



**The State of Israel  
Ministry of Education  
The Division for Gifted and Outstanding Students**

# **Nurturing gifted and outstanding students in Israel as a lever for creating influential leadership.**

## **Global HR Forum 2024, Seoul**

**Menachem Nadler, Head of the Division for Gifted & Outstanding Students**



# Israel is a complex place...

- ❖ Multicultural society
- ❖ Defense and safety problems
- ❖ Transportation problems
- ❖ Educational challenges
- ❖ Low natural resources

But also known as a “Start-Up nation” because of:

- ☐ Human resources
- ☐ Innovation
- ☐ Creativity
- ☐ Problem solving methods





# The Educational system in Israel



- 2.5 million students (3 to 18)
- 5,700 schools
- 76% Hebrew speakers
- 24% Arabic speakers
- Religions: Jews, Christians, Druze, Muslims, Chircassia's
- 208,000 Teachers
- 8 districts of education
- The ministry with the 2nd largest government budget





# The Division for gifted and Outstanding Students

Responsible for Identification and nurturing the top 20% of students in our country



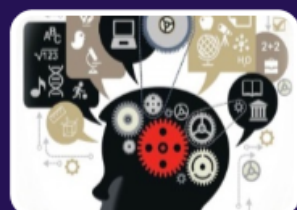
**Gifted** [1%-3%]

23,000



**Regional/Local  
Outstanding**  
[4%-8%]

26,000



**Outstanding in school**  
[20%]

150,000

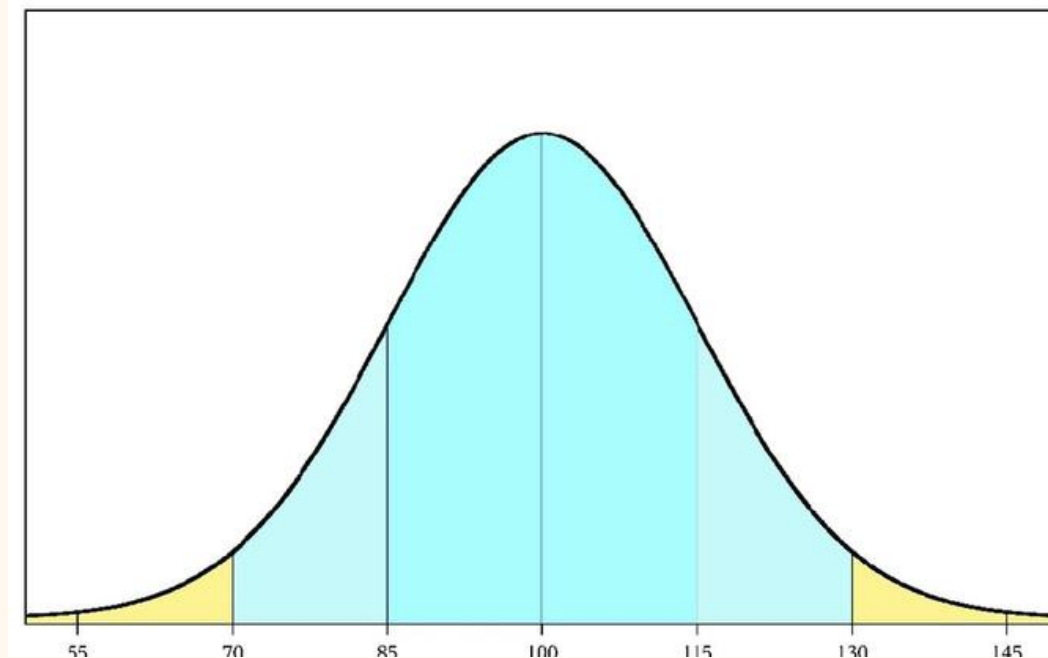






# The Nation-wide Annual Identification Process for Gifted and Outstanding Students

- 120,000 students in elementary schools (2nd or 3rd grade)
- 7,000 students in Middle-High schools
- The identification system includes handling appeals, repeat exams and adapted to special needs...





# Three circles of cultivation...

- Pull out enrichment centres
- Academic programs
- Regional centers of excellence

**Pull-out**

**In-school**  
(homogeneous groups)

- Gifted classes
- Enrichment and deepening programs in peer groups
- teacher training
- Dealing with value and social issues

- teacher training
- adapted pedagogies
- teaching practices
- Tailored “study suit”

**In-school**  
(inside the heterogeneous class)

# Our Main Goals:



**Maximizing  
personal abilities**



**emotional and social  
well-being and  
wholeness**



**Expanding the circles of  
belonging and the  
influence of our students  
on our society**



**Pushing the education  
system to excellence by  
reducing gaps and  
creating equal  
opportunities**



# How to cultivate leadership that creates impact and contribute to our society?



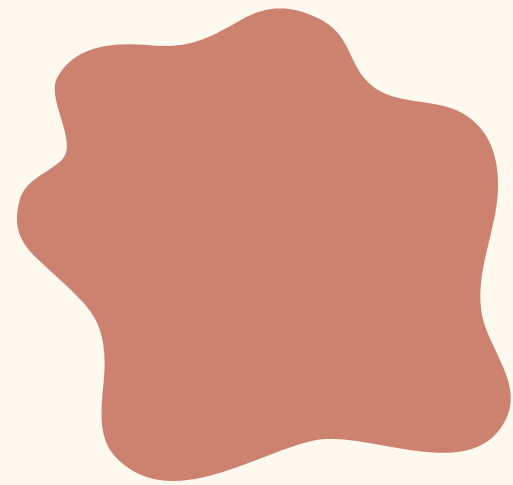
- ✓ Meetings with inspiring people
- ✓ Mentoring programs
- ✓ Academic and research programs during high school studies
- ✓ Thinking about big problems the world is facing (student conferences...)
- ✓ Teacher training for teaching that encourages creativity and innovation
- ✓ Use multidisciplinary teaching
- ✓ Addressing the emotional and social & cognitive aspects of the students
- ✓ Coping with failure...



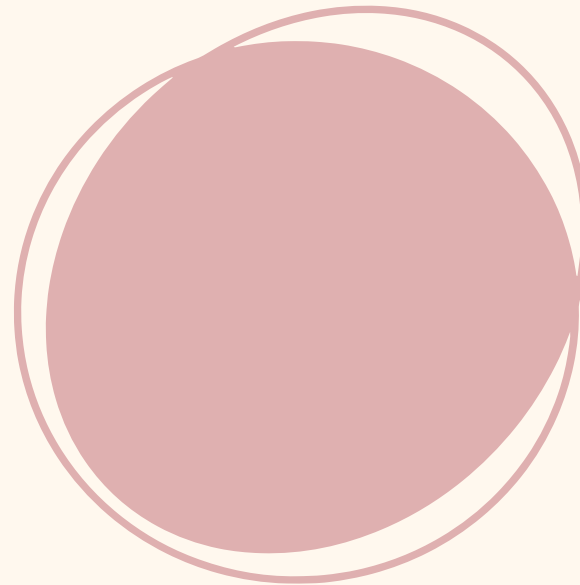




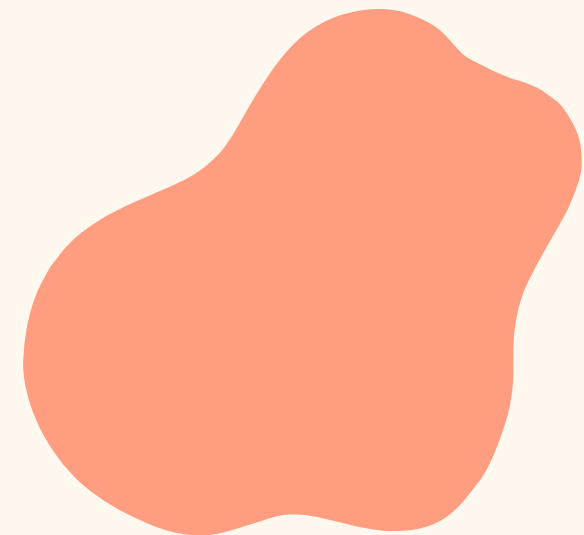
# 3 of our major Pedagogical principles:



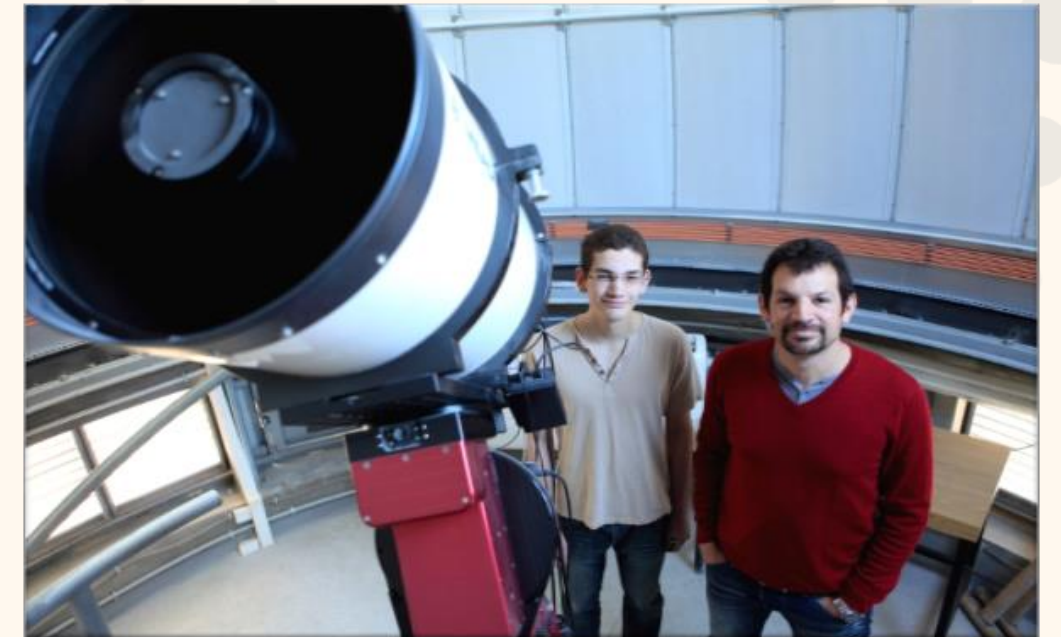
**Assimilation of critical and inventive thinking skills**



**Learning in small groups/pairs to solve challenges (“HEVROTA”)**



**Transferring responsibility for learning to the students gradually**





# Examples:

**Actions that promote the expansion of circles of belonging and influence of our students**

- **An annual conference for students dealing with individuals that promote society**
- **Merit scholarships for students studying in academic institutions**
- **Aid fund to promote school initiatives for excellence**
- **Teacher training for best practices with gifted and outstanding students**
- **Formative evaluation processes and effectiveness control in programs**
- **Budgeting student visits to the hi-tech industry, the academy and advanced technological units in the army**





**Gifted students meet the president**

**Gifted students hackathon**



**Student products  
at the environment  
and ecology conference**



**Presentation of a research  
process on the issue of urban heat**

**Competition for outstanding  
studies in the sciences**



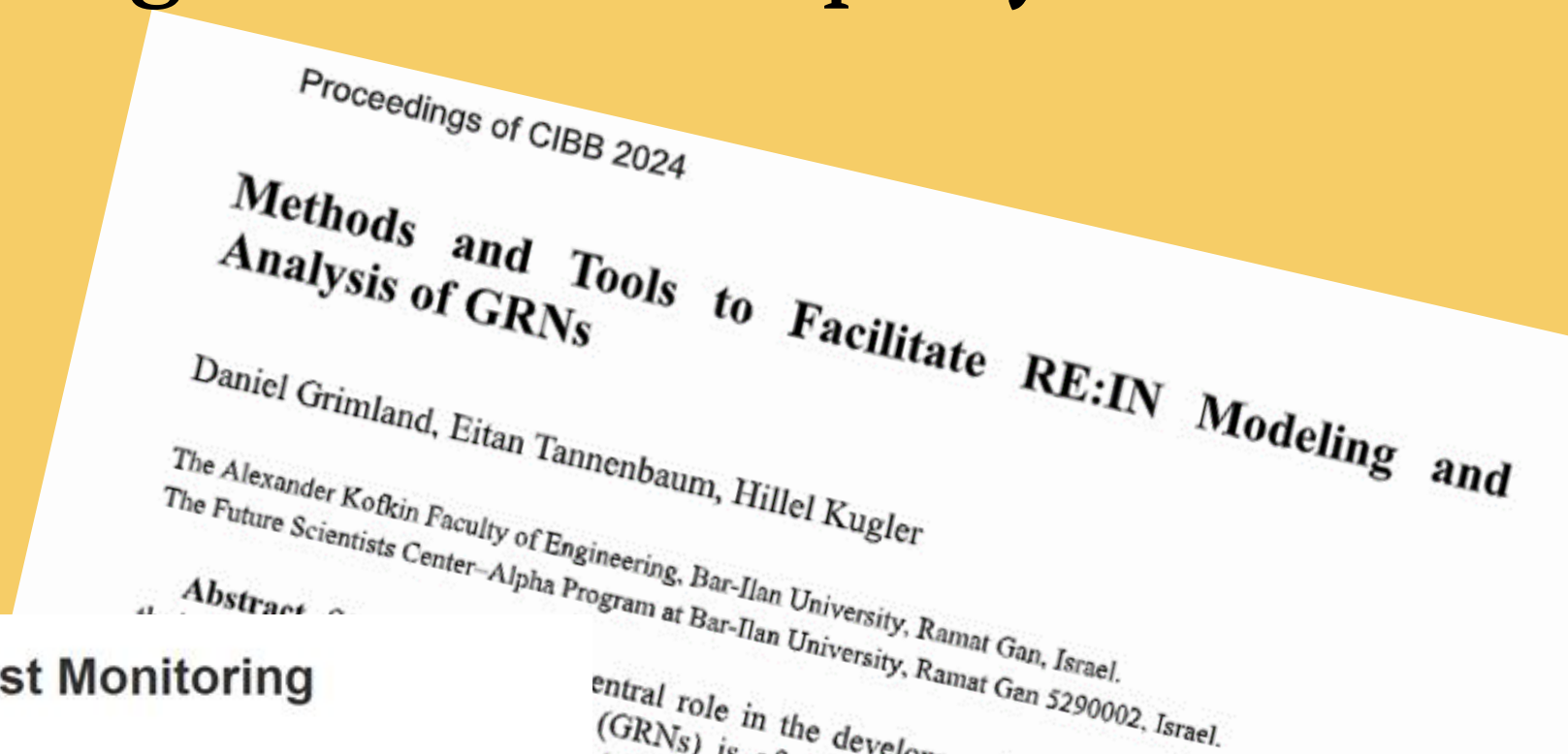
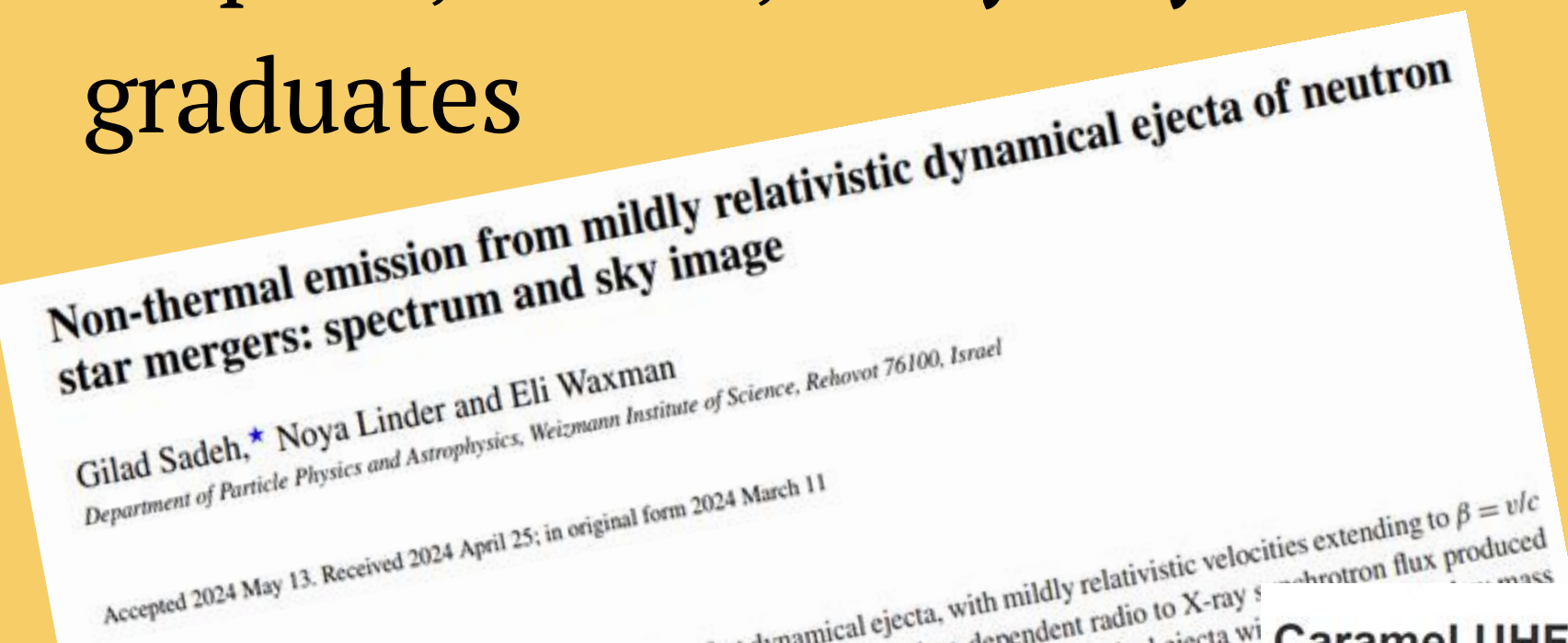




# “Future scientists” programs:

## How do you give back to your society ...??

### “Alpha”, “Idea”, “Odyssey” and the “Ascola” program to accompany graduates



#### Caramel UHF RFID Sensors for Pest Monitoring

Publisher: IEEE

Cite This

PDF

Dmitry Dobrykh ; Ilai Solomon ; Hani Barhum ; Denis S. Kolchanov ; Or Messer ; Maxim Sokol

200  
Full  
Text Views

##### Abstract

##### Abstract:

The emerging need for green technologies motivates the development of new approaches to manufacture electronic consumables. In case of low-cost mass-production sensors, the problem becomes even more severe due to the generation of environmental waste. Here we demonstrate an RFID-type sensor based on a caramel substrate with a micron-scale conductive layer. The device, being primarily made of sugar, attracts insects, which consume it almost completely. As an application, we demonstrate a tag that can be applied for remote pest monitoring. In the experiment,

entral role in the development of organisms, hence, studying (GRNs) is of great importance. The Reasoning Engine for toolset that supports modeling of GRNs to investigate their ntly and make new predictions. Here we constructed a RE:IN he regulation of gene expression in Purple Sea Urchin stem tract Boolean Network - a collection of Boolean networks, ture and logic of the GRN consistent with experiments. We ith observed behavior and explored its robustness. To this ods for modeling with GRNs in RE:IN - methods for ave in accordance with observed conditions in which models s for synthesizing complex conditions in which models urrent model cannot behave according to the entirety of v that the model is robust to perturbations in a subset of N. Furthermore, the tools we developed proved to be rich on GRNs within the RE:IN framework.





# Evaluation processes and follow-up of program graduates

- Each program undergoes an effectiveness evaluation study every few years
- Graduates are monitored in the academic programs
- The Israeli Statistics Center together with and the Research Division of the Bank of Israel are conducting a longitudinal study on the graduates of the gifted programs and their status today in a variety of parameters



**Dana Vankert (25)**



**Ido Aizenbod (27)**



**Li Yam Staiat (21)**



**Daniel Chen (25)**

# Thoughts and plans for the near future:



- Establishing national alumni community for Gifted
- Expansion of the mentoring program and academic studies
- Expanding collaborations with high-tech companies, medical centers, environmental and social organizations
- Joint “PBL” work on international problems with gifted and outstanding students & teachers from around the world



**The State of Israel  
Ministry of Education  
The Division for Gifted and Outstanding Students**



**Thank you very much for listening....**

**Menachemna@education.gov.il  
+972-50-6289269**