

Activity report by the steering committee chaired by
Prof. Miriam Ben-Peretz and Prof. Lee Shulman

Leading Teachers as Agents of Improvement in the Education System

**Based on recommendations by the
roundtable chaired by Dr. Nir Michaeli**

Coordinated and edited by Orit Sommer

Translated from the Hebrew original



The Initiative for Applied Education Research
The Israel Academy of Sciences and Humanities

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The Initiative for Applied Education Research
The Israel Academy of Sciences and Humanities

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The Initiative for Applied Education Research (the Initiative) places up-to-date, scientific, critically-appraised knowledge and information at the disposal of decision-makers in the field of education. This kind of information is crucial for the intelligent formulation of policy and for optimal planning of interventions to improve educational achievements in Israel.

The Initiative's vision: Research knowledge is an essential component for planning public policy or comprehensive interventions. In the planning phase, critically-appraised research knowledge supports the formulation of policy whose chance of success is greater, and at a later point, enables rational public discourse to take place. The Initiative implements this vision in the field of education.

The Initiative's method of operation: The issues the Initiative addresses are those raised by decision-makers and it consults with senior Ministry of Education officials and other stakeholders. The Initiative's steering committee, appointed by the president of the Israel Academy of Sciences and Humanities, is responsible for the Initiative's work program and the peer-review processes of documents it creates.

The Initiative operates via expert committees and by convening joint symposia for researchers, professionals in the field and decision-makers. It publishes a variety of reports and makes them available to the public. Members of expert committees carry out their work on a voluntary basis.

History of the Initiative: The Initiative was established in late 2003 as a joint venture of the Israel Academy of Sciences and Humanities, the Ministry of Education, and the Rothschild Foundation (Yad Hanadiv). Since the beginning of 2010, the Initiative has been operating as a unit of the Israel Academy.

In the summer of 2010, the Israeli Knesset amended the Israel Academy of Sciences and Humanities Law, regulating the Israel Academy's advisory role vis-à-vis government ministries seeking its consulting services. The Initiative directs the consulting activities on education related issues which the Israel Academy provides to the government and various authorities.



Yad Hanadiv is dedicated to creating resources for advancing Israel as a healthy, vibrant, democratic society, committed to Jewish values and equal opportunity for the benefit of all its inhabitants. Established in its present form in 1958, the Foundation's work has been guided over the years by a distinguished Advisory Committee – now by a Board of Trustees – under the

leadership of members of the Rothschild family. With the assistance of the staff of Yad Hanadiv in Jerusalem, the Foundation seeks innovative opportunities to address the vital needs of Israeli society. Yad Hanadiv currently concentrates its work in the areas of Education, Environment, Academic Excellence and Arab Community. The Foundation initiates projects in its areas of focus and invites participation of specific organizations and institutions.

Yad Hanadiv has a long tradition of significant initiatives in education, including the establishment of the Educational Television facility, the Center for Educational Technology, Israel's Open University, the Center for Science Education (HEMDA), Avney Rosha – The Institute for School Leadership, and the Initiative for Applied Education Research.



The Trump Foundation was founded in 2011. In the coming decade, it is set to dedicate its resources to improving education in Israel. The Foundation's objective is to foster quality teaching focused on the abilities, needs and progress of each and every student. The Foundation aspires to make its

contribution in restoring the status of education in Israel to its rightful place on the national, social and familial agendas.

The Foundation focuses on promoting quality teaching of mathematics and the sciences in secondary schools. Its activities rely on skilled and talented teachers who believe in their students' abilities and together with them, set ambitious goals and do all they can to realize them. The Foundation's guiding belief is that it is critical to cultivate such teaching talent, invest in its development and support its growth and realization.

To achieve its goals, the Trump Foundation runs three strategic programs to promote outstanding teaching focused on advancing student learning. The first program centers on harnessing excellence to teaching, the second on cultivating teachers' clinical skills and expertise, and the third on creating a support network for demonstrating quality teaching.

Acknowledgements¹

The study process leading to the formulation of the recommendations is the result of the intense and dedicated work of many partners, most of whom participated as volunteers.

Our deep appreciation to Prof. Miriam Ben-Peretz, chair of the steering committee, who took the leadership of this process upon her shoulders. With her deep wisdom and incisiveness, she ensured that we precisely and determinedly navigated the path of the many components comprising this activity, linking the reality on the ground to a far-reaching vision. Our gratitude to Prof. Lee Shulman, co-chair of the steering committee, who – at a distance of thousands of kilometers – agreed to take part in this task and guided us with commitment and patience, care and priceless counsel.

We thank the steering committee members, Prof. Naama Sabar-Ben Yehoshua, Prof. Bat-Sheva Eylon, and the teacher Eli Shaley, who willingly agreed to commit to the intensive steering work on the project that included numerous meetings, reading and responding to materials, ongoing management of the complex project, and flexibly pushing it forward – all these attest to the long-standing, great commitment to the education system and we are happy to have benefitted from their wisdom.

We thank the many participants of the roundtable for joining the cause and for their willingness to give and receive. Their active participation extended beyond the discussions at the meetings and the learning and working community that was formed enabled extraordinary output.

Thank you to Prof. Ann Lieberman, Dr. Yael Ofarim, Dr. Adam Lefstein, Dr. Esther Bagno and Mr. Etai Artzi, who were partners in the processes of generating and collecting the knowledge, and helped in writing theoretical materials and presenting them in meetings.

Since the start of the activity, it was clear to us that the recommendations must be made together with the masters of teaching themselves – leading teachers in the education system. Besides teachers who were part of the steering committee and the roundtable, we would like to thank the group of teachers who evolved into the Teachers' Forum during the process. Together with this group, we studied and examined our ideas in order to confirm that they were indeed beneficial and truly represented new tidings for the system. The Teachers' Forum members contributed of their time and energy, and helped us to properly understand the reality and to route the recommendations to more precise directions.

Throughout the activity, we learned much from existing models of work with teachers at many sites around the country. We congratulate the leaders of programs that were presented to the roundtable participants, as well as the educators and ordinary citizens who sent reports and ideas in response to the call for proposals published on this topic in February 2014.²

We thank our colleagues at the Initiative for Applied Education Research for their professionalism and their wonderful teamwork – to the director of the Initiative, Dr. Avital Darmon for the astonishing balance between the level of support and guidance and the level of freedom to work; to Ms. Ziva Dekel, the dedicated office manager, to Ms. Reut Issachar for taking care of the meeting days and for her on-hands support in producing this report, to Ms. Ada Paldor for her language editing and wisdom, and to the rest of the staff for their logistical support and friendship.

And in conclusion, we thank those who commissioned this report and those who made this activity possible – the Ministry of Education, Yad Hanadiv, the Trump Foundation, and the Initiative for Applied Education Research. Representatives from these organizations – Ms. Gila Nagar, deputy director of the

1 For a list of roundtable participants, see Appendix A.2. For a list of Teachers' Forum members, see Appendix A.5.

2 To view the call for proposals, see Appendix D.

Ministry of Education, Mr. Moti Rosner, director of Division A for Teacher Professional Development, Mr. Gal Fisher, responsible for the field of education at Yad Hanadiv, Dr. Tammy Eisenmann-Halamish, program director at the Trump Foundation, and Dr. Avital Darmon, director of the Initiative, who throughout, followed the refinement of the questions and the challenges and guaranteed the necessary resources so that effective discussions could take place, and served as the advisory committee to this activity. The collaboration they evinced – in leadership, in advice and responsibility – enabled the conduct of an open, practical and committed discussion.

Dr. Nir Michaeli, roundtable chairman

Orit Sommer, coordinator

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Remarks by the steering team

Prof. Miriam Ben-Peretz (chair), Prof. Lee Shulman (chair)

Prof. Bat-Sheva Eylon, Prof. Naama Sabar-Ben Yehoshua, Mr. Eli Shalev

In late 2013, we were approached by the minister of education, the Yad Hanadiv Foundation and the Trump Foundation to lead an effort to improve teaching and learning processes in the Israeli school system via the activity of leading teachers⁴ in the education system. In order to promote this project, several frameworks of activity were formed:

- A steering committee co-chaired by Prof. Miriam Ben-Peretz of the University of Haifa and Prof. Lee Shulman of Stanford University. Members of the steering committee were Prof. Bat-Sheva Eylon from the Weizmann Institute, Prof. Naama Sabar-Ben Yehoshua from Tel Aviv University and Mr. Eli Shalev, a physics teacher at the Hebrew University Secondary School in Jerusalem.
- A roundtable with about thirty members from all fields of education, including senior Ministry of Education officials, supervisors, teachers, representatives of teachers' organizations, members of academia and representatives of the foundations. The roundtable chair was Dr. Nir Michaeli, the dean of pedagogical development at the Kibbutzim College. The roundtable participants came from various sectors: Jewish, Arab, general, religious, public and private.
- A forum of teachers from diverse fields of knowledge and sectors.
- An advisory council composed of representatives of the foundations and a representative of the Ministry of Education.
- The entire process was managed by the Initiative for Applied Education Research, a unit of the Israel Academy of Sciences and Humanities that aims to provide decision makers in education with scientific, up-to-date and proven knowledge. Such knowledge is essential for the intelligent formulation of policy and the optimal planning of interventions designed to improve educational achievement in Israel. Dr. Avital Darmon directs the Initiative and Ms. Orit Sommer served as the coordinator of the activity on behalf of the Initiative.

From January 2013 through August 2014, an intensive effort was made to study the complex subject of leading teachers in the education system. Based on this study, recommendations were formulated that are now being presented to the minister of education and the director-general of the Education Ministry.

The roundtable addressed two main questions:

1. What is the essence of leading teachers and what are their methods in the education system?
2. What are the optimal work circumstances for leading teachers and what are the challenges of implementation that must be met in order to derive maximum benefit from the proposed process?

We are pleased to hereby submit a document of recommendations that summarizes the activity of the various forums. In our remarks, we seek to emphasize several points on three main topics: basic assumptions that guided the activity, the process we experienced and the two questions the roundtable addressed.

⁴ The steering committee initially used the term "master teachers" but later decided on a different name – "leading teachers" – which more clearly reflects the role envisioned in the recommendations. Accordingly, we will use "leading teachers" in this document.

The recommendations are based on the following basic assumptions:

1. Teachers in the education system possess considerable knowledge based on their work experience (the wisdom of the practitioner). It is important for this information to become available to all of the teachers, to contribute to their professional development and to help them in their work.
2. In order to develop and use the teachers' knowledge, they need conditions of time and space that enable ongoing pedagogical discussions.
3. The education system lacks a track of professional advancement for teachers in the field of teaching.

The process of learning and planning that led to the formulation of the recommendations was characterized by the following components:

- There was a full partnership between the roundtable participants in a positive approach that embraced the different views.
- The steering team, the members of the roundtable and the teachers' forums acted on a voluntary basis, with dedication and a profound sense of commitment to the education system.
- The process combined conceptual learning with practical examples of the activity of leading teachers in Israel and the world, with planning activity conducted by work teams composed of roundtable members.
- The process of learning and formulating recommendations was conducted in extraordinary collaboration between the Ministry of Education and non-institutional organizations, foundations and academia.
- The participants in this activity performed the intensive and complex mission in a short time frame.

1. The leading teachers: Essence and methods

Leading teachers are teachers who are capable of being leaders of excellence in teaching and education. These teachers possess broad knowledge in diverse fields of content and teaching, have rich pedagogical didactic expertise and are endowed with leadership qualities. They also have an interest in working to foster the professional abilities of fellow teachers. Processes for identifying teachers who are suitable for the role of leading teachers will be developed in the course of implementing the recommendations. Various methods are possible for pursuing this mission.

The role of leading teachers is unique and includes components that do not exist in the system today: the facilitation of regular pedagogical discourse among teachers, and generation of pedagogical knowledge that links experience in the field with the latest theories and research.

This process will provide an opportunity for outstanding teachers to exercise their expertise in the framework of a track for professional advancement.

- Leading teachers will operate for a defined period of time, in three different advisory roles:
 1. Leading teacher facilitator – Creates and leads frameworks for colleagues to study together
 2. Leading teacher developer – Develops pedagogical knowledge and tools
 3. Leading teacher master – Demonstrates exemplary and inspiring teachingCombinations of these roles may be possible.

- Leading teachers will be able to act in three formats, or in a combination of them:
 1. Field of study format – Leading teachers in a field of knowledge will work to establish regional communities of teachers that will serve as a space for professional development
 2. School format – Leading teachers in schools, appointed by principals, will facilitate communities of school-wide pedagogical discourse
 3. Personal innovation format – Leading teachers will propose individual programs for the professional development of teachersCombinations of these formats may be possible.
- What is the envisioned reality? Thousands of leading teachers will operate in the system as leaders of teaching and learning. Tens of thousands of teachers will have an opportunity to regularly participate in activities led by leading teachers and to contribute their knowledge and experience to these activities. This learning will inject energy, vitality and meaning to the work of teaching, boosting the entire system with grassroots knowledge. A culture of sharing, developing and disseminating knowledge will develop, along with the creation of a pool of quality information and pedagogical knowledge that will be used by teachers on a regular basis. All this will lead to a continuous process of enhancing and diversifying processes of teaching and learning.

2. The challenges of implementation

This document serves as an initial roadmap for implementation. In order to ensure flexibility, it does not include much detail. We recommend that the Ministry of Education immediately begin implementation of the proposed process, with ongoing monitoring through documentation, study and assessment to clarify definitions and insights and to provide a dynamic response to what is happening in the field. While the Ministry of Education is responsible for leading this subject, it is important to assign a dedicated entity to oversee content and to guide, document and study the activity. This effort was initiated in a process of partnerships between various entities and such partnerships should also be preserved during the implementation process.

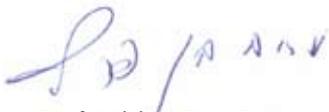
In addition, in order to derive full benefit from the process, we recommend setting a time for re-discussion, for drawing interim lessons after three to five years, and it should be determined which information should be collected and which R&D efforts should be pursued until then.

1. The Ministry of Education will lead the gradual implementation of the recommendations and the stages of instituting the new role. Division A for the Professional Development of Teachers and the regional coordinators in the districts will manage and advise the leading teachers. The leading teachers will receive systemic support and guidance: The support will include a period of developing the teachers' professional identity as leading teachers, as well as ongoing development and strengthening of the abilities that are required of them. These developments will be conducted via a strong connection with dedicated professional units that will engage in documentation, development of approaches and materials, and research to accompany the work of leading teachers.
2. A unit for research and content development will be formed that will operate in conjunction with the Ministry of Education and will be supported by resources from the third sector. The collaboration between the institutionalized education system and this unit, which will be linked to the foundations, is a welcome expression of cooperation between the various entities to foster education in Israel. The details pertaining to the establishment and operation of the unit will be developed during the course of implementation, in partnership with the foundations and the Ministry of Education.

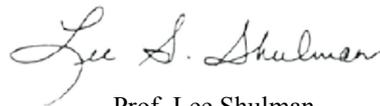
3. We must be careful not to lose this vision by making the term “leading teacher” too broad and applying this system to other arrays in the world of existing roles in the education system and in professional development (instructors, evaluation coordinators, and so on.) Preserving the uniqueness of the position, while creating partnerships and interfaces with key roles and processes, will reduce the burnout and routinization that would result if the leading teacher becomes just “another job in the system.”
4. It is important not to give up on implementing this in all of the sectors, age groups and geographic regions. The fear is that partial implementation is liable to be carried out primarily in the strong segments of the education system and of Israeli society.
5. There is great value in maintaining the collaboration between the various entities: within the Ministry of Education, between the ministry and the foundations, and with other entities in the education system, municipalities, local governments, and so on.

The members of the steering team would like to thank the minister of education, Rabbi Shai Piron, the director-general of the ministry, Ms. Michal Cohen, the heads of the Division for Teacher Training and Professional Development at the ministry, the foundations and their representatives – Gal Fisher, representing Yad Hanadiv, and Dr. Tammy Halamish-Eisenmann, representing the Trump Foundation. We wish to thank the Initiative for Applied Research in Education, in whose framework the project was conducted, and the director of the Initiative, Dr. Avital Darmon. We would also like to thank the members of the roundtable, who devoted their time to preparing the report, and in particular Dr. Nir Michaeli, who showed impressively abilities in chairing the roundtable. We extend our thanks to the members of the teachers’ forum and to all of the teachers who contributed in preparing the report. Special thanks goes to Orit Sommer, who coordinated the entire undertaking with talent, efficiency and dedication.

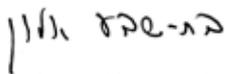
The success of the leading teachers will be a reward for the work of all of those engaged in this project.



Prof. Miriam Ben-Peretz



Prof. Lee Shulman



Prof. Bat-Sheva Eylon



Prof. Naama Sabar Ben-Yehoshua



Mr. Eli Shalev

The Recommendations – Summary

The roundtable, led by the steering team and with the assistance of the Teachers’ Forum, was responsible for formulating recommendations for the establishment of a systemic framework for teachers with outstanding abilities in the area of teaching and education, who are capable of improving the quality of teaching and learning processes in the schools and in the system. The roundtable’s process of learning and discussion generated insights and recommendations for action, and these are presented here.

What did we learn while formulating the recommendations?

Time after time, education research and practice demonstrate the seemingly obvious: Teachers are the key to successful educational practice.

- Teachers’ priceless educational and pedagogical expertise and teaching know-how must be recognized. Today, the practical wisdom of teachers gets lost – on the individual level, in the classroom and school, and in the field of knowledge.
- There is a need to create a professional development track for outstanding and experienced teachers interested in remaining classroom teachers and having an impact on the quality of instruction beyond the classroom.
- Teachers learn constantly (for better or worse) as a consequence of their work, not distinct from it. A structured, regular and effective space for learning should be offered and supported professionally through the creation of a culture of pedagogical discussion and study among teachers.
- More than anything, teachers thirst for the time to meet professionally with colleagues; they are not interested in a new hierarchical status or awards for excellence.

The education system must develop expertise to leverage the individual practical wisdom of teachers into a general asset that can be shared by all. Our proposal is to develop strategies that will enable us to channel the teachers’ pedagogical energy, which today is not well utilized, and reinvest it in the system. In this way, we will not only create new knowledge, but also enliven the teaching routine of teachers, whom we seek to strengthen.

On this basis, we recommend creation of a “leading teacher” role within the education system:

Establishment of a corps of leading teachers who will lead internal development processes in communities of teachers. The focus of their work will be to clarify and develop pedagogical and content knowledge and to develop the art of teaching through meaningful, experience-based dialogue with teachers. The knowledge generated from this activity will be systemically processed, led by a dedicated unit for content R&D, and conveyed for use and continued development by the teachers and the system.

Who are the leading teachers?

They are teachers who have it within their power to be leaders of excellence and learning in teaching and education. They possess such qualities as: a cohesive educational and social identity, expertise

in their field of study, pedagogical skills and leadership and management abilities. These teachers will be responsible for identifying and drawing from the art of teaching that exists in the community of teachers, and for conducting meaningful and fruitful interaction between the teachers' practical knowledge and the relevant academic-professional tools and knowledge from the world of research and action, both local and international. The teachers will operate in all of the sectors, at all grade levels and in all geographic regions. Such diversity among the teachers is essential as a resource in the process of developing knowledge.

How will leading teachers work to improve teaching?

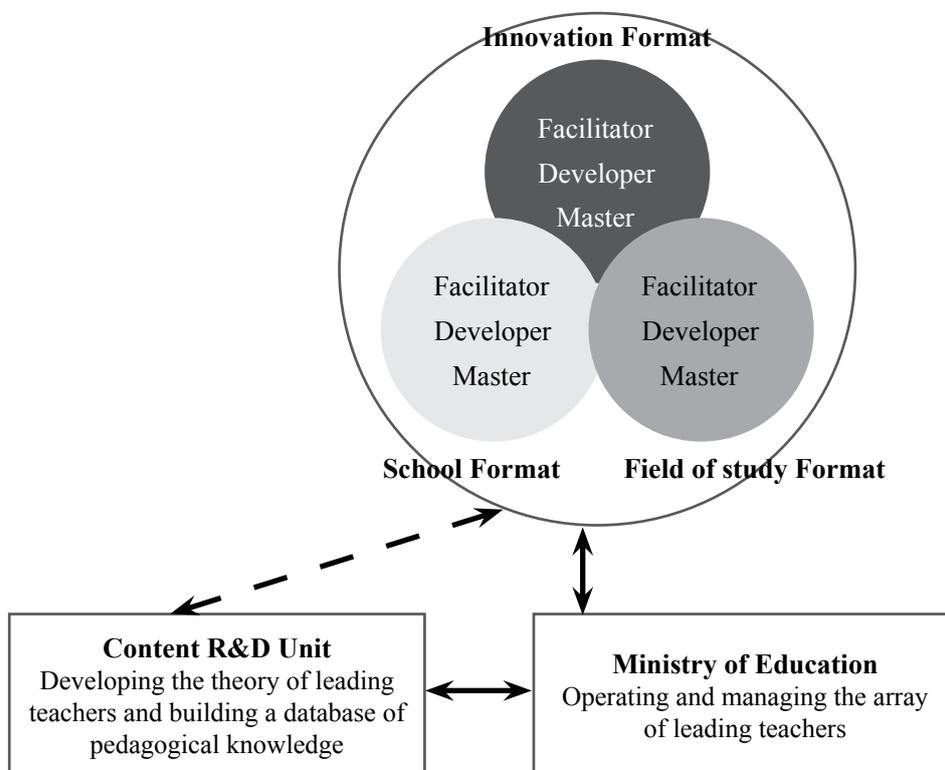
In three capacities

Leading teachers will operate in three different capacities, or combinations of them, which share a common denominator of professional development in the teacher community, based on teaching practice and the structuring of pedagogical and content knowledge within the system: (1) **Leading teacher-facilitator** – as creators and mentors of frameworks for their colleagues' ongoing study, including individual mentoring when needed and coordination of the educational and pedagogical initiatives in which the group is involved, (2) **Leading teacher-developer** – as pedagogical knowledge and tools developers or as partners in research and development teams and in practical-oriented action research, and (3) **Leading teacher-master** – as exemplars of virtuosic, exceptional, inspiring teaching and who demonstrate a meaningful educational connection with their pupils. These teachers will work on development processes for their colleagues and development processes for teaching practices (and will not directly advise their colleagues).

And in three formats

The activity will take place in three formats or combinations of them: (1) **Personal-innovational format** – for teachers proposing programs to be adopted in the areas of guiding a learning community of teachers, developing learning materials or pedagogic tools, and action research, (2) **Field of study format** – knowledge area leaders in the education system will recruit leading teachers in order to build national or regional communities of teachers that will serve as a space for professional development, will develop pedagogical materials and tools within the discipline, will demonstrate excellent teaching and will join R&D teams in the specific knowledge area, and (3) **School format** – school principals will appoint leading teachers to guide and mentor communities of pedagogical discourse within the school, to develop organic programs for the school and for action research in relevant areas.

Diagram: The array of leading teachers



What will a system that enables optimal operation for leading teachers be like?

- **Leading teachers will enjoy systemic support and backing** – support will include an initial period devoted to developing the leading teacher’s professional identity and launching the activity, development and ongoing reinforcement of the required abilities (including provision of vouchers for acquiring education and training), regular participation in the community of leading teachers guided by selected professionals, and recognition of the weekly hours required for their work as leading teachers. Time in all teachers’ work schedule will be allocated for participation in activities organized by the leading teachers.
- **The activity of the leading teachers must be an integral part of the state education system** – including its resources, divisions and policies – and operate under its leadership. The Ministry of Education will lead the gradual implementation of the recommendations and the stages of instituting the new position.
- **The leading teachers program will operate under the guidance** of Division A for the Professional Development of Teachers at the national and regional levels. This system will identify and appoint teachers to this position/role and will run the regional communities of leading teachers. The communities of leading teachers will be guided by mentors whose expertise is in procedural-methodological fields as well as in content-academic fields. As needed, leading teachers will also be entitled to receive individual mentoring.
- **A content R&D unit will be established**; it will operate in conjunction with the Ministry of Education and will be supported by the non-governmental sector. The unit will have several areas of focus: (1) building and guiding the teacher-led array of professional development,

(2) processing the pedagogical knowledge emerging from the activities of the leading teachers, making it available for use by teachers in the system, (3) promoting meaningful and fruitful interaction between teacher-based practical knowledge and up-to-date academic knowledge from professional organizations, and (4) developing evaluation and assessment tools for the activity of leading teachers (in collaboration with RAMA – The National Authority for Measurement & Assessment in Education).

In the development, guidance and mentoring processes, productive collaboration will be forged between the wisdom of teaching practice and the expertise arising from the world of theory and research. This collaboration will help to conceptualize and cultivate up-to-date and inspiring teaching knowledge.

What is the envisioned reality?

Thousands of leading teachers in the system will be active as leaders of teaching and learning.⁵ For tens of thousands of teachers this will be an opportunity to regularly participate in activity that will be based on their practical experience. In the context of such discourse, theoretical and empirical knowledge from the world of pedagogical and content knowledge that is not readily accessible to the teachers will also become fruitful and inspiring. This learning will transmit energy, vitality and meaning to the practice of teaching.

A culture of sharing, developing and disseminating knowledge will be created along with the creation of a data base of information and quality pedagogical knowledge that are available for teachers to regularly use.

These will lead to a continual process of ongoing variation and enhancement of teaching and learning processes.

What are the salient challenges and risks?

Aside from budgetary challenges, the biggest challenge lies in leading the cultural change upon which the recommendations are based: **faith and trust in the teachers**. If the cultural change slips away and dissolves, all that will remain will be the addition of a set of courses that lack any unique meaning and will only increase the distrust and cynicism that already exist.

The cultural change – strengthening the belief in and trust in the teachers – must be aroused and guided at every level, starting with the teachers themselves. It must involve the education system, the professional-academic system outside the education system, and the teachers' and education system's relationship with parents and society in general. This is an opportunity and it is a source of inspiration. The navigation and precision of this process must be assigned to top-flight professional leaders and mentors, who are worthy and capable of leading the elite echelon of teachers in Israel.

⁵ In Appendix C – “From Theory to Practice: An Organizational and Budget Outline,” we propose that with maximal activity, 4,000 leading teachers will be active in the system within a decade, representing approximately 3% of all the teachers in the system (140,000) and reflecting one leading teacher per school.

The Recommendations – The Full Document

A. Introduction

In October 2013, the Minister of Education appointed a steering committee, headed by Prof. Miriam Ben-Peretz and Prof. Lee Shulman, to lead a roundtable process that would study ways of identifying outstanding and capable teachers and suggest possibilities for their regular activity as agents of improvement in the education system. The roundtable included representatives of the education system's various divisions: teachers, school principals, representatives of the Teachers' Administration at the Ministry of Education, representatives of the Ministry of Education's Pedagogic Secretariat and pedagogical centers, academicians from teacher colleges and from university schools of education, representatives of educational networks and foundations, teacher association representatives, and others. Parallel to the roundtable activity, a Teachers' Forum also met; this included dozens of teachers from around the country that followed the roundtable members' study process, contributed from their perspectives and gave feedback to the written output.

This report is the product of the roundtable's work – short, yet packed full and abundant – and includes the key insights that arose in the process and the directions for activity the roundtable members recommend.

Voices seeking changes in the education system in Israel are growing louder. The talk echoing throughout the system includes, among other things, emphasis on improving teaching and learning processes in the classroom, the need to expand schools' pedagogic autonomous space, an infusion of more meaning and value in the learning processes, and the pursuit of excellence. Accelerated demographic changes are increasing heterogeneity among the population of pupils and require intelligent and professional consideration, appropriate responses to meet the needs of the individual and society, and measures to narrow disparities. Everyone involved in the educational process is responsible for meeting these challenges. However, time after time, research and practice prove what should be obvious: Teachers are the key to successful educational practice and they are at the forefront. They are the ones who must translate lofty ideas into words and actions; on a daily, even hourly, basis, they interact with their pupils, and within their classrooms, educational and pedagogic reality is formed.

A crucial condition for improving the work of teachers within the systemic framework is the creation of a leadership from among teachers that is professionally capable of generating improvement in the quality of teaching in the schools. Such leadership is characterized by excellence in teaching, recognition by the educational environment, and by the ability to lead fruitful activity with colleagues. The activity of teachers should be accompanied by a professional system that will help establish their standing as creators of new pedagogic knowledge and will address the pedagogic knowledge that emerges from the activity of the leading teachers in order to make it accessible and useful for the entire community of teachers.

Characteristics of the teacher likely to lead in the area of excellence in teaching and education include:⁶

- **Master in a field of study:** Possessing a love and passion for the knowledge area, having profound knowledge about the topics he teaches, capable of making a connection between the topics of

⁶ These characteristics constitute the summary of a comprehensive review of research and practical literature commissioned from Dr. Yael Ofarim and discussed by the roundtable, as well as written and oral positions contributed by the roundtable members based on their experience. See Appendix B.1 and B.2 for more details.

study and other areas in a relevant, intriguing interesting way, constantly learns independently and seeks outside opportunities for learning, adopts professional mentors, is perceived by pupils and teachers as a professional authority on teaching the field of study, arouses love for the subject and for learning the subject among his pupils.

- **Pedagogic master:** Possessing practical knowledge, skills and tools for teaching and managing the classroom, knows how to connect content knowledge and pedagogic knowledge, is flexible in the use of acquired knowledge, has reflexive ability and a developed conceptualization ability, challenges his pupils, diagnoses and monitors pupils' learning needs and knows how to adapt teaching to a diverse class, routinely tries out new things.
- **Has an educational and social identity:** Views the job of education and teaching as a mission, possesses love and passion for his chosen profession of teaching and for interacting with his pupils, inspires his pupils and the educational staff, establishes trusting relationships with the entire educational environment – pupils, parents and teachers – and carries out ongoing dialogue with them. Holds a social-oriented worldview and a commitment to the community, is aware of the socio-cultural context of his work and is involved in questions concerning the reciprocal impact of education and the community and society in the particular and universal sense, works resolutely in situations where he detects the need for change, addresses moral issues as part of his teaching, acts according to an educational world view, creates long-term influences on pupils and teachers.
- **Has leadership abilities:** Inspires trust and respect and is perceived as an authority by colleagues and principals, demonstrates involvement in activities that are outside the realm of his defined and assigned teaching responsibility and takes on the responsibility for leading them, demonstrates motivation and desire to have an impact, is capable of organizing and managing projects and processes, has system-wide vision and the ability to work with an understanding of wider contexts, can look at organizational processes and conceptualize them, is able to guide teachers and colleagues including giving feedback, is recognized as having excellent interpersonal relationships.

The unique value of teacher involvement in leading processes stems from recognizing the importance of the wisdom of practice. Research and experience show that significant teacher professional development processes transpire when there are frameworks of space and time, leadership of colleagues and a fruitful connection between practical knowledge and academic knowledge (Ben-Peretz 2009; Shulman 1987, York-Barr and Duke 2004; Lieberman and Friedrich 2010). As a result, a number of activities are derived for teachers referred to in this report as “leading teachers”: leaders of learning community, individual mentors, leaders of pedagogic development, models of excellent teaching, and so on.

Theoretical insights, consolidated throughout the joint learning process, are presented below, as well as the practical steps drawn from these insights, as recommended by the roundtable, for engaging leading teachers as agents of improvement in the education system.

Leading teachers for the education system – what did we learn?

The journey began with a learning process that included conceptual and theoretical elucidation and study of local and international models for activities that promote teachers' pedagogical, subject area and educational leadership. This is the foundation upon which the recommended outline for action, presented below, is based. We begin by presenting the key insights that emerged from the learning process and the decisions required in regard to axes of fundamental content and action. These insights and decisions came into sharper focus during the learning process and will guide us in presenting the recommendations.

Four insights arose from the roundtable’s joint learning process:

- 1. The invaluable teaching, educational and pedagogical knowledge possessed by teachers must be recognized:** In teachers’ rooms throughout the country, there are teachers with professional expertise that accrued during years of abundant experience and from theoretical and practical wisdom. Many of these teachers hold a deep commitment and willingness to contribute of their skills and knowledge to their peers in local and system-wide circles. Today, much of this energy and expertise gets lost, and we must develop strategies to help us capture this energy and channel it back into the system as new and meaningful knowledge that reinvigorates the educators’ teaching routine.
- 2. There is a need to create a professional development track for excellent and experienced teachers interested in remaining classroom teachers in order to enhance their ability to influence the quality of education beyond the classroom too:** The career horizon of a teacher who is interested in and able to progress in his job is currently outside the ranks of the profession – the education system recruits outstanding teachers mainly to two types of positions: management and coordination positions, and subject area inspection and training. The advantages and necessity of these appointments are clear, but there is a price as well: management positions distance excellent teachers from the classroom and from ongoing professional development; training positions enlist teachers as ambassadors of teacher training that is “top-down” – on behalf of the system vis-à-vis the teachers. What can be offered to an outstanding teacher who wishes to remain a classroom teacher, but needs to revitalize the routine of work after 10 or 15 years of teaching? How can we deepen and refine the teaching skills of such teachers with desire and talent, who wish to remain in daily educational contact with pupils while also making an impact beyond the classroom? And what is the channel that will enable knowledge and expertise that grows in the teachers’ room to move from the “bottom-up” – to enlighten, to flourish and to impact the ongoing improvement of the system?
- 3. A culture of regular pedagogic discourse and study among teachers, led by teachers, should be developed and enabled:** The teaching profession requires processes of unique knowledge development, processes that rely on the wisdom of practice – the constant work of reflection and analysis of experience that leads to the development of judgment and discretion in teaching and educational situations. In such a context, which is deeply rooted in experience, relevant theoretical and empirical knowledge from the world of research, not ordinarily within teachers’ reach, is seen as more productive and inspiring. In order for the education system to be able to offer pupils meaningful learning processes, the experience of meaningful learning must be a central experience at every level. A systemic and school culture must be nurtured in which those responsible for the pupils’ learning – teachers – are themselves engaged in an ongoing personal process of growth, constantly learning and development of their craft: the craft of teaching. As a result, the teachers will in turn be able to lead meaningful learning processes for their pupils.
- 4. A dedicated unit should be established to develop content that will turn private pedagogical knowledge into professional knowledge serving the entire system:** Several components are needed in these development processes. The first component is to build and guide the work of teacher-led professional development. In this framework, the unit will address questions such as: What are the most productive learning methods that guide leading teachers in their work with fellow teachers? What kind of new knowledge and new practices are emerging? The second component is to process the accumulated knowledge and make it accessible. This includes efforts to collect, document, analyze and conceptualize the knowledge, and subsequently make it available so that so that teachers will be able to effectively use and rely on it. The third component is to promote meaningful and fruitful interaction between the practical knowledge of teachers and relevant

academic-professional knowledge and tools from the world of local and international research and action. The fourth and final component is to develop regular assessment tools for the leading teachers program, and to commission an overall program evaluation by an external organization.

The recommendations presented below are designed to cultivate leading teachers as a response to the all of these topics.

The joint learning process also clarified axes of content and action on which decisions must be made. These decisions have practical implications for defining the objective of this undertaking, for identifying and nurturing the leading teachers, for defining the activities the teachers are expected to engage in within the system, and more. These axes are presented below.

- 1. Between master and leader:** The axis that stretches from master teachers to teachers who impact the system. The former are excellent classroom teachers; the literature uses a variety of terms to refer to them that attest to the quality of their teaching work (master, accomplished, excellent...). In contrast, the latter are influential teachers described in the literature mostly in terms of “leadership” (see the theoretical background document in Appendix B.1).
- 2. Between rank and action:** The axis that stretches from an emphasis on recognition and award of individual ranks for teachers that meet the criteria of outstanding instruction, to an emphasis on recruiting teachers to lead professional-pedagogical development activities among their peers. At the center of the former approach, which focuses on ranking, are efforts to define standards of excellence in teaching that will be used to draw the entire community of teachers upward. Activities derived from defining standards include processes of certification, training and exposure of teachers to standards in order to inspire them (for example, see the NBPTS⁷ model in the document describing models in Appendix B.3). The second approach, which focuses on action, is based on faith in the effectiveness of pedagogic discourse within the community of teachers, discourse which relies on belief in the ability of experienced and talented teachers to conduct development processes, even if they lack an official rank or certification. This approach offers teachers space for activity while providing them tools for conceptualization and reflection, up-to-date and relevant sources of external knowledge, and tools to develop ideas and initiatives. (See, for example, the TLLP⁸ model in Appendix B.3).
- 3. Between training and growth:** On one end of this axis is the aspiration for professional empowerment of selected teachers through training provided from “above,” by external entities and from academic and professional sources of authority. (See, for example, the proposal to establish a PDS, Professional Development School,⁹ or master’s degree programs proposed for outstanding teachers.) The other end of the axis is the creation of opportunities and a culture of professionalism that sprouts from “below” and is based on teachers’ experience and practical insights and on the constant connection with the “field.” (See, for example, the presentation of the NWP¹⁰ model in the summary of Prof. Ann Lieberman’s lecture in Appendix B.6.)

7 NBPTS – National Board of Professional Teaching Standards, the national board (U.S.) for setting standards in teaching, see <http://www.nbpts.org/>

8 TLLP – Teacher Learning and Leadership Program, a learning and leadership program for teachers run by the Education Division in the province of Ontario, Canada. See <http://www.edu.gov.on.ca/eng/teacher/tllp.html>

9 The proposal appears in the materials that were prepared for the second meeting of the roundtable. It can be found on the Initiative’s website, under the “News & Events” tab.

10 NWP – National Writing Project (U.S.), see <http://www.nwp.org/>

In its effort to decide vis-à-vis the continuum of these axes, the roundtable met and spoke with teachers from the Teachers' Forum and other teachers. Many teachers voiced a very sharp and clear message expressing their reservations about creating yet "another position" or hierarchical status that the system will impose upon their work routine. The teachers expressed concern that such a step, which would naturally rob them of valuable time resources, would start with great fanfare but slowly become hollow and meaningless. They further noted that they have no interest in titles and labels such as "outstanding" or "master" or "teaching wizard." In their view, a formal, established role appointed by the system or alternatively, a gleaming, prestigious rank, would arouse mainly cynicism and alienation in the teachers' room. The most significant need the teachers cited was the possibility of an internal-organic appointment from within the community of teachers to a position that entails responsibility and an authentic mission rather than recognition and prestige. In addition, they noted that it is essential to recognize the need to schedule regular time and space to conduct internal professional discourse among the teaching staff – in order to discuss their joint educational work, share challenges and struggles, extend and refine their professional abilities and identities and jointly develop teaching and educational tools.

This forceful stance tied in with prevalent trends and practical models in the education system to which the roundtable was exposed in its deliberations, and which offer a rare opportunity for its advancement. Beyond the reforms led by the Ministry of Education, which center on the pursuit of meaningful learning and expanding pedagogic autonomy, Division A for the Professional Development of Teachers and the Pedagogical Secretariat recognize the importance of and are working to promote: (a) development processes centered upon providing greater autonomy and pedagogic flexibility to schools, (b) organic development processes within schools anchored in classroom experience, (c) creating spaces for effective and productive pedagogic discourse in school and regional teacher communities, including exposure to inspiring ideas and knowledge from the world of research. The spirit emerging from these trends is expressed in many models found in the field, some of which were presented to the roundtable as part of its learning process. The Ministry of Education initiated some of these models, while others are initiatives from the "field." (See in Appendix B.7, for example, the model of the ministry's Central District, developed in cooperation with Ben-Gurion University's Pedagogic Laboratory, as well as the "Sprouting" program of the Haifa pedagogical center (*Pisga*), the Weizmann Institute's "Learning Communities in the Field of Physics" program (with the support of the Trump Foundation), the Hartman Institute's "Be'eri" program, the Branco Weiss Institute's Teaching Companion Program – in Appendix B.4.)

In light of these processes, decisions were made regarding the axes presented above and they are reflected in the recommendations for action. In general, the "leadership" approach was adopted, along with an orientation toward "action." However, it seems to us that when a culture of routine internal professional discourse becomes established, "masters of teaching" will also emerge and it might be necessary in the future to formally recognize their professional status. **With reference to the axis between the system's responsibility for "training" and its responsibility to create the conditions that facilitate "growth," a combined position was adopted.** In recognition of the special value of the stores of knowledge and experience teachers hold, we seek to make them into agents of learning and professional development processes. However, we also recognize the importance of supporting teachers – support from academic and professional forces that can accompany and enrich teacher-led professional development by helping to conceptualize, analyze and generalize; support through exposure to external sources of knowledge and inspiration; and support by cultivating learning with the help of practical tools and programs from around the world.

Naturally, the recommendations were formulated from among diverse positions and proposals presented by various members during the roundtable discussions, and it can be assumed that each

one of the members would have articulated the recommendations differently and would emphasize different aspects if asked to submit an individual document of recommendations. In this context, it is important to note that the voice of the teachers – the roundtable members and the Teachers' Forum members – had a major impact on the final product. Out of loyalty to the essence of this document, it was clear that the teachers' attitudes toward the tensions mentioned above has great importance and their inputs have significant presence in this current report.

We are convinced that these recommendations offer good tidings for the education system, including:

- **Growth of a professional culture of teacher communities, a culture based on trust and autonomy, professionalism, responsibility and involvement.**
- **Enhancing teaching and learning processes, and infusing them with meaning and value.**
- **Developing experience-based knowledge about teaching.**
- **Raising the status of teaching and teachers so that they are recognized as experts and leaders in their arena of activity.**

At the same time, it would be fitting to also enlist a measure of humility and note that these recommendations do not represent a new conception or invention; they rely on previous position papers and reforms and align with the trends they invoked. We will mention here the report of the National Task Force for the Advancement of Education in Israel (the Dovrat Commission Report, 2005) which recommended ranks of promotion that reflect growing expertise, including the top rank of "master-teacher." The report also proposed that teachers of senior ranks become involved in guiding and training their teaching colleagues (ibid, pp. 130 and 148). We will also mention the recommendations document written by a group of activist teachers who met as a study group at the Van Leer Institute in 2008 and called for the establishment of a new position of a school "learning companion." Finally, we will note the Pedagogic Horizon reform (education for thinking) which, in part, structures professional development in an expansive model that involves teachers in central leadership roles (Zohar, 2009).

There is no doubt that implementation of the recommendations will require further study, decisions on priorities and development of a blueprint for action. At the same time, we believe that the recommendations set out here provide a clear basis that serves as a type of map and compass for those seeking to traverse the path of establishing pedagogic discourse among teachers, and to pave channels for meaningful professional development for talented, experienced and enthusiastic teachers.

B. Recommendations

B.1 The Leading Teacher– Fundamental Principles and Introductions

General:

Teachers perceived as educational and professional authorities (as defined by the implementation team) and express a desire and commitment to influence the education system will be invited to serve as leading teachers in diverse spheres and roles whose common denominator is the ongoing pedagogical-professional improvement of teacher communities. These teachers will constitute the pillars of leadership within the community of teachers. Three proposed spheres of activities for the leading teachers are: schools, subjects of study (disciplines) or additional frameworks the teachers themselves will suggest. The leading teachers in these spheres will function as mentors of pedagogical

communities of discourse, as exemplars of quality teaching, as educational and teaching program developers, as study and teaching material developers for teachers or as members of R&D, evaluation and practical action teams.

The number of leading teachers operating in the school system should reflect a balance between the desire for this group to make a broad systemic impact and the need to maintain high and unique quality for meeting the challenge entailed in professional cultural change.¹¹ The leading teacher's appointment will be for a defined period of time. In some circumstances, it will be possible to request an extension of the appointment. Appointments limited to a particular period of time will underscore the centrality of the mission – the teachers' responsibility and the opportunity to strengthen teaching – and will minimize the damage that could result from labeling these teachers as an "elitist" echelon.

The activity of the leading teachers and the activity of the teacher communities will be supported by facilitating, systemic conditions. Leading professional teams on a national scale will guide the work of the leading teachers. The entire process will be accompanied by a content research and development unit that will help to establish the work of the leading teachers and transform the wisdom of practice emerging from their work into knowledge that will serve the national community of teachers.

Objectives of the array of leading teachers:

- **Promotion of professional leadership that relies on expertise arising from teaching practice:** Improving teachers' teaching processes; building a database of expertise that includes both the practical knowledge of teachers and academic knowledge, and is designed for the community of teachers to use.
- **Creation of a track for teachers who wish to develop within the teaching sphere:** Strengthening teachers as key figures of educational practice; creating opportunities for teachers to have an impact on the education system.
- **Creation of routine and safe spaces for meaningful professional learning for all teachers:** Development of a language and tools for systemic discussion about teaching and learning; creating a school, a discipline-related, and a systemic culture of meaningful pedagogic discourse.
- **Creation of a database of systemic pedagogic knowledge based on teachers' experiences, incorporating up-to-date research knowledge, and streamed back to them for their use:** Documenting teaching, analysis and conceptualization of teaching, turning teachers' own, private knowledge into knowledge that can be used by the teacher community and the education system, effective access to accumulating knowledge.

B.2 Possible frameworks and formats of activity for leading teachers

It is clear that the leading teacher's **personality and image** is the key for optimally realizing the leadership opportunities proposed here. In order to identify the leading teacher, the implementation team will be required to decipher and translate the following principles into detailed rules and clear expectations: an active teacher (no less than one-third of job), with significant experience, with proven pedagogical know-how and expertise in a particular field of study, with proven ability in interpersonal

¹¹ In Appendix C: From Theory to Practice: An Organizational Implementation Outline, we propose that at full strength, within about a decade, some 4,000 leading teachers will operate in the system, comprising about 3% of all teachers in the system (140,000) and reflecting a ratio of about one teacher per school. This is a non-binding starting point for discussion, based on an effort to balance between a selected percentage of all teachers, a feasible budgetary program, and the possibility of broad systemic impact.

communication, with desire and aptitude for learning, who is esteemed and accepted in the school community (pupils, teachers, parents, administration), and who demonstrates leadership in his activity in the school, in teaching the field of knowledge or in other educational and social circles.

In order to achieve the objectives described above and to facilitate the widest possible range of activity for promoting leadership by the leading teachers, three formats of activity are proposed: an **innovational** format, a **field of study** format and a **school** format. In each of these formats, or in a combination of them, the teachers will be able to pursue various roles that are detailed below (leading teacher-facilitator, leading teacher-developer and leading teacher-master).

General outline of the formats of activity:

1. Innovational format – Individual teachers will be invited to respond to a call for proposals for a program of activity in mentoring a learning community of teachers, developing lesson plans, and developing pedagogical tools and arrays of action research. Teachers or teams of teachers whose proposals are approved will join a community of leading teachers who will receive guidance as a leading professional pedagogical community during the entire course of its activity. The teachers will receive compensation, guidance, feedback, and formative evaluation of their activity as leading teachers, and will receive support for developing a practical plan for their activity. It is important to emphasize that the use of the term “innovational format” does not necessarily require proposing or inventing new formats. We assume that there are many existing examples in the present or in the past that are definitely suitable for implementing in this framework, and that teachers can base the proposals they submit on these examples. The basis for approving the proposal is that the leading teacher chooses and proposes the arena, topic or method, whether or not it is new, provided that he has demonstrated his ability to recruit at least ten fellow teachers to participate in his activity in the following school year.

In this format, the leading teacher himself is at the center of the process – he is the one who chooses the content of the leading process; he is the one who gathers around him a community of teachers; and he is the one who defines and formulates objectives and outcomes. The guidance the innovational leading teachers receive is so crucial precisely because of this centrality. This guidance must provide them with sources of knowledge and inspiration, as well as practical tools for instructing and developing – in addition to ongoing formative evaluation, of course. Such instruction and guidance will ensure that the dreams and initiatives indeed develop into processes with practical significance and relevance for the world of action.

2. Field of study format – A call for proposals will target leaders in fields of knowledge – supervisors and instructors at the Ministry of Education’s field of study centers (*Mafmar*), age-group divisions, and professional units, leaders of fields of knowledge in the education networks, etc. – who are interested in managing processes of professional development in this spirit for their national community of teachers. The call for proposals will invite them to propose plans for establishing and guiding a national community of leading teachers in the specific field of knowledge. The leading teachers will establish regional communities of teachers that will operate under their guidance and serve as a central place for a teacher’s professional development in the field of knowledge; develop pedagogical materials and tools in the discipline, demonstrate outstanding teaching and join research teams.

Leaders of fields of knowledge will identify outstanding academic or professional institutions in the particular discipline that can guide the work with the community of leading teachers in developing pedagogical materials and tools in the field of knowledge, and in collating and preparing them for

distribution. Mentors with expertise in the procedural-methodological field and in the content-academic field will advise the community of leading teachers. The instruction in the group of leaders will demonstrate and conceptualize facilitating a community of professional discourse and knowledge sharing, and will enable the study of new teaching strategies. As members of the community of leaders, they will also be able to: engage in the conceptualization of their work as teachers and facilitators; be at the leading edge of research and work in the field of knowledge; experience new ways of learning and apply them as teachers in their classrooms; process their experience and bring insights to their activity as facilitators in their regional communities.

This format demands substantial collaboration with leaders in the field of knowledge – they need to understand the potential in operating this format of professional development, recognize and encourage the distinction between the activity of the Leading teachers and the activity of the instructors in the fields of study, manage the required interfaces, and enable and support the activity of the leading teachers, of course. Only leaders of fields of knowledge who recognize the unique significance and value of the activity of the leading teachers and who diligently maintain this uniqueness – will enjoy the fruits of their work. Therefore, the choice to operate in this format must be theirs.

- 3. School format** – A call for proposals will be distributed to school principals, asking them to propose programs for creating pedagogical development spaces for the school’s community of teachers, under the guidance of leading teachers in the teachers’ room. (Large schools will require a number of leading teachers.) Principals can initiate joint efforts in the framework of school districts, localities and educational networks. The leading teachers can serve in a variety of positions (in coordination with pedagogical coordinators): instructing and mentoring of communities of pedagogical discourse, developing educational and teaching programs, or participation in relevant research teams, in evaluation and action research, and in knowledge management. The administration, together with the leading teachers (and with the help of system-wide tools described below), will develop the conditions that will enable the routine participation of the school’s teachers in the learning community. The school’s administration and pedagogical array will be involved as full partners in the process. In fact, the activity of the leading teachers will help to create a central arm for developing a school culture of learning by teachers and ongoing pedagogical improvement. The leading teachers will receive support and guidance in the framework of a regional community of leading teachers.

The challenges and contents areas that are in the background of the pedagogical development activity in the school format are interwoven with the organic issues stemming from the school’s life, such as demographic characteristics (sector characteristics, socio-economic characteristics, geographic location, etc.) Specific educational challenges (special education, inclusive education, programs for gifted pupils, unique educational philosophies) as well as social challenges.

In this format, it is also possible for a number of schools to organize in the framework of a locality, school district or educational network, and also collaborate with an academic institution according to the Professional Development Schools (PDS) model. In this type of cooperation, the coordinating entity will be a partner in appointing facilitators from the academic-content field.

This format demands substantial collaboration with school principals – they need to choose a channel of leading cultural change in all things pertaining to the professional discourse among teachers in the school, and one that is different from the prevalent one (which often depends upon external expertise and guidance); they must be willing to base the process of change on teachers in the organic teachers’ room, and on creating conditions that will enable open and safe conversation on pedagogical issues and challenges drawn from the school’s life.

Main roles of leading teachers

Presented here are the **three main roles of leading teachers**. Teachers will be able to adopt one or more of the activities described in each role, and to operate in the framework of one of the formats of activity described above, or in a combination of them.

1. Leading teacher-facilitator

- **Creating and advising regular frameworks for learning with colleagues in the education system** – Similar to professional communities in various fields (such as medicine and social work), there will be a routine of professional development in the framework of collegial communities, based on the challenges that arise from everyday tasks and on the interface between the classroom routine and trends in the school/education system. The leading teacher-facilitator's work will include forging a teachers' group, building and facilitating a program of meetings, leading the development of relevant pedagogical tools in the framework of the community he leads, and interaction with additional communities and educational/program entities.
- **Individual mentoring of teachers as an arm that reinforces the group processes**
- **Coordinating and managing the group's educational and pedagogical initiatives**

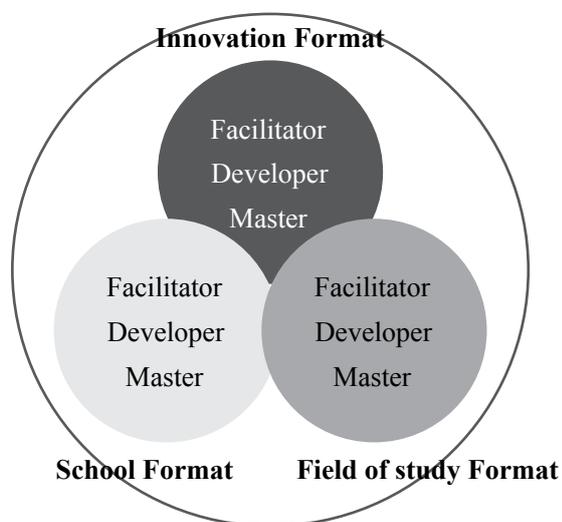
2. Leading teacher-developer

- **Developing pedagogical tools** – documentation, development and distribution of pedagogic materials that can be used by other teachers and in broader system-wide processes. The leading teacher-developer's work will include mapping what currently exists (conceptually and practically), sharpening the definition of the needs and objectives, building a teaching plan, operating and evaluating it on a small scale, and then update the plan accordingly and distribute it to his colleagues.
- **Partnership in practical-oriented research and development groups** – Identifying documentation and research needs in pedagogical work, analyzing and writing of results and insights, and presenting the products as a basis for discourse with colleagues and experts.

3. Leading teacher-master

- **Demonstrating exemplary and inspiring teaching** for observation and learning, for analysis and for deriving pedagogical knowledge, and for launching processes of instruction and learning in the school or outside of it. The leading teacher-master's work will include, for example, documenting teaching as a resource for analyzing and conceptualizing quality teaching, readiness to enable the observation of fellow teachers in their classrooms, identifying key points on which his teaching could establish or launch the teaching of the subject, and providing consultation during the stages of transforming the personal knowledge to system-wide knowledge and making it accessible. (The personal and group mentoring offered to the leading teacher-master will be adapted to the type of work and will be developed in conjunction with the regional coordinator of the array of leading teachers.)

Here is a diagram of the range of possible activities:¹²



Support and guidance of the leading teacher's work

The work of the leading teacher includes many components and stages that are described in this document: developing and defining a format and framework for his work, activity in the organic or professional community of fellow teachers in mentoring or in developing pedagogical materials, documentation and processing of the stages of his work, assessment of the impact of his work, and more. In order to support the leading teacher's work, **he will be invited to join a community of leading teachers** that meets on a regular basis and will be adapted to the various formats. This community will focus on pedagogical discourse and will develop theoretical and practical knowledge in the following fields: teaching adults and facilitating groups, developing programs of instruction and conducting assessment or action research, subject area content, content of macro pedagogy (approaches, objectives, research, critiques, etc.) and micro pedagogy (practice, observations, testimonies, tools, models). As part of the community of leading teachers, the leading teacher will engage in planning, processing and conceptualizing the process.

The community of leading teachers will be jointly guided by at least two facilitators: a methodological-procedural facilitator, whose expertise is in developing the skills of the leading teacher and guiding the implementation of his work plan; and the academic-content facilitator, whose expertise is in the field of professional knowledge (Bible, English, biology, etc.) or a field of educational content (at-risk youth, research learning, and so on) and in the pedagogy of these fields. It is valuable for the facilitators themselves to have experience teaching in a school. In addition, and particularly in the initial stages, the leading teachers will be able to receive personal mentoring in various relevant fields.

B.3 Principles for implementation

Organization – guidelines:

The basic assumption of the authors of this document is that the array for fostering and supporting the activity of leading teachers should be an integral part of the state education

¹² This diagram is part of the "The array of leading teachers" diagram that appears in the Summary section on p. 7.

system – involving its resources, branches and policies – and should be conducted under its leadership.

The education system includes a range of personnel, organizations and programs that interface with the processes proposed here. Thus, there is a need for coordination and integration with a range of entities –the pedagogical centers (*Pisga*), the Pedagogical Secretariat and its array of field of study centers (*Mafmar*) and instructors, school principals, education networks, the academic colleges for teacher training, schools of education in universities, teachers’ field of study centers, and more. **The Professional Development of Teachers Division will lead the coordination and integration of this interface.** In addition, the system should facilitate the conditions for the participation of the other teachers – the colleagues of the leading teacher – in the development processes as a routine part of their work. In creating optimal conditions for learning, a guiding principle should be “parallel learning processes” (that is, whatever enables meaningful learning for the pupils will enable meaningful learning for their teachers too).

Developing an array of leading teachers requires the collection and creation of knowledge – in order to formulate the role of the leading teacher and the tools he requires, and in order to transform the private practical wisdom of teachers into a general asset that is shared and beneficial. For this purpose, there is a need for unique investments and flexible development and research capabilities. In this area, the contributions of organizations external to the ministry are relevant – such as academic research institutes, foundations or other professional bodies.

Conditions for supporting the work of the leading teachers

Developing the system-wide conditions of activity will be based on the existing structures: hours of presence in school, hours of individualized instruction, hours of classroom instruction, and compensation hours required for promotion. Additional resources will also be required in order to complete the array of development and activity of the leading teacher.

- For the purpose of their work, the leading teachers will receive credit for at least one day of work per week – starting from the stage of joining the community of leading teachers and for as long as they fill the role of the leading teacher. This day will be devoted to the processes of their development outside of the school, as well as to their activity as leading teachers.
- The leading teachers will be members of a community of leading teachers who meet (in physical spaces and via the Internet) at least once every two weeks. As noted above, there will be joint facilitation in these communities that includes methodological-procedural facilitation and academic-content facilitation. If necessary, personal mentoring will be provided to guide the work of the leading teachers.
- The leading teachers will be given the right to approximately 60 hours of supplementary professional and academic education as they choose, funded by the Ministry of Education – some from among the courses and seminars offered by the ministry and some via direct registration for studies in academic institutions. These studies will be recognized for the purpose of compensation for advanced training.
- Each leading teacher will be able to request budgetary support, which will be awarded in accordance with criteria defined in the array of leading teachers.
- Time will be allocated each week for the participation of teachers in the activities offered by the leading teachers. The allocation of this time will be anchored in the framework of the employment structure and work of the entire community of teachers.

The practical-organizational array requires the building and development of:

1. **An implementation team** that will translate the general recommendations into a detailed work plan. (After about a year of work, this team can become a steering and advisory team.)
2. **Administrative array of the leading teachers – led by the Professional Development of Teachers Division**

The Administration for Developing Teachers, led by a dedicated contact person, will operate the array at the national level. The areas of activity will be:

- Developing and administering policy
- Coordinating the system's organizations and managing the interfaces
- Creating the system-wide conditions for optimal activity
- Appointing officials – regional contact persons, facilitators of leading teachers
- Operating national communities within Ministry of Education entities
- Involvement in building an R&D entity

At the regional level, about three sites will be operated. A regional coordinator will direct these sites and his role will include:

- Disseminating, reviewing and selecting calls for proposals; identifying and choosing leading teachers
- Training and guiding mentors of communities of leading teachers
- Managing the mentoring of the communities of leading teachers
- Guiding and mentoring the activities of the leading teachers
- Assisting the leading teachers in creating partnerships with relevant organizations
- Connecting and coordinating with the R&D unit – use of tools and knowledge, and sharing the accumulated knowledge

These sites can operate in existing frameworks, such as the districts, the *Pisga* (pedagogical development) centers or frameworks for teacher training. However, it is essential that they remain autonomous and under the supervision of the national administrative body.

3. **A content R&D unit will operate alongside the Ministry of Education, and will be supported with resources provided by third-sector organizations. Its work will include:**

Developing and guiding the activity

- Developing criteria for selecting leading teachers that will help the administrative and implementing entity in formulating calls for proposals
- Developing facilitating tools and tools for generating a professional pedagogical discourse in leading the teachers
- Building a base of knowledge, tools, and academic and professional research from Israel and the world on the subject of teaching and learning, and making it accessible to the leading teachers
- Research and development in the field of teachers' leadership
- Developing assessment and monitoring tools for the activity of the leading teachers and their impact (in coordination with the National Authority for Measurement & Assessment in Education – RAMA)

Processing the emerging pedagogical knowledge as a product of the activity of the leading teachers, making it accessible for use by the teachers and the system

- Collecting and conceptualizing the practical pedagogical knowledge that accumulates within the groups for all of the teachers; transforming “individual practical wisdom” into a shared professional-community asset
- Developing dynamic tools for disseminating high-quality and relevant pedagogical knowledge that constitutes a source of support and inspiration for all of the teachers
- Integrative managing of the accumulated knowledge and developing pedagogical tools in a systematic, research and critical approach

4. An overall evaluation of the program will be conducted by a professional body such as the National Authority for Measurement & Assessment in Education (RAMA).

B.4 Implementation stages

The proposal is to manage the implementation in a gradual way over a period of ten years. During the initial years, one of the formats of activity of the leading teachers will be added each year, and staff work will begin in preparation for operating the next format of activity. After several years, an evaluation and interim summary will be made, and it will be decided how and whether to continue the format of activity. The implementation plan will seek to achieve maximal operation of the array within ten years and include about 4,000 leading teachers (some 3% of the country’s 140,000 teachers, an average of one teacher per school). We assume that these teachers will have an effect on at least 60,000 teachers, with whom they will be in direct contact. Guidelines for a practical plan of the initial activity appear in Appendix C: From Theory to Practice: An Organizational implementation Outline.¹³

An implementation team should be formed immediately to: manage the research work, the mapping and the decision-making on formulating a detailed budget; coordinate the work of the leading teachers with other teachers in leadership positions; and plan the stages of practical implementation. In addition, the implementation team will need to examine how these recommendations interface with the promotion of other social missions, and should plan a combined and coordinated effort that will help in prioritizing the stages of implementation in this context (for instance: defining particular geographical regions or sectors in which to launch the activity, and giving expression to social interests when formulating the calls for proposals and when selecting the teachers and programs to approve.)

The voluntary participation of teachers in the activity in the initial years will not only enable them and the leaders of the various frameworks of activity (the field of study centers and principals) to be partners in shaping the process; it will also help them to internalize and demonstrate their responsibility for the challenge and the directions of development of the community of professionals in the field of teaching.

We suggest that periodic meetings be held throughout the stages of implementation between those involved in formulating this document of recommendations and those responsible for implementing them. These meetings will be devoted to updating and brainstorming.

¹³ At this stage, the recommendations do not include the array of early childhood and kindergarten. There is definitely room to consider expanding the activity in this direction in the future.

C. Anticipated issues and challenges in implementation

In addition to natural challenges of implementation, coordination and budgeting, there are unique structural tensions that accompany the possibility of system-wide empowerment of leading teachers. These tensions became sharper in the roundtable discussions and in meetings of the teachers' forum, and we expect that they will accompany the establishment and operation of the array of leading teachers. It is important that the array's development team is aware of these tensions and addresses them. The issues that arose include:

- **Labeling:** How will the labeling of the leading teachers affect their standing among the teachers?
- **Institutionalization:** Will the art – the vitality and creativity of the excellent teachers – be harmed by the processes of institutionalization? (In other words, will these processes give the teachers wings or, on the contrary, clip their wings?)
- **Integration:** How will the professional development activity of the leading teachers fit in with additional activities of professional development and training in the system and how will they complement them? How will the leading teachers fit into the array of existing positions (professional instructors, pedagogical coordinators, etc.)? In what way is there an overlap between leading teachers and senior ranks of promotion? Or is there a need to create such overlap?
- **Belonging:** At the level of the individual teacher, which of the three possible communities will receive priority? Can a teacher belong at the same time to several communities (innovational, field of study and school)? Will this entail a limitation?
- **Supervision:** What should be the extent of supervision of the teachers' leadership and who should conduct such supervision?
- **The employment structure:** In cooperation with the employers and with the teachers' organizations, the role should fit into the employment structure and compensation system of teachers in general and of leading teachers in particular.

However, the greatest challenge lies in spearheading the cultural change on which the recommendations are based. The main danger that will accompany the stages of implementation is the possibility that the proposed cultural change will slip between the fingers, leaving us with just another array of training programs like those we already know. Another identical array is unnecessary, of course, and would only be a burden on the teachers and on the system, and generate a sense of cynicism and mutual distrust between the teachers and the system. **Faith and confidence in the teachers is at the heart of the cultural change** – faith that a “learning teachers' room,” where internal conversation is conducted and regular personal learning occurs, is a key for significant learning by the pupils; faith that the teachers possess unique knowledge and that this knowledge is essential for improving the entire system. This faith and confidence should be boosted at all of the echelons – starting from the teachers themselves and extending to the education system and the academic and professional array external to the education system. This also entails the relations of the teachers and the education system with the parents and with the society at large. In order to navigate the establishment of the array while insisting on creating new spaces of conversations, it is essential to recruit top-notch professional facilitators in Israel in the field of mentoring and developing groups, facilitators who are capable of guiding the elite teachers in Israel.

D. Summary

What is the envisioned reality?

One of the questions that accompanied the process was: How will things look when the process achieves its objectives? In this document, we seek to describe the envisioned impact on the personal, pedagogical and professional development of teachers. Here is an outline of the picture of reality we aspire to achieve:

- **Thousands of leading teachers will work in the system** – beyond their ongoing work as teachers, they will function as leaders of teaching and learning, whether as facilitators of a community of teachers, developers of learning materials and teaching plans, conductors of evaluation and action research, teachers who demonstrate exemplary teaching, and so on.
- **The leading teachers will operate in different sectors but together they will comprise an echelon of system-wide leadership** – they will constitute a leading professional community in themselves, and will become an important core element in the educational organization.
- **The leading teachers will operate among teachers in each of their formats of operation.** In this way, tens of thousands of teachers will have an opportunity to regularly participate in activities conducted by a leading teacher – whether as a member of a community of pedagogical discourse, or as a partner in developing programs, or in research, or as a participant in observing and analyzing teaching, and more. The leading teachers will be responsible for identifying and drawing from the storehouse of teaching artistry present in the community of teachers.
- **Creating a culture of sharing, developing and disseminating knowledge** – establishing an experience of ongoing pedagogic creativity, of drawing mutual inspiration among professionals, of recognizing the importance of sharing and analyzing successes and challenges, and of opening the doors of the classroom to observation and analysis of lessons, including observation in classes of leading teachers.
- **A developing knowledge base** – built from the fruits of the teachers' activity; a base that is accessible and easy to use for all teachers.
- **Evaluation research** – will accompany the process and provide policy makers and practitioners with knowledge essential for advancing the process.
- And in the end – **an ongoing improvement and variation of teaching and learning processes**

The educational pendulum has swung during the past century between placing the program of studies in the center and alternative approaches that sought to place the pupil in the center. In recent decades, it has become increasingly clear that a third approach is needed – one that places the teacher in the center of the educational process. According to this approach, a significant educational process and valuable teaching efforts can flourish only if led by creative educators who enjoy system-wide backing, who are imbued with intellectual and professional self-confidence, and who are driven by a profound pedagogical passion.

In recent years, the Ministry of Education has prioritized the improvement of teaching and learning processes and the professional development of teachers. In light of this, we can understand a variety of efforts the ministry is leading – transforming school principals into pedagogical leaders via the Avney Rosha Institute, expanding evaluation of schools and teachers via RAMA (the National Authority for Measurement and Evaluation in Education), and, most recently, charting a policy of overall change in school learning patterns.

It seems that there is now a rare opportunity to connect the placing of teachers at the center with the needs of the pedagogical policy the ministry is spearheading. Creating a culture of pedagogical discourse of teachers, to be conducted by a large echelon of leading teachers – stands precisely at this connecting point.

Undoubtedly, this entails a profound cultural change whose challenges extend far beyond budgetary and organizational issues. The implementation of the change will require a system-wide effort and willingness for collaboration between divisions that are accustomed to acting separately and sometimes even in competition. The same cultural change demanded of teachers is also required at the system-wide level. These recommendations reflect a strong desire to create among teachers a culture of conversation, knowledge sharing and joint creation of knowledge. In the same way, this type of culture is also needed between the divisions of professional development and the ministry's Pedagogical Secretariat, between the *Pisga* (pedagogical development) centers and the colleges, and between representatives of the first sector and those from the third sector. The effort will naturally be difficult and require compromises and changes in habits, but the return on this effort is expected to be significant and to serve all of the parties involved.

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Appendix E: Brief Bios of Participants

The Steering Committee

Prof. Miriam Ben-Peretz, chair, is professor emerita at the University of Haifa's Faculty of Education. Prof. Ben-Peretz was head of the university's School of Education, founded its Center for Jewish Education in Israel and the Diaspora, and directed the center for a decade. She also served as president of Tel Hai College and chaired several state committees that studied education issues. Her research focuses on curriculum and teacher training and professional development, education policy and Jewish education. She has been a visiting professor in the United States, Canada and Germany.

Prof. Ben-Peretz chairs the steering committee of the School for Teacher Educators at the MOFET Institute, is a member of the professional committee of the National Authority for Measurement and Evaluation in Education (RAMA), the board of directors of the Zinman College at the Wingate Institute, and the U.S. National Academy of Education (NAEd).

She received her PhD from the Hebrew University of Jerusalem in 1977.

In 1977, Prof. Ben-Peretz received a lifetime achievement award by the American Educational Research Association (AERA), and she was awarded the Israel Prize in Education Research in 2006. In 2012, she received a lifetime achievement award from AERA in teacher education, and was also awarded an honorary degree from the Open University.

Prof. Lee Shulman is president emeritus of the Carnegie Foundation for the Advancement of Teaching (1997-2008) and Charles E. Ducommun Professor of Education Emeritus at Stanford University. Dr. Shulman was previously a professor of Educational Psychology and Medical Education at Michigan State University, where he was the founding co-director of the Institute for Research on Teaching. Applications of his groundbreaking work and leadership in the field include the creation of the National Board for Professional Teaching Standards and the shaping of programs for teacher preparation and professional development worldwide, based on his conceptions of pedagogical content knowledge for teaching.

Dr. Shulman is also a past president of the American Educational Research Association (AERA) and of the U.S. National Academy of Education; he received the AERA's highest honor, the career award for Distinguished Contributions to Educational Research.

Dr. Shulman received all of his academic degrees from the University of Chicago.

Prof. Bat-Sheva Eylon is a professor at the Weizmann Institute of Science. Prof. Eylon heads the Department of Science Teaching, is head of the department's Physics Group and Science and Technology Group for middle schools, and serves as an academic advisor to the National Teacher Centers in these fields. Prof. Eylon is the pedagogic director of the Rothschild-Weizmann master's degree program at Weizmann Institute for outstanding science and mathematics secondary school teachers. She is a member of the American Association for the Advancement of Science (AAAS).

Prof. Eylon's main areas of research interest are the study and instruction of physics in grades 7 to 12 and CPD (continuing professional development) for both teachers and teacher educators of physics and the sciences.

Prof. Eylon holds a PhD degree in Science Education from the University of California, Berkeley.

Prof. Naama Sabar Ben-Yehoshua is a professor emerita at Tel Aviv University. Prof. Sabar Ben-Yehoshua was one of the founders of the International School for Jewish Peoplehood Studies at the Museum of the Jewish People (*Beit Hatfutsot*); until recently she headed the Constantiner Chair for Jewish Education at Tel Aviv University. She currently serves as head of the master's degree program in Jewish Culture and Teaching Jewish Culture at Achva College.

Her research addresses school-based curriculum development, teacher training, ethical dilemmas of teachers, Jewish education, and qualitative research methods. She served as a member of the National Taskforce for the Improvement of Education (the Dovrat Committee) and chaired the subcommittee for teacher training and professional development.

She received a PhD in Science Teaching from the Hebrew University of Jerusalem in 1976.

Mr. Eli Shalev is a physics teacher at the Hebrew University High School and a pedagogical advisor to the HEMDA Center for Science Education, Rehovot-Nes Ziona.

Mr. Shalev holds a master's degree in Chemical Physics from Tel Aviv University (1990) and a master's degree in Public Policy from Hebrew University (2008).

Ms. Orit Sommer, the coordinator of the activity, is a teacher, organizational consultant and group facilitator. She has taught civics and history in secondary schools, and worked as an organizational consultant and group facilitator at the Zofnat Institute for Organizational Consulting. During the years 2009-2013, she was the principal of a Jewish community school in the United States.

Ms. Sommer received a bachelor's degree in Jewish History and Psychology in 2002 and is completing a master's degree in Social Psychology at Hebrew University of Jerusalem. She received a teaching certificate from the Kerem Institute in 2004.

She coordinates the Leading Teachers as Agents of Improvement in the Education System committee.

Members of the Roundtable¹⁴

Mr. Waji Abu-Qwaid is a teacher and vice-principal at the Neveh Midbar Bedouin elementary school, a pedagogical instructor and lecturer at Achva College, a lecturer at the PISGA Center in Beersheba and a project evaluator at the Kaye Academic College of Education. In the past, he taught in training programs for pre-school teachers and served as a coordinator of professional training in schools.

He is a graduate of the training program for social and community leaders conducted by the Mandel Institute and Israel Association of Community Centers, and is also a graduate of the Ministry of Education's management training program at the Avney Rosha Institute.

He received a master's degree in Education Policy and Administration from Ben-Gurion University (2009), and is working toward a PhD in Education at the university. He holds a teaching certificate from the Kaye Academic College of Education (1997).

Ms. Ariella Bar-Ami Itkis serves as the director of the elementary and secondary schools department in the Rosh Ha'ayin Municipality's Education and Youth Division since 2005. In this capacity, she leads and is a partner in shaping the city's education system. She has 34 years of experience in the education system as a teacher, coordinator and instructor in mathematics and computers, as an education emissary to Mexico and the U.S. under the auspices of the Jewish Agency, and as an elementary school principal in Tel Mond.

She received her bachelor's degree in teaching Bible and Mathematics from the Kibbutzim College in 1978, and earned a master's degree in Education (M.Ed.) from the University of Dayton (Ohio) in 1999.

¹⁴ The participants are listed in alphabetical order, with the position or academic/institutional affiliation they held at the time the activity began.

Ms. Gila Ben-Har has served as director-general of the Center for Educational Technology (CET) for over a decade. Prior to that, she headed the city of Tel Aviv-Jaffa's Education, Culture and Sports Administration, where during her four-year tenure she directed the municipality's educational policy planning and implementation. She is an alumna of the Mandel Leadership Institute's first group of scholars. During her studies there, she researched decentralization and centralization trends in the education system, and the role of the education system in local government. Her academic studies focused on curricula, educational administration, and technology in education.

Ms. Ben-Har received a master's degree from Bar-Ilan University's School of Education in 1995.

Dr. Avital Darmon has directed the Initiative for Applied Education Research at the Israel Academy of Sciences and Humanities since its inception in 2004. She taught biology in Jerusalem, founded and directed the National Center for Biology Teachers under the auspices of the Hebrew University and the Ministry of Education, and was director of the Mandel School for Educational Leadership. She served as a member of subject area and curriculum committees for the Ministry of Education (Biology, Science and Technology) and on committees focusing on teacher-related issues.

Dr. Darmon holds a PhD degree in Biology (1985) and a teacher's certificate (1988) from the Hebrew University of Jerusalem, and is a graduate of the Mandel School for Educational Leadership (1994). She is a member of the activity's advisory committee, representing the Initiative for Applied Education Research.

Rabbi Eran Daum is the principal of AMIT Shahaar, a six-year secondary school in Beit Shemesh. He is also a lecturer at the Livnot Midrasha in Modi'in and at the Machon Meir Kolel in Elkana. Rabbi Daum is a member of the Rabbinical Social Leadership program (Merhav, a project of the Memizrach Shemesh organization).

He was ordained by the Chief Rabbinate, received a bachelor's degree in teaching Bible and Oral Law from the Lifshitz College of Education and is a graduate of a principals' course. He also did graduate work in education at Hebrew University. His field of research is the educational philosophy of the Piasechner Rebbe.

Dr. Eli Eisenberg is the senior deputy director-general for R&D and training at ORT Israel. He was previously a member of the faculty at the Technion and a researcher at the Open University in England. He founded a technology center in England and a comprehensive technology education system on behalf of ORT in South Africa. In these frameworks, Dr. Eisenberg engaged in research, development, implementation and assessment of programs of study; in training teachers for certificates and degrees; in developing and implementing learning materials (hardware, software, computer-based training); and in research and development of models for guiding the implementation of technological education at various levels – in schools, in colleges and in training arrays in industry.

Dr. Eisenberg has 22 years of experience in teaching diverse populations, ranging from disadvantaged to gifted pupils, in training teachers and in re-training engineers for teaching careers. He has published dozens of professional articles in the professional press and at professional conferences, as well as textbooks for training teachers in technology education.

He received a PhD in Technology Education from the Technion in 1987.

Dr. Michal Golan is the director of the MOFET Institute – Research, Curriculum and Program Development for Teacher Educators. A teacher and administrator, she has worked for 25 years in training teachers in undergraduate and graduate programs for early childhood education. Dr. Golan also served as the head of the Faculty of Education at the Oranim Academic College of Education. She lectures on subjects of school administration and ethics in school administration at MOFET's School

of Professional Development. She also is involved in the professional training of teachers who mentor other teachers.

Dr. Golan received a PhD in Education Administration from Bath University, England in 2003.

Dr. Miri Gottlieb is the director of the Haifa District Experimental Center for Professional Development of Educational Staff (PISGA). Dr. Gottlieb has expertise in leading systemic professional development processes and in design and implementation of in-depth processes for enhancing the quality of teaching. At the PISGA Center, she directs research on the effectiveness of professional development processes. Dr. Gottlieb chairs the national committee for drafting standards for the PISGA Centers' work, standards that are at various stages of implementation throughout the country. She lectures on school staff development and empowerment at the University of Haifa and Oranim College in training courses conducted for principals. In the past, she headed the science and technology department at the Hadera Teachers Center, served as director of the center, and managed the development and training unit at the Branco Weiss Institute.

Dr. Gottlieb received a PhD in Chemistry from the Technion in 1988.

Ms. Amelia Haimovitch is currently director of the Central District in the Ministry of Education, which is one of the ministry's largest districts, encompassing 56 localities. In her previous position at the Ministry of Education, she was responsible for assessing and managing teachers in collaboration with RAMA, Avney Rosha and the ministry's early childhood divisions. In the past, she was the overall inspector and coordinator of elementary education in the Central District, principal of the Ganim elementary school in Ganei Tikva, director of the intervention program in the 30 Localities project, national training coordinator in the extended school-day program and a mentor in the field of language instruction.

She received a master's degree in Education Administration from the University of Liverpool, England in 1997.

Dr. Tammy Halamish-Eisenmann is the programs and research officer at the Trump Foundation. Since 2009, she has been teaching at Hebrew University and is among the founders of the unique master's program (M.Ed.) in teaching mathematics at the Jerusalem Teacher Training College. In the past, she taught math at various high schools and is today a lecturer in the School of Education at Hebrew University and at the Jerusalem Teacher Training College. Her post-doctoral research at the Hebrew University of Jerusalem focused on educational technology.

Dr. Halamish-Eisenmann holds a PhD degree in teaching mathematics from the Weizmann Institute of Science.

She is a member of the activity's advisory committee, representing the Trump Foundation.

Dr. Hagit Hartaf is the director of teacher training and assessment at the National Authority for Measurement and Evaluation in Education (RAMA). Dr. Hartaf has been the director of training at RAMA since 2006 and coordinates field training in assessment and evaluation for various communities in the education system. In this capacity, she engages in professional development of school assessment coordinators, in developing instructional materials and in leading a national forum of assessment advisors. Since 2009, she has been responsible for developing tools for evaluating teachers and administrators in the education system, is a member of a Ministry of Education team responsible for instituting teacher evaluation processes, and coordinates research on the use of these new assessment tools.

Dr. Hartaf received a PhD in Education from the University of Haifa in 2007.

Mr. Eli Hurvitz is executive director of the Trump Foundation and a member of the Education Committee. From 2000 to 2011, he served as the deputy director of Yad Hanadiv, the Rothschild family's philanthropic foundation in Israel. He was among the founders of the Avney Rosha Institute for School Leadership, and of the Nachshon project, which helps high school students through online mentoring. He currently serves on the boards of directors of HEMDA, a science education center in Tel Aviv, and of the It's All Education movement, which works to strengthen public education in Israel. Previously, Mr. Hurvitz coordinated the committee chaired by Justice Yitzhak Zamir on changing the status of the National Library and was among the founders of Guidestar, the online database project designed to increase the transparency of non-profit organizations in Israel. He began his public career as an aide to the chair of the Knesset's Foreign Affairs and Defense Committee.

Mr. Hurvitz received a master's degree in Middle Eastern History from Tel Aviv University in 1996.

Dr. Dalia Immanuel is the director of Beit Berl College's graduate program (M.Ed.) in Curriculum Planning, Instruction and Evaluation and head of the Spreading Wings for Teaching unit, designed to support teachers at the beginning of their careers. Dr. Immanuel focuses on professional development of teachers, administrators and supervisors. She serves as an academic advisor to the Ministry of Education in evaluating teachers and administrators, and she works to promote pedagogical change and the building of innovative schools. Her main areas of research are the integration of new teachers in the school system, teaching as a second career, developing partnerships between colleges and schools (PDS), professional development in teaching, evaluation and curriculum planning, and developing training for teachers who mentor other teachers in the education system.

Dr. Immanuel received a PhD in Curriculum Planning and Evaluation from Tel Aviv University in 1998.

Ms. Ruth Kopinsky chairs the Secondary School Principals' Organization and is responsible for secondary school education at the Israel Teachers' Union. She has 45 years of experience as a teacher and educator in the secondary school system, including 24 years as principal of the Ramle-Lod regional high school. She received a lifetime achievement award from the Ministry of Education (2008) and special recognition (Yakir Ha'ir) from the city of Lod (2010). Ms. Kopinsky was a member of the minister of education's education committee (2004) and today serves as a personal mentor of new principals on behalf of the Avney Rosha Institute and as a consultant to education systems. She publishes articles on education in blogs and education websites.

She is a graduate of Tel Aviv University's Department of Pedagogy and the Levinsky College of Education (specializing in the math and science track). Ms. Kopinsky earned a bachelor's degree in Bible and Literature and a master's degree in Educational Sciences, both from Tel Aviv University.

Mr. Ariel Levi was the director of Development and Learning at the Avney Rosha Institute for School Leadership from 2001-2013. He also served as principal of the six-year Gilo Comprehensive High School in Jerusalem (2001-2007) and mentored teachers through the Thinking Communities program at the Branco Weiss Institute (2000-2001).

Mr. Levi holds a BA degree in Philosophy and Education and an MA degree in Philosophy, both from Hebrew University of Jerusalem. He is certified to teach philosophy and is now studying towards a PhD degree in the Department of Education at the Hebrew University of Jerusalem.

Mr. Levi is a graduate of the Mandel School for Educational Leadership.

Prof. Roni Lidor is a professor at the Zinman College for Physical Education and Sport Sciences at the Wingate Institute and has served as president of the college for the past three years. In addition, he heads the Physical Education track in the master's program in Learning, Teaching and Instruction at

University of Haifa's Faculty of Education. His main fields of research are the learning and teaching of motor and psycho-motoric skills, the contribution of sport and physical education to a person's development, and the initial nurturing of talented children in sport. In recent years, he led a research team that studied the application of guidelines in programs to train students for teaching in colleges and universities.

Prof. Lidor received a PhD in Motor Behavior from the University of Florida in 1991.

Dr. Nir Michaeli, chair of the roundtable, is a senior lecturer at the Kibbutzim College of Education, Technology and Arts. He is currently the Dean of Pedagogical Development and co-director of the college's Institute for Progressive Education. In the undergraduate and graduate programs, he teaches courses on the sociology of education, educational policy and innovative pedagogy, political education, and other subjects. He served as the head of the college's Department of Education, as deputy director of the Kerem Institute for Teacher Training, as director of the Thinking Communities Unit at the Branco Weiss Institute, as a teacher at the Givat Brenner high school and as secretary-general of a nationwide youth movement (Hamachanot Haolim).

Dr. Michaeli is a graduate of the Mandel School for Educational Leadership. He received his PhD degree in Education Policy from Tel Aviv University in 2007.

Ms. Gila Nagar is a deputy director at the Ministry of Education and, since 2008, director of the ministry's Teachers' Administration. In this capacity, she promotes a view of continuity, reflected in the administration's structure and in its spearheading of a system-wide innovative approach of guiding teachers throughout their professional path – starting from the training phase, specialization and entry into teaching, continuing with professional development until retirement, and including management of the education system's human resources. She has served in diverse teaching and management positions: general inspector of schools, director of the 30 Localities project in Beersheba, training coordinator for the Southern District, inspector for institutional in-service training in the district, district inspector and acting district director. For ten years, she was principal of an elementary school that became the Experimental School for the Arts in Dimona during her stewardship.

Ms. Nagar holds a BA degree in Hebrew Literature and received an MA degree (with distinction) in Education (with a specialty in Curriculum), from Ben-Gurion University of the Negev in 1987.

Prof. Lili Orland-Barak is the dean of the University of Haifa's Faculty of Education. She conducts research on professional learning, teacher training, curriculum development, and the teaching of English as a second language. Her research focuses on three complementary directions in teacher training and professional learning: guided instruction and learning, teacher education, and development of programs of study. She previously served as head of the Department of Learning, Teaching and Instruction at the University of Haifa, and led the master's degree program in teaching. Prof. Orland-Barak also chaired a professional committee for teaching English in Israel from 2004-2012.

Prof. Orland received a PhD in Education from the University of Haifa in 1997.

Ms. Naomi Pagir coordinates activity in the Teachers' Administration at the Ministry of Education. She is a former teacher and coordinator of middle school science, a Central District trainer for middle school science and a district trainer for pre-service and new teachers. She served on a lead team promoting attitude change in schools and was an active civics coordinator and a coordinator in the CATOM (Class, Student and Teacher) program. In her current position, Ms. Pagir is involved in implementing curricula and enhancing teaching, and leads special programs and programs for excellence.

Ms. Pagir received a master's degree in Environmental Education from the Kibbutzim College in 2008.

Ms. Naomi Riftin is chairperson of the Pedagogical Secretariat at the Israel Teachers' Union. She was a history teacher in a secondary school for 21 years. Ms. Riftin was also a coordinator of seminars at the Givat Haviva educational center of the kibbutz movement, wrote on educational issues for the *Al Hamishmar* newspaper, directed the secondary school track in Rishon Letzion and was a coordinator of schools in the kibbutz movement on behalf of the Israel Teachers' Union.

Ms. Riftin earned a teacher's certificate and bachelor's degree in General History and History of the Jewish People (1973), both at the University of Haifa.

Ms. Eynat Rom is the Ministry of Education's inspector for professional development in the Tel Aviv District. She is responsible for the professional development of all educators in the district. This includes supervision of the eight pedagogical centers for professional learning in the district and of approximately 800 district educational counselors. These learning processes included individual, group, institutional, municipal and district frameworks.

Ms. Rom received a master's degree in Education from Bar-Ilan University in 1997.

Mr. Moti Rosner is the director of Division A in the Administration for Teacher Professional Development at the Ministry of Education, and director of the Jewish-Zionist Education institutes. Previously, he served as an emissary of the Jewish Agency's Youth and Pioneer Department in London and Los Angeles, and was the deputy director of the Administration for Value-based Education at the Ministry of Education.

Mr. Rosner received a master's degree in Education from the Hebrew University of Jerusalem in 1994.

Ms. Noa Savir is a science teacher and educator at the Herzliya Gymnasium High School in Tel Aviv. She is a member of the board of the Teachers' Movement – Educators, Leading the Way.

Ms. Savir received a bachelor's degree in Education and a teaching certificate with an emphasis on Environmental Science in 2011 from the Kibbutzim College, in the framework of the Hothouse for Educational and Social Initiatives.

Dr. Hany Shilton has served as RAMA's director of formative assessment since 2007 and has worked in this field for about 20 years. In her capacity as director, she is responsible for developing and implementing tools for schools to use in formative assessment. She is also involved in the TALIS (Teaching and Learning International Survey) project. Over the years, Dr. Shilton has been active in the professional development of principals, and in teacher training and professional development. In addition, she has integrated change processes in schools in the area of evaluation.

Dr. Shilton received a PhD degree in Research, Measurement and Assessment Methods in Education from Tel Aviv University in 2010.

Dr. Dorit Taitelbaum is the chief inspector for chemistry in the Pedagogic Secretariat of the Ministry of Education. Her main areas of activity are coordination and supervision of chemistry instruction; monitoring methods of teaching chemistry by conducting observations, tests and exams; assessing the level of study and pupils' achievements; fostering teaching methods in chemistry, including integration of thinking skills and learning through research; participation in curriculum planning and implementing the curricula in the system; guiding instructors and teachers in the district; and initiating in-service education for teachers and instructors. She was formerly a teacher and coordinator of chemistry at the Shimon Ben-Zvi School in Givatayim as well as a nationwide trainer for chemistry, particularly on the topic of teaching higher-order strategic thinking.

Dr. Taitelbaum received a PhD degree in Teaching the Sciences from the Weizmann Institute of Science in 2009.

Mr. Gideon Taran, a resident of Atzmon in the Galilee, served until recently as deputy director for pedagogy at the Reali Secondary School in Haifa. Mr. Taran was principal of the high school (Beit Biram) at Reali and the Ha'emek Hama'aravi middle school in Yifat. Today he plays a leading role in developing programs of pedagogical innovation and helps to design new educational models for the challenges of today.

Mr. Taran holds a bachelor's degree in Geography and History of the Land of Israel, and a master's degree in Political Science (1996) from the University of Haifa. He is also a graduate of the National Defense College.

Efrat Degani-Toperoff is the content development coordinator for education at Yad Hanadiv. She is one of the founders of the Ma'agalei Tzedek (Circles of Justice) association in which she is still active and serves as chairperson of its board of directors. She previously directed the association's education division. Ms. Degani-Toperoff also founded the Good Neighbor and Israeli Mosaic associations, and established and coordinated a community activities program for the Hartman experimental religious high school in Jerusalem.

She received a master's degree from the Schwartz Program in Management of Non-profit and Community Organizations in 2008, and a bachelor's degree in Talmud and Judaic Studies in 2004, both from the Hebrew University of Jerusalem.

Ms. Degani-Toperoff is also a graduate of the Mandel School for Educational Leadership.

Dr. Mahmoud Zuhdi is the director of the Education and Social Welfare Division in the Umm al-Fahm Municipality, a position he has held for 16 years.

He earned a PhD in Chemistry from the Hebrew University of Jerusalem. He worked as a teacher after doing post-doctoral work at the University of California, Berkeley.

Short bios of guest lecturers

Dr. Adam Lefstein is a senior lecturer in the Department of Education at Ben-Gurion University of the Negev. He was previously a lecturer at the University of London's Institute of Education, and directed the Thinking Communities program at the Branco Weiss Institute in Jerusalem. His research focuses on the relations between policy, pedagogy and classroom interaction. Dr. Lefstein is leading a study on processes of continuity and change in patterns of classroom interaction, dialogical pedagogy and the use of video in the professional development of teachers.

He received a PhD in Education from King's College London in 2005.

Prof. Ann Lieberman is a senior researcher at Stanford University. She is engaged in work and research with two centers operating at Stanford: SCALE (Stanford Center for Assessment, Learning and Equity) and SCOPE (Stanford Center for Opportunity Policy in Education). Her primary fields of research are teachers' knowledge, learning and leadership, and partnerships between schools and universities.

She is a professor (emerita) at Columbia University's Teachers College and is currently involved in two main studies: TLLP (Teacher Learning and Leadership Program) in Toronto and an international study on outstanding teachers, based in Ontario.

Dr. Yael Naot-Ofarim is a lecturer at the Kibbutzim College's Faculty of Education and Hebrew University. Dr. Naot-Ofarim specializes in theories of justice, citizenship, dialogue, education and administration. She initiated and directed research for principals in the field of school leadership at the Avney Rosha Institute, directed the graduate program in civics and democracy studies at Hebrew

University's Gilo Center, and represented the State of Israel vis-à-vis an international research team on the subject of civics education.

She is a graduate of the Mandel School for Educational Leadership and received her PhD in Philosophy from Hebrew University of Jerusalem in 2001.