## NATIONAL INSTITUTE FOR ADVANCED TEACHING IN MATHEMATICS AND THE SCIENCES

Meeting with members of the joint team of the Ministry of Education, the Weizmann Institute and the Trump Foundation

NOVEMBER 12, 2018, 09:15-10:15, DJANOGLY HALL, MISHKENOT SHA'ANANIM

An echelon of teacher leaders is at the heart of an incremental transformation in the teaching of mathematics and sciences in Israel's secondary school. These teachers lead professional learning communities and provide mentoring to their colleagues in a shared effort to develop jointly their practice, based on student learning and evidence from the classrooms. So far, they have joined ad hoc frameworks, utilizing time-limited government and philanthropic grants, with minimal coordination between them and without shared professional standards. As a result, their professional capacity is idiosyncratic, offering only a glimpse into advanced techniques of clinical teaching.

Therefore, a work team of the Ministry of Education, the Weizmann Institute and the Trump Foundation prepared a plan for a joint venture bringing together government policy, academic research and development, and teaching practice, to create a National Institute for Advanced Teaching in Mathematics and the Sciences. The formal agreement between the partners is about to be signed, with an aim to launch the Institute during 2018. The Institute's goals will be:

- 1. To establish an elite cadre of teacher leaders of mathematics and the sciences in secondary schools, to enable them to create advanced professional development tracks and to nurture the skill of evidence-based clinical teaching across the country;
- 2. To define, formulate, and implement professional standards and specializations, training, and certification courses, as well as in-service routines for teachers in leadership positions, in alignment with government policy;
- 3. To standardize, mentor, and allocate financial resources to operating frameworks for the clinical professional development of teachers. This will include regional and school-based professional learning communities (PLCs), peer-led instructional coaching and mentoring for new teachers nationwide, with academic guidance and inter-university collaboration.
- 4. To develop tools and methods for clinical teaching, including classroom-based video, diagnostic assessments, simulations, rehearsals, and personalized learning plans. The Institute will also appraise them, and prepare them for wide spread implementation among the mathematics and science teachers across the country.
- 5. To conduct an ongoing, in-depth dialogue with the teacher leaders, build the programs by learning from their knowhow and collective wisdom, listen to their needs, make knowledge available to them, and serve as their professional voice.

## **QUESTIONS FOR DISCUSSION**

- 1. How should the Institute develop professional standards for teacher leaders? What may be the process of defining them and what ways for their implementation would be most effective?
- 2. Who are the best experts in the field that the Institute should consult worldwide, and which similar attempts elsewhere should it be familiar with and learn from their experience and expertise?

- 3. In preparing the work plan for its first year, what should be the first notable steps of the Institute and what long term infrastructure should it consider creating as soon as possible?
- 4. Beyond the formal job description, what character traits should we look for in searching the founding CEO of the Institute?

As **background** to the discussion, we recommend reading the following:

- A. Review and mapping: "How is Quality Teaching Promoted Around the World?"
- B. The National Institute for Advanced Teaching of Mathematics and the Sciences

## **PARTICIPANTS**

- 1. ISRAEL BAR-JOSEPH, Vice President, The Weizmann Institute of Science
- 2. Muhana **Fares**, Director of the Division for National Programs, the Ministry of Education
- 3. GILMOR **KESHET**, Director of Science Education, the Pedagogic Secretariat, the Ministry of Education
- 4. EYAL **RAM**, Deputy Director General, Head of Teachers Department, the Ministry of Education