**The Trump Foundation**

Concentrated Effort to Increase Student Exposure to Skills-Based Assignments Aligned with Global Indicators including the PISA 2018 Mathematics Test

**Organization**:

PresenTense is a non-profit organization that specializes in the promotion of social entrepreneurship, and operates an accelerator and a cooperative work space for entrepreneurs. Prominent projects include initiatives with the Arab community in Israel, the ultra-Orthodox community and disabled people. In the beginning, their activities were focused in Jerusalem, in order to encourage entrepreneurship in that city while integrating young entrepreneurs from Jewish Diaspora.

**Need**:

Israeli students do not succeed in PISA tests. In the past decade, they were ranked 41st out of 72 educational systems that participated in the test in 2015 – well below the average. Nevertheless, during the past decade test achievements have been improving steadily, and the gaps between outstanding students and underachieving students have been narrowing. However, achievement levels are still very low, and the gaps remain very large. Especially blatant is the gap between Jewish and Arab students – Arab students obtained an exceptionally low percentage of excellence, much less than 1%.

It is very difficult to pinpoint a single cause of the lack of success, but it is clear that the Foundation's activities in junior high school have not yet taken effect. Ostensibly, Israeli students should excel in these tests. The level of mathematics required is not high; in 10th grade they already handle much more complex mathematical challenges. Moreover, the assignments in this test are ‘from the real world’; they require healthy logic and an understanding of the situation, characteristics for which Israelis are known. Studies and discussions with experts raise a number of possible reasons for the difficulties of Israeli students:

1. **Cultural bias**. The questions presume acquaintance with the wide world, while some Israeli students have never left their village or seminary and are not familiar with global concepts.
2. **Reading Comprehension**. PISA assignments are formulated similarly to texts in the real world – sometimes brief and sometimes lengthy. Israeli students have difficulty understanding the question because of poor language skills.
3. **Lack of interest and motivation**. The test is done by sampling (5,000 students in approximately 200 schools), without grades, therefore lacks personal or institutional significance. Many in the system believe that tests, in general, are deep trouble.
4. **Lack of Clarity**. The students are not used to tests where one needs to separate the wheat from the chaff, where there is a great deal of information that is irrelevant to the question and the answer.

The first two reasons demand long-term changes to the infrastructure, which cannot be completed by the 2018 test. Nevertheless, it may be possible to take several steps concerning the latter two reasons, increasing interest and exposure to authentic assignments. Our theory is that if students are exposed to PISA-type assignments and if their connection to them is through internal motivation and not external coercion, then the encounter with the test may not be foreign to them – they might even enjoy it.

In other countries, there is substantial preparation for the PISA test – much more than in Israel. In South Korea, the day of the test is a sabbatical. The media open the programming with greetings to the students on the occasion of the test; participation in the test is a matter of national pride. Similarly, Western countries that succeed in PISA – such as Canada and Finland – make special, regular efforts, which include adapting teaching materials, books and tests to the PISA's requirements, as well as tailoring teacher training.

**Program**:

In 2018 (probably at the end of March), the PISA test will be conducted around the world, as well as in Israel. As stated, the test is by sampling. A sample of approximately 5,000 students from about 200 schools, representing a cross section of all the schools in Israel (excluding special education, East Jerusalem and small ultra-Orthodox yeshivas) will participate. The Ministry of Education and the schools selected for the sample are notified about one month and a half before the test date.

Several years ago, the Ministry of Education prepared for the test by establishing a special steering committee. The committee analyzed the difficulties of students in the PISA tests (in all fields: reading, math, and science) and worked with the education supervisors to adapt the curriculum to the essence of the PISA tests. At the same time, the Ministry contacted a commercial company in order to set up a PISA assignment bank, which was translated into Hebrew and Arabic. The supervisors wrote instruction manuals for teachers on how to integrate PISA assignments into the curriculum. In addition, the Ministry intends to instruct teachers to use the assignments as part of the alternative assessments in the various subjects.

In coordination with the Minister of Education, the Director-General of his Ministry, and the head of the above-mentioned steering committee, we plan a ‘package’ approach that focuses on mathematics, which will increase exposure and motivation beyond the steps taken by the Ministry. The proposed move is fourfold:

1. A quality, flexible assignment database. The database will include approximately 80 math skills that will be adapted to different content contexts, according to the competition topics. The difficulty levels will be graduated to allow for stages in the competitions. It will include a system for analysis of the actual use of assignments, both quantitatively and qualitatively, including analysis of errors and difficulties. The database is the basis of the entire process and its development takes time, so this is the first activity that needs to be launched quickly. We are weighing two possibilities for creating the database:
	1. A grant awarded to The Center for Educational Technology (CET), which is a longtime partner of the Foundation, with advanced capabilities in the area of teaching mathematics and expertise in the development of assignment databases. The organization already developed similar assignments for the PISA exams in 2012, thus their professionals have a profound understanding of the skills required for PISA. It is a large organization with a possibility for ongoing processes, yet central management. The CET prices are relatively high. A separate unit of CET is a franchisee of the National Authority for Measurement and Evaluation in Education (RAMA) for the development of the PISA test itself (which may present a possible conflict of interest and is currently being evaluated).
2. Intriguing, prize competitions and challenges in a variety of fields of interest for youth (e.g., entrepreneurship and high-tech, computers, music, environment, etc.), in which they will be required to face assignments from the database. We have investigated three organizations that would be able to take upon themselves the planning and operation of the competitions and challenges: PresenTense, Lead and MassChallenge. The latter decided along the way that they are not built for the process, but the first two progressed to a concrete proposal. The first offered a detailed proposal, while the second offered to host the project in their premises – in the hope that the Trump Foundation would plan and execute the project through a project manager who would receive his instructions from the foundation.
3. A television campaign, which will provide momentum for the competitions and database, and motivate the public to take an interest in and experiment with the assignments (‘Test Yourself’), and the students and teachers to join the various competitions. We are considering cooperation with Keshet (Channel 2) through the Looking Forward Association, and debating whether to include additional activities, focusing on Arab students who are less likely to watch this channel.
4. A basket of small grants (approximately 50,000 NIS - 100,000 NIS) to be administered by the Foundation and offered in the framework of a call for proposals by educational organizations – mainly those belonging to the Fund's portfolio – to include the use of assignments from the database and contest participation in their regular school programs (enrichment programs, teacher training, municipal and network programs, etc.), and focusing on the periphery and the various populations sectors.

**Expected Outputs**:

* A database of roughly 400 PISA math assignments, with varying difficulty levels and five content contexts;
* Five competitions in a variety of interest contexts;
* A television campaign;
* A ‘Test Yourself’ site for the general public, with database and competition expansion options;
* About 20 educational organizations integrating PISA assignments in their curriculum in the coming academic year.

**Expected Outcomes**:

One million assignments will be solved;

Approximately 200,000 grade 9 and 10 students will be exposed to at least one assignment;

Approximately 100,000 students will be exposed to at least five assignments;

Approximately 10,000 students in each competition will be exposed to 10-15 assignments;

Israel will ascend to at least the 35th place in the ranking of countries in the 2018 PISA exam and the excellence score will exceed 10%.

**External Opinions**:

**Sagi Bar**, Director of the National Cyber ​​Project, the Rashi Foundation (the initiator and operator of the annual Cyber ​​Championship): “*In order for the competition to succeed, it must win over the youth with a lot of curiosity and progressive challenge levels, and finish with a big bang and prizes. The story of the competition is missing here: What is the ongoing experience for the student that makes him stay and continue? This is the biggest, most complex challenge. The flag "We came for Pisa" should not be waved, but rather the advancement of mathematics as a complement to the school. You must have a very strong integrator who sees the entire picture, who is both a pedagogue and a content manager, who takes responsibility for the whole program. It is unclear who develops the content tasks and who will see to the professional and pedagogical breadth. If you go with the system that Elant has developed for the Ministry of Education, you must ensure that you have free access to the participant tracking system. There are other competitions going on during the same period, such as the Cyber ​​Championship and the First Competition. It will be crowded and there will be competition for the time and attention of the students. You are starting very late: You must leave yourself time for trial and error. It is possible, but you need to hurry up.”*

**Hily Horev Cassuto**, Director of the Children's Channel on television: *“I believe that it is possible to make great change in the time available, so if you have good access to the classes, I would go for it. But, in my opinion, it is very important to define the goal: 'To provide Israeli children with better training in skills that constitute parameters for success in life; to make them better skilled and qualified for a new, evolving work world’ and not, Heaven forbid, ‘preparation for the test.’ The test results are a welcome result for Israel’s image, but this is not the motivation for parents and children. I stress that you must address the parents, too, not just the children. As far as how the process will be implemented, I recommend that you split the grants between different organizations according to their area of expertise, and let everyone do what they are good at, so you do not end up with a bottleneck.”*

**Tal Alexandrovich-Segev**, the Foundation's media advisor: *“You must hone in on the desired outcome and motivate the students around it. With five matriculation units, the result was clear that five units are a key to good employment in today's world. Do you also have the ability to define a result of PISA that will improve the chances in life? From a media point of view, you need to create a national mission to which people will rally, and raise the expectations for the PISA test. You should be prepared for criticism of the 'test preparation', but if you can explain that PISA is preparation for life, that it is an improvement in mathematics, then you will be able to handle the criticism. As regards the campaign management, you must be careful to manage the process from the Foundation, rather than give PresenTense the grant to do so.”*

**Nelly Keller**, Mathematics teacher and a finalist of the Trump Prize for quality teaching: *“I find great importance in raising students' level of proficiency in literacy tasks that require creativity. There is a trend in this direction in the matriculation exams, and later on in life in work interviews and in the work itself. Now that we have reached the five matriculation unit target, we need to think what the next target is; in my opinion, it is to raise the level of thinking of the students in the lower grades. I suggest not linking the media campaign or the database to the Pisa test, because Pisa has a negative image in Israel, unlike the five units that are perceived positively. The process should be presented as good preparation for the five units and as a continuation of the trend to raise the level of success in Israel. From this point of view, there is no public significance to the goal of attaining rank 35. It is possible to combine classes in the competition – teachers and students together – and to persuade the schools to join the competition.”*

**Summary of the Grants Committee**

The Foundation’s entry into the area of PISA type skills is a significant and important policy change and, in practice, is also international indication and recognition of the success of the five matriculation units. To do this seriously and in-depth, we must tackle the curricula, examinations and teaching methods. As such, this proposal is not the full process, but rather a proposal intended to spur momentum and instill interest and motivation, due to the shortness of time until the 2018 test. If it were possible, it would have been preferable to start with the professional infrastructure, and only afterwards hold competitions and run campaigns. The biggest challenge is the lack of interest of students and teachers, and the resistance of educators who denounce participation in tests. After this program, the Foundation will need to consider the next step: whether to enter the arena or not.

|  |
| --- |
| **Request** |
| **6,113,000 NIS over 10 months** (1,000,000 NIS – Media campaigns; 1,000,000 NIS – Small grants basket; 1,200,000 NIS – PISA assignments database; 2,913,000 NIS – PresenTense (87,000 NIS – Management [2 x PT 15%]; 651,000 NIS – Team [4 FT positions]; 175,000 NIS – Branding and design; 105,000 NIS – Public relations for competitions; 360,000 NIS – Technology for competitions; 325,000 NIS – Events; 100,000 NIS – Administration; 500,000 NIS – Prizes; 210,000 NIS – Evaluation; 400,000 NIS – Overheads) |
| **Recommendation** |
| 6,100,000 NIS over 10 months |
| **Timetable of Payments** |
| 2017 –3,600,000 NIS; 2018 – 2,500,000 NIS |
| **Conditions** |
| 1. The program will be independently branded, with approval by the foundation, and participating bodies will not be publically recognized.
2. The project leader will be chosen with approval of the Trump Foundation.
3. Overheads to the operating organization will not exceed 15% of its direct expenses.
 |