



Office of the State Comptroller  
Annual Report 71B | 2021

# **The Preparedness of the Ministry of Education for the Changing Labor Market**

Abstract





# The Preparedness of the Ministry of Education for the Changing Labor Market

## Background

In the last decade, studies indicate a trend of change in the labor market in the near future: Although the required knowledge and education differ between professions, workers in the changing labor market will have to develop and strengthen personal and professional skills in any profession.

The success of the State of Israel in facing the challenges of the changing labor market will depend, to a great extent, on the preparedness of the education system, especially on providing the skills required by its graduates (from kindergarten to twelfth grade).

The skills of the 21st century were defined as a key challenge to the educational system also in the International level. One of the global goals for sustainable development adopted by the United Nations' General Assembly in 2015 is to ensure equitable and quality education and promote lifelong learning opportunities.



## Key facts

### 1,835,459

Students in grades 1 to 12 studied in the education system from September 2019 to October 2020, representing 20% of the population. 42% of all students are in secondary school (grades 7 to 12).

### 8

The number of skills that research indicates are essential in the 21st century. These are critical thinking, problem - solving ability, self-learning and self-directed learning, creativity, collaboration, information management, digital and technological literacy. This audit focuses on these skills.

### 57

The number of skills mentioned in four policy papers prepared by MOE units in 2016-2019. These documents were not translated into a program with priorities.

### 29 and 33

Israel's ranking in the international Pisa<sup>1</sup> student tests of 2015 and 2018, respectively (out of 37 OECD<sup>2</sup> countries that participated in the test).

### 38%

Percentage of students in secondary schools who believe that the school does not train them for life, and does not provide them with the tools they need to integrate into the workforce in the future<sup>3</sup>.

### 10-11

Number of matriculation exams Israeli students are required to take to obtain a matriculation certificate. In other countries, the number of exams ranges from 2 to 5.


### 67%

Percentage of secondary school principals who indicated in the State Comptroller's<sup>4</sup> questionnaire that they enjoy only a medium and lower level of pedagogical flexibility<sup>5</sup>.

### 61%

Percentage of secondary school principals who indicated in the State Comptroller's questionnaire that, in their opinion, lower secondary schools provide students with the skills they need at a low or medium level.

## Audit actions

 From January 2019 to March 2020, the State Comptroller examined the Preparedness of the Ministry of Education's (MOE) in adapting the education system for the 21st century and in providing students with the skills they need to integrate into the changing labor market. The audit focused on lower secondary schools and upper secondary schools. The audit also examined the process for formulating a policy regarding the required skills for 21st century students, and the adaptation of the pedagogical programs to provide these skills, including their

- 1 The Program for International Student Assessment (PISA) is an international OECD test that measures literacy level among 15-years-old in three areas: reading, mathematics and science knowledge. The test is conducted every three years. The last one was in 2018.
- 2 The Organization for Economic Co-operation and Development (OECD). In 2020, the organization had 37 member countries, among them the United States, Great Britain, Germany, and France.
- 3 Based on the Pedagogical Climate and Environment report for the school year 2018-2019 prepared by the National Authority for Measurement and Evaluation in Education.
- 4 During the audit, the State Comptroller distributed a questionnaire among the principals of all secondary schools in all sectors, in all regions and of all supervision types. The questionnaire was sent to 1,961 principals and 757 responded (39% of all principals).
- 5 "Pedagogical flexibility" is the possibility the MOE gives education institutions to make decisions and act independently in pedagogical matters, for example - the curricula, time management, students' management, educational methods and approaches, teaching, learning and evaluation, and use of teaching resources to provide a response to unique local needs.

integration into the curricula, measurement and evaluation methods, and the level of pedagogical flexibility granted to schools.

The audit was conducted at the MOE's units and in secondary schools across the country. Complementary audit actions were conducted in teaching research institutions, including the Mofet Institute and the Henrietta Szold Institute. Furthermore, the audit included a comprehensive public participation process, including all head supervisors, focus groups of subject coordinators, and students of 11 upper secondary schools. A questionnaire was sent to 1,961 principals, with 757 responding (39%).







## Key findings



**Effects of and conclusions from the "meaningful learning" Reform** - the implementation of this reform began in 2014-2015, and its purpose was to adapt the education system to the 21st century and provide students with the skills they need. Five years since the MOE began implementing the reform, half of the staff in secondary schools - head supervisors, principals, and subject coordinators - believe that this reform had little effect on advancing the provision of the 21st century skills to secondary school students. It was found that until the audit completion date, the MOE did not carry out a methodical and comprehensive process for drawing conclusions regarding the reform to be able to formulate a continuing policy for providing these skills.

**Comprehensive program for providing the 21st Century skills** - from 2016 to 2019, different MOE units prepared policy papers to provide students with these skills. The policy papers pointed to many and diverse required skills, and in fact 'spoke in different languages'. Moreover, the MOE did not use these documents to formulate a comprehensive program with objectives, priorities, means, and schedules. As of October 2020, the ministry had not yet completed (or regulated in the Director General's circular) strategic work to define and implement the skills students need for the 21st century, with the "optimal graduate of the education system" at its core.

**Participation of external stakeholders in the strategic change process** - the audit found that external professional stakeholders were involved in the formulation of a future-oriented pedagogical policy, and all main MOE units were involved in the formulation of the strategic program. However, representatives of other Government ministries and of the higher education system did not participate in the process of formulating policy papers, and neither did representative from statutory bodies that have an impact on the labor market and on the skills the market may require. At times, even interested parties from the MOE's units were not involved in the process.

-  **Mapping the curricula to assess the skills included in them** - the Pedagogical Secretariat mapped the curricula to assess the extent of implementation of skills. This mapping work was conducted based on OECD guidelines, but only for a very limited number of curricula, and only in lower secondary schools. It did not take into consideration compulsory subjects, the curricula of upper secondary schools, and the head supervisors were not included in this process. The head supervisors conducted their own mapping, but 58% of them indicated that they did not map the curricula of lower secondary schools, and 36% indicated that they did not map the curricula of upper secondary schools. As a result, the status report conducted by the MOE regarding the required skills in the curricula is lacking.
-  **Schedule for updating the curricula and adapting them to the "Meaningful Learning" Reform** - since the launch of the Meaningful Learning Reform over five years ago, half of the curricula has not yet been updated, and the principles of meaningful learning were not integrated. According to the data of February 2020, 42 out of 82 curricula for all secondary schools (51%) were approved over ten years ago, and have not been updated since.
-  **Implementation and assessment of skills in the evaluation and measurement of students** - despite the fact that the international exams are changing, putting more emphasis on the evaluation of skills and less emphasis on the evaluation of knowledge, written matriculation tests in Israel (which today account for 49% of the students' final grade) almost do not refer to and do not test the skills of the 21st century.
-  **The scope of Matriculation tests in Israel** - the large number of exams in Israel (10 to 11 exams compared to 2 to 5 in other countries) creates a system that makes it difficult for schools to prioritize and invest in providing students with the skill they need. Alternative assessments, aimed at replacing some of the written matriculation exams stumble upon many obstacles, and therefore do not enable to assess how students manage the important skills that will allow them to integrate into the changing labor market.
-  **Pedagogical flexibility** - the level of flexibility given to schools is low - 67% of principals who answered the questionnaire indicated that they enjoy a medium to low level of pedagogical flexibility. In areas in which principals believe that increased flexibility would have greater contribution to the ability of providing students with the skills, they find there is the least flexibility.
-  **The role of lower secondary schools and their ability to teach skills** - only 18% of secondary school principals believe that the main purpose of lower secondary schools from the MOE's perspective is to teach skills; 61% believe that, in fact, lower secondary schools teach the required skills to a limited or medium level only. Despite the fact that the MOE began a process for adapting teaching approaches and methods in lower secondary schools to the 21st century, including skills tutoring, the many subjects studied and the high number of exams in these schools affect the ability to provide their students with the required skills.



**Formulation of a policy by the MOE for teaching the 21st century skills** - in July 2019, the MOE began defining the skills required by students in the 21st century and started setting a schedule to include them in the curricula, and in the professional training for teachers.

**Changes in matriculation exams** - the inclusion of questions about Values, Involvement and Relevance and high-level thinking<sup>6</sup> in matriculation exams is an appropriate step. It seeks to express a skill that is based on an in-depth understanding of both knowledge and thinking. This step points to the potential of using external evaluations as a compass in the education system, and may contribute to the provision of essential skills throughout the learning effort.

## Key recommendations

- 💡 **Formulating a comprehensive plan for imparting skills** - it is recommended that the MOE conducts a comprehensive process of drawing conclusions from the Meaningful Learning Reform. It is also recommended that the MOE complete formulating the program for imparting the required skills to students based on these conclusions and working in cooperation with relevant external bodies in the fields of education, government, employment, and civil society. This should be done by establishing either a National Education Council or an ad-hoc forum to deal with the changing labor market. It is further recommended that this program will be regulated in a binding MOE document such as a Director General's circular, which should be distributed to all field factors and outline the skills required by students. At the same time, it should synchronize and describe the status of the policy documents prepared in recent years by the MOE units.
- 💡 **Mapping the curriculum and implementing skills within their framework** - it is recommended that the MOE's Pedagogical Secretariat will consider to expand the mapping of the curricula into a system-wide, in-depth, and comprehensive process covering all curricula (or, at least, the curricula of all compulsory subjects), in cooperation with the head supervisors. This will enable them to assess how the skills of the 21st century appear in each curriculum.
- 💡 **Changing the method of measurement and evaluation for improving skills acquisition** - it is recommended that the MOE evaluates the inclusion of 21st century skills in the current matriculation exams. The Ministry should assess the high number of matriculation exams and its effect on the entire system. It is recommended that the MOE consult with relevant educational, government, employment, and civil society bodies.
- 💡 **Increasing the pedagogical flexibility to improve the imparting of skills** - it is recommended that the MOE will act to increase pedagogical flexibility according

<sup>6</sup> According to the MOE's definition, high-level thinking develops problem-solving, information analysis and critical thinking skills

to its policy, to the extent and in the areas required, in a way that will improve the imparting of skills to students.



**Defining the role of lower secondary schools with an emphasis on imparting skills** - in addition to the MOE's positive initiative led by Pedagogical Secretariat and the Pedagogical Administration to shift the focus and learning approaches in lower secondary schools and adapt them to the 21st century, it is recommended that the two entities complete the formulation of a policy regarding the unique and current role of lower secondary schools in the education system. Emphasis should be put on imparting the required skills to students.

## Summary

In order to prepare graduates to succeed in their future lives, in addition to imparting knowledge in various areas and values, the education system should also teach the skills students will need as adults in their social, personal, and professional lives in the 21st century. This is further reinforced by the fact that education systems around the world are working to implement such skills.

The findings of the audit indicate that in addition to preparing policy documents regarding the required skills and formulating a program for their implementation, there are deficiencies in both the planning and the policy, as well as in the operational implementation of the skills in the curricula. Deficiencies were also found in assessment and measurement methods, and in the level of pedagogical flexibility given to schools, in a way that makes it difficult for them to provide students with the required skills for the 21st century.

It is recommended that the MOE formulate a comprehensive policy and a strategic plan for implementing 21st century skills among students. The strategic plan should provide the framework to coordinated activity of all relevant MOE units. Inter alia, it should also include guidelines regarding ways to implement the skills in the curricula, the methods measurements and assessment, methods for teaching the skills in lower secondary schools, and the means to expand pedagogical flexibility in upper secondary schools.