

## ADVISORY COUNCIL MEETING

## 12-13 NOVEMBER 2018 Djanogly Hall, Mishkenot Sha'ananim, Jerusalem

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Dear Advisory Council Members,

Within seven years after the launch of the Foundation, the primary measure of success has been achieved. The sharp decline in the number of five-unit graduates in mathematics that reached a bottom of less than 9,000 in 2012 has changed its course. In 2018 the number of graduates doubled and crossed the 18,000 bar. A similar trend is evident in physics and chemistry studies as well. This result has been achieved through a collaborative effort of many partners, in government, academia, the local authorities, the civil society and schools.

In the Roadmap paper that we articulated back in 2011, we stated that at this point our role will change. From ringing the sirens of alarm, casting a web of programs and weaving professional relationships, we are now at a threshold of a new task. We now must act together with government to create professional infrastructure of quality teaching and strengthen the foundations of excellence in middle school. These are two pillars that are needed to ensure continuity, stability and sustainability.

For this reason, we have called together once again the Advisory Council. This voluntary panel, which meets every other year, is made up of educational professionals and leaders, including outstanding Israeli teachers of mathematics and the sciences. The chair of the council is Professor Lee Shulman. Towards this meeting we have prepared a new Strategy Roadmap and a set of studies and data. This detailed work is now available for you online as well as in printed form, both in Hebrew and English.

These papers will set the basis for the two days of discussions with the foundation's staff and the members of its Board of Directors. Several meetings will be closed and intimate, but many will involve invited guests – experts in the issues being discussed. The two days will commence with a special gala evening, which will be dedicated to 'quality teaching'.

We wish everyone two fruitful days and sincerely thank all participants who have spared neither their efforts nor their talents in helping the foundation on its path. This is not something we take for granted, and we are grateful to you all.

The Trump Foundation staff

#### 2018 Advisory Council Members:

- 1. LEE **Shulman** (Chairman). President Emeritus of the Carnegie Foundation for the Advancement of Teaching and Past President of the US National Academy of Education.
- 2. DANNY **Bar-Giora**, Director of the Mandel School for Educational Leadership, a Former School Principal and Head of Education in the City of Jerusalem.
- 3. PEGGY **BROOKINS**, President of the National Board for Professional Teaching Standards, Formerly a School Principal and a Mathematics Teacher.
- 4. Shlomit **Davidovitz**, Central District Instructor of Mathematics Teaching at the Ministry of Education.
- 5. LEAH **DOLEV**, Former Head of Mathematics Instruction at the ORT School Network and a Mathematics Teacher.
- 6. MARCIA **LINN**, Researcher of Education in Mathematics, Science, and Technology in the Graduate School of Education at the University of California, Berkeley.
- 7. TALLI **NACHLIELI**, Head of Mathematics Instruction at the Levinsky College of Education.
- 8. ELI **SHALEV**, Physics Teacher in Jerusalem, Finalist of the 2014 Trump Master Teacher Award and Pedagogic Director of the Schwartz-Reisman Regional Science-Learning Center in Rehovot.
- 9. KOBI **SHVARTZBORD**, Physics Teacher in Haifa, Winner of the 2013 Trump Master Teacher Award.
- 10. DALIT **STAUBER**, Former Director General of the Ministry of Education and an English Language Teacher.

In addition, we will be joined by the members of the foundation's Board of Directors:

EDDY **SHALEV**, Chairperson. Founder & Managing Partner of Genesis Partners, is a founding leader of Israel's venture capital industry. Eddy has played a key role in the high-tech sector, including in Fundtech, Paradigm Geophysical and Orbot Instruments, and is currently a director of Aternity, Profitect and WorkLight. Eddy is also Chair of the Endowment Subcommittee at Beit Issie Shapiro. He holds an MSc in Information Systems and a BA in Statistics and Psychology from Tel Aviv University.

TOBY **BERNSTEIN**, businessman in retail and manufacture, has specialized in the clothing and furniture industries across South Africa. He was a partner of Canvas and Tent, a world leader in the manufacture and trading of canvas-related products. Today Toby is involved with Walk-in-25, a community development company aiming to uplift and empower communities and revive local economies in townships as well as rural areas of South Africa.

CARON **BIELSKI**, CEO and founder BSP Funds, a research and investment company providing advisory and marketing services of hedge fund portfolios and fund of funds. Previously Co-Founder and Managing Director of B.A.I.N a software company specializing in product data management systems. Caron currently serves as the chairperson of the board of Beit Issie Shapiro and board member of Womans Voices Now. She has a B. A. in Social Work and an Executive M.B.A from the Kellogg, Northwestern University / Recanati Program at Tel Aviv University.

CHARLES **FREEDMAN**, Adjunct Research Professor in the Department of Economics at Carleton University. Charles worked for the Bank of Canada for 30 years, the last fifteen years of which he served as Deputy Governor. Subsequently, he was a consultant for the International Monetary Fund, served as director and chair of the audit committee of the Canadian Depository for Securities Limited and was a member of the Board of Governors of Carleton University. Charles has a B.Com, a B.A. (Hon.) and M.A. from Oxford University, and a Ph.D. from MIT.

### **OPENING SESSION: INTRODUCTION AND PROGRESS REPORT**

Introducing the agenda and presenting the background and discussion questions

NOVEMBER 12, 2018, 08:30-09:00, DJANOGLY HALL, MISHKENOT SHA'ANANIM

Now, as the number of five-unit graduates in mathematics in Israel has doubled, the Trump Foundation is digging deeper to build two pillars: creating professional infrastructure for high quality teaching at scale, and strengthening the foundations of mathematics and science in middle schools. These two cornerstones rely on the previous achievement and momentum, and they aim to ensure continuity, stability and sustainability in the system and the public.

However, although this is a natural progress, these two steps are a challenge of a very different character and magnitude. After a thorough process of learning, we now understand that if we operate on an 'automatic pilot', it will be very hard to succeed. The formula that we have used in halting the decline and changing the course of the five unit trend, will not fit the tasks of infrastructure and middle school.

Creating intermediary organizations requires formal and institutional partnerships with government, local authorities and academia, and taking a step backwards from direct grant-making. In middle schools, there is a need to address issues that will be new to us, such as the goal of learning, content, motivation, measurement and organization. The threshold question is if it is appropriate and feasible for the foundation to take such tasks upon itself?

- 1. Is the path of collaboration with government to create umbrella organizations, the right direction? What are the pros and cons, and how should we operate to optimize the positive consequences and minimize the negative?
- 2. Is the goal for middle schools to bring Israel to the top 15 excelling countries in mathematics, a worthy target? How should the foundation position itself and what partnerships does it need to develop?
- 3. Do you believe that the Theory of Change and directions of activity that we propose are convincing, are based on sufficient evidence and hold a good prospect to lead to success? What is missing and what are the alternatives?
- 4. What are meaningful differences between the way we operated until now, and what is required now on? What capabilities are needed, and what should we do to develop them?

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

- A. Working Paper for Consultation with Partners: <u>Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (<u>B&W printable</u> <u>version</u>)
- B. <u>Advisory Council Insights and Recommendations 2016</u>
- C. <u>Middle Schools in Israel Background Data 2017/2018</u> Keren Dvir
- D. <u>The Trump Foundation from the Perspective of its Partners</u> Feedback from GPR 2018

## 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.

- 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?

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

- 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

## **"FROM HIGH-TECH TO TEACHING"**

# A meeting with leaders of the initiative and its partners for a discussion on the work plan and next steps

#### November 12, 2018, 10:30-11:30, Djanogly Hall, Mishkenot Sha'ananim

A growing shortage of teachers was among the significant factors contributing to the steep decline in the number of high school graduates with five-units in mathematics and science a decade ago. Until then, Israel relied on a generation of excellent teachers, a large proportion of whom immigrated from the Former Soviet Union and who, with time, have naturally retired. In many schools, and especially in the periphery, when a teacher retires, the class in that subject closes. The threshold question was who will replace the veteran generation?

An answer was found among highly talented people leaving the high-tech industry. Therefore, together with the Ministry of Education and academic institutions, 17 special training programs have opened across the country. These programs operate according to a residency model, with rigorous selection criteria and a focus on clinical skills and practical experience. Program graduates receive assistance with job placement and absorption in schools, as well as with individual and group instructional coaching.

As more programs opened, second-career teachers became a majority of the new mathematics and science teachers in secondary schools in Israel. As a result, the Ministry of Education and the "5P2 Initiative" engaged in a collaborative policy planning process. The Ministry adopted the policy recommendations and defined a goal to train and absorb an additional 1,500 teachers over the next five years. In order to lead the execution of this task, the Mofet Institute was asked to form a taskforce, titled: "From High-Tech to Teaching".

The taskforce began its operations on a trial basis a year ago, coordinating between the high-tech industry, teacher-training institutes, the Ministry, the districts, local authorities, education networks, school principals, and the new teachers. Former school principal and Mayor of Ra'anana, Nahum Hofri, heads the taskforce, and currently the Ministry and the foundation are holding discussions geared to working together to ensure the program's success.

- 1. How are second-career teachers who come from high-tech perceived? Do they feel embraced and supported, or are there perhaps, raised eyebrows? Is this a success story that should be expanded and instituted?
- 2. Despite the emphasis on instructional coaching during absorption, program graduates report difficulty assimilating in schools, both professionally and personally. What can be done to improve this?
- 3. Which should be the priorities of the new taskforce? What standards should it develop, and in which way? Which activities should it implement on its own? What are the indicators of success it should adopt for itself?

- A. <u>Cluster Evaluation: The Clinical Teacher Residency Training Programs</u> Edith Manny-Ikan, Tal Berger-Tikochinsky and Gitit Dahan, The Henrietta Szold Institute
- B. <u>From High-Tech to Teaching: The Integration of a New Generation of Mathematics and</u> <u>Science Teachers in Israel's High Schools</u> – Leah Pass and Haim Lapid

- 1. ZEHAVIT **GOLDMAN**, National Supervisor for Secondary Schools, the Ministry of Education; until recently, Principal, Blich High School, Ramat Gan
- 2. NOACH **GREENFELD**, Director, Teacher Training Division, the Ministry of Education
- 3. NAHUM **HOFREE**, Heads Establishment of the "From High-Tech to Teaching" Initiative; Former Mayor of Ra'anana, Director of the City's Education Division, and School Principal
- 4. Roy **Реткизснка**, Mathematics Teacher; Graduate, Residency Program, Oranim Academic College of Education
- 5. EYAL **RAM**, Deputy Director and Head, Teachers Administration, the Ministry of Education
- 6. SARA **SILBERSTROM**, Director, Specialization and Entry into Teaching Division, the Ministry of Education

## **CITIES OF EXCELLENCE**

A meeting with representatives of local authorities for a discussion on sustainability and continuity to promote and broaden excellence in mathematics and the sciences

November 12, 2018, 11:45-12:45, Djanogly Hall, Mishkenot Sha'ananim,

Over the past several years, the foundation has created partnerships with 24 municipalities that have prioritized excellence in mathematics and science studies in their city. The ambitious goals, defined by the city Mayors, to achieve significant growth in the number of high school graduates having completed five-units of mathematics, lies at the basis of the programs the cities have formulated. The city pools national resources, invests from its own budget, and together with the foundation, focuses on strengthening teaching quality.

In order to improve the effectiveness of each city program and to encourage them to prepare for longer-term sustainability, we established four scaffolding structures:

- 1. <u>Learning network:</u> Two years ago we created a professional group for municipal education department directors and heads of the excellence program in each city. The network meets about five times annually for learning seminars and reciprocal visits.
- 2. <u>Training course:</u> At the request of the participants, a training course for the excellence program directors was initially held at Bar-Ilan University. The second cohort is hosted by the Local Authority Institute at Tel Aviv University.
- 3. <u>Consultants</u>: We recruited four advisors with educational experience in the local sphere (Yochanan Doron, Leah Dolev, Ronit Haimov, and Baha Zoubi) to assist in the cities in building work plans and releasing bottlenecks.
- 4. <u>Excellence Cities Forum</u>: We asked the Local Authority Institute at Tel Aviv University to establish a forum for Mayors and other senior officials, to serve as a professional club for learning and support.

Most of these scaffolding structures are managed directly by the foundation or in very close hands on involvement. Now we seek how to move the weight of responsibility to the professional community.

- 1. How can local authorities continue to promote excellence in mathematics and science even after the foundation's grant period ends, when government priorities change, and the public discourse shifts to additional concerns?
- 2. How should the foundation transfer further responsibility to the professional community? Is it desirable to try and merge the four support frameworks under one umbrella? Would it make sense to house them at Tel Aviv University?
- 3. The professionals who lead the excellence programs are paid 50% by the municipality and 50% through the grant. How could the municipalities employ them after the end of the grant?

- 1. DRORI **GANIEL**, Deputy Executive Director; Head, Social Welfare, Education, and Community Services, Eilat Municipality
- 2. AVI **KAMINSKY**, Chair, Israel Union of Education Directors in Local Municipalities; Deputy Director, Education and Society, Hod HaSharon Municipality
- 3. SIVAN LANDMAN, Director, Cities of Excellence Forum, Local Authority Institute, Tel-Aviv University
- 4. MOISH LEVY, Deputy Mayor; Responsible, Education Portfolio, Modiin Municipality
- 5. MICHAL MENKES, Head, Education and Society Administration, Center for Local Government
- 6. HEFTSI ZOHAR, Deputy Mayor; Responsible, Education Portfolio, Beer Sheva Municipality

### **INTERVENTION MODELS FOR THE PERIPHERY**

A meeting with the heads of national, collaborative, and local intervention programs to strengthen excellence in mathematics and science studies in the periphery

November 12, 2018, 13:30-14:30, Djanogly Hall, Mishkenot Sha'ananim

The doubling of the number of high school graduates with five-units of mathematics and the growth in the number of science major graduates did not bypass the communities in the periphery. Approximately 1,000 students in the "virtual high school", who came from small and distant schools where there was no mathematics or physics teacher, proved that with outstanding teachers and educators, they can meet the challenge of five-units. The school networks which operate mainly in the periphery, alongside local authorities, defined goals, invested resources, and created momentum. New, trained teachers chose to work in the periphery communities, side-by-side with veteran teachers who established learning communities, broadened their certification, and strengthened abilities at the local level.

Despite initial reservations, in practice the scope of growth in the periphery is almost identical to that of the center. Nonetheless, it is important to note that the turnaround in the periphery began about a year later than in the center and from a much lower starting point. It should be noted that at present there are signs of stagnation in several places in the periphery. It appears that more complex infrastructure challenges are coming to the fore. The initial leap, built on enthusiasm and dedication, now requires profound effort and stable building blocks. High-level planning, management and implementation are needed, as are belief in the students and teachers' abilities. There is a need for support and a push forward from parents and stakeholders.

In order to assist with these needs, during the past two years, various intervention models have begun to appear in the periphery: 1. A new national program which has decided to focus its comprehensive efforts in 14 communities; 2. An inter-sector program which recruits regional key players to make a collective impact in three communities; 3. Municipal and school programs in 27 communities that concentrate their efforts on strengthening teaching. In addition, development of professional tools has begun in the areas of growth mindset and of instructional and management coaching, as well as, promoting tools and methods for data-driven management.

- 1. What can be learned from implementation of the various intervention models and what conditions are needed for their success? What kinds of coordination should take place between them? Does local leadership heartily adopt them and what can be done to ensure that the system continues for the long-term even when the programs conclude?
- 2. Which building blocks are lacking in order to assist the effort in the periphery to cope with unique challenges, or with challenges that come up in significantly greater proportions than in the center of the country? What needs to be done in the area of teaching capabilities, school administration, and harnessing parents?
- 3. Can a trend of surfeit and stagnation truly be discerned in the periphery communities? If so, why is it happening and how can it be detected in advance? What can and should be done to overcome it and how can intervention programs help?

- A. <u>Advisory Council Insights and Recommendations 2016, p. 5</u>
- B. <u>What is Needed to Promote Excellence in the Social Periphery</u> Anat Lahat and Rona Refaeli-Hirsch
- C. <u>How to Expand the Circle of Excellence while Ensuring Access to Opportunity Insights from</u> <u>a US Study Tour, 2018</u>

- 1. MUHANA FARES, Director of the Division for National Programs, the Ministry of Education
- 2. DRORI **GANIEL**, Deputy Executive Director, Eilat Municipality; Head, Social Welfare, Education, and Community Services, Eilat Municipality
- 3. SARIT HADAD, Director of "Gateway to Excellence" Program, KIAH Alliance
- 4. EINAV KOREN, Community Director, Kiryat Gat, 5P2 Initiative, Sheatufim
- 5. ANAT **SHOSHANI**, Academic Director of Maytiv Center for Research and Practice in Positive Psychology, Interdisciplinary Center Herzliya
- 6. YANIV **SOFEN**, Head, National Program to Promote Excellence in the Periphery, the Ministry of Education

### **ORGANIZING FOR EXCELLENCE IN SCHOOLS**

## A meeting with school principals to discuss their role in expanding the circle of five-unit mathematics and science students

November 12, 2018, 14:45-15:45, Djanogly Hall, Mishkenot Sha'ananim

"Without school support, even the most capable teachers can lose their way". This is what we wrote in our "Roadmap" in 2011, when we were just starting out. Although in practice, the lion's share of our effort was invested in teachers and teaching quality. Later on we expanded to help create support networks for teachers. We collaborated with local authorities, school networks, academia, government and the public at large. Thus, when a national program was announced, many were prepared for the mission, the teachers with approach and tools, the stakeholders with aims and programs, and parents with expectations and pressure. It was only school principals who did not have proper preparation. Many of them claimed they were surprised and other said they felt they were taken for granted. They said they felt like being treated as: "Just don't disturb".

During the past two years, following a focused discussion of this topic at the meeting of the Advisory Council in 2016, we began to work together with school principals. Since then the national program has been providing coaching to some principals, municipal programs have established a forum for principals and intervention organizations include management and organizational consulting. Nonetheless, the foundation's main activities still focus on teachers. We even formulated a "Compass for Quality Teaching" which summarizes the "wisdom of common practice" of teachers' work in three circles: with the students, their class, and the teacher community. But, once again, the role of the principals was missing.

Today, the "compass" is used in diverse workshops around the country, and at the Advisory Council's recommendation, we turned to Levinsky College in order to establish a database of case studies that demonstrate the principles of the compass and are based on video clips of teaching in classrooms. The feedback received from the field in meetings with educators is that the compass is indeed missing a fourth circle: the school. School principals stress that without stable leadership and rigorous management on their part, the increase in the number of five-unit students will dwindle. Some claim that when the government, philanthropic funding, and public campaign priorities change, it is the principals who are the keystone that can ensure continuity.

- 1. Are school principals really necessary for continuing the expansion in the number of students taking five-units, or rather, since these are fields where professional knowledge and specific expertise are needed, it is the teachers who must take on the leadership, with assistance from universities and professional bodies in the Ministry of Education?
- 2. Seen in this light, what exactly is the role of school principals in continuing to promote excellence? What are the necessary components of their role, what are the required practices, which of these already exist, which are missing, and which need to be reinforced? Are there differences between the role of the principal between large and small schools, in the center and in the periphery and, in different education streams?

3. Are principals interested in continuing this effort for the long-term, and if so, what do they need so that the expansion of excellence in the fields of mathematics and science will become an integral part of the school's activity, such that they would not be negatively impacted as a result of external changes? Which professional knowledge and content entities can help principals in this respect?

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

- A. <u>How School Principals Lead to Excellence in Mathematics and Science Studies</u> Zion Regev
- B. School Principals' Perceptions Concerning the Management of Excellence Haim Lapid and Leah Pass (will be published soon)

- 1. TAL BAR-MAOZ, Principal, ORT Guttman High School, Netanya
- 2. MAYA **BOZO SCHWARTZ**, Head of Research and Development Division, Avney Rosha
- 3. ORNA FERBER, Principal, Yigal Allon Six-Year Secondary School, Rishon LeZion Municipality
- 4. ORNA **FRIEDMAN**, Head of Six-Year High Sch ool Cluster, Branco Weiss School Network
- 5. MICHAL HAZAN, Principal, Darca High School, Kiryat Malachi
- 6. ZION **REGEV**, Manager of the Education National Strategic Program in East Jerusalem
- 7. ILANA **STREHL,** Principal, Multidisciplinary School for Sciences and Arts, Amal Network, Hadera

## SUSTAINABILITY AND PHILANTHROPIC EXIT STRATEGY

# Meeting with grantee-partners to discuss their evolving relationships with the foundation once the grant to their organization ends

#### November 12, 2018, 16:00-17:00, Djanogly Hall, Mishkenot Sha'ananim

The first stage of our work involved casting a web of programs to catalyze momentum around excellence in mathematics and science studies in high school. 236 grants were approved, each addressing a distinct area of the task. From planning through implementation, professional relationships between the foundation and the grantee-organizations were crystalized. In the second stage, the foundation added a 'convening role' to its toolbox and our partners added to theirs the role of active leaders and players in a vibrant professional community.

However, seven years into our grant-making activity, an increasing number of grants are now in their final moments. 113 have already ended, of which 21 during the past year, and the number is expected to rise in the coming years. The foundation is moving to a third stage in its strategy lifecycle, moving away from direct funding towards the creation of professional infrastructure and collaborative intermediaries. The planning of a new strategy for middle schools is underway.

As a result, the relationships between the foundation and our partners are due to transform. In the 2018 Grantee Perception Report we already saw clear signs that our partners experience fear and ambiguity towards this change. They are sometimes uncertain as to whether to continue the program and if and how to apply for government funding or to invest in it from their own resources. They are unsure of what would happen to our relationship once the grant has ended.

## **QUESTIONS FOR DISCUSSION**

- 1. Is there a role for the foundation in interacting with grantee organizations after a grant has ended? What role should we seek to take in these cases, and what role do our partners expect us to play?
- 2. How should we structure the dialogue with our grantee partners towards the end of a grant? What would be the best way to share expectations, needs, difficulties and experiences?
- 3. Can we improve our communications with the management of our grantee organizations, in order to reach a deeper discussion of priorities and plans about the continuation of the program?

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

- A. <u>Grantee Perception Report (GPR) 2018</u> Key Findings
- B. <u>Sustainability and Continuity after Philanthropy: Insights from a US Study Tour, 2017</u>

- 1. SHLOMIT AMICHAI, Former Director of Ministry of Education, Chairperson of Teach First Israel
- 2. MICHAL BELLER, President, Levinsky College of Education
- 3. NURIT DANINO, Head of the Education Department, Ra'anana Municipality
- 4. BAT SHEVA **EYLON**, Former Head of the Department of Science Teaching, The Weizmann Institute of Science
- 5. NIVA HASSON, Director of Branco Weiss Institute
- 6. DAN **STEINITZ**, CET, Head of the Virtual High School

## Тор 15

## **GOALS AND MEASURES IN MIDDLE SCHOOL**

Meeting with experts to discuss the goals and measures of success in middle school in light of national and international indicators

November 12, 2018, 17:15-18:15, Djanogly Hall, Mishkenot Sha'ananim

The proposed roadmap we present for discussion includes an ambitious goal: to strengthen the basis of excellence in mathematics and science studies in middle school. "<u>Excellence</u>" is used in this context as it was articulated by the "5P2" Collective Impact Initiative. This definition of excellence in mathematics and science studies is based on the PISA research definition of the levels of excellence and on an analysis of curricula in Israel and several other countries.

As a mid-term performance indicator, the proposed roadmap aspires to reaching a point where 40% of ninth grade graduates have successfully completed their studies in the highest mathematics ability grouping and in one of the special science tracks. The outcome measures for 2024 target three levels of learning: knowledge, skills, and specializations. These levels of learning are measured in national and international tests on an incremental basis, starting from 8<sup>th</sup> grade (knowledge), via 9<sup>th</sup>-10<sup>th</sup> grade (skills) up to 11<sup>th</sup>-12<sup>th</sup> grade (specializations).

A. The basis of knowledge – On the MEITZAV test we expect a continuation of the trend of improvement and upsurge in the average raw score to rise by 15 points (70 in mathematics and 56 in science), while narrowing the gap due to socioeconomic background from about 100 to about 70 points in mathematics and from about 70 to about 50 in science.

On the TIMSS research, we expect to return to the trend of improvement and to place Israel among the top 15 countries in mathematics and science (an average of about 520), while narrowing the spread of the scores (from about 330 to 300 and below), and the gaps due to socioeconomic background (from about 130 points to a level of 100).

- B. **Skill levels** On the PISA test, we are aiming for an improvement of 25 points in mathematics achievements (from 470 to 495), which will bring Israel into the group of the top 25 countries. An improvement in the rate of outstanding students to 12.5% will bring us to 15th place. A climb of 10 rungs in science, from 40th to the 30th place (from an average score of 467 to 493), will raise Israel to the OECD average.
- C. **Specializations** We expect stabilization and continuation of the rate of no less than 16% of students in mathematics and 12% in physics who successfully complete the matriculation exams in 12th grade at the five-unit level.

## **QUESTIONS FOR DISCUSSION**

1. In your opinion, is strengthening the basis of excellence in mathematics and science studies in middle school a worthy and necessary goal? Would you recommend that the foundation and its partners adopt this as a main objective of their activities in the coming years?

- 2. Is the foundation's working assumption correct which is, that there are enough tests in the system already and there is no need for more? Since all these tests are low-stakes and sample-based, is there still a need for an individual diagnostic test and if so, when and how?
- 3. Are the indicators proposed by the foundation consistent with the targets it set and with the activities it intends to engage in? Are these indicators sufficiently ambitious, and on the other hand, are they even achievable by 2024?

- A. Working Paper for Consultation with Partners: <u>Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (with an emphasis on paragraph "Indicators of Success: Top 15", p. 11-13) (<u>B&W printable version</u>)
- B. League Charts



- 1. MICHAL **BELLER**, President, Levinsky College of Education; Founder and Former Executive Director, The National Authority for Measurement and Evaluation in Education (RAMA)
- 2. LIOR DATTEL, Education Reporter, The Marker
- 3. NOAM **GRUBER**, Senior Economist, National Economic Council at the Prime Minister's Office
- 4. NERIT **KATZ**, Chief Superintendent for Mathematics, Ministry of Education
- 5. YOEL **RAPP**, Division A Tests and Statistics, The National Authority for Measurement and Evaluation in Education (RAMA)
- 6. MICHAL TABIBIAN MIZRAHI, Director of Strategy and Planning, Ministry of Education

## **TOP 15**

## How Should Israel Improve its Mathematics and Science Education in Middle Schools so it is among the Top 15 Excelling in the World?

#### Dinner with Leaders of Education Institutions

#### November 12, 2018, 19:00-21:30, The Palace Restaurant, Waldorf Astoria, Jerusalem

Human talent is Israel's most important resource. We take pride in our scientists and entrepreneurs who have successfully built a small "startup nation" and a striving economy in a very difficult region and against all odds. For a country under continuous security threat and demanding military needs, staying the course with education, research and development, is a remarkable achievement. However, national and international results of Israel's education performance in recent years indicate a growing concern. Although slightly improving, the achievements of education are very low and gaps between students are very high, mostly those aligned with ethnic and economic backgrounds.

The data on what occurs today in Israel's education system, points to middle schools as a weak link. Students report waning curiosity, chaos in the classrooms and many cancelled lessons. Teachers complain that the gaps between students are impossibly wide and that the classrooms are overcrowded. During the past decade, various committees have recommended combining, separating, dismantling or redefining middle schools. They have argued that middle schools lack a clear objective: students acquire the fundamentals in elementary school and focus on the matriculation exams in high school, but there is no agreed-upon goal for middle schools.

We believe that there is now a window of opportunity to change course toward a systemic improvement in science education in middle schools. The two-fold increase in the number of fiveunit graduates in mathematics between 2012 and 2018, and the substantial increase in the number of high school graduates specializing in the sciences, can serve as a 'magnetic force' pulling middle schools in an upward direction. Together we can generate momentum and enable students to deepen their knowledge, develop skills and begin to specialize. A systematic and coordinated effort is required, based on the profound need to raise the bar, set higher goals, concentrate on ambitious teaching and focus on learning.

- 1. Do you agree with the definition of middle schools in Israel as a 'weak link', which is in need of a clearer objective? Do you perceive the notions of 'focus on learning', 'raising the bar' and 'choosing excellence' as appropriate routes for improvement?
- 2. What and how needs to change so that science education in middle schools improves? Must this include changes in curriculum, learning material, teaching capacity, testing and public opinion?
- 3. Do you see yourself and your organization as meaningful leaders and/or partners to a collective endeavor to advance Israel to the Top 15 excelling countries? What attracts you to participate, and what concerns you?

A. Working Paper for Consultation with Partners: <u>Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (<u>B&W printable</u> <u>version</u>).

- 1. YOSSI **BAIDATZ**, Executive Director, Centre for Education Technology (CET)
- 2. ISRAEL **BAR-JOSEPH**, Vice President, The Weizmann Institute of Science
- 3. MICHAL BELLER, President, Levinsky College of Education
- 4. NAVA **BEN ZVI**, Chairman of the Israel Center for Excellence through Education, previously President of Hadassah Academic College Jerusalem
- 5. RAVIT **DOM**, Executive Director, Amal Educational Network
- 6. HAGIT **GLICKMAN**, Director, The National Authority for Measurement and Evaluation in Education (RAMA)
- 7. NIVA HASSON, Director of Branco Weiss Institute
- 8. SHOSH **NACHUM**, Deputy Director General, Head of Pedagogic Administration, the Ministry of Education
- 9. RON **ROBIN**, President, University of Haifa

#### **EXCELLENCE AND THE ISRAELI SPIRIT – A NEW BOOK**

## Breakfast to launch the publication of a book documenting cases studies about the Trump Foundation's first five years

#### November 13, 2018, 08:30-09:15, Montefiore Restaurant, Mishkenot Sha'ananim

Five years after the foundation was established, we asked a cadre of experts to document various aspects of the work which was carried out by the foundation and its partners. We curated eight case studies, which focus on: the national impact, the philanthropic methodology, the relationships, collaboration with government, the coalition for science education, the encounter between clinical teaching and the teaching practice, the value of excellence in reality, and the attempt to nurture a social movement via social networks. These cases were the basis for an end to end review that was executed by the foundation's Advisory Council in 2016. Out of commitment to share with others, the knowledge, experience, mistakes and lessons learned, and in collaboration with the Resling Publishing House, we gathered the cases into a book which is now ready for distribution. The book will be presented by Ms. Dalit Stauber, member of the foundation's Advisory Council, and author of a chapter titled: "Government – Philanthropy Collaboration – the Case of the Trump Foundation".

## **TOP 15**

### CURRICULUM AND LEARNING MATERIALS IN MIDDLE SCHOOL

A meeting with teachers and experts to discuss whether middle school curricula and learning materials enable achieving international standards of excellence.

November 13, 2018, 9:30-10:30, Djanogly Hall, Mishkenot Sha'ananim,

The roadmap proposed by the foundation sets a goal for strengthening the basis of excellence in mathematics and science studies in middle school. In order to meet this goal, it will be necessary to help students strengthen their knowledge, develop skills, and begin to specialize. This is a comprehensive effort with teachers at the center and which is intended to raise the bar and calibrate efforts upwards. Alongside deep knowledge and excellent teaching abilities, teachers will need content for assignments that will advance the students to a high level of practical, integrative, and deep thinking. They will have to adapt the learning content and make it available at graduated levels of difficulty corresponding to their students' abilities and needs.

The foundation's theory of change makes the working assumption that the curricula in mathematics and science are such that teachers are able to support their students at the required levels of knowledge, skills and expertise. With respect to learning materials, however, the foundation points to the need for assignments at a high level of thinking, comprehension, and implementation, those that rely on wide knowledge and on a good mastery of skills. It also incorporates the need for professional development frameworks where teachers will consolidate a shared instructional system and will examine the opportunities for learning held by the learning materials.

The heart of this effort lies in challenging learning material at an increasing level of difficulty that will help teachers generate significant momentum of upward learning among their students. In science studies, materials are needed that rely on solid mathematical foundation and enhanced mathematical skills. In mathematics, there is a need for tasks at advance levels of literacy. All this is required to reach high level of comprehension, thinking and implementation, in which students utilize their acquired knowledge and skills intelligently and creatively in order to contend with a new and complex situation.

- 1. Is our working assumption correct that is, do the mathematics and science curricula include the knowledge, skills and expertise components students require in order to achieve success that will be expressed on national and internal tests?
- 2. Do the existing learning materials meet the needs above, or is there indeed a need to develop new materials? If there are good materials available but extensive and in-depth use has not been made of them in schools, what is the reason? What kind of professional development do teachers need so that they can make optimal use of teaching materials in the classroom?
- 3. Has the foundation correctly specified the attributes necessary for materials that will help teachers raise the bar? Are graduated, practical and integrative assignments which rely on deep mathematical knowledge needed? What else is needed?

- A. <u>Working paper for consultation with partners Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (with an emphasis on paragraphs "Need" and "Opportunity", p. 3-4, and on Program 2 – "Ambitious Teaching", p. 9-10) (<u>B&W printable version</u>)
- B. <u>How to Smooth the Transition from Middle School to High School in Mathematics and the</u> <u>Sciences</u> – Hadas Brody Schroeder
- C. <u>How the Sciences are Studied in Countries Around the World</u> Rachel Mamlok-Naaman and Ron Blonder
- D. <u>Curricula and Materials in Middle Schools: Insights from a US Study Tour, 2018</u>
- E. <u>The Structure of Mathematics Education in Middle Schools around the World</u> Michal Leibel, Hagar Lerman, Liat Atzmon and Dana Shulga-Raz

- 1. SIGAL **ATZMON**, Program Manager of the "Nachshon" Program and the Middle School Program, Center for Educational Technology
- 2. AVIVA **BREINER**, Chief Inspector for Middle School Science and Technology, Sciences Division, Pedagogic Secretariat, Ministry of Education
- 3. HAMUTAL **DAVID**, Head of Mathematics at the Reali School, Haifa, finalist in the Trump Master Teacher Award 2012
- 4. DAVID **FORTUS**, Researcher, Department of Science Teaching, the Weizmann Institute of Science
- 5. YARON **LEHAVI**, Head of Israel National Center of Physics Teachers
- 6. ROZA LEIKIN, Head of the Department of Mathematics Education, University of Haifa
- 7. NIZA **SION**, National Instructor for Middle School Mathematics, Supervision of Mathematics Teaching, Ministry of Education
- 8. EDIT **YERUSHALMI**, Head of the Physics Education Research Group at the Science Teaching Department, The Weizmann Institute of Science

## Тор 15

## THE ORGANIZATION OF LEARNING IN MIDDLE SCHOOLS

A meeting with principals and teachers to discuss how middle schools cope with heterogeneity and promote excellence in mathematics and the sciences

November 13, 2018, 10:45-11:45, Djanogly Hall, Mishkenot Sha'ananim

In high school, the mathematics matriculation exams are given according to level, and in science, only to those who majored in it. In middle school this is not the case, as the curriculum and external tests are the same for all. The immediate implication is that middle schools need to find their own ways to address the diversity between their students. In practice, most schools use a combination of ability groupings and differential instruction methodologies, which take student differences into account.

Many schools recognize that gaps in the levels of knowledge and understanding among students are too wide to accommodate in a single classroom. Therefore, they create ability groupings and special study tracks, the admission to which depends on the students' academic achievements and motivation. A limited menu of such tracks exists today and a relatively small number of students participate in them. Parents who are not satisfied with these options transfer their children to separate schools that offer specializations.

Promoting excellence represents a particular challenge in middle school. How can a school build a curriculum that provides an opportunity to each and every student? How can we connect with elementary and high schools in order to build a relationship that would lead to students development of a personalized learning plan for each and every student? How can students be encouraged to join excellence tracks and generate upward momentum for everyone? And above all, what must be done in order to expand the opportunities for excellence in mathematics and science which currently are reserved for the few, so that they reach many more?

- 1. As a measure of success, we put forward a scenario in which at least 40% of ninth grade middle school graduates will have successfully completed their studies in the highest ability grouping in mathematics, and as a total package, in one of the excellence tracks in the sciences, as well. Is this desirable and achievable? What are the opportunities and limitations?
- 2. Under current conditions, the mainstream route in middle schools is for all students to study the different areas of science (biology, chemistry, physics and technology) together, while in the special excellence track students study them separately with an emphasis on physics and computers. In mathematics, learning takes place in ability groupings. Our working assumption is that the proposed strategy could succeed even without changing this reality. Is this assumption valid?
- 3. Do schools annually analyze their level of heterogeneity and, do they organize so as to accommodate it? Does such a process of analysis indeed exist and how is it carried out? Which organizational and pedagogical tools are utilized for this purpose and which are needed? And, to what degree do schools organize in a relatively automatic and habitual manner confined to the resources available to them?

- A. <u>Working paper for consultation with partners Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (with an emphasis on Program 3 – "Organizing for Excellence", p. 10) (<u>B&W printable version</u>)
- B. <u>How to Smooth the Transition from Middle School to High School in Mathematics and the</u> <u>Sciences –</u> Hadas Brody Schroeder
- C. Excellence Tracks in Middle School Offered by the Ministry of Education

- 1. AVIVA **BREINER**, Chief Inspector for Middle School Science and Technology, Sciences Division, Pedagogic Secretariat, the Ministry of Education
- SIGAL COHEN, District Mathematics Instructor, Southern District; Department Head and Teacher of Six-Year Mathematics; Director, Municipal Program to Promote Excellence in Mathematics in Eilat
- 3. AYELET **KRISPIN**, District Mathematics Instructor, Jerusalem District
- 4. RACHEL MOYAL, Principal, Arye Meir High School, Kiryat Gat
- 5. DORIT **PANO-EYENI**, District Science and Technology Instructor Central District; Head, Science and Technology Department, Zalman Aran Middle School, Rishon LeZion
- 6. AYAL SHAUL, Head of Principals Department, Avney Rosha
- 7. NIZA **SION**, National Instructor for Middle School Mathematics, Supervision of Mathematics Teaching, the Ministry of Education
- 8. ORNA **SOMECH**, Partnerships Manager, 5P2 Initiative, Sheatufim

## Тор 15

## TEACHERS AND TEACHING IN MIDDLE SCHOOL

## A meeting with teachers and experts to discuss the quality of teaching mathematics and science in middle school

November 13, 2018, 12:00-13:00, Djanogly Hall, Mishkenot Sha'ananim,

The collective profile of mathematics and science teachers in middle school differ from high school. Current data indicates that a significant teacher shortage does not exist in middle school and a wave of retirements is not expected in the near future. Middle school teachers have a lower level of academic education and the scope of their position is smaller than in high school. There is considerable variance in their knowledge and motivation for teaching. Obviously, there are excellent teachers who choose to teach in middle schools, however, not all students are privileged to benefit from their teaching.

The Trump Foundation believes in teachers and in high quality teaching. The theory of change the foundation proposes for middle schools assigns teachers the most significant role, as professionals and mentors for the students. But in light of this data, the method of operation will have to be different from high school. Emphasis will not be placed on recruiting talent, but rather on working jointly with existing teaching staff in schools.

Middle school teachers face large and heterogeneous classrooms and they are expected to cover a wide-ranging curriculum. Therefore, we assume that different teachers will need different content in their professional development programs. Sometimes, there will be a need to go more deeply into the basis of mathematical knowledge and the specializations of the different areas of science. At times, there will be a need to build motivation and channels of communication with students, parents and fellow teachers. We intend in all these areas to focus on strengthening the joint capacity of teaching staff in schools

- 1. Do the data upon which the foundation relies with respect to middle-school mathematics and science teachers describe a familiar and accurate reality? Which emphases are missing?
- 2. Is the foundation's working assumption correct that is, can the basis of excellence in mathematics and science studies be strengthened through reinforcing the current professional capabilities that are common to teaching staffs?
- 3. If the data are correct and the working assumption valid, how can the foundation implement its intentions? If they are not, what are the possible and desirable alternatives?

- A. <u>Working paper for consultation with partners Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (with an emphasis on paragraphs "Need" and "Opportunity", p. 3-4, and on Program 2 – "Ambitious Teaching", p. 9-10) (<u>B&W printable version</u>)
- B. <u>How to Smooth the Transition from Middle School to High School in Mathematics and the</u> <u>Sciences</u> – Hadas Brody Schroeder
- C. <u>How do Mathematics Teachers Jointly Build Professional Capital in School: The Perspective of</u> <u>Teachers and Department Heads</u> – Adva Mayzel

- 1. YAARAH BAR-ON, President, Oranim Academic College of Education
- 2. DINA **BARTOV**, Science and Pedagogy Coordinator, Johanna Jabotinsky School, Beer Yaakov
- 3. MAYA BOZO SCHWARTZ, Head, Research and Development Division, Avney Rosha
- 4. RACHEL MOYAL, Principal, Arye Meir High School, Kiryat Gat
- 5. TALI **SHAPIRO**, Head of the PLC Research and Development Department, The MOFET Institute
- 6. RINA **ZAVODNIK**, Teacher and Mathematics Coordinator and Director of Mathmatics in the ORT School Network

## Тор 15

### **MOTIVATION TO LEARN AND TO TEACH IN MIDDLE SCHOOL**

A meeting with teachers and experts to discuss the question of what drives students and teachers to invest and excel in middle school mathematics and science studies

November 13, 2018, 14:00-15:00, Djanogly Hall, Mishkenot Sha'ananim

Confusion in middle school is manifested by the gap between statement and deed. Parents say that in middle school they expect their children to be socially well-integrated and develop meaningful relationships and values. Students say that what interests their parents is academic achievement, but they testify that they are ambitious and confident in their ability to succeed. Their teachers however, claim that students lose interest and that they are not prepared to invest and make an effort. Teachers say they believe in in-depth teaching that stimulates thinking and creativity, but in practice, even they admit they teach technical skills and procedural fluency, whether due to constraints or by choice.

Clarity and consistency could be achieved through an agreement on goals and objectives. For the individual student and teachers, there is an unwritten contract of mutual commitment that exists between them: "I will invest in you, you invest in your studies, and this is how the road to a better future will be built for you and for us all". However, until such a relationship of trust is formed, students come to mathematics and science classes with different and partial motivations, with curiosity mixed with anxiety. It is the teacher's job to identify what motivates each student and to harness that for vigorous learning. Teachers help neutralize fixed mindset patterns and demonstrate that effort leads to progress.

We assume that students need a personalized learning plan that places their learning in the center. This refers to a plan that is based on an analysis of their knowledge, difficulties, way of thinking and pace of learning, and which presents a vision for the future and ambitious goals. It is an evolving plan which combines learning discipline, overcoming misconceptions, creating opportunities for success experiences, and constantly striving to improve. It functions as a transparent and open "agreement" between the teacher, the student, and the parents and expresses their joint, mutual responsibilities.

- 1. Where does the gap between statement and deed in middle school derive from with respect to students, parents, and teachers? Does this attest to the absence of a clear goal, to basic disagreements or perhaps, to communication difficulties? What can be done to overcome this gap?
- 2. How can teachers build a "personalized learning plan" that connects to what motivates each student, that will help him or her emerge from the confusion and take responsibility, to invest effort, to overcome difficulties, to persevere, and proceed in measured steps? Are there additional tools that facilitate such a process?
- 3. What drives middle school teachers of mathematics and science to invest, make an effort, and to improve their teaching? What must be done to build up middle school's attraction to excellent teachers?

- A. Working paper for consultation with partners Choosing Excellence in Middle School <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (with an emphasis on Program 1 – "Focus on Learning", p. 8-9) (<u>B&W printable version</u>)
- B. <u>How to Smooth the Transition from Middle School to High School in Mathematics and the</u> <u>Sciences</u> – Hadas Brody Schroeder
- C. <u>Motivation to Learn and Teach Mathematics and Science in Middle Schools: Insights from a</u> <u>US Study Tour 2018</u>
- D. <u>Factors Driving Student Success on the 2015 PISA Tests -The Results from Israel</u> Tzur Karelitz and Noam Keshet
- E. <u>What do Parents Think of Middle School and of Mathematics a nd Science Studies?</u> Hagar Lerman and Liat Atzmon Hecht
- F. What Motivates Students to Invest and Excel in Mathematics and Science Studies in Middle School Hagar Lerman and Liat Atzmon Hecht

- 1. RON **BLONDER**, Researcher and Head of the Chemistry Group, Department of Science Teaching, the Weizmann Institute of Science
- 2. ALINA COLTON, Physics Teacher and Department Head, ORT Binyamina High School
- 3. YORAM **HARPAZ**, Lecturer at Beit Berl College and Al-Qasemi College, Chief Editor of "Educational Echoes" Journal
- 4. YOSSI **HASSON**, Head of Research, Applied Center for Psychology of Social Change, Interdisciplinary Center Herzliya
- 5. AURELIE LACHISH-ZALAIT, Head of the Teachers Unit, Davidson Institute of Science Education
- 6. AVI **NATHAN**, Mathematics Teacher and Department Head, Previously Founding Director of Microsoft Israel
- 7. EYAL SHLOMO, Mathematics Teacher, Amal Ramot School, Beer Sheva

## **TOP 15**

## **CALL TO ACTION**

## A meeting with media experts to discuss the question of how to create a social movement around excellence in middle school

#### November 13, 2018, 15:15-16:15, Djanogly Hall, Mishkenot Sha'ananim

A great many problems surround us - to the point of dulling our senses, and even more so in the field of education. Therefore, in order to ignite public momentum, specifically around middle school, many people have to feel a particularly difficult and painful problem, one that touches their hearts and with which they profoundly identify. They must be convinced that it is impossible to allow the situation to continue and that a solution to the problem must be urgently found. Only when the hard-to-handle feelings and deep convictions connect to a tangible solution to which we feel drawn and that we believe will indeed be able to help us, then perhaps we become engaged, become active and ready to take action.

In the roadmap the foundation presented regarding middle school, we told the story of our children who are left by their parents at the school gate. They arrive confused and brimming with hormones to a crowded train station, aimless and without direction. They do not find their way and get lost. Just at the age when they need someone by their side, to help them and mark out the path, just then they are left on their own, alone. Middle school is a period in which they have time to gain clarity about the direction their heart inclines and to forge a solid base of knowledge and abilities leading there. Together with their teachers they can prepare well for the intersection of choices concerning high school majors that will open doors for them and pave their way to the future.

The call we are proposing to students, parents and teachers is – "take responsibility for your lives" and "choose excellence". Excellence is a difficult and arduous path worth traveling because it builds the road to the future. True, you will have to expend effort and invest, to drill and persevere and there will be obstacles and challenges. But, together, you can drive and support, encourage and overcome, and prove to yourselves that you can. Choosing excellence is a practical choice, you must apply to register, to be tested, to assimilate and persevere in high ability grouping in mathematics, in special excellence tracks in science, and in various advanced classes and enrichment settings.

It should be noted that we are turning to the education system with somewhat of a different incentive, which is: if more students successfully study in mathematics and science excellence tracks in middle school, it will strengthen the foundation of excellence in Israel. And, Israel will make it into the top 15 countries in the world that excel in mathematics.

#### **QUESTIONS FOR DISCUSSION**

1. Does the description of the problem (getting lost) identify an authentic problem that is widespread and profound? Is the proposed solution (a teacher) convincing and gripping? And, is the call to action (choose excellence) clear, tangible and does it have a good chance of building a motivating environment? If so, under what conditions, and if not, what are the alternatives?

- 2. In contrast to the "five-units" campaign, in which the country's and the students' success were identical, in middle school there is a gap: being among the countries that excel in math is not what motivates students, parents and teachers. Is it possible to bridge this gap, and how? Are two messages desirable and possible?
- 3. With the five-units campaign we recognized that for students, it will be a long time before they see the dividend of investment they make in high school and therefore parents, together with teachers, played a central role. In light of the complex picture arising from surveys of middle school students, parents and teachers, what is the "springboard" worth investing in so as to ignite the rest?

- A. Working Paper for Consultation with Partners: <u>Choosing Excellence in Middle School</u> <u>Mathematics and Science Studies – Philanthropic Roadmap 2019-2024</u> (<u>B&W printable</u> <u>version</u>)
- B. <u>What do Parents Think of Middle School and of Mathematics and Science Studies?</u> Hagar Lerman and Liat Atzmon Hecht
- C. <u>What Motivates Students to Invest and Excel in Mathematics and Science Studies in Middle</u> <u>School</u> – Hagar Lerman and Liat Atzmon Hecht
- D. <u>How to Smooth the Transition from Middle School to High School in Mathematics and the</u> <u>Sciences</u> – Hadas Brody Schroder

- 1. TAL ALEXANDROVITZ-SEGEV, The Trump Foundation's Media and Public Relations Advisor
- 2. TAL GILADI, Deputy Editor of the Weekend Magazine, MAKO website
- 3. HILLY HOREV-CASSUTO, Director-General, The Children's Channel
- 4. ALEX NESTAR, CEO, "Frogi" Website
- 5. ROI **TZIKOREL** AND MICHAEL **SHURP**, Entrepreneurs and Co-Founders, "Spark"

## **ENVISIONING THE NEXT STEPS (ADVISORY COUNCIL MEMBERS DISCUSSION)**

Internal discussion of members of the Advisory Council to sum up lessons and insights, and offer feedback and recommendations to the foundation towards the next step.

November 13, 2018, 16:30-17:30, Djanogly Hall, Mishkenot Sha'ananim

This is the concluding discussion of the advisory committee. Having read the background materials and participated in two days of meetings, committee members will be asked to share their insights. The key questions presented in the introductory session, which also formed the core of the two days of meetings, will now be brought back to the discussion table in a focused way. Based on the statements made at this session, the foundation's staff will formulate a recommendation for the foundation's next stage, which will be brought to the Board of Directors for debate and approval.

All of the statements made by the advisory council over these two days of meetings will be collated into a concluding document under the title "Major Insights."