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Falling test scores try Palestinian educators

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BY EVAN BARTON

RAMALLAH, October 4 (JMCC) - Sara Saleh, a 16-year-old student studying in the competitive science track at a Ramallah government-run high school, said she rarely gets to use the school's science lab.

"Teachers just write on the board," she said. "We don't get to do a lot of experiments."

Alaa Ewaida, a 15-year-old tenth grader at a private Islamic school, also complained that her classes were not hands-on enough.

"Education here depends on memorization for the most part," she said. "Students memorize the lessons and forget them after the exams."

Palestinians have a reputation in the Arab world as good students, yet math and science rankings in the West Bank and Gaza Strip fell in the last report of a prominent international achievement test.

In an effort to address the falling scores, [education](#) officials are trying to improve teacher training and standardize procedures in order to increase student performance in math, science, and Arabic. Both government officials and education experts cite outdated teaching methods as the reason why many students are not grasping key concepts.

CRITICAL THINKING

Aref Hussein, who heads an education non-profit in Ramallah, believes

that if teachers provided students with the skills necessary to research and gather information, they would do better on the Trends in Mathematics and Science Study (TIMSS), the international test where Palestinian scores fell between 2003 and 2007.

“Most of the questions on the TIMSS are related to critical and logical thinking. It has nothing to do with information or memorizing,” Hussein said. Learning by heart Newtons’ law, he added, will not help students pass the test if they cannot apply it.

Giving an example, Hussein mentioned that the TIMSS asked students what would be left of a chair if all of its atoms were taken away. He said that over 70 percent of students said the chair would still be there, instead of the correct answer: nothing. He argued that students are not using critical thinking skills to connect what they are learning in school with the wider world.

Hussein is the founder of Al-Nayzak for Extracurricular and Scientific Innovation, which runs after-school programs in Jerusalem and Ramallah that encourage students to think more critically.

Intesar Hamdan, a spokesperson for the Teacher Creativity Center in Ramallah, echoed other officials in saying that teaching methodology must improve in order to reverse the downward trend in Palestinian learning.

She said that teachers tend to rely on practices that reward students for memorizing lecture material. Students are evaluated based on their ability to remember information, rather than their ability to apply it.

POOR LEARNING CONDITIONS

Hamdan added that the student-to-teacher ratio is too high in many Palestinian schools, reaching forty-to-one at some government classrooms. In Gaza, schools run by the United Nations [refugee](#) agency,

[UNRWA](#), report 50 students in most classrooms. With high numbers of students, teachers find it more difficult to give students individual attention.

The shortage of classrooms is also acute in Area C in the [West Bank](#), where Israel remains in control and blocks Palestinian construction. According to UNICEF, 10,000 students in Area C study in tents, caravans or tin shacks, and one-third of schools have insufficient water or sanitation.

Schools built in Area C can be threatened with demolition, says Hamdan. According to the UN, at least 23 schools in Area C and East Jerusalem have demolition orders and could be destroyed at any time.

But according to Mohammed Matar, director of assessment and evaluation at the Palestinian ministry of education, the quality of instruction may supersede environmental factors.

National achievement tests show, for example, that the refugee students at UNRWA schools are, on the whole, outperforming many government-run schools. All Palestinian schools, except some private schools, use the same curriculum, and Matar thinks the educational strategies of UNRWA teachers and administrators are responsible for students' higher rates of success.

LOW SCORES

Overall, 92 percent of tenth grade students taking the national achievement tests in 2007-08 were rated as non-proficient in math and 82 percent scored as non-proficient in science.

Sixty-seven percent of fourth-graders scored as non-proficient in both math and science on the same national test.

While this national achievement test allowed the Ministry of Education to

analyze student performance by gender, type of school, and region, the TIMSS scores show how Palestinian students compare to the rest of the world.

In 2003, the Palestinian average score in math was 390, just below the cutoff for the low international benchmark of 400, and 77 points below the international average. In 2007, the average international score was 500, yet Palestine's score fell to 367.

Other Arab nations fared better on the test. Tunisia, Jordan and Lebanon's average math score increased between 2003 and 2007, and Syria, one of the few countries Palestinians outperformed in 2003, rose above the Palestinian ranking in 2007.

Algeria and Oman, which were not ranked in 2003, also outranked the Palestinian Authority in math in 2007.

Palestinians fared better in 2003 on the science section, scoring below only Jordan and Bahrain in the Arab world. In 2007, however, the Palestinian score fell 31 points to 404, even though the average international score was 500.

MAKING CHANGE

Palestinian officials are working with the World Bank and UNRWA to examine why UNRWA schools have been outperforming Palestine's public and private schools on standardized tests. They plan to interview students, teachers, and UNRWA officials to better understand the differences between UNRWA's teaching practices and those used in government schools.

Once the 2011 TIMSS results are released in December, Matar and a coalition of officials from the Ministry of Education will go to Australia in order to analyze Palestinian performance on the test.

Husseini, however, does not expect any significant improvement in scores. Since the Palestinian high school exit exam, called the "tawjihi" in Arabic, relies heavily on memorization, he thinks Palestinian educators continue to spend very little time on critical or logical thinking.

"You can't solve a problem with the same people who created it," Hussein said. He believes that by teaching a new generation of teachers to become critical and creative thinkers, test scores on exams such as the TIMSS will eventually improve.

Matar hopes that the ministry's strategic plan for 2008 – 2012 has been successful in improving teacher performance and raising test scores. The plan addresses teacher education and development, yet makes no mention of the critical thinking skills that Husseini thinks are integral for students to learn in order to improve their scores on the TIMSS.

Science student Saleh defended the role of teachers, saying they are well versed in their subjects, although there is little opportunity to apply the knowledge students read about in books. She argued that if schools improve their labs and libraries, students would be able to conduct experiments and research and gain a deeper understanding of the material they read about.

Saleh said she eventually wants to become a psychiatrist. Ewaida is not sure what she wants to do yet, although she likes studying math.

Both students hope that teachers are preparing them not only for the tawjihi exam or the TIMSS, but for more challenging work in the future.