

# Adapting Israel's Education System for the Challenges of the 21<sup>st</sup> Century

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Abstract

# Preparing and Adapting Israel's Education System for the Challenges of the 21st Century

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The fact that times are changing is reflected in many areas. There is a natural expectation that schools – the institutions responsible for the education of the next generation – will prepare for and adapt to the changes taking place outside their walls and equip their students with the competencies, knowledge, skills, and values that they will need in the 21<sup>st</sup> century.

More specifically, many educational researchers note that in the 21<sup>st</sup> century, the education system must change its emphasis from studying defined material and learning by rote, to imparting those competencies, thereby enabling students to contend with a changing world throughout their lifetime. Findings based on a meta-analysis of a large number of studies indicate that these include: information management, critical thinking, creativity and innovation, problem solving, collaboration, communication, technical skills, self-direction, lifelong learning, ethical and cultural awareness, and flexibility.

The need for adapting the education system is no secret to its leadership, and over the years various reforms have been launched aimed at generating change. From 1994 to 2014, nine pedagogic reforms were implemented, each of which aimed at adapting specific components of the educational system to the needs of the 21<sup>st</sup> century.

Despite these efforts, the education system is still struggling to adapt itself to the needs of today, as is evidenced by the significant gap between the stated goals and objectives of these reforms and what is actually happening on the ground in school classrooms.

Furthermore, PISA and PIAAC test results (despite the sometimes justified criticism of their validity) reflect the Israeli education system's low level of achievement, in comparison with that of other countries. This is especially the case with regard to the achievements of students on Israel's socioeconomic periphery, Arab citizens of Israel, and the ultra-Orthodox.

## Barriers to Adaptation

The first step towards promoting needed reforms is to identify and analyze the barriers to their implementation. On the basis of a comprehensive review of the literature which we undertook for our current research and based on the experience of the Israeli educational experts whom we interviewed, we can identify seven main barriers standing in the way of adaptation of the system:

1. The competencies required of students for matriculation exams and the admission requirements of the higher educational system are not compatible with those needed to meet the challenges of the 21<sup>st</sup> century.
2. School principals and teachers lack adequate mastery of 21st century competencies.
3. The education system is over-centralized, making it difficult to implement tailored policy that addresses local needs.
4. There is a tendency to standardize and focus on specific tests, at the expense of pedagogic autonomy on the school and local levels.
5. The education system is unwieldy; it includes many departments, often working simultaneously at promoting incompatible, or even contradictory, goals.
6. Israel's population is particularly heterogeneous, with various groups differing in both their characteristics and their needs, making it difficult and inefficient to attempt to implement uniform changes on a system-wide level.
7. Frequent political changes make it difficult to promote long-term goals. Reforms launched by politically-affiliated ministers are often discontinued or are not budgeted by their successors.

## Recommendations

We must continue our research in order to fully address and analyze the main barriers impeding on the adaptation of the education system, including the in-depth study of each specific barrier and its implications. At this current stage of our research, we are presenting preliminary recommendations on how to deal with three specific barriers and create the basis for a systematic model to update curricula.

### **1. Adapting national matriculation exams and the criteria for admission to higher education to the needs of the 21<sup>st</sup> century:**

- The competencies which schools must impart must be clearly and concretely defined.

- Clear evaluation criteria must be developed for each competency, so that each can be measured through testing, theoretical and experiential tasks, feedback processes, and by formative and summary evaluation.
- Consensus must be achieved between the Ministry of Education and the leadership of the higher education system as to the competencies with which each student must be equipped in the course of his/her studies, on the basis of the above evaluation criteria.
- These two systems must engage in active cooperation in order to develop more appropriate testing and evaluation methods to replace the existing matriculation exams.

## **2. Equipping school principals and teachers with 21<sup>st</sup> century skills:**

- There is a need for greater incentives for entering into the teaching profession, including raising salaries for first-year teachers.
- Admission standards for teacher training institutions must be raised, and academic supervision of training must be more stringent.
- Reforms should be planned and implemented to provide 21<sup>st</sup> century competencies to those in charge of preservice training, professional development, and in-service teacher training.
- Incentives must be provided to develop “teacher communities” which will introduce innovative pedagogic processes and tools.
- Both positive and negative incentives should be provided for the integration and implementation of innovative educational technology in pedagogic processes; positive—through grants and public recognition; negative—by delaying promotions and using organizational means.

## **3. Establishing a National Education Council:**

To ensure greater consistency and introduce educational reforms, we recommend the establishment of a National Education Council to initiate, promote, and implement reforms on the basis of a long-term perspective, and in partnership with various relevant sectors. We propose two alternative models for the Council’s work:

1. A council with executive and operational authority, created through the merger of several Ministry of Education units, to analyze the education system and formulate and promote long-term policy.

2. An advisory council whose activity will be based on the work of the National Economic Council and the National Security Council, operating in the Prime Minister's Office.

#### **4. Developing and implementing a systematic model for ongoing update of the curriculum:**

We propose to develop a model for systematic and ongoing updates of the educational curriculum so that it is better suited for meeting the rapid changes in the competencies and jobs of the 21<sup>st</sup> century. This model's main features are based on the comprehensive research carried out by Waks, Eisenberg and others (1988).

Adaptation of the curriculum to address 21<sup>st</sup> century needs and challenges should relate to all its components: pedagogic approaches; teaching and study methods; physical infrastructure and equipment; experiential learning in workshops and laboratories; and testing, evaluation, and feedback methods.

The timing and regulation of curriculum updates should be clearly defined, to ensure that the default process will be systematic and continually updated, rather than a reactive response to the specific demands of professional committees in charge of each study subject.

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