of the first sentence. In</td>
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<td>spaces, and multi-use/hands-on learning rooms”</td>
<td>did not include such spaces, but fails to clarify that JSEP school expansions were designed to add extra classrooms rather than other types of spaces to an existing school, and also that new schools were designed to have either an indoor gymnasium or a multi-purpose hall. This is then repeated again on page 8 under program deficiencies.</td>
<td>order to ensure clarity of the following sentence, the evaluation team revised “these spaces” to state “specialty learning spaces” so as to allow the reader to understand the context of the statement.</td>
</tr>
<tr>
<td>p. viii</td>
<td>“Site designs generally did not consider the possibility of future expansion.”</td>
<td>This statement in the executive summary is misleading. USAID built and expanded schools to the maximum capacity of the available land, therefore school designs were not required to take into account additional expansion.</td>
<td>While the evaluation team felt that this was a criterion to be evaluated through the approved data collection tools, they agree to remove this sentence.</td>
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<tr>
<td>p. viii</td>
<td>“Wireless Internet was not available across and within all schools.”</td>
<td>This statement remains in the executive summary and is misleading, because it is explained further in the main text that MoE policy currently allows only a wired network within schools and therefore there is no wireless network.</td>
<td>The evaluation team agrees with the point made by USAID and therefore agrees to removing this language from the executive summary, where it is not nuanced.</td>
</tr>
<tr>
<td>p. viii/ix</td>
<td>“Most classrooms outside of early grades are designed predominantly with an orientation towards a teacher-centered, top-down “delivery of content” rather than active learning or team teaching. Enumerators observed that only 62% of JSP schools were organized to facilitate more than just lectures, as compared to 89% of SKEP schools. Additionally, JSP lacked learning community spaces or classroom groupings at 74% of their schools, and only 64% of JSP schools had informal group tutoring and table groupings available adjacent resource areas.”</td>
<td>This statement fails to consider that classroom furniture and layouts can accommodate different configurations, and that resource areas within the clusters provide opportunities for students to work on projects outside of the classroom. The comments that were provided in the sidelines but not in the main text of the report were more understandable, for example that the large number of students per classroom limited the possibility of an ideal number of configurations of furniture within the classrooms. The current narrative is misleading because it implies that the school building is itself inadequate because of the direction that the furniture</td>
<td>The evaluation team deleted the first sentence of this findings at the request of USAID, given the strong opposition.</td>
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<td>p.3</td>
<td>“Evaluation Question 2: Student Body Changes in USAID-built and Neighboring Schools The construction of the USAID-funded schools seems to have led to decreases in crowding among neighboring schools, with indicators between USAID-funded and neighboring schools varying only modestly over time between the two sets of schools.”</td>
<td>The second part of this statement is unclear and is replaced with “in the first two years after construction was completed”. USAID schools were built in order to reduce overcrowding in neighbouring schools by drawing students away from existing schools and therefore it was already expected that there would be a balancing out class sizes across USAID and neighbouring schools over time. The examination situation at the schools at a later time is not relevant for the purposes of answering the evaluation question. Rather, the evaluation collected data from principal interviews to compare the situation at the neighbouring schools in the year before and immediately after USAID construction provides the more relevant data about whether students from neighbouring schools were transferred to the new schools to relieve some overcrowding, per the intention of the activity.</td>
<td>The evaluation team accepted the proposed edits and deletions by USAID.</td>
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<tr>
<td>p.x</td>
<td>“The difference between USAID-funded and neighboring schools in terms of numbers of students per room (counting each shift separately) declined to parity by 2018/19.”</td>
<td>As above, this is a confusing way of presenting the information. The aim of the new construction was to reduce overcrowding in existing schools and therefore to have a more evenly spread out student population - ie. parity. This is presented in a way that indicates that this is unexpected or a negative outcome.</td>
<td>The evaluation team has accepted USAID’s deletion of this sentence for the final published report, however the evaluation team disagreed with USAID’s assertion that the sentence objectively portrays a negative outcome.</td>
</tr>
<tr>
<td>p. ix</td>
<td>According to EMIS data, a few USAID-funded schools had rented additional buildings, though fewer rented buildings than neighboring</td>
<td>This statement is inaccurate, as none of the USAID schools, whether JSP, JSEP, or SKEP were rented facilities. Even with the footnote, this statement gives the impression that it is possible that USAID did in fact</td>
<td>Given USAID’s strong feelings toward this representation of the data, the evaluation team accepted the proposed deletion of the sentence and its footnote. However,</td>
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<td>schools 1.</td>
<td>implement construction activities in rented schools and would therefore potentially confuse an external reader.</td>
<td>the evaluation team would like to reiterate that the statement accurately reflects data as presented by EMIS, and the footnote states the potential for discrepancy, as verification of EMIS data was not within the scope of the evaluation.</td>
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<td>P. x</td>
<td>“Either double shifts or rented buildings suggests lower quality of learning spaces than many students experience now with details on impact across basic and secondary education depending on the strategy that would have been employed by the government.”</td>
<td>This is very confusingly worded and therefore is removed. The concept is explained again later in the report and that is sufficient.</td>
<td>The evaluation team accepted USAID’s proposed deletions from the executive summary.</td>
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<tr>
<td>P. 6</td>
<td>Interpretation of ratings</td>
<td></td>
<td>The evaluation team felt that USAID’s changes to the interpretation of ratings only met part of the agreed upon rating as documented in the inception report and reflected throughout the rest of the evaluation report. The evaluation team has further expanded the scoring to show areas of improvement, desirable and achievable goals for the country, and stretch goals development programming could aim for. Please see the updated revisions made to the report.</td>
</tr>
<tr>
<td>P. 8</td>
<td>JSEP schools rated poorly on gymnasiums with enumerators reporting that few of even the new schools having a modern, indoor, gym with bleachers, and 12 of the JSP schools and one of the SKEP schools had no gym. Enumerators rated f. Few schools outside of some SKEP schools had areas available for large group meetings of over 100, with</td>
<td>These statements are misleading and incorrect. USAID expanded JSEP schools by adding classrooms, and the lack of a gymnasium was not a part of the scope or purpose. Including such a statement can create a false impression for an external reader. With respect to meeting areas for 100 persons, every</td>
<td>The evaluation team has agreed to the deletion of the proposed language. However, it should be noted that given the time, scope, and methodology agreed to with USAID, this evaluation was not designed to include the direct measurement of such</td>
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1 Although USAID indicates that there are no rented buildings among USAID-funded schools, it was not within the scope of the evaluation team to independently verify all data from EMIS.
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<td>most approximately 75% of JSP new schools having dedicated or make-shift space for between 50 and 100.</td>
<td>new school has a multipurpose hall or gym that is designed to accommodate 100+ people. It is not evident that the enumerators or the contracted architect measured the space or reviewed the design drawings and so these statements are removed.</td>
<td>spaces.</td>
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<tr>
<td>P. 11</td>
<td>the classrooms were furnished with tablet armchairs, a desk that could accommodate one to two students, or longer bench-type desks for three to four students. Plastic and metal chairs are durable but not ergonomic and not suitable for students to sit in for long periods of time. Soft or other comfortable seating like lounge chairs, sofas and foam seating were extremely rare.</td>
<td>This statement has been modified to reflect the fact that USAID did not provide JSEP schools with new furnishing for the entire school and so tablet armchairs and benches for 2-3 students were in the existing part of the school.</td>
<td>The evaluation team accepted the proposed edits by USAID.</td>
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<td>p. 12-13</td>
<td>Traditional or even partially modernized school buildings fell short when evaluated against the goals of 21st century learning. This observation applied to a greater or lesser degree to the design of all buildings (JSEP, JSP and SKEP) and not to the way they were being utilized. These findings were not surprising because older school buildings were not designed to facilitate modern methods of teaching and learning. In fact, an older school building prevents the delivery of a true 21st century education in line with ERKIE goals. If school buildings are the “hardware” within which the “software” of education runs, like any piece of hardware, every school building also has limitations on what kinds of software it can run. On the face of it, most would argue that school buildings should not dictate how we educate our children – that “construction should not drive instruction.” However, it is true with the USAID schools in Jordan as it is with most schools worldwide that construction, in fact, drives, or at</td>
<td>This statement is extreme, and does not align with the data presented, in particular considering that the SKEP (and to some extent the JSP) schools scored so highly on the tool that was used in accordance with the 75% benchmark that the contracted architect indicated would be adequate and achievable. While there are a number of recommended adjustments that could be made to the designs that would make them score better, it does not logically follow that their absence indicates that the entire physical school structure is obsolete. In particular, it is not clear that teaching practices being less collaborative, despite the inclusion of clusters with multipurpose spaces, is an inherent problem in the structure that makes the school building “obsolete”. The reliance of the lead architect on photographs of parts of the schools rather than on-site visits</td>
<td>The evaluation team felt that this section was consistent with the data. Based on the designs shared by USAID, and as mentioned informally in meetings, the clusters were planned only for the early grades and questioned whether student-centered learning is as relevant in upper grades – where it, in fact, is most impactful. While the evaluation team accepted USAID’s proposal to delete language here, the team would like to highlight that this finding was intended for the Mission to understand that it and the Ministry could do better for students and ERKIE goals if it progresses further in its construction as indicated.</td>
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<td>least defines the limits of, instruction. Given the information collected from the field observations, and with the exception of the early grade SKEP schools, all of the 104 schools surveyed could be considered “cells-and-bells” schools – that is, buildings in which students occupied and moved between relatively identical cells when the bell went off. This made them educationally obsolete on the day they opened relative to the Kingdom’s goals and posed a problem, because each school that was constructed like this extended a defunct model of education for at least 30 years or more.</td>
<td>is also problematic, as it appears that he was often referring to the existing older portions of schools that were expanded under JSEP and that were not the subject of the evaluation.</td>
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<td>The data from this section is largely removed. It is not relevant because the methodology was not in line with what USAID thought had been agreed and that would be the most useful. Instead of considering the situation of neighbouring school overcrowding in the year before and after school construction, the methodology instead considered three points in time that did not analyze data showing student numbers immediately before and after new schools were operational. Some relevant before and after data was collected through interviews with principals, and this is retained in the document.</td>
<td>The sections that USAID proposed deleting are in line with the approach as outlined in the inception report which was reviewed and approved by USAID. As such, the evaluation team proposes redacting the text that USAID currently is proposing (except for the section headers which will be maintained). The evaluation team feels like this meets both parties’ needs – demonstrating that the evaluation team did the work as approved in the inception report, while deleting those sections USAID does not want to make public.</td>
<td></td>
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<tr>
<td>p. 14-16</td>
<td>EQ 2: Student Body Changes in USAID-built and Neighboring Schools</td>
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<tr>
<td>p. 24</td>
<td>“94% of ramps at USAID-funded schools were properly-designed,”</td>
<td>The evaluation team never confirmed the accuracy of this</td>
<td>The evaluation team accepts the proposed</td>
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2 The SKEP schools were designed around clusters of 3 to 8 classrooms, and the design standards suggested designs that might facilitate open design and co-teaching. Three-quarters of the enumerators indicated the SKEP school classrooms “appeared to be organized in groupings of 4-6 or in learning communities to promote collaboration”, which was well above the 26% for JSP and 7% for JSEP, but still not universal. However, the photographs and enumerators ratings indicated that the contractors’ ultimate designs were a bit conservative, for instance constructing few examples of openable partitions. There were examples of resource areas for dealing with special needs within clusters with theoretical capacity to use multiple classrooms in limited cases, although doing so appeared to be out of the comfort zone of some principals and teachers.

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<td>Statement and the reason for the discrepancy. USAID assumes that this must have been a JSEP school with an existing ramp, because all newly built USAID schools are compliant per the relevant code and are inspected during multiple stages of the construction to ensure this. USAID has included a footnote to clarify this potential discrepancy.</td>
<td>changes by USAID.</td>
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<tr>
<td>p. 31</td>
<td>“One way to do so is for USAID to require designs that move away more completely from the obsolete “cells and bells” design invented during the first industrial revolution, beyond even the still somewhat-outdated SKEP school designs, towards a student-centered model with fewer traditional classrooms and more spaces for active learning.”</td>
<td>Again, the statement that SKEP school designs are outdated and comparing them to cells and bells is not supported by the evidence presented in the relatively high scores that the schools were given under the evaluator’s own tool. This statement would be acceptable if it was reworded to say “some elements of the SKEP school designs that were somewhat outdated” since a few of those were highlighted (eg. teacher resource areas).</td>
<td>The evaluation team revised the sentence to put emphasis of the recommendation in moving closer to a fully student-centered model. See revisions made in the document.</td>
</tr>
<tr>
<td>P. 52</td>
<td>Appendix 8: Methods - Schools not Surveyed during the School Observations and Coding</td>
<td>This section outlines the names of schools/principals who refused to be interviewed as a part of the study and is not therefore required or relevant for external audiences.</td>
<td>As part of the 508 compliance, the Kaizen team will ensure that this section is redacted or removed prior to publication.</td>
</tr>
<tr>
<td>P 68</td>
<td>Appendix 11: Evaluation Question 1A – Completion of Construction Work and Timeline Deviations</td>
<td>While the evaluation team did not find any comments with reference to this section, the assumption is that USAID is asking for this section to be redacted or removed, given the specific names of entities listed. This will be considered when making the document 508 compliant.</td>
<td></td>
</tr>
<tr>
<td>P. 90</td>
<td>Image of JSEP desks not supplied by USAID, as well as an image of a school classroom set up in a</td>
<td>The photos and captions are misleading. USAID did not supply the older bench style</td>
<td>The evaluation team accepts USAID’s proposal to delete this photo from</td>
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<td>forward facing orientation and described as obsolete</td>
<td>desks, those photographs were from the older, existing parts of JSEP schools that were expanded. In addition, the image of a newer school with desks facing the front, with the caption that they are indicative of “obsolete” teaching methodologies is extreme. The desks were set up for Tawjihi exams that took place when the evaluators visited the schools, and in addition they are not fixed to the ground and schools often move furniture around depending on the lessons, as is often observed by USAID during site visits.</td>
<td>the final evaluation report.</td>
</tr>
<tr>
<td>P. 119</td>
<td>Appendix 26: MoE Supervisor Classroom Observation Tool in Arabic</td>
<td>In the document, USAID mentioned “Check […] whether it is actually ok to publish or if it is an internal tool.” These tools are published online publicly but will be removed in the final version of the published report. The header for this Appendix will remain as it was reviewed as part of the evaluation.</td>
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<tr>
<td>P. 147</td>
<td>Appendix 27 ESMP Data</td>
<td>The data from ESMP is laid out in a way that is not useful. The percentages for USAID and neighbouring schools are given as a percentage of the total rather than what percentage within each type of schools showed that there were problems with vandalism, etc.</td>
<td>The manner in which the data is laid out in this section allows for clear understanding by an end user looking at comparing overall. That said, at the request of USAID, an additional excel spreadsheet will be shared in which the specific tables are calculated based on the request. This will be shared separately from the report.</td>
</tr>
<tr>
<td>P. 156-166</td>
<td>Appendix 28: LQAS Statistical Test Tables Appendix 29: PISA Statistical Test Tables</td>
<td>No comments were found in the document. The evaluation team will leave as is, but if USAID would like this redacted prior to</td>
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|      | Appendix 30: NAfKE Statistical Test Tables  
Appendix 31: Educational Quality Control Statistical Test Tables  
Appendix 32: TIMSS Statistical Test Tables | | publication, this can be done by the Activity. |
5.29. *Appendix 36: Conflicts of Interest Disclosures*

The conflict of interest forms are available from the Monitoring, Evaluation, and Learning Activity upon request.