

Early Grades Reading and Mathematics initiative (RAMP)

Lot Quality Assurance Sampling (LQAS) Final Report

The 2022-2023 End-of-First-Semester

This report prepared by RAMP Monitoring and Evaluation Unit

February 2023

Prepared for RTI International

RTI International is a trade name of Research Triangle Institute.

Table of Contents

List of Figures	3
List of Tables.....	4
Abbreviations.....	6
Overview.....	7
Background.....	7
Methodology.....	7
Findings	7
Conclusions and Recommendations	14
1. Background.....	18
1.1 Introduction	18
1.2 LQAS assessment objectives.....	20
1.3 Limitations	20
2. Methodology and procedures	21
2.1 Population and sample	21
2.2 Instruments	21
2.3 Data collection and analysis.....	21
2.4 Implementation procedures.....	21
2.5 Final sample	22
3. Findings	24
3.1: Results based on the decision-making rule of LQAS	24
3.2: Results based on the RAMP key performance indicators	26
3.2.1: Field directorates results	26
3.2.2: National key performance indicators results.....	34
3.3 Correlation between the teachers instruction effectiveness and the students' performance in LQAS	41
4. Conclusions, and recommendations.....	47
4.1 Conclusion	47
4.2 Recommendations.....	50
References	52

List of Figures

Figure 1 Field Directorates achieving the benchmarks of the reading proficiency, Silent Reading Comprehension, and Mathematics over the LQAS of years 2021 and 2022	8
Figure 2 Map showing the levels of performance of the FDs in the Reading proficiency in the year 2022.....	9
Figure 3 Map showing the levels of performance of the FDs in the Mathematics in LQAS of the year 2022.	10
Figure 4 Map showing the levels of performance of the FDs in the silent Reading Comprehension in LQAS of the year 2022.	11
Figure 5 Illustrates Percent of G2 students who meeting the key indicators benchmarks in reading and mathematics the last three LQAS (2019, 2021, and 2022)	12
Figure 6 Illustrates Percent of G3 students who meeting the key indicators benchmarks in reading and mathematics the last three LQAS (2019, 2021, and 2022)	13
Figure 7 Illustrates the Comprehension Performance of G2 Students over the last three LQASs	14
Figure 8 Illustrates the Comprehension Performance of G3 Students over the last three LQASs	14
Figure 9 Illustrates the G2 key indicators results for all schools sample types in the LQAS of year 2022	35
Figure 10 Illustrates the G3 key indicators results for all schools types in the LQAS of year 2022	36
Figure 11 Illustrates the teachers' Reading instruction effectiveness and students performances in Reading in each FD ..	45
Figure 12 Illustrates the teachers' math instruction effectiveness and students performances in Math in each FD	46

List of Tables

Table 1	Numbers of field directorates that have met the benchmark (55% or more) in each indicator classified by years ..8
Table 2	Percent of students meeting the key indicators benchmarks in reading and mathematics classified by indicator, grade level, and year12
Table 3	Percent of Students in each Reader Category in reading comprehension classified by grade level and year13
Table 4	Numbers and percentages of assessed schools classified by school type and year22
Table 5	Numbers and percentages of assessed students classified by school type and year22
Table 6	Numbers and percentages of assessed students classified by year and gender23
Table 7	Numbers and percentages of assessed students classified by year and grade level23
Table 8	Field directorates that meet the benchmarks of the different indicators25
Table 9	the results of all field directorates and their performances against the 55% benchmark of each indicator25
Table 10	Results and performance of G2 in basic sample schools against the key performance indicators classified by field directorate and gender27
Table 11	Results and performance of G3 students in basic sample schools against the key performance indicators classified by field directorate and gender28
Table 12	Percent of G2 students in Syrian refugee students schools who meet the benchmarks of the key performance indicators by field directorate and gender29
Table 13	Percent of G3 students in Syrian refugee students schools who meet the benchmarks of the key performance indicators by field directorate and gender30
Table 14	Percent of G2 students in Syrian refugee camps schools who meet the benchmarks of the key performance indicators by field directorate and gender31
Table 15	Percent of G3 students in Syrian refugee camps schools who meet the benchmarks of the key performance indicators by field directorate and gender31
Table 16	Percent of G2 students in senior teachers schools who meet the benchmarks of the key performance indicators by field directorate and gender31
Table 17	Percent of G3 students in senior teachers schools who meet the benchmarks of the key performance indicators by field directorate and gender32
Table 18	Numbers of assessed schools and students by sample type34
Table 19	G2 key performance indicator results by basic sample schools, Syrian student schools, Refugee camp schools, and Senior Teacher schools.....34
Table 20	G3 key performance indicator results by basic sample schools, Syrian student schools, Refugee camp schools, and senior teachers' schools35
Table 21	Percent of Students in each Reader Category in Year 2022 classified by Reader Category and grade level.36
Table 22	Percent of the students who achieved the reading proficiency benchmark by school type, year, and grade.....37
Table 23	Percent of the students who achieved the reading proficiency benchmark in the basic sample schools by grade, gender, and year.....37
Table 24	Percent of Students in each Reader Category classified by indicator, grade level, and year38
Table 25	Percent of the students who achieved the silent reading comprehension benchmark by school type, grade, and year.....38
Table 26	Percent of the students who achieved the silent reading comprehension benchmark in the basic sample schools by gender, grade, and year.....39
Table 27	Percent of the students who achieved the mathematics benchmark by school type, year, and grade39
Table 28	Percent of the students who achieved the mathematics benchmark by gender, grade, and year40
Table 29	Percent of the students who achieved the mathematics benchmark by grade and year40
Table 30	Percent of the students who got zero scores in ORF classified by school type, grade, and year40
Table 31	Percent of the students who got zero scores in ORF classified by gender, year, and grade level41
Table 32	Instruction effectiveness rate of CRO data of school year 2021/ 2022 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics assessments classified by field directorate41

Table 33 Instruction effectiveness rate of CRO data of school year 2022/ 2023 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics assessments classified by field directorate	43
---	-----------

Abbreviations

CRO	Classroom observation
EGMA	Early Grade Mathematics Assessment
EGRA	Early Grade Reading Assessment
ETMD	Examination and Test Managing Directorate
G2	grade two
G3	grade three
GAMA	Group-Administered Mathematics Assessment
LQAS	Lot Quality Assurance Sampling
M&E	Monitoring and Evaluation
MOE	Ministry of Education
ORF	Oral Reading Fluency
RAMP	Early Grade Reading and Mathematics Initiative
USAID	United States Agency for International Development

Overview

This report presents the Lot Quality Assurance Sampling (LQAS) assessment results relevant to reading and mathematics indicators for early grade students in Jordan. This LQAS assessment was administered at the end of the first semester of the 2022-2023 school year—in November 2022.

Background

The LQAS is the basis for a monitoring approach that uses binary indicators and small school sample sizes to inform decision-making and improve program effectiveness by taking remedial and improvement actions. While small sample sizes limit having accurate findings like those obtained from larger samples, the value of this approach is that it allows for rapid and reliable identification of the schools and field directorates that are most in need of additional support. This is done by specifying performance standards for selected indicators and comparing results across field directorates—the field directorates whose schools do not meet these performance standards can then be targeted for additional support.

The LQAS assessment has been applied in Jordan's Early Grade Reading and Mathematics Initiative (RAMP) eight times since the initiative started. The first time this assessment was applied was in 2016. This activity has taken two forms:

1. Traditional LQAS assessment—a sample of 19 students from each school in a sample of 19 schools from each field directorate.
2. Comprehensive LQAS assessment—a sample of 19 students from all schools where RAMP is implemented and where there are grades two and three or at least one of them.

In this iteration of the survey, which took place in November 2022, the traditional LQAS approach was used.

The main objective of the LQAS assessment is to identify the low-performing schools and field directorates and, therefore, require immediate action and support. Accordingly, in addition to this comprehensive report, independent reports have been prepared for all field directorates and for all sampled schools. These reports aim to help decision makers at the MOE- field directorate-, and school-levels to utilize the findings in improving student learning by addressing weaknesses and reinforcing strengths. This report focuses on identifying the field directorates most in need of support, in addition to presenting national results against the reading and mathematics benchmarks.

Methodology

The LQAS is usually implemented in MOE's public schools that have grade two (G2) and/or grade three (G3) where the number of students in these two grades is 19 or more. The population of this LQAS iteration comprised 2,373 schools that had 251,858 male and female G2 and/or G3 students from all field directorates, including the Syrian refugee camps, 15,419 of whom were sampled in the study and 815 schools. Approximately 170 MOE supervisors were trained. They, in turn, assessed the randomly sampled students using the reading and mathematics tests (reading texts and mathematical problems) used in 2021.

Findings

The findings consist of two main parts: The first is related to the performance of field directorates against each key performance indicator, and the second is related to the results of the key performance indicators at the national level.

As for part one, the field directorates' performance, their results are summarized in **Table 1**, which shows the number of field directorates that have met benchmark—i.e. 55% in each of the performance indicators according to the decision-making statistical rule.

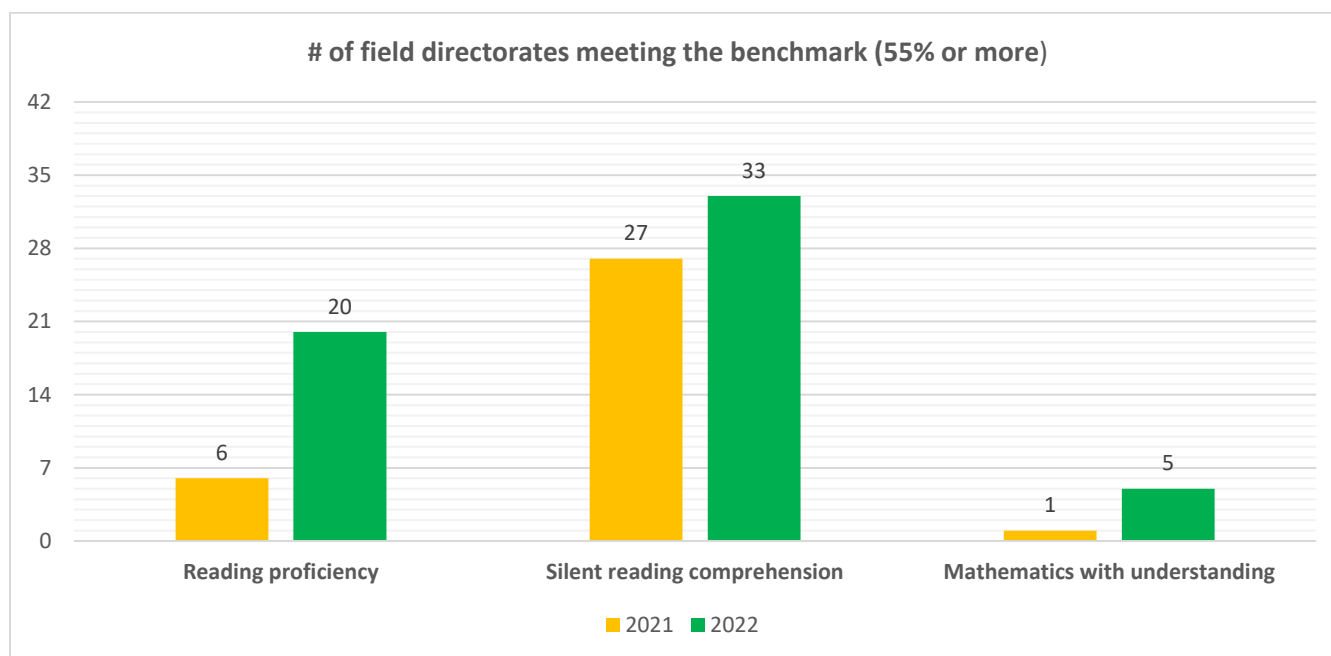
We notice that 20 field directorates have met the benchmark in the reading proficiency indicator; and 33 field directorates—in addition to the Syrian refugee camps; the total, therefore, is 34—have met the silent reading comprehension indicator. The findings of the latter are better than those of the former. As for mathematics, the results were very low; only 5-field directorate met the benchmark.

Table 1 *Numbers of field directorates that have met the benchmark (55% or more) in each indicator classified by years*

Indicators	# of field directorates meeting the benchmark (55% or more)		# of assessed field directorates
	2021	2022	
Reading proficiency	6	20	42
Silent reading comprehension	27 ¹	33 ²	42
Mathematics with understanding	1	5	42

Figure 1 illustrates the Field Directorates achieving the benchmarks of the reading proficiency, Silent Reading Comprehension, and Mathematics over the LQAS of year 2021 and 2022.

Figure 1 *Field Directorates achieving the benchmarks of the reading proficiency, Silent Reading Comprehension, and Mathematics over the LQAS of years 2021 and 2022*



¹ The Syrian refugee camps have also met the benchmark in silent reading comprehension in the year 2021.

² The Syrian refugee camps have also met the benchmark in silent reading comprehension in the year 2022.

Figure 2 Map Illustrating the levels of the performance of the FDs in the *reading proficiency* in the LQAS of the year 2022.

Figure 2 Map showing the levels of performance of the FDs in the Reading proficiency in the year 2022

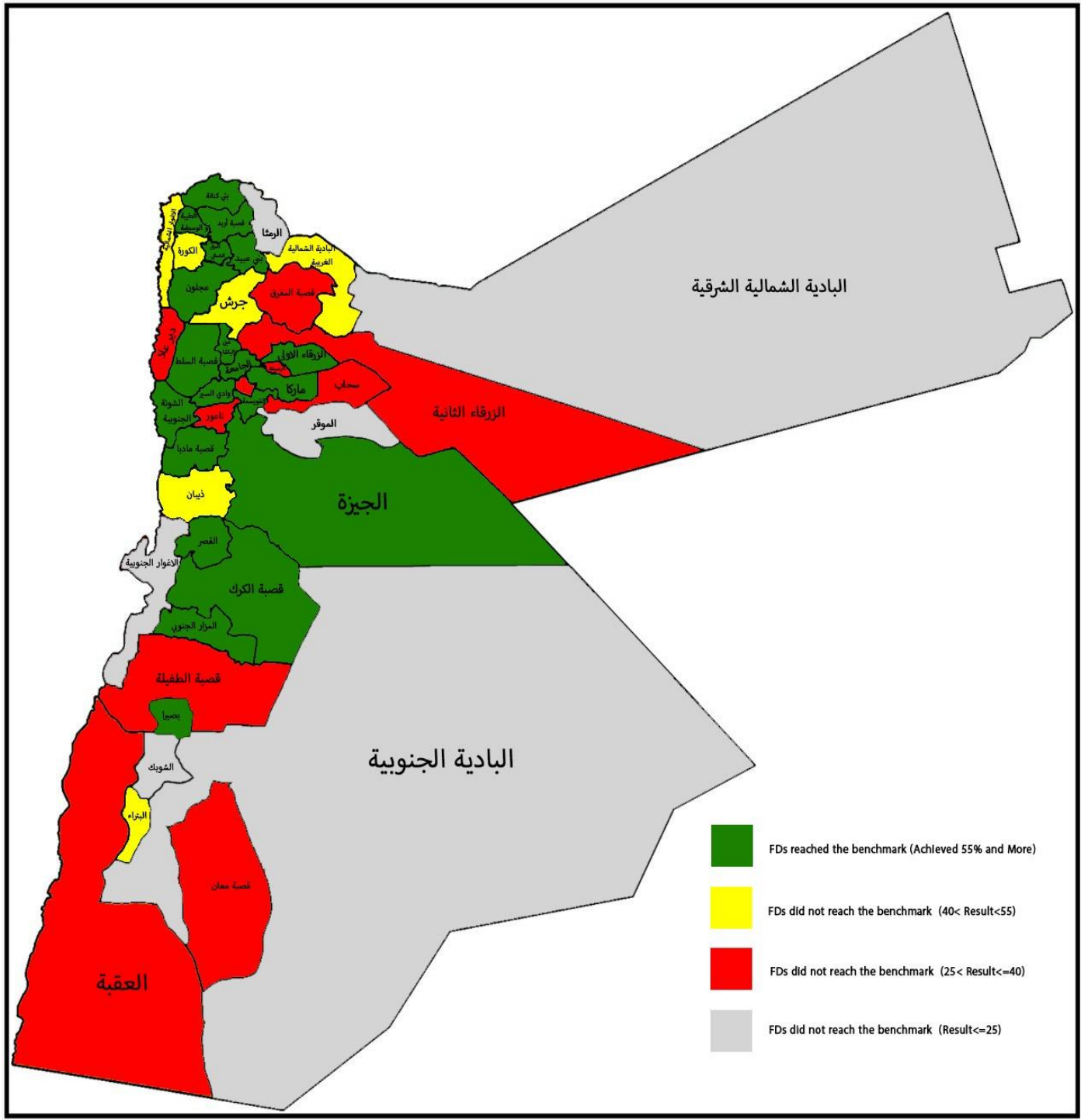


Figure 3 Map Illustrating the levels of performance of the FDs in the *Mathematics* in LQAS of the year 2022.

Figure 3 Map showing the levels of performance of the FDs in the *Mathematics* in LQAS of the year 2022.

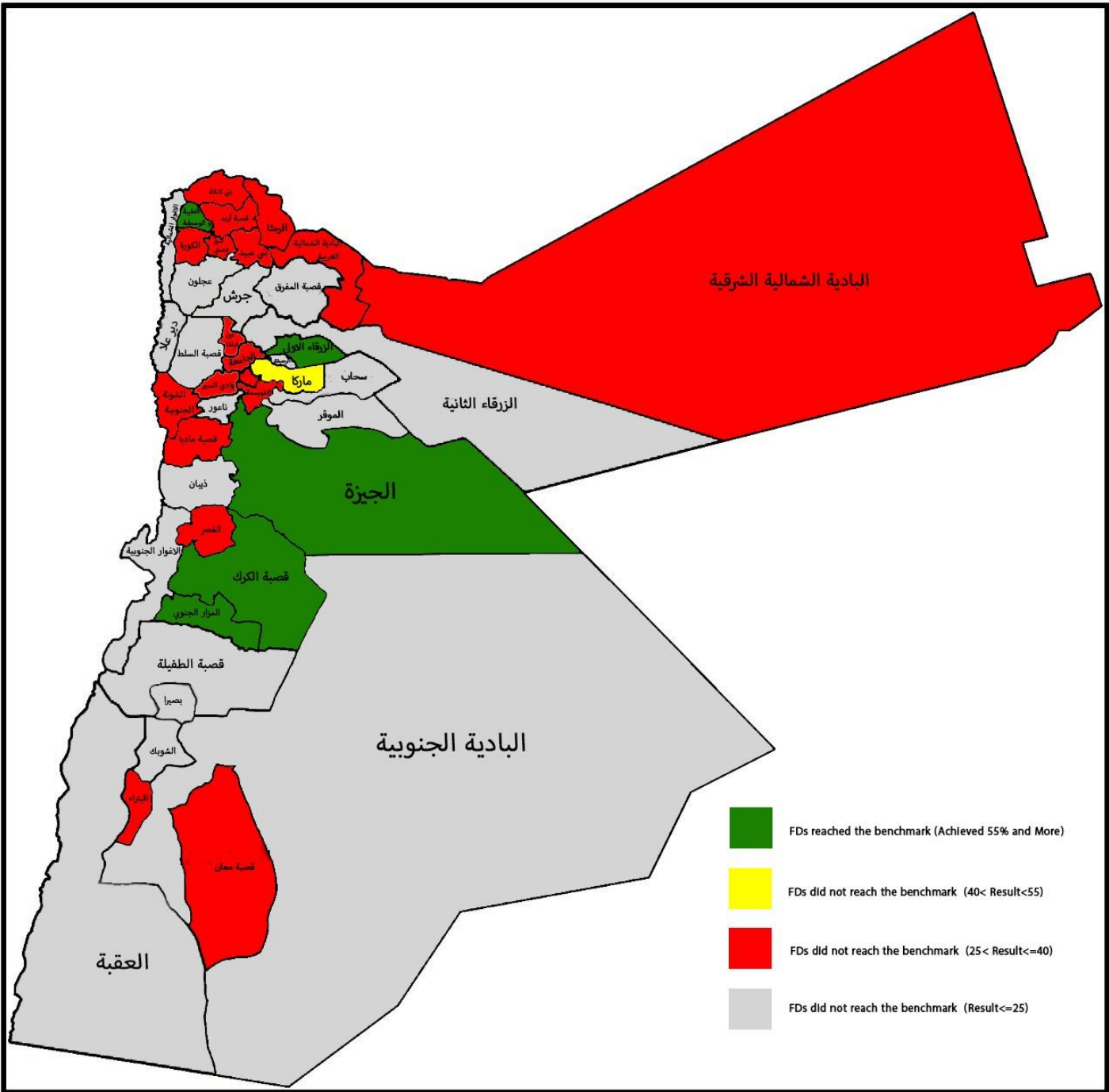


Figure 4 Map showing the levels of performance of the FDs in the silent Reading Comprehension in LQAS of the year 2022.



As for performance at the national level (MOE level), its results are summarized in **Table 2**, which shows the overall results of early grade students against the key indicators.

The both G2 and G3 results of year 2022 showed statistically significant positive changes compared to the 2021 results in the four key indicators: Reading proficiency, silent reading comprehension, mathematics, and the zero scores in the ORF.

Table 2 *Percent of students meeting the key indicators benchmarks in reading and mathematics classified by indicator, grade level, and year*

Indicators	November 2019		November 2021		November 2022	
	G2	G3	G2	G3	G2	G3
Reading proficiency	16.3%	40.6%	14.5%	42.9%	24.0%*	52.5%*
Silent reading comprehension	28.8%	52.7%	28.5%	56.6%	38.4%*	62.0%*
Mathematics with understanding	16.3%	38.3%	7.7%	27.2%	12.6%*	35.2%*
Zero Scores in the ORF	11.7%	6.7%	13.4%	5.7%	8.2%*	4.5%*

* $P < 0.05$ (2021 vs. 2022)

Figure 5 Illustrates the Percent of G2 students who meeting the key indicators benchmarks in reading and mathematics over the LQAS of years 2019, 2021 and 2022.

Figure 5 Illustrates Percent of G2 students who meeting the key indicators benchmarks in reading and mathematics the last three LQAS (2019, 2021, and 2022)

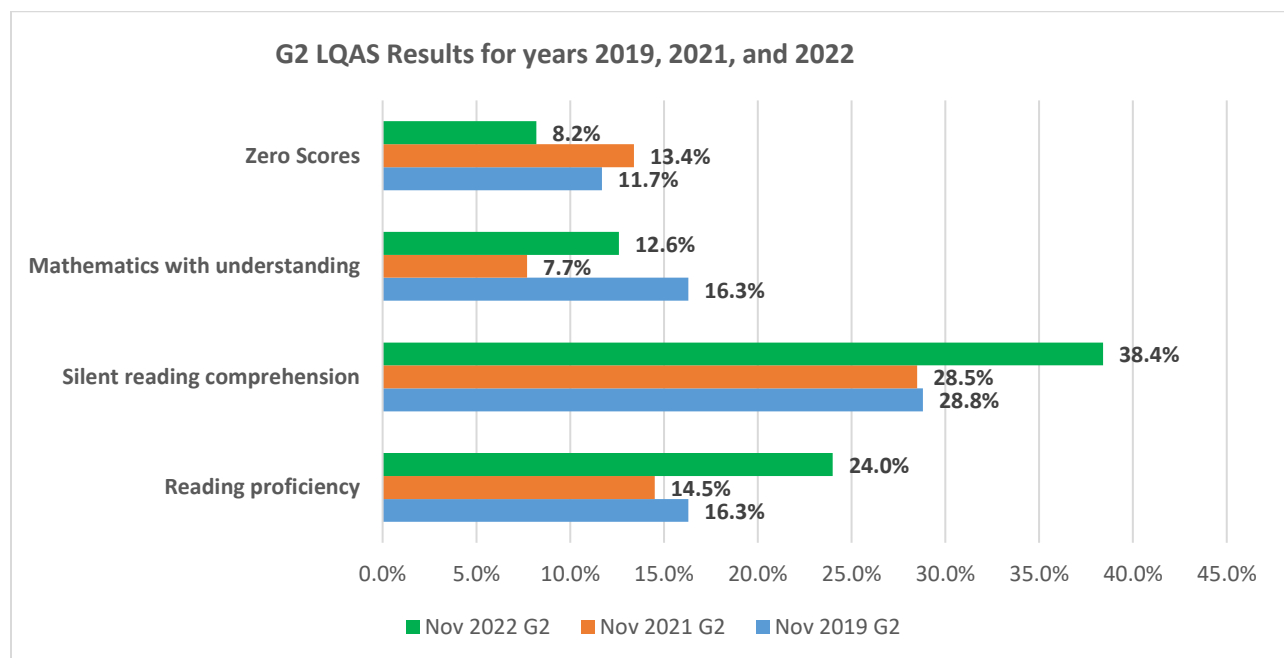
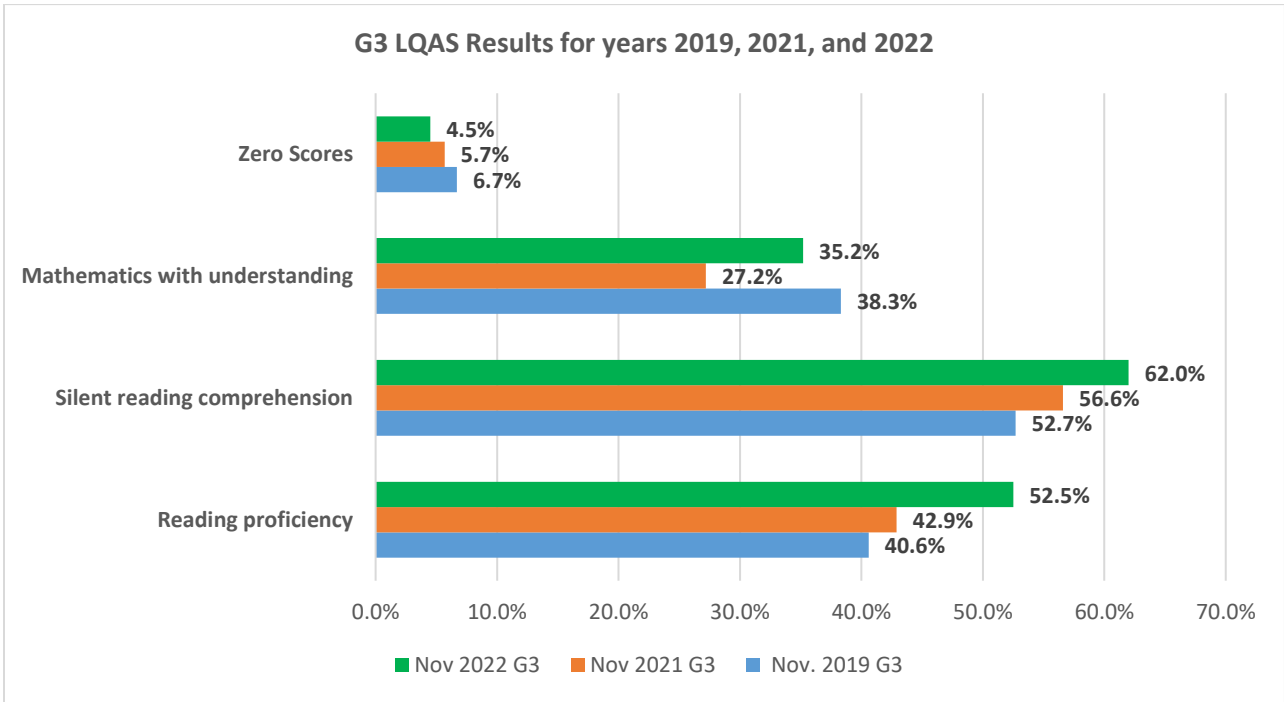


Figure 6 Illustrates the Percent of G3 students who meeting the key indicators benchmarks in reading and mathematics over the LQAS of years 2019, 2021 and 2022.

Figure 6 Illustrates Percent of G3 students who meeting the key indicators benchmarks in reading and mathematics the last three LQAS (2019, 2021, and 2022)



As for performance of students by category of proficiency, it is results summarized in **Table 3**, which shows transition between categories of the performance on reading comprehension across three categories and demonstrates reduction in zero scores showing improvements in the proficient category.

Table 3 Percent of Students in each Reader Category in reading comprehension classified by grade level and year

Year	No Comprehension (Zero Scores)		Progressing Comprehension (1-3)		Proficient Comprehension (4-5)	
	G2	G3	G2	G3	G2	G3
2022	27.53%	12.86%	48.45%	34.61%	24.02%	52.53%
2021	35.3%	15.1%	50.2%	42.0%	14.5%	42.9%
2019	31.5%	15.9%	51.8%	43.5%	16.2%	40.6%

Figures 7 and 8 Illustrates the Reading Comprehension performance of G2 and G3 respectively, in the LQAS of the years 2019, 2021, and 2022.

Figure 7 Illustrates the Comprehension Performance of G2 Students over the last three LQASs

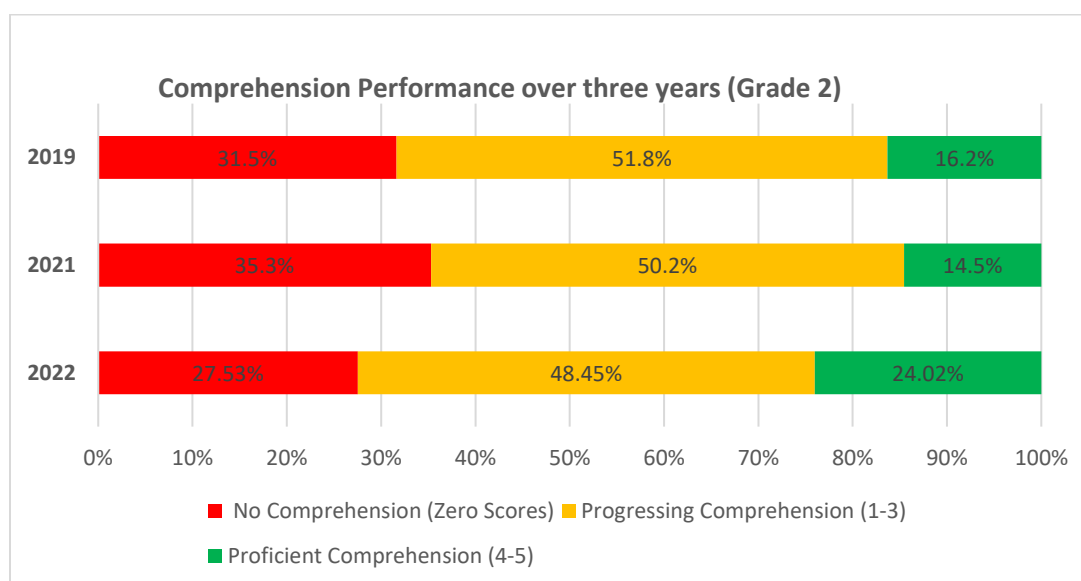
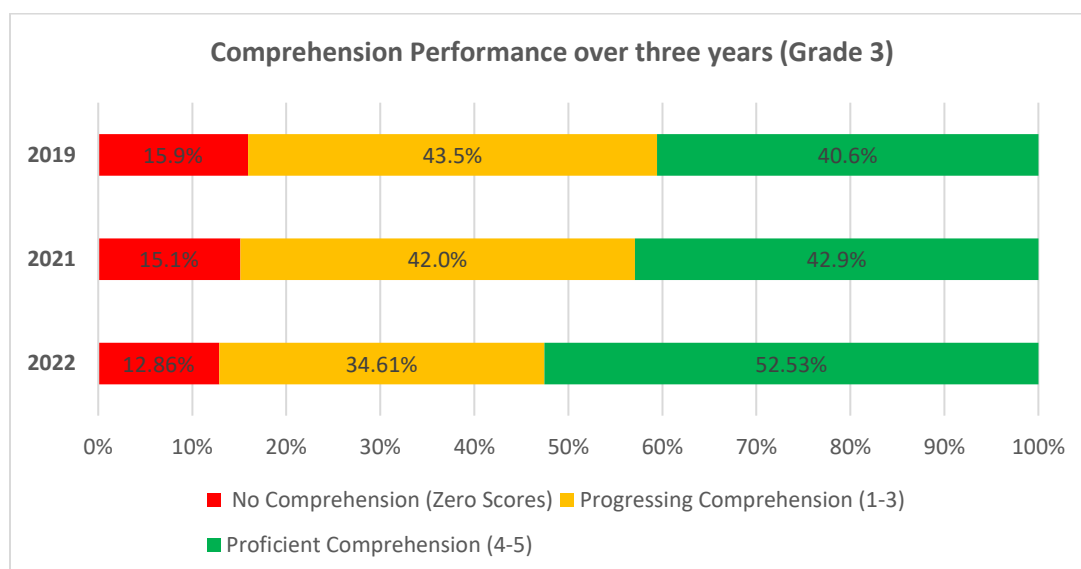


Figure 8 Illustrates the Comprehension Performance of G3 Students over the last three LQASs



Conclusions and Recommendations

Regarding the results of field directorates that based on the decision-making rule, they varied according to the different indicators. *Twenty* field directorates achieved the decision-making benchmarks for the reading proficiency indicator in year 2022 compared to *six* directorates in LQAS of year 2021, while 33 field directorates, in addition to the Syrian refugee camps, achieved the silent reading comprehension benchmarks compared to 27 directorates in LQAS of year 2021. However, the mathematics results benchmarks are still significantly low; only 5-field directorate achieved the benchmark compared to *one* directorate in the LQAS of the year 2021.

Although the ultimate goal is having at least 55% of students, nationally, meeting each of these indicators at the end of the school year, it is important to remember that data was collected in November of 2022—i.e. before the end of the first semester of the 2022-2023 school year. Therefore, the national average (and the results of nearly all field directorates) is expected to be less than the 55% benchmark at this time of this school year. Consequently, these results should not be directly compared to the goals of the end of the school year. The purpose is to use the results to identify the seemingly low-performing field directorates that need additional support.

As for the results related to the RAMP key performance indicators, the results indicated the following:

- *There are a statistically significant progression in **reading proficiency** in year 2022 compared to the year 2021 in all types of schools; basic schools sample, Syrian schools inside and outside the camps, in addition to the schools in which there are senior teachers.*
- *There are a statistically significant difference between **males** and **females** in **reading proficiency** in year 2022.*
- *There is **no** statistically significant difference between the results of the basic school sample and the results of the other schools sample types in **reading proficiency** in each G2 and G3.*
- *There are a statistically significant progression in the **silent reading comprehension** in year 2022 compared to the year 2021 in the basic schools sample, Syrian camps schools, and the schools in which there are senior teachers. However, the results of the G3 students of the Syrian second shift school were declined.*
- *There are a statistically significant progression in **mathematics with understanding** in year 2022 compared to the year 2021 in all types of schools; basic schools sample, Syrian schools inside and outside the camps, in addition to the schools in which there are senior teachers.*
- *The **males** are better than **females** in **mathematics with understanding** in year 2022 in both G2 and G3, as there is a statistically significant difference in favor of **males**' students in G3.*
- *There is **no** statistically significant difference between the results of the basic school sample and the results of the other schools sample types in **mathematics with understanding** in year 2022, except the results of the G3 students in the **Syrian camps schools**, where there is a statistically significant difference in favor of the G3 students in the Camps schools.*
- *There are a significant progression in students **who got zero scores in Oral Reading Frequency (ORF)** in year 2022 compared to the year 2021 in the basic schools sample, Syrian camps schools, and the schools in which there are senior teachers, However, it declined among G3 students in the schools of Second shift Syrian students.*
- *Results also indicate that the percentage of **males**' students who got **zero scores** is higher than that of **females**' students in both G2 and G3.*
- *There is a **Moderate positive correlation** between the Instruction Effectiveness rate and the percentage of the students who Read Proficiency, silent reading comprehension, and Mathematics with understanding. In addition, there is a **Moderate negative correlation** between the Instruction Effectiveness rate and the percentage of the students who got zero scores.*

In general, the progress made in the results of the G2 and G3 students in the year 2022 compared to the year 2021 can be explained by a set of reasons such as:

- Schools return to *face-to-face learning* after a long period of interruption. Face to face learning returned at the beginning of the second semester of the school year 2021/2022, and it is continues until now.
- An increase in the percentage of early grades teachers who provide *effective instruction* in the classroom in the last two school semesters.
- Results showed *significant reductions in zero scores* for G3 and G2 students. These reductions in ‘zero scores’ from 2021 to 2022 are arguably the result of RAMP and MOE’s focus on *low-performing students* and *differentiated instruction* over the last two schools semesters. In addition to that, the learning in the rotational schools in the last school year (2021/2022) helped low performance students in improve their outcomes, this due to *low numbers of students inside rotational classrooms* comparative to the number of students in the non-rotational classrooms, and the teachers rotational classrooms *prioritize the foundational reading and mathematics skills*.
- The *remedial programs* carried out by the MOE in cooperation with RAMP during the last period of the students learning. These programs, which aimed to address students' learning loss, included conducting *workshops for all concerned personnel in the field directorates (technical directors, heads of supervision divisions, and early grade supervisors) in April and May of the year 2022 to present the LQAS results of year 2021*, and then agree on technical support plans along with remedial interventions. These plans and interventions included *in-class coaching visits, communities of practice, developing and administering diagnostic tools* at the beginning of the first semester of the school year 2022-2023, *designing and remedial activities* to be implemented during free activity lessons, and *designing a remedial program* on which early grade teachers are then trained.

The differences in performance between males and females in reading and mathematics, and the performance of students in the Syrian refugee camps in the mathematics can be explained by the following:

- As for *gender*, *female students* have scored higher than male students have in *reading skills*. This result does not differ from the pattern found in the results of students at the different levels of learning in Jordan. Female students outperform their male peers in all Jordanian education indicators, whether at the level of general education or higher education. However, *male students* have achieved higher performance than female students have in all *mathematics skills* due to the specificity of the *non-achievement mathematics subject*.
- The presence of a stimulating commercial environment in the *camps of Syrian students* contributed to a significant improvement in their skills in *mathematics*. In addition to that, the average of the G3 students’ ages in the camps schools is higher than the average of the ages of the students in the other types of schools.

Recommendations

- It is necessary that the MOE provide support to the low-performing field directorates, which in turn provide support to the low-performing schools based on the performance reports that are provided to them by the MOE.
- Implement special programs to enable parents to teach their children effectively, especially in mathematics, and to provide them with the necessary tools such as videos and others.

- Design and implement programs to develop the capabilities of early grade teachers in mathematics skills. The impact of these programs is then assessed.
- Teachers need to focus on foundational skills in reading and mathematics. The number of weekly mathematics lessons needs to increase due to the difficulty of the new curriculum. Instead of classroom teachers, mathematics teachers should be the ones assigned to teach mathematics to early grade students.
- Continue to build teachers' capacities—with a focus on effective classroom management skills, formative assessment, and the use of multiple and diverse teaching strategies that consider students' different abilities and learning styles. There should be another focus on developing students' foundational skills in reading and mathematics.
- Provide school principals and supervisors with capacity building on student assessment methodologies—particularly the LQAS assessments—in terms of planning, implementation, data analysis, and extracting and utilizing the findings.
- Monitor the supervisors who provide in-class technical coaching to teachers to ensure quality control. Supervisors should not be tasked with administrative or technical work outside the scope of their main work.
- Increasing the number of early-grade supervisors in low-performing field directorates.
- Implement case studies for high-performing field directorates to identify success stories, In addition to case studies of low performance field directorates to identify the difficulties and challenges.

1. Background

1.1 Introduction

The Early Grade Reading and Mathematics Initiative (RAMP) is a development program adopted by the MOE and funded by the United States Agency for International Development (USAID). RAMP aims to consolidate methodologies and practices for learning reading and mathematics in early grades in all Jordanian public schools. The initiative seeks to improve the performance levels of early grade students in reading and mathematics and make them able to read with fluency and comprehension, and to do mathematics with understanding.

In 2012, a national survey of reading and mathematics was conducted. It showed that most early grade students in public schools in Jordan could neither read fluently and comprehensively, nor solve mathematical problems with understanding. Consequently, a pilot intervention was implemented in 2014 aimed at improving the skills of early grade students. Another national survey was implemented in the same year and its findings showed the success of the pilot intervention in improving students' skills in reading and mathematics.

To achieve the goal of improving students' learning outcomes in reading and mathematics, the RAMP initiative was launched in April 2015. The initiative implements a set of planned activities, including providing technical in-class coaching to teachers through the MOE educational supervisors. During the coaching visits, the supervisors also evaluate the effectiveness of teachers' instruction using a classroom observation tool, which is a rubric.

To identify the extent to which students acquire reading and mathematics skills, and to monitor the performance of schools and field directorates, RAMP assesses students' learning annually by administering the LQAS assessment, which is usually done at the end of the first semester of each school year. As for the national surveys, which are conducted using the Early Grade Reading Assessment (EGRA) and the Early Grade Mathematics Assessment (EGMA), they are administered once every two years and at the end of the second semester.

The LQAS methodology is the basis of a monitoring approach that uses binary indicators. It uses small school samples to collect and process data quickly to inform decision makers of results and improve the effectiveness of projects and programs. The LQAS methodology is suitable for continuous project and program monitoring because it allows for low-cost, routine, and relatively rapid monitoring; provides detailed, disaggregated, and actionable data; and it identifies the encountered challenges to timely implementation in target areas.

The LQAS methodology was first developed in the 1920s for use in manufacturing industries as a means of production quality control. A small sample of the product is randomly selected from each production "lot" and checked for defects. If the number of defective items is greater than the pre-specified sample level, the whole lot is rejected. Many manufacturers are starting to prefer the LQAS methodology because it does not require inspecting all produced items. The only outcomes resulting from this approach are 'acceptable' or 'unacceptable'; there are no varying levels of non-acceptance.

When compared to conventional surveys, LQAS is a fast and relatively inexpensive data collection method. It uses smaller sample sizes and allows for more sampling than standard probability surveys. A pre-selected area is sampled; and then, if the result of this sample indicator is acceptable, the indicator as

a whole is considered acceptable; and if the result of the sample is not acceptable, then the result of the indicator as a whole is not acceptable.

The LQAS methodology is particularly suitable for the education sector where many governments are seeking to decentralize education responsibilities. Local managers, therefore, need a method through which they can monitor programs or communities in their areas and identify the areas that achieve certain goals and objectives.

There are several key characteristics associated with this methodology that should be noted. First, the LQAS divides the population into administrative units where local supervisors can ensure the quality of effective administration and teaching in these units. Units must be small enough to be homogeneous in nature, and with similar socioeconomic characteristics. In education, units are usually defined as learning areas. Second, as a classification tool, LQAS identifies areas that meet performance expectations and areas that do not. Framing the analysis in this binary way means that only a relatively small sample is needed. This methodology combines small random sample sizes with binary questions. Eventually, data would be available and could be recorded and analyzed relatively quickly and easily. District-level results are usually available in just a few days, and can be easily tabulated with pen and paper. Third, although this methodology is designed to estimate binary outcomes at the field directorate level, data can be aggregated to estimate district or national averages. LQAS allows us to classify field directorates or schools, as meeting or not meeting the minimum student performance standards, by aggregating students' results at the district or national level.

In Jordan, the LQAS assessment was applied in the education sector for the first time through the RAMP initiative in 2016. It was thereafter conducted eight consecutive times, the last of which was in November 2022 when it was applied to a sample of 19 schools from each field directorate. The sampled schools had to have G2 and G3 students. Reading and mathematics assessments were administered to 19 randomly selected students from each sampled school. A report is usually prepared for each school that includes its results in reading and mathematics. Similarly, a brief report is prepared at the field directorate level with the results of its sampled schools.

The findings in this report are designed to measure progress in four key indicators as follows:

Reading Proficiency: The percent of learners who demonstrate proficiency in reading and comprehension—i.e. $\geq 80\%$ correct answers to the comprehension questions about reading passage.

Silent Reading Comprehension: Percent of learners who demonstrate silent reading comprehension proficiency—i.e. $\geq 80\%$ correct answers to the comprehension questions in the silent reading comprehension task.

Mathematics with understanding: The percent of learners who demonstrate their mastery of mathematics—i.e. $\geq 80\%$ correct answers to the level-two addition/subtraction task, plus $\geq 70\%$ correct answers in the missing number task.

Oral Reading Fluency (ORF) Zero Scores: The percent of learners who are unable to read at least one word from the ORF passage—i.e. a zero score in ORF.

This report presents the overall 2022 LQAS results with comparisons with the 2021, 2019, and 2018 LQAS results.

1.2 LQAS assessment objectives

This LQAS iteration aimed to achieve two objectives:

- Identify student performance in reading and mathematics skills at the field directorate level to provide appropriate support to low-performing schools and field directorates.
- Identify student performance in reading and mathematics skills at MOE level through the key performance indicators.

To achieve the abovementioned objectives, we need to answer the following questions:

1. What is the level of disparities in students' reading and mathematics skills between the field directorates?
2. What is the percentage of G2 and G3 students who meet the benchmark of Reading Proficiency (Reading with fluency and comprehension)?
3. What is the percentage of G2 and G3 students who meet the benchmark of silent reading comprehension?
4. What is the percentage of G2 and G3 students who meet the benchmark of doing mathematics with understanding?
5. What is the percentage of G2 and G3 students who got zero scores in ORF?
6. Is there a correlation between the teachers' performance in instruction effectiveness and students' results in LQAS assessments?

1.3 Limitations

The study had the following limitations:

1. Spatial limitations: The study was implemented in a sample of MOE public schools that have G2 and/or G3 provided that the number of students in these grades is not fewer than 19 students—19 schools from each field directorate, and from the refugee camps.
2. Time limitations: The study was implemented at the end of the first semester of the school year 2022-2023.
3. Human limitations: The study was represented by a sample of 19 male and female students randomly selected from each school that had G2 and/or G3—10 students from G2 and 9 from G2 or vice versa.
4. Reading and mathematics assessments were used to collect data related to this study according to the set implementation and procedural plans that suit the objectives of the study.

2. Methodology and procedures

2.1 Population and sample

The population consisted of all MOE's public schools that have G2 and/or G3 where the number of students in these two grades is 19 or more. The total was 2,373 schools that had 251,858 G2 and G3 students. Eventually, 15,419 students from 815 schools from all field directorates and refugee camps were sampled in the study. The assessments were administered by a team of assessors comprising 170 MOE supervisors. The same sample of the year 2021 was used in order to know which schools would make progress in order to apply a qualitative study on them in RAMP final research.

2.2 Instruments

To collect the data from the G2 and G3 students, the assessors—in this 2022 LQAS study—used the reading and mathematics tools that used in year 2021.

2.3 Data collection and analysis

- Visiting the sampled schools by the assessors according to a previously set schedule
- Selecting a random sample of 19 students in each school—10 G2 students and 9 G2 students or vice versa
- Conducting the Group-Administered Mathematics Assessment (GAMA) according to the specified instructions, marking the assessments, and documenting the results electronically on a tablet
- Administering the electronic reading assessment to each student individually and documenting the results on a tablet
- Auditing, cleaning, and analyzing the data; extracting the results; and writing the report by the MOE's Examination and Test Managing Directorate (ETMD) with support from the Monitoring and Evaluation (M&E) team in RAMP

2.4 Implementation procedures

1. Coordinating with the MOE to collaborate in the implementation of the study
2. Checked the study instruments on RAMP electronic system and testing them
3. Preparing enough mathematics assessment sheets for all students to whom the test will be administered
4. Preparing the tablets that will be used to collect the data
5. Selecting the schools, from which data will be collected, that meet the conditions—having 19 G2 and/or G3 students or more
6. Selecting a group of schools where the assessors will pilot the instruments in the three regions in Jordan
7. Obtaining official letters from the MOE to facilitate the tasks of the data collectors
8. Obtaining permits from the relevant authorities to enter schools located in the Syrian refugee camps in Mafraq and Zarqa governorates
9. Selecting the people who will administer the assessments to students—those people comprise 170 MOE supervisors (early grade supervisors and ETMD supervisors from the MOE's center)
10. Training the assessors on the use of the instruments (assessments) and the tablet—the training includes school visits during which, as practical training, the instruments are piloted with the students.

11. Collecting data from the sampled schools by the assessors and uploading it to the tablets
12. Conducting quality control visits by the ETMD team
13. Daily monitoring of the data entered into the electronic system by the ETMD and M&E teams
14. Completing the data collection from the targeted schools
15. Examining, cleaning, and analyzing the data to get results related to the study questions; and then writing the report

2.5 Final sample

The reading and mathematics assessments were administered to 15,419 students in 815 schools across all field directorates. Below are the types and numbers of schools where the assessments were administered, and the numbers of assessed students.

- A. The assessments were conducted in the MOE public schools, including Syrian refugee student schools (afternoon schools, and camp schools). The results were analyzed according to the classification displayed in **Table 4**, which shows the types of schools along with their numbers and percentages. This classification includes basic sample schools, Syrian refugee student (afternoon) schools, Syrian camp schools, and senior teacher schools.

Table 4 Numbers and percentages of assessed schools classified by school type and year

School type	2017 LQAS	2018 LQAS	2019 LQAS	2021 LQAS	2022 LQAS	
					Number of schools	Percentage of schools
Total schools	1,967	2,083	2,131	768	815	
Basic sample schools	-	-	-	-	796	97.7%
Syrian refugee (second shift) schools	8.3%	8.6%	7.9%	2.6%	18 ³	2.2%
Syrian refugee camps schools	0.0%	0.8%	1%	2.5%	19	2.3%
Senior Teacher schools	3.6%	3.6%	3.7%	20.8%	216 ⁴	26.5%

- B. The assessments were administered to 15,419 students in 2022. **Table 5** shows the numbers and percentages of the assessed students classified by year and school type.

Table 5 Numbers and percentages of assessed students classified by school type and year

School Type	2017 LQAS	2018 LQAS	2019 LQAS	2021 LQAS	2022 LQAS	
					Number of Students	Percentage of Students
Total Students	36,704	39,126	39,678	14,498	15,419	
Basic sample Students					15,059	97.7%
Syrian refugee (second shift) Students	8.4%	8.6%	7.8%	2.6%	340	2.2%
Syrian refugee camps Students	-	0.8%	1%	2.5%	360	2.3%
Senior teacher schools students	3.6%	3.7%	3.7%	20.8%	4,089	26.5%

³ The Syrian schools are part of the basic schools.

⁴ The senior teachers' schools are part of the basic schools.

- C. The 2022 assessments were administered to 7,112 male students and 8,307 female students—i.e. 46.1% males and 53.9% females. The numbers and percentages of the assessed students classified by year and gender are shown in **Table 6**.

Table 6 Numbers and percentages of assessed students classified by year and gender

Student's gender	2017 LQAS	2018 LQAS	2019 LQAS	2021 LQAS	2022 LQAS	
					Number of Students	percentage
Total students	36,704	39,126	39,678	14,498	15,419	
Males	48.6%	49.2%	47.3%	45.5%	7,112	46.1%
Females	51.4%	50.8%	52.7%	54.5%	8,307	53.9%

- D. The 2022 assessments were administered to 7,552 G2 students and 7,867 G3 students—i.e. 49% G2 students and 51% G3 students. The numbers and percentages of the assessed students classified by grade and year are listed in **Table 7**.

Table 7 Numbers and percentages of assessed students classified by year and grade level

Grade	2017 LQAS	2018 LQAS	2019 LQAS	2021 LQAS	2022 LQAS	
					Number of Students	percentage
Total students	36,704	39,126	39,678	14,498	15,419	
Grade 2	48.0%	47.0%	46.4%	48.8%	7,552	49%
Grade 3	52.0%	53.0%	53.6%	51.2%	7,867	51%

3. Findings

The findings are designed to measure progress in four key indicators as follows:

Reading Proficiency: The percent of learners who demonstrate proficiency in reading and comprehension—i.e. $\geq 80\%$ correct answers to the comprehension questions about reading passage.

Silent Reading Comprehension: Percent of learners who demonstrate silent reading comprehension proficiency—i.e. $\geq 80\%$ correct answers to the comprehension questions in the silent reading comprehension task.

Mathematics with understanding: The percent of learners who demonstrate their mastery of mathematics—i.e. $\geq 80\%$ correct answers to the level-two addition/subtraction task, plus $\geq 70\%$ correct answers in the missing number task.

Oral Reading Fluency (ORF) Zero Scores: The percent of learners who are unable to read at least one word from the ORF passage—i.e. a zero score in ORF.

Although the ultimate goal is having at least 55% of students at the national level meeting each of these indicators, it is important to note that data were collected in November 2022—i.e. during the first semester of the school year 2022-2023. Therefore, these findings should not be directly compared to end-of-school-year goals; instead, these findings should be used to identify low-performing field directorates that require additional support. That is why the national average (and results in nearly all field directorates) is expected to be less than the 55% benchmark at this point in the school year.

Additionally, we have included the detailed results of the key performance indicators at the field directorate level to examine the performance of early graders in reading and mathematics. The results were disaggregated by; basic sample, gender, Syrian refugee afternoon schools, Syrian refugee camp schools, and senior teachers' schools.

3.1: Results based on the decision-making rule of LQAS

The field directorates' results based on the decision-making rule—55% of the schools, or more, meet the benchmark. Based on the decision making rule we consider that the field directorate has achieved the benchmark if eight schools out of the 19 schools in the directorate achieved the benchmark.

Table 8 shows that 20 out of the 42 field directorates meet the reading proficiency benchmark, 33 field directorates—in addition to Syrian refugee camps—meet the silent reading comprehension benchmark, and only 5-field directorate meets the mathematics benchmark.

Table 8 Field directorates that meet the benchmarks of the different indicators

Indicators	# of field directorates meeting the benchmark (55% or more)		# of assessed field directorates
	LQAS 2021	LQAS 2022	
Reading proficiency	6	20	42
Silent reading comprehension	27 ⁵	33 ⁶	42
Mathematics with understanding	1	5	42

Table 9 shows the detailed results of each field directorate for each of the three indicators, in addition to the zero scores in ORF. The scores *highlighted in green* indicate that those field directorates are either at or above the target—i.e. 55% of their schools meet the benchmark; they are making sufficient progress. The scores *highlighted in red* indicate that those field directorates are below the benchmark; and, therefore, require more attention and support.

Table 9 the results of all field directorates and their performances against the 55% benchmark of each indicator

Field directorate	No. of tested schools	No. of tested Students	Percentage of students who scored Zero in ORF	Reading proficiency (Meeting Benchmark 55% and more - Yes, No)	Reading proficiency (The achievement of the FD based on the decision-making rule)	Silent Reading (Meeting Benchmark 55% and more Yes, No)	Silent Reading (The achievement of the FD based on the decision-making rule)	Mathematics proficiency (Meeting Benchmark 55% and more Yes, No)	Mathematics proficiency (The achievement of the FD based on the decision-making rule)
لواء القويسمة- Al qwesmeh	19	360	10%	Yes	60%	Yes	65%	No	30%
لواء الطيبة والوسطية- Al taibeh & Al wasteiah	19	360	3%	Yes	80%	Yes	95%	Yes	80%
لواء الجامعة- Aljamaah	19	361	2%	Yes	75%	Yes	90%	No	40%
لواء قصبة عمان- Amman Qasbah	19	357	9%	No	30%	Yes	75%	No	35%
لواء بني عبيد- Bani Obaid	19	361	1%	Yes	65%	Yes	90%	No	40%
لواء بصيرا- Bsaira	19	359	9%	Yes	65%	Yes	85%	No	25%
لواء قصبة اربد- Irbid Qasbah	19	360	5%	Yes	65%	Yes	95%	No	30%
لواء الجيزة- Jezeh	19	358	4%	Yes	75%	Yes	80%	Yes	60%
لواء ماركا- Marka	19	359	3%	Yes	75%	Yes	95%	No	50%
لواء الموقر- Mowaqar	19	360	8%	No	Less than 20%	No	30%	No	Less than 20%
لواء ناعور- Naaor	19	361	8%	No	40%	Yes	70%	No	Less than 20%
لواء سحاب- Sahab	17	322	7%	No	40%	Yes	55%	No	Less than 20%

⁵ The Syrian refugee camps have also met the benchmark in silent reading comprehension in year 2021.

⁶ The Syrian refugee camps have also met the benchmark in silent reading comprehension in year 2022.

Wadi Alseer- لواء وادي السير	19	360	1%	Yes	70%	Yes	95%	No	40%
Ain Albasha- عين الباشا	19	361	2%	Yes	95%	Yes	95%	No	40%
Ajloun- عجلون	19	361	4%	Yes	55%	Yes	80%	No	25%
Alkoura- الكورة	19	361	3%	No	45%	Yes	85%	No	40%
Alqaser- القصر	19	361	2%	Yes	75%	Yes	90%	No	35%
Aqaba- العقبة	19	355	10%	No	30%	Yes	55%	No	20%
Bani kenana- بني كنانة	19	360	3%	Yes	60%	Yes	80%	No	30%
Dair Alla- دير علا	19	361	12%	No	30%	No	40%	No	Less than 20%
Jarash- جرش	19	359	6%	No	45%	Yes	70%	No	25%
Karak Qasbah- قصبة الكرك	19	361	1%	Yes	85%	Yes	95%	Yes	55%
Ma an- معان	19	361	12%	No	40%	Yes	60%	No	40%
Madaba- مادبا	19	361	2%	Yes	70%	Yes	90%	No	30%
Mafraq Qasbah- قصبة المفرق	19	360	11%	No	30%	No	50%	No	20%
North East Badia- البادية الشمالية الشرقية	19	361	15%	No	20%	No	40%	No	30%
North Ghour- الاغوار الشمالية	19	361	20%	No	45%	Yes	60%	No	20%
North Mazar- المزار الشمالي	19	361	1%	Yes	65%	Yes	80%	No	35%
North West Badia- البادية الشمالية الغربية	19	361	4%	No	50%	Yes	70%	No	40%
Petra- البتراء	19	360	3%	No	45%	No	50%	No	30%
Ramtha- الرمثا	19	356	10%	No	25%	No	25%	No	30%
Rusifa- الرصيفة	19	361	10%	No	40%	Yes	60%	No	20%
Salt- قصبة السلط	19	360	2%	Yes	55%	Yes	85%	No	25%
Shobak- الشوبك	19	338	15%	No	25%	No	30%	No	Less than 20%
South Badia- البادية الجنوبية	19	361	13%	No	25%	No	25%	No	Less than 20%
South Ghour- الاغوار الجنوبية	19	359	27%	No	25%	No	30%	No	Less than 20%
South Mazar- المزار الجنوبي	19	361	1%	Yes	95%	Yes	95%	Yes	65%
South Shouna- الشونة الجنوبية	19	361	3%	Yes	65%	Yes	85%	No	35%
Tafila- الطفيلة	19	361	14%	No	30%	Yes	55%	No	20%
Theeban- ذيبان	19	357	4%	No	45%	Yes	85%	No	Less than 20%
Zarqa 1- الزرقاء 1	19	361	0%	Yes	95%	Yes	95%	Yes	65%
Zarqa 2- الزرقاء 2	19	359	11%	No	35%	Yes	65%	No	Less than 20%
Syrian Camps- مخيمات الطلبة السوريين	19	360	6%	No	45%	Yes	70%	No	45%
Total	815	15,419							

3.2: Results based on the RAMP key performance indicators

The results of the field directories and the results of the Ministry at the national level against the key performance indicators are listed in this part.

3.2.1: Field directorates results

In this sub part, the detailed results of all field directorates are specified for each key performance indicators classified by sample type: basic sample schools, Syrian refugee second shift schools, Syrian refugee camps schools, and senior teachers' schools.

3.2.1.1: Basic sample schools results

Table 10 shows the key indicators results of G2 students in the basic sample schools classified by field directorate and gender. The results *highlighted in green* either *meet or exceed the key indicator national result*, the results *highlighted in yellow* are approximately 2% below the national result, and the results *highlighted in red* are more than 2% below the national result. The red results mean that those field directorates require more attention and support.

Table 10 Results and performance of G2 in basic sample schools against the key performance indicators classified by field directorate and gender

Field directorate	G2 ORF Zero scores			G2 Reading proficiency			G2 Silent reading comprehension			G2 Mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
لواء القويسمة-Al qwesmeh	13.5%	11.0%	12.1%	29.7%	27.0%	28.2%	39.2%	35.0%	36.8%	13.5%	4.0%	8.0%
لواء الطيبة والوسطية-Al taibeh & Al wasteiah	5.1%	4.3%	4.6%	27.8%	39.4%	34.1%	55.7%	61.7%	59.0%	39.2%	38.3%	38.7%
لواء الجامعة-Aljamaah	2.6%	2.0%	2.3%	19.5%	33.3%	27.3%	35.1%	45.5%	40.9%	10.4%	5.1%	7.4%
لواء قصبة عمان-Amman Qasbah	17.0%	3.4%	10.2%	13.6%	11.2%	12.4%	25.0%	37.1%	31.1%	10.2%	4.5%	7.3%
لواء بني عبيد-Bani Obaid	0.0%	3.4%	2.1%	32.4%	36.8%	35.1%	46.5%	47.0%	46.8%	22.5%	23.9%	23.4%
لواء بصيرا-Bsaira	13.0%	14.8%	13.9%	21.7%	19.3%	20.6%	39.1%	38.6%	38.9%	12.0%	6.8%	9.4%
لواء قصبة اربد-Irbid Qasbah	4.8%	9.8%	7.4%	25.0%	25.0%	25.0%	52.4%	39.1%	45.5%	17.9%	10.9%	14.2%
لواء الجيزة-Jezeh	10.6%	2.7%	5.6%	34.8%	31.3%	32.6%	39.4%	42.9%	41.6%	22.7%	26.8%	25.3%
لواء ماركا-Marka	6.0%	2.9%	4.7%	38.0%	37.1%	37.6%	57.0%	51.4%	54.7%	20.0%	24.3%	21.8%
لواء الموقر-Mowaqar	15.3%	11.8%	13.5%	4.7%	6.5%	5.6%	17.6%	16.1%	16.9%	4.7%	7.5%	6.2%
لواء ناعور-Naaor	12.2%	9.5%	10.7%	13.4%	17.9%	15.8%	34.1%	49.5%	42.4%	4.9%	9.5%	7.3%
لواء سحاب-Sahab	9.2%	4.1%	6.7%	14.5%	23.0%	18.7%	25.0%	28.4%	26.7%	6.6%	5.4%	6.0%
لواء وادي السير-Wadi Alseer	2.3%	3.4%	2.9%	24.4%	23.9%	24.1%	47.7%	34.1%	40.8%	22.1%	8.0%	14.9%
عين الباشا-Ain Albasha	3.4%	2.3%	2.9%	48.9%	54.0%	51.4%	59.1%	60.9%	60.0%	17.0%	11.5%	14.3%
عجلون-Ajloun	6.6%	4.3%	5.4%	23.1%	25.8%	24.5%	38.5%	41.9%	40.2%	7.7%	8.6%	8.2%
الكورة-Alkoura	5.1%	2.4%	3.8%	17.2%	28.9%	22.5%	40.4%	34.9%	37.9%	17.2%	18.1%	17.6%
القصر-Alqaser	6.7%	1.2%	4.0%	30.0%	30.6%	30.3%	54.4%	54.1%	54.3%	20.0%	14.1%	17.1%
العقبة-Aqaba	18.5%	11.0%	14.9%	14.1%	8.5%	11.5%	22.8%	18.3%	20.7%	8.7%	3.7%	6.3%
بني كنانة-Bani kenana	3.6%	3.4%	3.5%	20.2%	28.7%	24.6%	38.1%	48.3%	43.3%	14.3%	13.8%	14.0%
ديرعلا-Dair Alla	25.6%	8.5%	16.5%	6.1%	8.5%	7.4%	13.4%	20.2%	17.0%	3.7%	3.2%	3.4%
جرش-Jarash	7.8%	3.9%	6.2%	15.7%	15.8%	15.7%	38.2%	35.5%	37.1%	13.7%	3.9%	9.6%
قصبة الكرك-Karak Qasbah	2.5%	1.0%	1.7%	32.1%	39.6%	36.2%	61.7%	65.6%	63.8%	18.5%	24.0%	21.5%
معان-Ma an	24.0%	16.3%	19.6%	17.3%	8.7%	12.3%	26.7%	19.2%	22.3%	14.7%	14.4%	14.5%
مادبا-Madaba	6.2%	3.0%	4.4%	25.9%	33.7%	30.2%	40.7%	48.5%	45.1%	16.0%	16.8%	16.5%
قصبة المفرق-Mafraq Qasbah	13.0%	10.5%	11.9%	10.0%	10.5%	10.2%	20.0%	22.4%	21.0%	8.0%	5.3%	6.8%
البادية الشمالية-North East Badia الشرقية	27.8%	16.8%	21.5%	11.4%	8.4%	9.7%	16.5%	13.1%	14.5%	13.9%	15.0%	14.5%
الاغوار الشمالية-North Ghour	29.3%	15.7%	22.9%	16.3%	33.7%	24.6%	21.7%	41.0%	30.9%	9.8%	8.4%	9.1%
المزار الشمالي-North Mazar	2.7%	0.0%	1.2%	10.8%	35.1%	24.6%	27.0%	49.5%	39.8%	12.2%	12.4%	12.3%
البادية الشمالية-North West Badia الغربية	5.1%	6.7%	6.0%	15.2%	12.5%	13.7%	36.7%	36.5%	36.6%	12.7%	10.6%	11.5%

Petra-البتراء	1.2%	5.4%	3.4%	23.8%	21.7%	22.7%	32.1%	25.0%	28.4%	4.8%	3.3%	4.0%
Ramtha-الرمثا	16.7%	4.2%	9.8%	5.1%	10.4%	8.0%	14.1%	16.7%	15.5%	9.0%	13.5%	11.5%
Rusifa-الرصيفة	20.0%	6.7%	13.3%	13.3%	15.6%	14.4%	30.0%	30.0%	30.0%	7.8%	1.1%	4.4%
Salt-قصبة السلط	2.4%	2.2%	2.3%	23.2%	19.8%	21.4%	34.1%	33.0%	33.5%	14.6%	8.8%	11.6%
Shobak-الشوبك	29.3%	16.5%	22.3%	9.3%	7.7%	8.4%	10.7%	13.2%	12.0%	1.3%	2.2%	1.8%
South Badia-البادية الجنوبية	22.1%	10.2%	14.8%	4.4%	13.0%	9.7%	13.2%	11.1%	11.9%	0.0%	4.6%	2.8%
South Ghour-الاغوار الجنوبية	36.4%	33.3%	34.7%	2.6%	2.2%	2.4%	5.2%	12.2%	9.0%	2.6%	0.0%	1.2%
South Mazar-المزار الجنوبي	3.8%	1.1%	2.3%	59.5%	44.1%	51.2%	55.7%	58.1%	57.0%	27.8%	20.4%	23.8%
South Shouna-الشونة الجنوبية	6.1%	5.3%	5.6%	24.2%	17.0%	20.0%	51.5%	42.6%	46.3%	13.6%	13.8%	13.8%
Tafila-الطفيلة	25.8%	14.3%	20.0%	5.6%	8.8%	7.2%	16.9%	14.3%	15.6%	6.7%	3.3%	5.0%
Theeban-ثيبان	9.3%	1.2%	5.2%	8.1%	23.3%	15.7%	40.7%	54.7%	47.7%	8.1%	7.0%	7.6%
Zarqa 1-الزرقاء 1	0.0%	0.0%	0.0%	52.4%	51.1%	51.7%	56.1%	65.2%	60.9%	18.3%	20.7%	19.5%
Zarqa 2-الزرقاء 2	13.6%	12.5%	13.2%	12.7%	11.1%	12.1%	27.3%	27.8%	27.5%	10.0%	5.6%	8.2%

Table 11 shows the key indicators results of G3 students in the basic sample schools classified by field directorate and gender. The results *highlighted in green* either meet or exceed the key indicator national result, the results *highlighted in yellow* are approximately 2% below the national result, and the results *highlighted in red* are more than 2% below the national result. The red results mean that those field directorates require more attention and support.

Table 11 Results and performance of G3 students in basic sample schools against the key performance indicators classified by field directorate and gender

Field directorate	G3 Reading proficiency			G3 Silent reading comprehension			G3 Mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All
Al qwesmeh-لواء القويسمة	40.5%	47.1%	44.1%	56.0%	56.9%	56.5%	36.9%	35.3%	36.0%
Al taibeh & Al wasteiah-لواء الطيبة والوسطية	63.0%	83.3%	75.4%	72.6%	88.6%	82.4%	58.9%	71.9%	66.8%
Aljamaah-لواء الجامعة	49.2%	62.5%	57.8%	60.0%	70.0%	66.5%	41.5%	37.5%	38.9%
Amman Qasbah-لواء قصبة عمان	31.8%	48.9%	40.6%	53.4%	60.9%	57.2%	38.6%	39.1%	38.9%
Bani Obaid-لواء بني عبيد	43.8%	63.3%	56.1%	68.8%	66.1%	67.1%	40.6%	32.1%	35.3%
Bsaira-لواء بصيرا	58.6%	56.3%	57.5%	63.6%	71.3%	67.0%	32.3%	26.3%	29.6%
Irbid Qasbah-لواء قصبة اربد	66.1%	59.2%	61.4%	79.7%	71.2%	73.9%	45.8%	22.4%	29.9%
Jezeah-لواء الجيزة	62.9%	61.9%	62.2%	80.6%	65.3%	70.6%	58.1%	58.5%	58.3%
Marka-لواء ماركا	67.5%	72.2%	69.3%	72.6%	72.2%	72.5%	44.4%	50.0%	46.6%
Mowaqar-لواء الموقر	27.7%	38.4%	33.5%	42.2%	43.4%	42.9%	25.3%	12.1%	18.1%
Naaor-لواء ناعور	34.6%	38.8%	37.0%	45.7%	63.1%	55.4%	18.5%	21.4%	20.1%
Sahab-لواء سحاب	36.4%	50.0%	43.0%	48.9%	60.7%	54.7%	22.7%	25.0%	23.8%
Wadi Alseer-لواء وادي السير	71.7%	54.3%	62.9%	79.3%	69.1%	74.2%	46.7%	34.0%	40.3%
Ain Albasha-عين الباشا	78.0%	82.7%	80.6%	86.6%	82.7%	84.4%	46.3%	48.1%	47.3%
Ajloun-عجلون	45.3%	56.6%	52.5%	65.6%	58.4%	61.0%	35.9%	30.1%	32.2%
Alkoura-الكورة	39.7%	57.4%	49.7%	61.5%	67.3%	64.8%	50.0%	29.7%	38.5%
Alqaser-القصر	65.1%	65.0%	65.1%	75.6%	73.0%	74.2%	32.6%	30.0%	31.2%

Aqaba-العقبة	36.8%	43.6%	40.3%	46.0%	46.8%	46.4%	29.9%	16.0%	22.7%
Bani kenana-بني كنانة	48.4%	67.7%	58.2%	57.0%	69.8%	63.5%	23.7%	32.3%	28.0%
Dair Alla-دير علا	27.9%	26.3%	27.0%	39.5%	41.4%	40.5%	12.8%	7.1%	9.7%
Jarash-جرش	45.7%	53.9%	49.2%	55.2%	64.5%	59.1%	36.2%	26.3%	32.0%
Karak Qasbah-قصبه الكرك	72.7%	67.3%	69.6%	77.9%	77.6%	77.7%	44.2%	44.9%	44.6%
Ma an-معان	41.1%	44.8%	42.9%	52.6%	49.4%	51.1%	35.8%	29.9%	33.0%
Madaba-مادبا	58.6%	65.3%	63.1%	74.1%	76.0%	75.4%	32.8%	33.1%	33.0%
Mafraq Qasbah-قصبه المفرق	25.6%	33.3%	29.9%	42.7%	51.0%	47.3%	32.9%	22.5%	27.2%
North East Badia-البادية الشمالية الشرقية	25.4%	32.8%	30.3%	28.8%	48.3%	41.7%	6.8%	37.1%	26.9%
North Ghour-الاغوار الشمالية	29.9%	43.8%	36.6%	35.1%	51.7%	43.0%	21.6%	22.5%	22.0%
North Mazar-المزار الشمالي	46.9%	63.3%	56.3%	60.5%	68.8%	65.3%	37.0%	35.8%	36.3%
North West Badia-البادية الشمالية الغربية	63.5%	46.8%	51.7%	63.5%	51.6%	55.1%	55.8%	30.2%	37.6%
Petra-البتراء	55.0%	42.3%	47.8%	55.0%	41.3%	47.3%	40.0%	26.9%	32.6%
Ramtha-الرمثا	26.8%	30.6%	29.1%	25.4%	36.0%	31.9%	28.2%	30.6%	29.7%
Rusifa-الرصيفة	41.3%	36.0%	38.7%	48.9%	59.6%	54.1%	32.6%	15.7%	24.3%
Salt-قصبه السلط	51.9%	53.8%	52.9%	67.9%	59.4%	63.1%	44.4%	25.5%	33.7%
Shobak-الشوبك	32.1%	34.1%	33.1%	42.9%	37.5%	40.1%	15.5%	13.6%	14.5%
South Badia-البادية الجنوبية	18.2%	26.1%	23.2%	25.8%	31.1%	29.2%	7.6%	10.9%	9.7%
South Ghour-الاغوار الجنوبية	20.6%	12.6%	16.7%	35.1%	26.3%	30.7%	17.5%	3.2%	10.4%
South Mazar-المزار الجنوبي	73.7%	73.3%	73.5%	74.7%	83.3%	78.8%	59.6%	47.8%	54.0%
South Shouna-الشونة الجنوبية	38.5%	58.1%	48.8%	62.5%	66.7%	64.7%	17.7%	35.2%	26.9%
Tafila-الطفيلة	32.9%	42.4%	38.1%	43.9%	53.5%	49.2%	24.4%	31.3%	28.2%
Theeban-ذيبلان	51.3%	52.3%	51.9%	65.4%	66.4%	65.9%	20.5%	10.3%	14.6%
Zarqa 1-الزرقاء 1	83.1%	88.8%	86.1%	89.9%	83.7%	86.6%	68.5%	55.1%	61.5%
Zarqa 2-الزرقاء 2	30.7%	51.7%	41.2%	50.0%	59.6%	54.8%	27.3%	25.8%	26.6%

3.2.1.2: Syrian refugee sample schools results (second-shift schools)

Table 12 shows the key indicators results of G2 in Syrian refugee students schools (second-shift/afternoon shift) classified by field directorate and gender.

Table 12 Percent of G2 students in Syrian refugee students schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G2 ORF zero scores			G2 Reading proficiency			G2 silent reading comprehension			G2 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
لواء الجامعة-Aljamaah	0.0%	33.3%	11.1%	0.0%	0.0%	0.0%	33.3%	0.0%	22.2%	0.0%	0.0%	0.0%
لواء قصبه عمان-Amman Qasbah	50.0%	0.0%	11.1%	0.0%	0.0%	0.0%	0.0%	14.3%	11.1%	50.0%	0.0%	11.1%
لواء ماركا-Marka	0.0%	0.0%	0.0%	100.0%	100.0%	100.0%	100.0%	80.0%	88.9%	25.0%	20.0%	22.2%
لواء الموقر-Mowaqar	16.7%	0.0%	11.1%	0.0%	0.0%	0.0%	16.7%	0.0%	11.1%	0.0%	0.0%	0.0%
لواء سحاب-Sahab	0.0%	0.0%	0.0%	8.3%	57.1%	26.3%	16.7%	14.3%	15.8%	0.0%	14.3%	5.3%
عجلون-Ajloun	0.0%	20.0%	10.0%	20.0%	0.0%	10.0%	20.0%	20.0%	20.0%	0.0%	0.0%	0.0%
الكورة-Alkoura	0.0%	0.0%	0.0%	20.0%	0.0%	10.0%	40.0%	0.0%	20.0%	0.0%	0.0%	0.0%
العقبة-Aqaba	0.0%	0.0%	0.0%	33.3%	42.9%	36.8%	50.0%	42.9%	47.4%	8.3%	14.3%	10.5%
بني كنانة-Bani kenana	0.0%	16.7%	10.0%	0.0%	16.7%	10.0%	25.0%	33.3%	30.0%	25.0%	0.0%	10.0%

Jarash-جرش	0.0%	0.0%	0.0%	20.0%	50.0%	33.3%	80.0%	75.0%	77.8%	40.0%	0.0%	22.2%
Karak Qasbah-قصبه الكرك	20.0%	0.0%	9.1%	40.0%	50.0%	45.5%	40.0%	66.7%	54.5%	0.0%	0.0%	0.0%
Mafraq Qasbah-قصبه المفرق	33.3%	50.0%	40.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.7%	0.0%	10.0%
Ramtha-الرمثا	0.0%	0.0%	0.0%	33.3%	0.0%	9.1%	66.7%	12.5%	27.3%	33.3%	0.0%	9.1%
Rusifa-الرصيفة	16.7%	0.0%	8.3%	16.7%	33.3%	25.0%	33.3%	66.7%	50.0%	16.7%	0.0%	8.3%
South Mazar-المزار الجنوبي	0.0%	0.0%	0.0%	100.0%	60.0%	77.8%	25.0%	60.0%	44.4%	0.0%	40.0%	22.2%
Zarqa 1-الزرقاء 1	0.0%	0.0%	0.0%	100.0%	50.0%	60.0%	100.0%	62.5%	70.0%	0.0%	0.0%	0.0%

Table 13 shows the key indicators results of G3 in Syrian refugee students schools (second-shift/afternoon shift) classified by field directorate and gender.

Table 13 Percent of G3 students in Syrian refugee students schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G3 Reading proficiency			G3 silent reading comprehension			G3 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All
Aljamaah-لواء الجامعة	0.0%	50.0%	50.0%	0.0%	60.0%	60.0%	0.0%	0.0%	0.0%
Amman Qasbah-لواء قصبه عمان	0.0%	40.0%	25.0%	0.0%	40.0%	25.0%	0.0%	20.0%	12.5%
Marka-لواء ماركا	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	75.0%	0.0%	60.0%
Mowaqar-لواء الموقر	16.7%	0.0%	10.0%	16.7%	0.0%	10.0%	0.0%	0.0%	0.0%
Sahab-لواء سحاب	22.2%	40.0%	31.6%	55.6%	60.0%	57.9%	11.1%	50.0%	31.6%
Ajloun-عجلون	75.0%	40.0%	55.6%	100.0%	60.0%	77.8%	25.0%	0.0%	11.1%
Alkoura-الكورة	25.0%	60.0%	44.4%	50.0%	80.0%	66.7%	25.0%	0.0%	11.1%
Aqaba-العقبة	66.7%	42.9%	57.9%	66.7%	57.1%	63.2%	50.0%	28.6%	42.1%
Bani kenana-بني كنانة	100.0%	100.0%	100.0%	75.0%	100.0%	88.9%	25.0%	20.0%	22.2%
Jarash-جرش	100.0%	83.3%	90.0%	100.0%	100.0%	100.0%	25.0%	16.7%	20.0%
Karak Qasbah-قصبه الكرك	75.0%	50.0%	62.5%	100.0%	75.0%	87.5%	75.0%	0.0%	37.5%
Mafraq Qasbah-قصبه المفرق	0.0%	0.0%	0.0%	0.0%	11.1%	11.1%	0.0%	0.0%	0.0%
Ramtha-الرمثا	50.0%	25.0%	37.5%	50.0%	25.0%	37.5%	25.0%	100.0%	62.5%
Rusifa-الرصيفة	83.3%	0.0%	71.4%	83.3%	0.0%	71.4%	16.7%	0.0%	14.3%
South Mazar-المزار الجنوبي	66.7%	50.0%	60.0%	50.0%	75.0%	60.0%	16.7%	25.0%	20.0%
Zarqa 1-الزرقاء 1	100.0%	100.0%	100.0%	85.7%	100.0%	88.9%	71.4%	50.0%	66.7%

3.2.1.3: Syrian refugee camps schools results

Table 14 shows the key indicators results of G2 in Syrian refugee camps schools classified by field directorate and gender.

Table 14 Percent of G2 students in Syrian refugee camps schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G2 ORF zero scores			G2 Reading proficiency			G2 silent reading comprehension			G2 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
North West Badia-البادية الشمالية الغربية	15.4%	1.4%	6.4%	20.5%	38.6%	32.1%	30.8%	42.9%	38.5%	2.6%	40.0%	26.6%
Zarqa 2-الزرقاء 2-2	15.0%	11.1%	13.2%	5.0%	11.1%	7.9%	12.5%	27.8%	19.7%	17.5%	19.4%	18.4%

Table 15 shows the key indicators results of G3 in Syrian refugee camps schools classified by field directorate and gender.

Table 15 Percent of G3 students in Syrian refugee camps schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G3 Reading proficiency			G3 silent reading comprehension			G3 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All
North West Badia-البادية الشمالية الغربية	35.1%	67.7%	55.6%	30.8%	42.9%	38.5%	24.3%	61.3%	47.5%
Zarqa 2-الزرقاء 2-2	36.6%	54.3%	44.7%	12.5%	27.8%	19.7%	56.1%	20.0%	39.5%

3.2.1.4: Senior teachers schools results

Table 16 shows the key indicators results of G2 at senior teachers' schools classified by gender and field directorate. A senior teacher is an early grade teacher who serves as a school-based supervisor who provides technical support and coaching to fellow early grade teachers at the same school.

Table 16 Percent of G2 students in senior teachers schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G2 ORF zero scores			G2 Reading proficiency			G2 silent reading comprehension			G2 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All	Male	Female	All
Al qwesmeه-لواء القويسمة	15.0%	0.0%	12.0%	40.0%	0.0%	32.0%	40.0%	0.0%	32.0%	15.0%	0.0%	12.0%
Al taibeh & Al wasteiah-لواءا الطيبة والوسطية	0.0%	0.0%	0.0%	30.8%	33.3%	32.1%	76.9%	73.3%	75.0%	23.1%	26.7%	25.0%
Aljamaah-لواء الجامعة	4.0%	2.5%	3.1%	16.0%	40.0%	30.8%	24.0%	45.0%	36.9%	4.0%	5.0%	4.6%
Amman Qasbah-لواء قصبة عمان	30.0%	0.0%	30.0%	20.0%	0.0%	20.0%	20.0%	0.0%	20.0%	0.0%	0.0%	0.0%
Bani Obaid-لواء بني عبيد	0.0%	0.0%	0.0%	0.0%	33.3%	22.2%	16.7%	41.7%	33.3%	16.7%	8.3%	11.1%
Bsaira-لواء بصيرا	8.0%	16.1%	12.5%	30.0%	24.2%	26.8%	50.0%	38.7%	43.8%	12.0%	4.8%	8.0%
Irbid Qasbah-لواء قصبة اربد	0.0%	0.0%	0.0%	0.0%	30.8%	22.2%	40.0%	61.5%	55.6%	40.0%	7.7%	16.7%
Jezeh-لواء الجيزة	14.3%	3.2%	6.0%	28.6%	28.6%	28.6%	23.8%	38.1%	34.5%	23.8%	25.4%	25.0%
Marka-لواء ماركا	0.0%	0.0%	0.0%	50.0%	60.0%	55.6%	75.0%	40.0%	55.6%	25.0%	40.0%	33.3%
Mowaqar-لواء الموقر	13.0%	13.6%	13.3%	5.8%	7.4%	6.7%	17.4%	18.5%	18.0%	5.8%	8.6%	7.3%

Naaor-لواء ناعور	8.3%	6.0%	7.0%	19.4%	24.0%	22.1%	44.4%	60.0%	53.5%	2.8%	12.0%	8.1%
Sahab-لواء سحب	15.6%	0.0%	7.0%	18.8%	23.1%	21.1%	21.9%	38.5%	31.0%	9.4%	5.1%	7.0%
Ain Albasha-عين الباشا	0.0%	0.0%	0.0%	33.3%	50.0%	40.0%	33.3%	62.5%	45.0%	25.0%	37.5%	30.0%
Ajloun-عجلون	6.1%	0.0%	3.0%	27.3%	39.4%	33.3%	45.5%	54.5%	50.0%	9.1%	9.1%	9.1%
Alqaser-القصر	0.0%	0.0%	0.0%	16.7%	50.0%	32.6%	45.8%	77.3%	60.9%	20.8%	40.9%	30.4%
Aqaba-العقبة	15.6%	14.8%	15.2%	11.1%	5.6%	8.1%	17.8%	16.7%	17.2%	6.7%	3.7%	5.1%
Bani kenana-بني كنانة	4.3%	0.0%	2.7%	43.5%	71.4%	54.1%	56.5%	78.6%	64.9%	13.0%	35.7%	21.6%
Dair Alla-دير علا	33.3%	7.6%	19.5%	8.8%	7.6%	8.1%	15.8%	19.7%	17.9%	3.5%	3.0%	3.3%
Jarash-جرش	5.7%	2.3%	3.8%	20.0%	20.9%	20.5%	40.0%	32.6%	35.9%	17.1%	4.7%	10.3%
Karak Qasbah-قصبه الكرك	4.0%	3.0%	3.4%	28.0%	39.4%	34.5%	52.0%	72.7%	63.8%	20.0%	27.3%	24.1%
Ma an-معان	34.8%	14.7%	22.8%	17.4%	2.9%	8.8%	21.7%	8.8%	14.0%	4.3%	11.8%	8.8%
Madaba-مادبا	7.4%	4.2%	5.9%	37.0%	37.5%	37.3%	48.1%	58.3%	52.9%	33.3%	37.5%	35.3%
Mafrq Qasbah-قصبه المفرق	6.7%	0.0%	2.8%	33.3%	23.8%	27.8%	26.7%	38.1%	33.3%	20.0%	14.3%	16.7%
North East Badia-البادية الشمالية الشرقية	0.0%	10.0%	5.3%	22.2%	40.0%	31.6%	11.1%	30.0%	21.1%	0.0%	20.0%	10.5%
North Ghour-الاغوار الشمالية	16.7%	12.3%	14.0%	30.6%	31.6%	31.2%	38.9%	36.8%	37.6%	11.1%	10.5%	10.8%
North West Badia-البادية الشمالية الغربية	9.7%	5.6%	7.5%	9.7%	16.7%	13.4%	29.0%	47.2%	38.8%	3.2%	11.1%	7.5%
Petra-البتراء	0.0%	3.4%	1.6%	27.3%	31.0%	29.0%	27.3%	27.6%	27.4%	9.1%	3.4%	6.5%
Ramtha-الرمثا	25.0%	0.0%	11.1%	0.0%	0.0%	0.0%	25.0%	0.0%	11.1%	50.0%	0.0%	22.2%
Rusifa-الرصيفة	15.4%	7.1%	11.1%	7.7%	7.1%	7.4%	15.4%	21.4%	18.5%	15.4%	0.0%	7.4%
Shobak-الشوبك	25.0%	23.5%	24.1%	25.0%	5.9%	13.8%	16.7%	5.9%	10.3%	0.0%	0.0%	0.0%
South Badia-البادية الجنوبية	24.0%	7.7%	14.1%	0.0%	5.1%	3.1%	4.0%	2.6%	3.1%	0.0%	0.0%	0.0%
South Ghour-الاغوار الجنوبية	33.3%	27.8%	30.6%	5.6%	11.1%	8.3%	5.6%	5.6%	5.6%	5.6%	0.0%	2.8%
South Shouna-الشونة الجنوبية	3.5%	4.7%	4.2%	24.6%	18.8%	21.1%	47.4%	42.4%	44.4%	12.3%	14.1%	13.4%
Theeban-ذيبان	0.0%	0.0%	0.0%	16.7%	33.3%	22.2%	83.3%	100.0%	88.9%	0.0%	33.3%	11.1%
Zarqa 1-الزرقاء 1	0.0%	0.0%	0.0%	44.4%	60.0%	50.0%	55.6%	70.0%	60.7%	11.1%	50.0%	25.0%
Zarqa 2-الزرقاء 2	7.5%	5.3%	6.6%	15.1%	10.5%	13.2%	24.5%	23.7%	24.2%	9.4%	7.9%	8.8%

Table 17 shows the key indicators results of G3 in the senior teachers' schools classified by field directorate and gender.

Table 17 Percent of G3 students in senior teachers schools who meet the benchmarks of the key performance indicators by field directorate and gender

Field directorate	G3 Reading proficiency			G3 Silent Reading Comprehension			G3 mathematics		
	Male	Female	All	Male	Female	All	Male	Female	All
Al qwesmeh-لواء القويسمة	85.7%	66.7%	76.9%	85.7%	66.7%	76.9%	57.1%	66.7%	61.5%

لواء الطيبة والوسطية-Al taibeh & Al wasteiah	57.9%	60.0%	58.6%	63.2%	80.0%	69.0%	63.2%	70.0%	65.5%
لواء الجامعة-Aljamaah	70.0%	60.4%	63.2%	65.0%	70.8%	69.1%	45.0%	29.2%	33.8%
لواء قصبة عمان-Amman Qasbah	22.2%	0.0%	22.2%	44.4%	0.0%	44.4%	11.1%	0.0%	11.1%
لواء بني عبيد-Bani Obaid	62.5%	50.0%	55.0%	87.5%	50.0%	65.0%	50.0%	25.0%	35.0%
لواء بصيرا-Bsaira	62.5%	50.0%	57.0%	67.2%	68.0%	67.5%	37.5%	28.0%	33.3%
لواء قصبة اربد-Irbid Qasbah	0.0%	78.9%	78.9%	0.0%	84.2%	84.2%	0.0%	21.1%	21.1%
لواء الجيزة-Jezeh	57.9%	57.6%	57.6%	68.4%	62.1%	63.5%	68.4%	60.6%	62.4%
لواء ماركا-Marka	100.0%	100.0%	100.0%	100.0%	83.3%	90.0%	75.0%	83.3%	80.0%
لواء الموقر-Mowaqar	28.6%	41.0%	35.3%	45.7%	47.0%	46.4%	25.7%	10.8%	17.6%
لواء ناعور-Naaor	35.7%	51.2%	43.5%	52.4%	79.1%	65.9%	14.3%	27.9%	21.2%
لواء سحاب-Sahab	32.4%	52.3%	43.2%	35.1%	63.6%	50.6%	21.6%	20.5%	21.0%
عين الباشا-Ain Albasha	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	77.8%	33.3%	55.6%
عجلون-Ajloun	56.0%	76.2%	68.7%	72.0%	71.4%	71.6%	36.0%	54.8%	47.8%
القصر-Alqaser	79.2%	80.0%	79.6%	91.7%	80.0%	85.7%	50.0%	52.0%	51.0%
العقبة-Aqaba	28.2%	41.5%	36.5%	30.8%	46.2%	40.4%	23.1%	18.5%	20.2%
بني كنانة-Bani kenana	78.6%	81.8%	79.5%	85.7%	81.8%	84.6%	39.3%	54.5%	43.6%
دير علا-Dair Alla	27.5%	34.5%	30.6%	31.9%	50.9%	40.3%	8.7%	10.9%	9.7%
جرش-Jarash	65.7%	59.0%	62.2%	68.6%	69.2%	68.9%	45.7%	20.5%	32.4%
قصبة الكرك-Karak Qasbah	83.3%	68.4%	73.2%	83.3%	76.3%	78.6%	27.8%	60.5%	50.0%
معان-Ma an	51.4%	40.0%	47.4%	54.1%	40.0%	49.1%	40.5%	25.0%	35.1%
مادبا-Madaba	50.0%	80.8%	68.2%	94.4%	84.6%	88.6%	33.3%	42.3%	38.6%
قصبة المفرق-Mafraq Qasbah	53.8%	40.7%	45.0%	69.2%	63.0%	65.0%	38.5%	29.6%	32.5%
البادية الشمالية الشرقية-North East Badia	28.6%	58.3%	47.4%	14.3%	66.7%	47.4%	14.3%	41.7%	31.6%
الاغوار الشمالية-North Ghour	42.9%	40.3%	41.2%	54.3%	51.6%	52.6%	31.4%	19.4%	23.7%
البادية الشمالية الغربية-North West Badia	53.8%	49.1%	50.0%	76.9%	43.4%	50.0%	46.2%	24.5%	28.8%
البتراء-Petra	65.5%	56.1%	60.0%	62.1%	41.5%	50.0%	51.7%	34.1%	41.4%
الرمثا-Ramtha	0.0%	50.0%	25.0%	0.0%	50.0%	25.0%	0.0%	0.0%	0.0%
الرصيفة-Rusifa	35.7%	31.3%	33.3%	35.7%	56.3%	46.7%	42.9%	25.0%	33.3%
الشوبك-Shobak	38.5%	60.0%	50.0%	46.2%	53.3%	50.0%	7.7%	20.0%	14.3%
البادية الجنوبية-South Badia	14.3%	29.3%	23.2%	21.4%	29.3%	26.1%	7.1%	7.3%	7.2%
الاغوار الجنوبية-South Ghour	33.3%	15.8%	25.0%	47.6%	21.1%	35.0%	28.6%	0.0%	15.0%
الشونة الجنوبية-South Shouna	50.0%	57.9%	55.2%	68.8%	67.4%	67.8%	27.1%	35.8%	32.9%
ذيبان-Theeban	62.5%	0.0%	50.0%	87.5%	50.0%	80.0%	18.8%	0.0%	15.0%
الزرقاء 1-1-Zarqa	88.9%	100.0%	93.1%	100.0%	90.9%	96.6%	55.6%	54.5%	55.2%
الزرقاء 2-2-Zarqa	20.0%	52.0%	40.0%	43.3%	62.0%	55.0%	26.7%	28.0%	27.5%

3.2.2: National key performance indicators results

In this sub part, the detailed results of the Ministry national level are specified for each key performance indicator classified by schools sample type: basic sample schools, Syrian refugee second shift schools, Syrian refugee camps schools, and senior teacher schools.

3.2.2.1: Results of year 2022

Table 18 displays the numbers of assessed schools and students classified by sample type: basic sample schools, Syrian second shift schools, Syrian refugee camps schools, and senior teacher schools.

Table 18 Numbers of assessed schools and students by sample type

Sample schools type	Number of schools	Number of students
Basic sample schools {includes the Syrian refugee (outside Camps) and Senior teachers}	796	15,059
Syrian refugee schools (second shift)	18 ⁷	340
Syrian refugee camp schools	19	360
Senior teacher schools	216 ⁸	4,089

Table 19 shows the general G2 results in the key performance indicators classified by grade level, basic sample schools, Syrian refugees' schools outside and inside the camps, and senior teachers' schools.

We notice that the G2 students in the Syrian camps schools are better than the results of the students in the schools basic sample in Mathematics with *statistically significant difference*.

Table 19 G2 key performance indicator results by basic sample schools, Syrian student schools, Refugee camp schools, and Senior Teacher schools.

Indicator	Basic Sample schools G2	Syrian refugee schools G2	Camps refugee schools G2	Senior teachers schools G2
Reading proficiency	24.0%	27.5%	21.8%	27.5%
Silent reading comprehension	38.4%	35.5%	30.5%	38.8%
Mathematics with understanding	12.6%	9.2%	23.1%*	15.1%
ORF zero scores	8.2%	9.7%	9.3%	7.2%

* P < 0.05 (Schools Type 2022)

⁷ The Syrian schools are part of the basic schools.

⁸ The senior teachers' schools are part of the basic schools.

Figure 9 Illustrates the G2 key indicators results for all schools sample types in the LQAS of year 2022

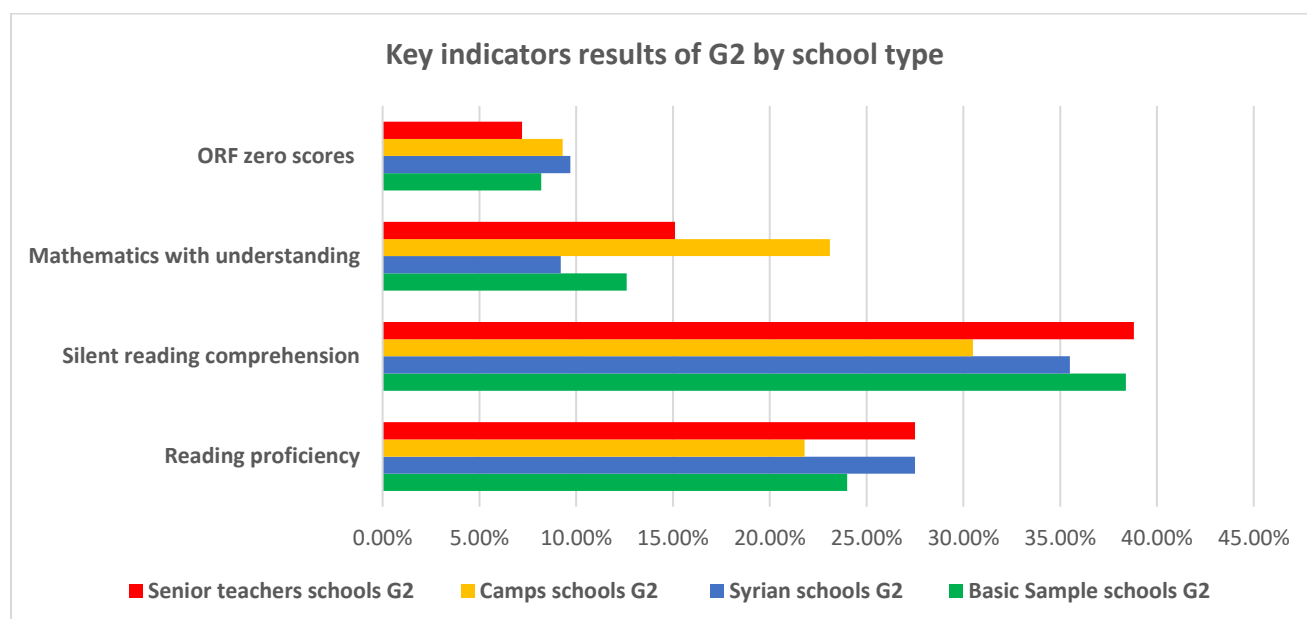


Table 20 shows the general G3 results in the key performance indicators classified by grade level, basic sample schools, Syrian refugees outside and inside the camps, and senior teachers' schools.

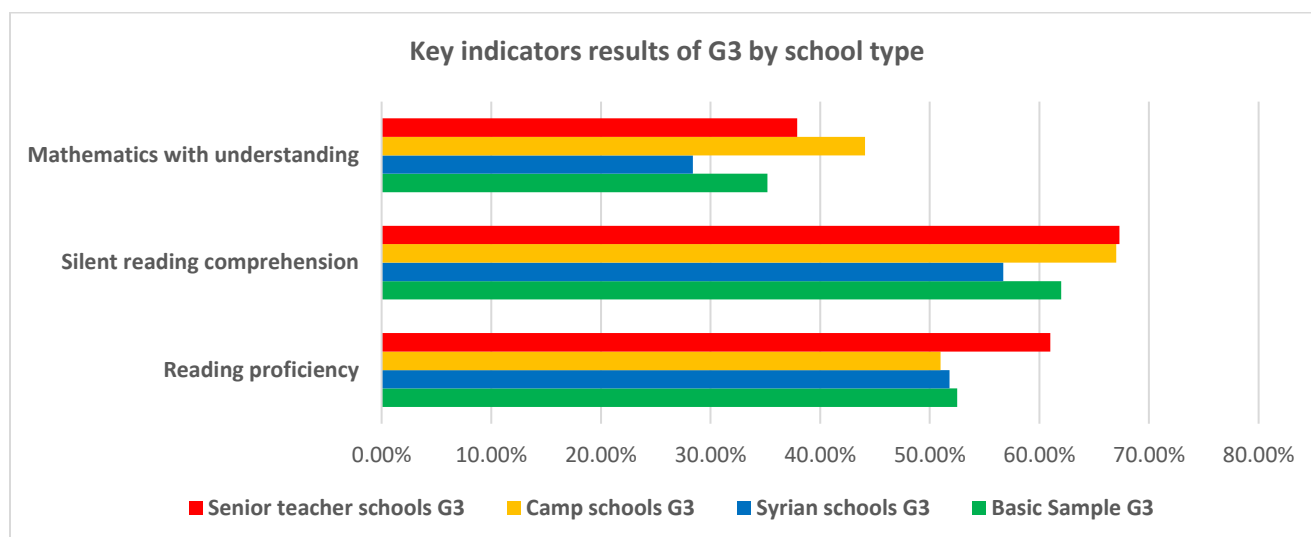
The pattern of the results of the G3 is similar to the results of G2; we notice that the G3 students in the Syrian camps schools are better than the results of the students in the schools basic sample in Mathematics with *statistically significant difference*.

Table 20 G3 key performance indicator results by basic sample schools, Syrian student schools, Refugee camp schools, and senior teachers' schools

Indicator	Basic Sample G3	Syrian refugee schools G3	Camp refugee schools G3	Senior teachers schools G3
Reading proficiency	52.5%	51.8%	51.0%	61.0%
Silent reading comprehension	62.0%	56.7%	67.0%	67.3%
Mathematics with understanding	35.2%	28.4%	44.1%*	37.9%

* $P < 0.05$ (Schools Type 2022)

Figure 10 Illustrates the G3 key indicators results for all schools types in the LQAS of year 2022



As for performance of students by category of proficiency in year 2022, its results are summarized in **Table 21**, which shows the categories of zero scores in ORF. The zero grades classified into four categories: Non-readers ORF, Beginning readers, Progressing readers, and Proficient readers.

Table 21 Percent of Students in each Reader Category in Year 2022 classified by Reader Category and grade level.

Percent of Students in each Reader Category	G2	G3
Non-readers ORF = 0	8.2%	4.5%
Beginning readers; $1 \leq \text{ORF} \leq 29$	67.9%	41.6%
Progressing readers; $\text{ORF} \geq 30$	23.9%	53.9%
Proficient readers; $\text{ORF} \geq 42$ & $\text{read_comp_score} \geq 80\%$	3.4%	10.8%

3.2.2.2: Results of year 2022 compared to the previous years'

To track the changes that have occurred in the students' results based on the key performance indicators for year 2022 compared to the previous years' results. Below are the LQAS results related to the key performance indicators classified by basic sample schools, Syrian refugee schools (Second-shifted/afternoon schools), Syrian refugee camp schools, senior teacher schools, and gender.

First: reading proficiency, to get the percentage of students who **read a text fluently and with comprehension**, the number of the students who answer 80% of the questions about the text is calculated and divided by the total number of the assessed students who read a text aloud for one minute. The results of this indicator are tabulated in **Table 22** classified by school type, year, and grade level.

We notice that percentage of the students who achieved the benchmark in reading proficiency made a significant progress in 2022 compared to the year 2021 in all types of schools samples; basic sample schools, Syrian schools—inside and outside the refugee camps, and senior teacher schools.

Table 22 *Percent of the students who achieved the reading proficiency benchmark by school type, year, and grade.*

School type	2017	2018	2019			2021			2022		
			G2+G3	G2	G3	G2+G3	G2	G3	G2+G3	G2	G3
Basic sample schools	-	-	29.3%	16.3%	40.6%	29.0%	14.5%	42.9%	38.6%	24.0%	52.5%
Syrian refugee (Second shift schools)	-	-	31.5%	-	-	26.1%	8.7%	41.2%	39.2%	27.5%	51.8%
Syrian refugee (Camps schools)	-	-	25.1%	-	-	23.5%	9.7%	36.8%	36.1%	21.8%	51.0%
Senior Teacher schools	-	-	37.8%	-	-	27.0%	10.2%	40.5%	44.0%	27.5%	61.0%

Table 23 shows the percentage of G2 and G3 students who achieved the reading proficiency benchmark in the basic sample schools classified by gender, grade, and year.

We notice that the percentage of the male and female students who achieved the benchmark in reading proficiency made a significant progress in 2022 compared to the year 2021. *In addition to that, we notice that there are a statistically significant difference between males and females in 2022 in both G2 and G3. Where the females are better than males in reading proficiency.*

Table 23 *Percent of the students who achieved the reading proficiency benchmark in the basic sample schools by grade, gender, and year*

Student gender	2017	2018	2019	2021			2022		
			G2+G3	G2+G3	G2	G3	G2+G3	G2	G3
All Students (Basic sample)	-	-	29.3%	29%	14.5%	42.9%	38.6%	24.0%	52.5%
Males	-	-	26.2%	27.40%	14.4%	41.6%	36.0%	23.2%	49.8%
Females	-	-	32.1%	30.50%	14.9%	44.2%	40.7%	24.8%*	55.1%*

* $P < 0.05$ (Student Gender 2022)

As for performance of students by category of proficiency, its results are summarized in **Table 24**, which shows transition between categories of the performance on reading comprehension across three categories and demonstrates reduction in zero scores showing improvements in the proficient category.

Table 24 Percent of Students in each Reader Category classified by indicator, grade level, and year

Year	No Comprehension (Zero Scores)		Progressing Comprehension (1-3)		Proficient Comprehension (4-5)	
	G2	G3	G2	G3	G2	G3
2022	27.53%	12.86%	48.45%	34.61%	24.02%	52.53%
2021	35.3%	15.1%	50.2%	42.0%	14.5%	42.9%
2019	31.5%	15.9%	51.8%	43.5%	16.2%	40.6%

Second: Silent reading comprehension, to calculate the percentage of the students who **read a text with comprehension (silent reading)**, the number of students who answer 80% of the questions correctly is calculated and divided by the total number of the students who were assessed by having them read a text silently for two minutes. The 2022 results are tabulated by in **Table 25** by sample type, year, and grade level.

We notice that percentage of the students who achieved the benchmark in silent reading comprehension made a significant progress in 2022 compared to the year 2021 in the basic sample schools, G2 in Syrian Refugee student schools (Second shift schools), Syrian refugee camps schools, and Senior Teacher schools. *However, it was found that the results of the G3 students of the Syrian second shift school were declined in the silent reading comprehension.*

Table 25 Percent of the students who achieved the silent reading comprehension benchmark by school type, grade, and year

School type	2017	2018	2019			2021			2022		
			G2+ G3	G2	G3	G2+ G3	G2	G3	G2+ G3	G2	G3
Basic sample schools	-	-	41.6%	28.8%	52.7%	42.9%	28.5%	56.6%	50.4%	38.4%	62.0%
Syrian refugee (Second shift schools)	-	-	-	-	-	42.4%	19.8%	62.7%	45.9%	35.5%	56.7%
Syrian refugee (Camps schools)	-	-	-	-	-	36.3%	20.5%	51.4%	48.3%	30.5%	67.0%
Senior Teacher schools	-	-	-	-	-	40.9%	26.3%	52.0%	52.7%	38.8%	67.3%

Table 26 shows the percentage of G2 and G3 students who achieved the benchmark in silent reading comprehension classified by gender, grade level, and year. We notice that the percentage of the students who achieved this benchmark in the basic sample schools increased in both males and females in 2022 compared to the 2021 percentage.

Table 26 Percent of the students who achieved the silent reading comprehension benchmark in the basic sample schools by gender, grade, and year

Gender	2017	2018	2019	2021	2022
	G2+G3	G2+G3	G2+G3	G2+G3	G2+G3
All Students (Basic sample)	-	-	41.6%	42.9%	50.4%
Males	-	-	-	42.6%	49.1%
Females	-	-	-	43.0%	51.6%

Third: mathematics with understanding, to calculate the percentage of the students who do **mathematics with understanding**, the number of the students who answer 80% of addition and subtraction level 2 questions and 70% of the missing number questions is divided by the total number of the assessed students.

Table 27 shows the detailed results of the basic sample schools, Syrian refugee schools (Second-shift/afternoon schools), refugee camp schools, and senior teacher schools. The results are also classified by year and grade. We notice that percentage of the students who achieved the benchmark in Mathematics made a significant progress in 2022 compared to the year 2021 in all types of schools samples: basic sample schools, Syrian student schools—inside and outside the refugee camps, and senior teacher schools.

Table 27 Percent of the students who achieved the mathematics benchmark by school type, year, and grade

School type	2017	2018	2019			2021			2022		
	G2+G3	G2+G3	G2+G3	G2	G3	G2+G3	G2	G3	G2+G3	G2	G3
Basic sample schools	28.2%	29.8%	28.1%	16.3%	38.3%	17.7%	7.7%	27.2%	24.1%	12.6%	35.2%
Syrian refugee (Second shift schools)	23.9%	24.0%	29.0%	-	-	15.9%	4.1%	26.2%	18.3%	9.2%	28.4%
Syrian refugee (Camps schools)	-	19.6%	17.6%	-	-	19.1%	10.0%	27.7%	33.3%	23.1%	44.1%
Senior Teacher schools	35.5%	47.2%	47.8%	-	-	14.4%	6.4%	20.8%	26.1%	15.1%	37.9%

Table 28 shows the percentage of G2 and G3 students who achieved the mathematics benchmark classified by gender, grade level, and year. We notice that the percentage of both female and male students who achieved the mathematics benchmark in the basic sample schools made a significant progress in 2022 compared to the 2021 percentage. In addition to that, *we notice that there are a statistically significant difference between males and females G3 in 2022, where the males are better than females in mathematics.*

Table 28 Percent of the students who achieved the mathematics benchmark by gender, grade, and year

Gender	2017	2018	2019	2021			2022		
	G2+G3	G2+G3	G2+G3	G2+G3	G2	G3	G2+G3	G2	G3
All Students (Basic sample)	28.2%	29.8%	28.1%	17.67%	7.7%	27.2%	24.1%	12.6%	35.2%
Males	28.6%	30.6%	25.0%	19.5%	9.6%	30.5%	25.8%	13.8%	38.4%*
Females	27.8%	29.1%	30.9%	16.2%	6.2%	25.0%	22.7%	11.4%	32.9%

* $P < 0.05$ (Student Gender 2022)

Table 29 shows the percentage of G2 and G3 students in the basic sample schools who achieved the mathematics benchmark classified by grade level and year. We notice that the percentage of G2 and G3 students who achieved the mathematics benchmark in the basic sample schools made a significant progress in 2022 compared to the 2021 percentage.

Table 29 Percent of the students who achieved the mathematics benchmark by grade and year

Grade level	2017	2018	2019	2021	2022
	G2+G3	G2+G3	G2+G3	G2+G3	G2+G3
All Students (Basic sample)	28.2%	29.8%	28.1%	17.7%	24.1%
Grade 2	16.4%	16.3%	16.3%	7.7%	12.6%
Grade 3	39.3%	41.7%	38.3%	27.2%	35.2%

Fourth: Zero scores in ORF, to calculate the percentage of students who **got zero scores in ORF**, the number of students who could not read aloud any word in the text is divided by the total number of the assessed students.

Table 30 shows the results classified by school type, year, and grade level. We notice that the percentage of G2 and G3 students who got zero scores in ORF in all types of the sample schools made a significant progress (Decreased) in 2022 compared to the 2021 percentage, *except the G3 students in the Syrian second shift schools, the percentage was increased.*

Table 30 Percent of the students who got zero scores in ORF classified by school type, grade, and year

School type	2017	2018	2019			2021			2022		
	G2+G3	G2+G3	G2+G3	G2	G3	G2+G3	G2	G3	G2+G3	G2	G3
Basic sample schools	14.6%	16.6%	9.1%	11.7%	6.7%	9.4%	13.4%	5.7%	6.3%	8.2%	4.5%

Syrian refugee (Second shift schools)	-	-	-	-	-	9.4%	14.7%	3.9%	8.2%	9.7%	6.3%
Syrian refugee (Camps schools)	-	-	-	-	-	17.7%	25.3%	10.7%	5.8%	9.3%	2.3%
Senior Teacher schools	-	-	-	-	-	9.0%	14.5%	7.0%	5.8%	7.2%	4.3%

Table 31 shows the percentage of G2 and G3 students who got zero scores in ORF classified by gender, year, and grade level in 2022. We notice that the percentage of the G2 and G3 students who got zero scores in the basic sample schools made a significant progress (Decreased) in both males and females in 2022 compared to the 2021 percentage.

Table 31 Percent of the students who got zero scores in ORF classified by gender, year, and grade level

Gender	2017	2018	2019	2021			2022		
	G2+ G3	G2+ G3	G2+ G3	G2+G3	G2	G3	G2+G3	G2	G3
All students	-	-	-	9.4%	13.4%	5.7%	6.3%	8.2%	4.5%
Males	-	-	-	11.8%	16.2%	7.0%	7.7%	10.2%	5.3%
Females	-	-	-	7.4%	10.7%	4.6%	5.0%	6.4%	3.8%

3.3 Correlation between the teachers instruction effectiveness and the students' performance in LQAS

To make sure that there is a relationship between the early grades teacher performance in the classroom and the students' performance in reading and mathematics, the classroom observation data (CRO) of the second semester of the school year 2021/2022 and the first semester of the schools year 2022/ 2023 were analyzed.

There was a calculation of the instruction effectiveness rate of the teachers and the percentages of students who met the benchmarks in LQAS assessment—including reading proficiency, silent reading comprehension, zero scores in ORF, and mathematics with understanding in each field directorate.

The results of the instruction effectiveness rate of the classroom observation data related to the second semester of the school year 2021/2022 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics in LQAS of year 2022 classified by field directorate are shown in **table 32**.

Table 32 Instruction effectiveness rate of CRO data of school year 2021/ 2022 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics assessments classified by field directorate

FDs	Average of Reading & Math Instruction Effectiveness	Average of Reading Instruction Effectiveness	Average of Math Instruction Effectiveness	Reading Proficiency	Silent Reading comprehension	ORF zero scores	Mathematics
لواء القويسمة- Al qwesmeh	74	73	76	36.40%	46.90%	10.00%	22.50%

لواء الطيبة والوسطية-Al taibeh & Al wasteiah	95	94	95
لواء الجامعة-Aljamaah	82	85	80
لواء قصبة عمان-Amman Qasbah	81	81	81
لواء بني عبيد-Bani Obaid	91	90	93
لواء بصيرا-Bsaira	80	82	78
لواء قصبة اربد-Irbid Qasbah	88	89	87
لواء الجيزة-Jezeh	84	86	80
لواء ماركا-Marka	87	88	86
لواء الموقر-Mowaqar	89	89	88
لواء ناعور-Naor	82	81	83
لواء سحاب-Sahab	67	67	68
لواء وادي السير-Wadi Alseer	71	71	72
عين الباشا-Ain Albasha	85	85	86
عجلون-Ajloun	86	87	84
الكورة-Alkoura	89	87	91
القصر-Alqaser	87	85	88
العقبة-Aqaba	74	74	73
بني كنانة-Bani kenana	88	87	90
دير علا-Dair Alla	82	84	80
جرش-Jarash	86	85	88
قصبة الكرك-Karak Qasbah	90	90	89
معان-Ma an	81	79	86
مادبا-Madaba	71	71	72
قصبة المفرق-Mafraq Qasbah	85	84	87
البادية الشمالية الشرقية-North East Badia	72	69	76
الاغوار الشمالية-North Ghour	81	80	83
المزار الشمالي-North Mazar	93	94	90
البادية الشمالية الغربية-North West Badia	84	84	82
البتراء-Petra	91	91	92
الرمثا-Ramtha	73	72	74
الرصيفة-Rusifa	79	81	76
قصبة السلط-Salt	87	87	87
الشوبك-Shobak	77	77	75
البادية الجنوبية-South Badia	80	80	79
الاغوار الجنوبية-South Ghour	66	63	71
المزار الجنوبي-South Mazar	78	77	80
الشونة الجنوبية-South Shouna	76	75	78

55.60%	71.10%	2.80%	53.30%
42.90%	54.00%	1.70%	23.50%
26.60%	44.30%	8.70%	23.20%
45.20%	56.50%	1.10%	29.10%
39.00%	52.90%	8.60%	19.50%
43.60%	60.00%	5.00%	22.20%
47.50%	56.10%	3.90%	41.90%
54.30%	64.10%	3.10%	34.80%
19.70%	30.00%	8.30%	12.20%
26.60%	49.00%	7.80%	13.90%
31.70%	41.60%	6.50%	15.50%
44.20%	58.10%	1.40%	28.10%
66.50%	72.60%	2.20%	31.30%
38.20%	50.40%	4.40%	19.90%
36.00%	51.20%	3.00%	28.00%
48.20%	64.50%	2.50%	24.40%
26.20%	33.80%	10.10%	14.60%
42.20%	53.90%	3.30%	21.40%
17.50%	29.10%	12.50%	6.60%
32.60%	48.20%	5.80%	20.90%
53.20%	70.90%	1.10%	33.20%
27.70%	36.80%	12.20%	23.80%
46.50%	60.10%	2.50%	24.70%
20.30%	34.40%	10.80%	17.20%
19.70%	27.70%	14.70%	20.50%
30.70%	37.10%	20.20%	15.80%
41.30%	53.20%	0.60%	24.90%
32.40%	45.70%	4.20%	24.40%
35.60%	38.10%	2.80%	18.60%
18.80%	23.90%	10.40%	20.80%
26.60%	42.10%	10.00%	14.40%
37.80%	48.90%	2.20%	23.10%
21.00%	26.30%	15.40%	8.30%
16.60%	20.80%	12.70%	6.40%
10.00%	20.60%	26.70%	6.10%
62.90%	68.40%	1.10%	39.60%
36.00%	56.50%	3.00%	21.10%

Tafila- الطفيلة	83	87	72
Theeban- ذيبان	92	91	94
Zarqa 1-1 الزرقاء	94	93	96
Zarqa 2-2 الزرقاء	72	73	71

22.70%	32.40%	14.10%	16.60%
34.50%	57.10%	3.60%	11.20%
69.50%	74.20%	0.00%	41.30%
26.50%	40.90%	11.10%	17.30%

As for the results of the instruction effectiveness rate of the classroom observation data related to the first semester of the school year 2022/2023 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics in LQAS of year 2022 classified by field directorate are shown in **table 33**

Table 33 Instruction effectiveness rate of CRO data of school year 2022/ 2023 and the percentages of G2 and G3 students who met the benchmark in reading and mathematics assessments classified by field directorate

FDs	Average of Reading & Math Instruction Effectiveness	Average of Reading Instruction Effectiveness	Average of Math Instruction Effectiveness
لواء القويسمة- Al qwesmeh	73	77	67
لواء الطيبة والوسطية- Al taibeh & Al wasteiah	94	94	95
لواء الجامعة- Aljamaah	76	77	76
لواء قصبة عمان- Amman Qasbah	78	79	78
لواء بني عبيد- Bani Obaid	86	84	89
لواء بصيرا- Bsaira	78	78	79
لواء قصبة اربد- Irbid Qasbah	89	89	90
لواء الجيزة- Jezeh	85	86	84
لواء ماركا- Marka	85	85	86
لواء الموقر- Mowaqar	92	93	91
لواء ناعور- Naaor	83	81	86
لواء سحاب- Sahab	59	64	55
لواء وادي السير- Wadi Alseer	78	78	79
عين الباشا- Ain Albasha	81	81	80
عجلون- Ajloun	82	81	82
الكورة- Alkoura	89	88	90
القصر- Alqaser	87	86	88
العقبة- Aqaba	72	72	73
بني كنانة- Bani kenana	84	85	83
دير علا- Dair Alla	80	79	81
جرش- Jarash	85	87	83
قصبة الكرك- Karak Qasbah	87	86	88

Reading Proficiency	Silent Reading comprehension	ORF zero scores	Mathematics
36.40%	46.90%	10.00%	22.50%
55.60%	71.10%	2.80%	53.30%
42.90%	54.00%	1.70%	23.50%
26.60%	44.30%	8.70%	23.20%
45.20%	56.50%	1.10%	29.10%
39.00%	52.90%	8.60%	19.50%
43.60%	60.00%	5.00%	22.20%
47.50%	56.10%	3.90%	41.90%
54.30%	64.10%	3.10%	34.80%
19.70%	30.00%	8.30%	12.20%
26.60%	49.00%	7.80%	13.90%
31.70%	41.60%	6.50%	15.50%
44.20%	58.10%	1.40%	28.10%
66.50%	72.60%	2.20%	31.30%
38.20%	50.40%	4.40%	19.90%
36.00%	51.20%	3.00%	28.00%
48.20%	64.50%	2.50%	24.40%
26.20%	33.80%	10.10%	14.60%
42.20%	53.90%	3.30%	21.40%
17.50%	29.10%	12.50%	6.60%
32.60%	48.20%	5.80%	20.90%
53.20%	70.90%	1.10%	33.20%

Ma an-معان	72	72	73	27.70%	36.80%	12.20%	23.80%
Madaba-مادبا	73	73	74	46.50%	60.10%	2.50%	24.70%
Mafrq Qasbah-قصبه المفرق	83	82	85	20.30%	34.40%	10.80%	17.20%
North East Badia-البادية الشمالية الشرقية	74	73	75	19.70%	27.70%	14.70%	20.50%
North Ghour-الاغوار الشمالية	81	82	79	30.70%	37.10%	20.20%	15.80%
North Mazar-المزار الشمالي	91	91	91	41.30%	53.20%	0.60%	24.90%
North West Badia-البادية الشمالية الغربية	85	85	85	32.40%	45.70%	4.20%	24.40%
Petra-البترا	88	86	90	35.60%	38.10%	2.80%	18.60%
Ramtha-الرمثا	74	74	75	18.80%	23.90%	10.40%	20.80%
Rusifa-الرصفه	83	84	81	26.60%	42.10%	10.00%	14.40%
Salt-قصبه السلط	85	87	81	37.80%	48.90%	2.20%	23.10%
Shobak-الشوبك	82	83	82	21.00%	26.30%	15.40%	8.30%
South Badia-البادية الجنوبية	84	79	95	16.60%	20.80%	12.70%	6.40%
South Ghour-الاغوار الجنوبية	61	56	66	10.00%	20.60%	26.70%	6.10%
South Mazar-المزار الجنوبي	74	75	74	62.90%	68.40%	1.10%	39.60%
South Shouna-الشونة الجنوبية	74	74	74	36.00%	56.50%	3.00%	21.10%
Tafila-الطفيلة	75	77	73	22.70%	32.40%	14.10%	16.60%
Theeban-ذبيان	89	89	88	34.50%	57.10%	3.60%	11.20%
Zarqa 1-الزرقاء 1	93	93	94	69.50%	74.20%	0.00%	41.30%
Zarqa 2-الزرقاء 2	82	82	81	26.50%	40.90%	11.10%	17.30%

The correlation coefficients between the results listed in **table 32** and **table 33** were calculated, and the following correlations were found⁹:

- There is a *Moderate positive correlation* between the *Reading Instruction Effectiveness rate* and the percentage of students who *Read Proficiency* with a correlation coefficient of **(+0.43)** in the school year 2021/2022 and **(+0.40)** in the year 2022/2023.
- There is a *Moderate positive correlation* between the *Reading Instruction Effectiveness rate* and the percentage of students who *read silent comprehensively* with a correlation coefficient of **(+0.45)** in the school year 2021/2022 and **(+0.43)** in the year 2022/2023.
- There is a *Moderate negative correlation* between the *Reading Instruction Effectiveness rate* and the percentage of students who got a *zero score in reading fluency* with a correlation coefficient of **(-0.54)** in the school year 2021/2022 and **(-0.53)** in the year 2022/2023.
- There was a *Moderate positive correlation* between the *Mathematics Instruction Effectiveness rate* and the percentage of students who do *mathematics with understanding*, with a correlation

coefficient of (+**0.41**) in the school year 2021/2022, but the relationship was declined to (+**0.26**) to be weak positive correlation in the school year 2022/2023.

At the level of positive correlation for the field directorates with **high performance**, it was noticed that there was a *strong correlation* between the *instruction effectiveness* of the early grades teachers and the LQAS results of the students in *Al taibeh & Al wasteiah* and *Zarqa-1* field directorates in both school years 2021/ 2022 and 2022/ 2023. For the field directorates with **low performance**; it was noticed that there was a *strong correlation* between the *instruction effectiveness* and the LQAS results in *South Ghour* and *Sahab* field directorates in both school years 2021/ 2022 and 2022/ 2023.

The figure 11 illustrates the teachers' reading instruction effectiveness and students' performances in reading, while the **figure 12** illustrates the teachers' mathematics instruction effectiveness and students' performances in mathematics in each FD.

Figure 11 Illustrates the teachers' Reading instruction effectiveness and students performances in Reading in each FD

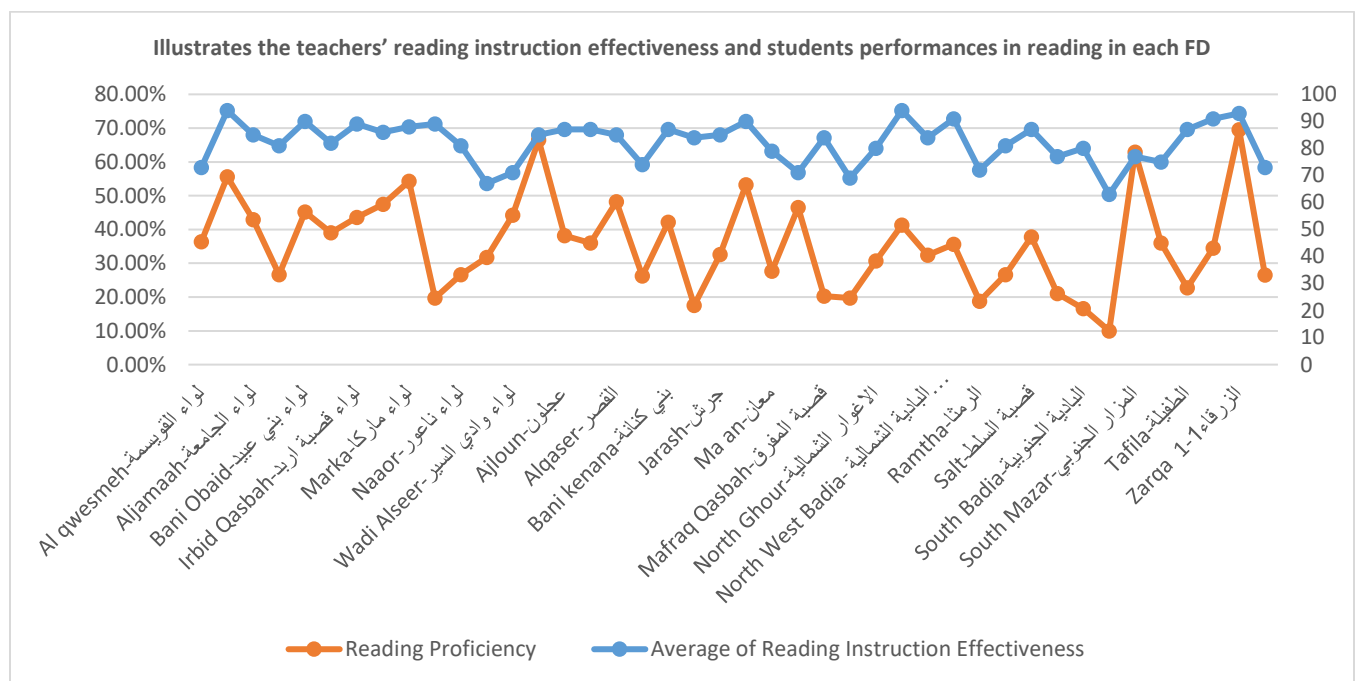
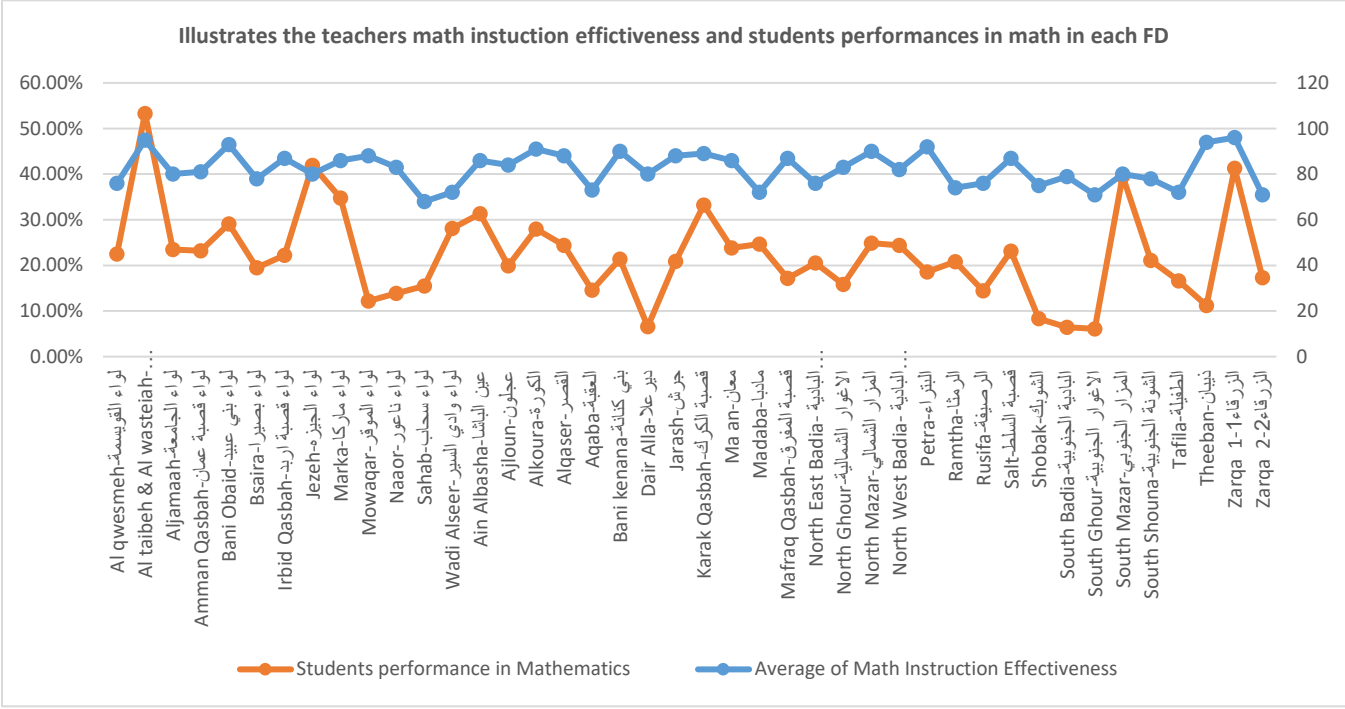


Figure 12 Illustrates the teachers' math instruction effectiveness and students performances in Math in each FD



4. Conclusions, and recommendations

4.1 Conclusion

Regarding the results of field directorates that based on the decision-making rule, they varied according to the different indicators. *Twenty* field directorates achieved the decision-making benchmarks for the reading proficiency indicator in year 2022 compared to *six* directorates in LQAS of year 2021, while 33 field directorates, in addition to the Syrian refugee camps, achieved the silent reading comprehension benchmarks compared to 27 directorates in LQAS of year 2021. However, the mathematics results benchmarks are still significantly low; only 5-field directorate achieved the benchmark compared to *one* directorate in the LQAS of the year 2021.

Although the ultimate goal is having at least 55% of students, nationally, meeting each of these indicators at the end of the school year, it is important to remember that data was collected in November of 2022—i.e. before the end of the first semester of the 2022-2023 school year. Therefore, the national average (and the results of nearly all field directorates) is expected to be less than the 55% benchmark at this time of this school year. Consequently, these results should not be directly compared to the goals of the end of the school year. The purpose is to use the results to identify the seemingly low-performing field directorates that need additional support.

As for the results related to the RAMP key performance indicators, the results indicated the following:

Regarding the reading proficiency results:

- *There are a statistically significant progression in **reading proficiency** in year 2022 compared to the year 2021 in all types of schools; basic schools sample, Syrian schools inside and outside the camps, in addition to the schools in which there are senior teachers.*
 - ✓ In the basic sample, the percentage of G2 students who read fluently and with comprehension was 14.5% in 2021 and increased to 24.0% in 2022. Regarding G3 results, it became 52.5% after it was 42.9% in the 2021 LQAS.
 - ✓ In the Syrian schools, the percentage of G2 students in the afternoon schools increased from 8.7% in year 2021 to 27.5% in year 2022, while in Camp schools increased from 9.7% to 21.8%. As for the G3, the percentage of G3 students in the afternoon schools increased from 41.2% to 51.8%, while the percentage increased from 36.8% to 51.0% in the camp schools.
 - ✓ As for the senior teachers' schools, the percentage of G2 students increased from 10.2% in year 2021 to be 27.5% in year 2022, while the percentage of G3 students increased from 40.5% to 61.0%
- *There are a statistically significant difference between **males** and **females** in **reading proficiency** in year 2022. Where the females are better than males in both G2 and G3. 24.8% for females and 23.2% for males in G2, and 55.1% for females and 49.8% for males in G3.*
- *There is **no** statistically significant difference between the results of the basic school sample and the results of the other schools sample types in **reading proficiency** in each G2 and G3.*

Regarding the silent reading comprehension results:

- *There are a statistically significant progression in the **silent reading comprehension** in year 2022 compared to the year 2021 in the basic schools sample, Syrian camps schools, and the schools in*

which there are senior teachers. However, the results of the G3 students of the Syrian second shift school were declined.

- ✓ In the basic sample, the percentage of G2 students who silent reading comprehension was 28.5% in 2021 and increased to 38.4% in 2022. Regarding G3 results, it became 62.0% after it was 56.6% in the 2021 LQAS.
- ✓ In the Syrian schools, the percentage of G2 students in the afternoon schools increased from 19.8% in year 2021 to 35.5% in year 2022, while in Camp schools increased from 20.5% to 30.5%. As for the G3, the percentage of G3 students in the afternoon schools declined from 62.7% to 56.7%, while the percentage increased from 51.4% to 67.0% in the camp schools.
- ✓ As for the senior teachers' schools, the percentage of G2 students increased from 26.3% in year 2021 to be 38.8% in year 2022, while the percentage of G3 students increased from 52.0% to 67.3%.

Regarding the mathematics with understanding results:

- There are a statistically significant progression in **mathematics with understanding** in year 2022 compared to the year 2021 in all types of schools; basic schools sample, Syrian schools inside and outside the camps, in addition to the schools in which there are senior teachers.
 - ✓ In the basic sample, the percentage of G2 students who do mathematics with understanding was 7.7% in 2021 and increased to 12.6% in 2022. Regarding G3 results, it became 35.2% after it was 27.2% in the 2021 LQAS.
 - ✓ In the Syrian schools, the percentage of G2 students in the afternoon schools increased from 4.1% in year 2021 to 9.2% in year 2022, while in Camp schools increased from 10.0% to 23.1%. As for the G3, the percentage of G3 students in the Syrian afternoon schools increased from 26.2% to 28.4%, while the percentage increased from 27.7% to 44.1% in the camp schools.
 - ✓ As for the senior teachers' schools, the percentage of G2 students increased from 6.4% in year 2021 to be 15.1% in year 2022, while the percentage of G3 students increased from 20.8% to 37.9%.
- The **males** are better than **females** in **mathematics with understanding** in year 2022 in both G2 and G3, as there is a statistically significant *difference* in favor of **males'** students in G3. The percentage is 11.4% for females and 13.8% for males in G2, and 32.9% for females and 38.4% for males in G3.
- There is **no statistically significant difference** between the results of the basic school sample and the results of the other schools sample types in **mathematics with understanding** in year 2022, except the results of the G3 students in the **Syrian camps schools**, where there is a statistically significant difference in favor of the G3 students in the Camps schools. The percentage of G3 students who reached the benchmark in Mathematics and understanding is 44.1% in the camps schools comparative to 35.2% for the basic sample students.

Regarding the students who got zero scores in ORF:

- There are a significant progression in students **who got zero scores in Oral Reading Frequency (ORF)** in year 2022 compared to the year 2021 in the basic schools sample, Syrian camps schools,

and the schools in which there are senior teachers, *However, it declined among G3 students in the schools of Second shift Syrian students.*

- ✓ In the basic sample schools, the percentage of G2 students who got zero scores in ORF was 13.4% in 2021 and decreased to 8.2% in 2022. Regarding G3 results, it became 4.5% after it was 5.7% in the 2021 LQAS.
- ✓ In the Syrian schools, the percentage of G2 students in the afternoon schools decreased from 14.7% in year 2021 to 9.7% in year 2022, while in Camp schools decreased from 25.3% to 9.3%. As for the G3, *the percentage of G3 students in the afternoon schools increased from 3.9% to 6.3%*, while the percentage decreased from 10.7% to 2.3% in the camp schools.
- ✓ As for the senior teachers' schools, the percentage of G2 students decreased from 14.5% in year 2021 to be 7.2% in year 2022, while the percentage of G3 students decreased from 7.0% to 4.3%.
- Results also indicate that the percentage of **males'** students who got **zero scores** is higher than that of **females'** students in both G2 and G3. In G2, the 10.2% of male students got zero scores compared to 6.4% of female students. In G3, the percentage was 5.3% for male students and 3.8% for female students.

Regarding the correlation between the teachers' instruction effectiveness and the students' performance in LQAS:

- There is a *Moderate positive correlation* between the *Reading Instruction Effectiveness rate* and the percentage of the students who *Read Proficiency and silent reading comprehension*.
- There is a *Moderate negative correlation* between the *Reading Instruction Effectiveness rate* and the percentage of the students who *got zero scores*.
- There is a *Moderate positive correlation* between the *Mathematics Instruction Effectiveness rate* and the percentage of students who *do Mathematics with understanding*.

In general, the progress made in the results of the G2 and G3 students in the year 2022 compared to the year 2021 can be explained by a set of reasons such as:

- Schools return to **face-to-face learning** after a long period of interruption. Face to face learning returned at the beginning of the second semester of the school year 2021/2022, and it is continues until now.
- An increase in the percentage of early grades teachers who provide **effective instruction** in the classroom in the last two school semesters.
- Results showed **significant reductions in zero scores** for G3 and G2 students. These reductions in '**zero scores**' from 2021 to 2022 are arguably the result of RAMP and MOE's focus on *low-performing students* and *differentiated instruction* over the last two schools semesters. In addition to that, the learning in the rotational schools in the last school year (2021/2022) helped low performance students in improve their outcomes, this due to *low numbers of students inside rotational classrooms* comparative to the number of students in the non-rotational classrooms, and the teachers rotational classrooms *prioritize the foundational reading and mathematics skills*.
- The **remedial programs** carried out by the MOE in cooperation with RAMP during the last period of the students learning. These programs, which aimed to address students' learning loss, included

conducting *workshops for all concerned personnel in the field directorates (technical directors, heads of supervision divisions, and early grade supervisors) in April and May of the year 2022 to present the LQAS results of year 2021*, and then agree on technical support plans along with remedial interventions. These plans and interventions included *in-class coaching visits, communities of practice, developing and administering diagnostic tools* at the beginning of the first semester of the school year 2022-2023, *designing and remedial activities* to be implemented during free activity lessons, and *designing a remedial program* on which early grade teachers are then trained.

The differences in performance between males and females in reading and mathematics, and the performance of students in the Syrian refugee camps in the mathematics can be explained by the following:

- As for ***gender***, ***female students*** have scored higher than male students have in ***reading skills***. This result does not differ from the pattern found in the results of students at the different levels of learning in Jordan. Female students outperform their male peers in all Jordanian education indicators, whether at the level of general education or higher education. However, ***male students*** have achieved higher performance than female students have in all ***mathematics skills*** due to the specificity of the ***non-achievement mathematics subject***.
- The presence of a stimulating commercial environment in the ***camps of Syrian students*** contributed to a significant improvement in their skills in ***mathematics***. In addition to that, the average of the G3 students' ages in the camps schools is higher than the average of the ages of the students in the other types of schools

4.2 Recommendations

- It is necessary that the MOE provide support to the low-performing field directorates, which in turn provide support to the low-performing schools based on the performance reports that are provided to them by the MOE.
- Implement special programs to enable parents to teach their children effectively, especially in mathematics, and to provide them with the necessary tools such as videos and others.
- Design and implement programs to develop the capabilities of early grade teachers in mathematics skills. The impact of these programs is then assessed.
- Teachers need to focus on foundational skills in reading and mathematics. The number of weekly mathematics lessons needs to increase due to the difficulty of the new curriculum. Instead of classroom teachers, mathematics teachers should be the ones assigned to teach mathematics to early grade students.
- Continue to build teachers' capacities—with a focus on effective classroom management skills, formative assessment, and the use of multiple and diverse teaching strategies that consider students' different abilities and learning styles. There should be another focus on developing students' foundational skills in reading and mathematics.
- Provide school principals and supervisors with capacity building on student assessment methodologies—particularly the LQAS assessments—in terms of planning, implementation, data analysis, and extracting and utilizing the findings.

- Monitor the supervisors who provide in-class technical coaching to teachers to ensure quality control. Supervisors should not be tasked with administrative or technical work outside the scope of their main work.
- Increasing the number of early-grade supervisors in low-performing field directorates.
- Implement case studies for high-performing field directorates to identify success stories, In addition to case studies of low performance field directorates to identify the difficulties and challenges.

References

Wayne W. (2021), *Correlation and Regression*. Retrieved Jan 12, 2022 from:

<https://sphweb.bumc.bu.edu/otlt/MPH-Modules/PH717-QuantCore/PH717-Module9-Correlation-Regression/PH717-Module9-Correlation-Regression4.html>