From: "rozal@univ.haifa.ac.il" <rozal@univ.haifa.ac.il>

**Date:** Friday, 23 July 2021 at 7:05 pm

To: "Merrilyn.Goos" <Merrilyn.Goos@ul.ie>, "Zbigniew Marciniak

(zbimar@mimuw.edu.pl)" <zbimar@mimuw.edu.pl>

Cc: "dina@post.tau.ac.il" <dina@post.tau.ac.il>, Abraham Berman

<berman@technion.ac.il>

Subject: Invitation - joining project team - Development of the Institute for Advanced

Mathematics in school

**EXTERNAL EMAIL:** This email originated from outside of the University of Limerick. Do not click on links or open attachments unless you recognize the sender's email address and know the content is safe.

## Dear Merrilyn and Zbigniew

Hope everything is going well for you despite of the COVID cataclysm.

The Trump Family Foundation granted a new project - Designing a model of the Inter-university Institute for Sustainable Management of the Advanced Mathematics in school education.

The project granted for 10 months (August 2021 - May 2022).

In this letter I invite you to join the project team as international consultants.

To provide you with an initial information about the project I include here the following excerpt from the Grant letter:

The Trump Foundation works to cross this bridge, advocating for high order mathematics that encompasses both abstract and applied mathematics. In high school, the focus at the five-unit level is on the abstract, whereas in middle school, the learning process concentrates on applied mathematics. However, taking a broader perspective for the long term, Israel's mathematics education must find an adequate balance between these various approaches. In order for such a combination to occur, the local professional community should reach practical understandings.

The University of Haifa proposes to address this need by convening a series of discussions. The University's Faculty of Education (Department of Mathematics Education at the Faculty) is suited to the task. It is the largest education Faculty in Israel and home to the National Center for Mathematics Teachers, which operates most of the professional development for mathematics teachers in Israel. Its researchers, under Dean Roza Leikin, are involved in innovative development efforts, currently focusing on applied mathematics and creative thinking for middle schools. Recently, the Faculty was ranked in the top 50-75 in world by the Shanghai index (higher than Oxford and Cambridge).

The university plans a collaborative study to produce a framework for mathematics teaching in Israel for the next decade. The process will include a literature review of key concepts and approaches, consultations with local and international experts and with teachers, local authorities and government officials.

The proposed study will seek to address the following questions:

- What constitutes high order mathematical thinking, what are its basic building blocks (e.g., abstract, applied, creative, critical, analytic, etc.) and, how can they be learned, taught and measured?
- What strategies could be implemented to advance high order mathematical thinking in Israeli secondary schools (e.g., writing standards, developing materials, training teachers, convening conferences, publications, advising on policy, etc.)?

Answers to these questions will drive the preparation of a consensus framework document that would articulate insights and agreements. It will also seek to recommend how to advocate for the implementation of the planned framework.

Additionally to this description I would like to add that the Institute shall provide mathematics educators, mathematicians, educational researchers, psychologists and teacher leaders with a supportive environment that will encourage collaboration of the different groups of professionals directed at the advancement of mathematics education at high level.

It is planned that I will lead the project.

I am very happy to inform you that Avi Berman from the Technion and Dina Tirosh from Tel Aviv University (cc-ed here) are kindly agreed to join this adventure.

We believe that your participation in the study will broaden the horizons of our vision included in the model that we plan to design.

Your participation in the project presumes honorarium and a reimbursement of a visit to Israel for the project retreat.

More details I will be able to provide in a Zoom/Skype conversation that we can schedule on your convenience.

I hope very much to receive your enthusiastic and positive response and launch the project very soon.

Best wishes Roza