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DOCTORAL SCHOOL OF SOCIAL SCIENCES AND EDUCATION

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DASMAN EL – FAHEL

FINLAND AND ISRAEL: A COMPARATIVE ANALYSIS OF STRATEGIC EDUCATIONAL POLICY

Specialization: 562.01 – The theory and methodology of international relations and diplomacy

Doctoral thesis in political science

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ADNOTARE

la teza de doctor în ştiinţe politice: **„Finlanda și Israel: analiza comparată a politicii educaționale strategice”,** autor **- Dasman Al Fahel, Specializarea 562.01** – Teoria și metodologia relațiilor internaționale și diplomației, Chișinău, 2023.

Structura tezei: introducere, trei capitole, concluzii și recomandări, bibliografie cu 275 de surse, 9 tabele, 24 figuri şi 12 anexe; 172 pagini de text de bază.

Cuvinte cheie: calitatea în educațe, politica educaţională, control pedagogic, dezvoltarea personalului didactic, strategie educațională, internaționalizare, sisteme educaţionale, serviciu educaţional, cooperare strategică .

Domeniul de cercetare: Teoria și metodologia relațiilor internaționale și a diplomației.

Obiective cercetării sunt: analiza ideologiei, a considerațiilor politice și a politicii care stau la baza conduitei și priorității naționale în Finlanda și Israel; identificarea componentelor politicii educaționale în strategia de conducere, stilul de management, nivelul de autonomie acordat funcționarilor; interpretarea caracteristicilor condițiilor prealabile pentru integrarea în domenii profesionale conform cerințelor secolului XXI.

Scopul cercetării se concentrează pe examinarea și analiza sistemului educațional a două țări - Israel și Finlanda, pe evaluarea mecanismelor, avantajelor și dezavantajelor fiecărui sistem, pe evaluarea semnificației succesului sistemului finlandez, impactul acestuia asupra societății și economiei și, mai ales, pentru adaptarea tinerei generații la cerințele de competențe ale secolului XXI.

Noutatea științifică şi originalitatea constă în faptul că este pentru prima dată când se efectuează cercetări comparative între două sisteme naționale de învățământ, unde într-unul, cel al Israelului, există o dorință reală și un angajament real pentru schimbarea imediată și internalizarea metodelor inovatoare și abordare în sistemul educațional. În opinia autorului, pe de o parte, punctele forte existente în sistemul de învățământ israelian ar trebui consolidate, dar, pe de altă parte, este nevoie de adaptarea unei paradigme de management contemporane pentru a îndeplini obiectivele acestui studiu.

Problema ştiinţifică este redată de analiza factorilor politicii educaționale și a sinergiei lor în consolidarea aportului la dezvoltarea economiei locale. Studiul aprofundat al diverselor aspecte a sistemului educațional, concluziile și recomandările autorului sunt orientate către îmbunătățirea politicii educaționale din Israel.

Importanţa teoretică a tezei este justificată de aplicarea metodologiei științifice, bazată pe analiza multidimensională a politicii educaționale israeliene și finlandeze în vederea găsirii indicatorilor ce corelează política educațională, accentul și procesele strategice din sistem și contribuția economico-ocupațională.

Valoarea aplicativă a lucrării. În baza cerințelor secolului XXI față de educație și sistemul de învățământ, autorul subliniază că în ultimele două decenii la nivel mondial sunt atestate procese, care accentuează tendința globală în toate domeniile vieții social-politice. Acestea influențează economia, societatea, administrația statului, cultura, obiceiurile și chiar viața cotidiană a tuturor locuitorilor. Caracteristica, definirea unor noțiuni, sintagme precum globalizarea, corelația dintre politica educațională și economie, prezentarea și evaluarea politicilor și strategiilor de dezvoltare a economiei și a educației etc. - constituie aportul autorului la dezvoltarea teoriei politice contemporane.

Implementarea rezultatelor ştiinţifice și-au găsit reflectarea în 17 articole publicate în reviste ştiinţifice din Republica Moldova, Israel, România şi Materialele conferinţelor ştiinţifice, dar şi în comunicările din cadrul diverselor conferințe științifice naționale și internaționale.

ANNOTATION

on the doctoral thesis in political sciences: **"Finland and Israel: comparative analysis of strategic educational policy"**, author - **Dasman Al Fahel**, Specialization 562.01 - Theory and methodology of international relations and diplomacy, Chisinau, 2023.

Structure of the thesis: introduction, three chapters, conclusions and recommendations, bibliography with 275 sources, 9 tables, 24 figures and 12 appendices; 172 pages of basic text.

Keywords: quality in education, educational policy, pedagogical control, teaching staff development, educational strategy, internationalization, educational systems, educational service, strategic cooperation.

Research field: Theory and methodology of international relations and diplomacy. The objectives of the research are: to analyze the ideology, political considerations and politics underlying the conduct and national priority in Finland and Israel identifying the components of the educational policy in the management strategy, the management style, the level of autonomy granted to officials; interpreting the characteristics of the prerequisites for integration in professional fields according to the requirements of the 21st century.

The purpose of the research is to examine and analyze the educational system of two countries - Israel and Finland, to evaluate the mechanisms, advantages and disadvantages of each system, to evaluate the significance of the success of the Finnish system, its impact on society and the economy, and especially for the adaptation of the young generation to the skills requirements of the 21st century. The scientific novelty and originality lies in the fact that it is the first time that comparative research is carried out between two national education systems, where in one, that of Israel, there is a real desire and a real commitment to immediate change and the internalization of innovative methods and approach in the educational system. In the author's opinion, on the one hand, the existing strengths in the Israeli education system should be strengthened, but on the other hand, the adaptation of a contemporary management paradigm is needed to fulfill the objectives of this study.

The scientific problem is rendered by the analysis of educational policy factors and their synergy in strengthening the contribution to the development of the local economy. The in-depth study of various aspects of the educational system, the author's conclusions and recommendations are aimed at improving the educational policy in Israel.

The theoretical importance of the thesis is justified by the application of the scientific methodology, based on the multidimensional analysis of the Israeli and Finnish educational policy in order to find the indicators that correlate the educational policy, the emphasis and strategic processes in the system and the economic-occupational contribution.

The applicative value of the work. Based on the demands of the 21st century towards education and the education system, the author points out that in the last two decades worldwide processes are attested, which accentuate the global trend in all areas of social-political life. They influence the economy, society, state administration, culture, customs and even the daily life of all inhabitants. The characteristic, the definition of some notions, phrases such as globalization, the correlation between educational policy and the economy, the presentation and evaluation of policies and strategies for the development of the economy and education, etc. - constitutes the author's contribution to the development of contemporary political theory.

The implementation of the scientific results found their reflection in 17 articles published in scientific journals from the Republic of Moldova, Israel, Romania and the Materials of scientific conferences, but also in the communications of various national and international scientific conferences.

АННОТАЦИЯ

к диссертации на соискание ученой степени доктора политических наук **«Финляндия и Израиль: сравнительный анализ стратегической образовательной политики»**, автор - **Дасман Аль Фахель**, Специализация 562.01 - Теория и методология международных отношений и дипломатии, Кишинэу, 2023.

Структура диссертации: введение, три главы, выводы и рекомендации, библиография из 275 источников, 9 таблиц, 24 рисунка и 12 приложений; 172 страницы основного текста.

Ключевые слова: качество образования, образовательная политика, педагогический контроль, развитие педагогических кадров, образовательная стратегия, интернационализация, образовательные системы, образовательная служба, стратегическое сотрудничество.

Область научных интересов: Теория и методология международных отношений и дипломатии. **Цель исследования:** анализ идеологии, политических соображений и политики, лежащих в основе поведения и национальных приоритетов в Финляндии и Израиле; знание структуры образовательной службы в обеих странах; выявление составляющих образовательной политики в стратегии управления, стиля управления, уровня автономии, предоставляемой должностным лицам; интерпретация особенностей предпосылок интеграции в профессиональные сферы в соответствии с требованиями 21 века.

Задачи исследования - изучить и проанализировать образовательную систему двух стран - Израиля и Финляндии, оценить механизмы, преимущества и недостатки каждой системы, оценить значимость успеха финской системы, ее влияние на общество и экономики, и особенно для адаптации молодого поколения к требованиям навыков 21-го века.

Научная новизна и оригинальность заключается в том, что впервые проводится сравнительное исследование между двумя национальными системами образования, где в одной, израильской, есть реальное желание и реальная приверженность немедленным изменениям и интернализации. инновационных методов и подходов в системе образования. По мнению автора, с одной стороны, существующие сильные стороны израильской системы образования следует укреплять, а с другой стороны, для выполнения задач настоящего исследования необходима адаптация современной парадигмы управления.

Научная проблема представлена анализом факторов образовательной политики и их синергии в усилении вклада в развитие местной экономики. Углубленное изучение различных аспектов системы образования, выводы и рекомендации автора направлены на совершенствование образовательной политики в Израиле.

Теоретическая значимость диссертации обосновывается применением научной методологии, основанной на многомерном анализе израильской и финской образовательной политики, с целью нахождения показателей, соотносящих образовательную политику, акценты и стратегические процессы в системе и хозяйственно-профессиональный вклад.

Прикладное значение произведения. Исходя из требований 21 века к образованию и системе образования, автор указывает, что в последние два десятилетия во всем мире отмечаются процессы, которые усиливают глобальную тенденцию во всех сферах общественно-политической жизни. Они влияют на экономику, общество, государственное управление, культуру, обычаи и даже повседневную жизнь всех жителей. Характеристика, определение некоторых понятий, словосочетаний, таких как глобализация, соотношение образовательной политики и экономики и др. - представляет собой вклад автора в развитие современной политической теории.

Имплементация научных результатов нашло свое отражение в 17 статьях, опубликованных в научных журналах Республики Молдова, Израиля, Румынии и в материалах научных конференций, а также в сообщениях различных национальных и международных научных конференций.

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LIST OF ACRONYMS

BOI – Bank of Israel

CBS - Central Bureau of Statistics in Israel

CHE – Council for Higher Education in Israel

ETF - European Traying foundation

ETLA - Economic Research Institute of the Finnish Economy

IEA - International Association for the Evaluation of Educational Achievement

INTASC - Interstate New Teachers Assessment and Support Consortium in Finland

MECC – Ministry of Education and Culture in Moldova

MOE – Ministry of Education in Israel

MOF – Ministry of Finance in Israel

NCEE - National Center on Education and the Economy in Finland

NIE - National Institute of Education

OECD - Organization for Economic Co-operation and Development

OSF – Official Statistics of Finland

PISA- Program for International Students Assessment

TDA - Teaching and Development Agency for Schools (in UK).

TLLM - Teach Less, Learn More

UNESCO- United Nations Educational Scientific and Cultural Organization

WIPO – World Intellectual Property Organization

INTRODUCTION

Relevance and importance of the research educational policy in developed countries around the world, among others in Israel, expresses a system of values and norms formulated by government in partnership with local society, and that determines organizational norms and doctrines and devises procedures and framework to realize them. The state role in shaping the optimal education policy and the need to express the political - governmental policy as defined in the government defined ideology are one of the required implementations. The desired image in forming the individual identity in society will be expressed through defining the general education system goals. Defining these goals is the basis for comparisons and inevitable competition with regard to the value systems and standards in designing society and local economy. These international comparisons of scholastic achievements are a loaded niche with political and social characteristics that will provoke a great public discussion in the participating countries, especially those who are members of global organizations as the OECD countries. The discussion scope and intensity increase the lower the country's position in the international achievement table. Each one of the countries participating the tests justifies in its method the connection between educational - political - economical ideology and the educational streams in the country. Therefore, the governmental leadership looks for models to improve the education image as a significant factor in shaping society, economy and implementing political theories and ideologies. The Israeli government struggles for many years on how to raise student achievements, but without any significant success. Many comparisons are made to countries as Finland and others. "Fair" comparison with various characteristics and starting points may be done with Finland. The geopolitical (except for security issues) and the social - economic struggles of the two countries are quite similar. The social texture, the economic needs and challenges, education streams and coping with minority groups are making a similar image between the two countries, and allows comparison and learning. Finland is known for an excellent education system for decades. The changes Finland has done, after the educational - economic crisis, led the system to a comprehensive innovation process, change in the educational perception and paradigm that is adjusted to the social - economic structure and obviously also influenced the results in international comparisons. Learning and society values as education status in the public agenda, innovation in evaluation and examination methods, updating and adjusting learning contents to the 21st century, and continuous examination of teacher training and his status in the system give Finland an advantage that other countries can learn from.

Therefore, this research relevance focuses the researcher on the required comparison between the two countries - Israel and Finland - in the values that were detailed above. It should be noted that successful educational policy and model application in other countries are also observed and examined in order to study the variables in the research. It is all to examine the strengths and weaknesses of both countries in order to learn organizationally and ideologically the Israeli system and propose systematic and especially interdisciplinary improvement process.

The importance of the research is in its significant contribution to decision makers in education system regarding the change in the macro and micro perception how to manage the educational system, beginning with the importance of changing the perception of education status in society, evaluation methods, teacher status and development in Israel, with the intention for international cooperation with the Finnish education system, peer learning and organizational transparency. The effort in the thesis products is for general education policy change out of a strategic perspective that improving the human capital, through the education system (from kindergarten to university), will significantly contribute to the economic and occupational abilities in the future.

The aim of the thesis is to examine and analyze mechanisms, advantages, and disadvantages in the educational policy of Finland and Israel, with the purpose of revaluating the significance of Finland's success, in the context of 21st century competences demand, and recent international policy of reterritorialization development and integrating international aspects into educational approaches. This aim will be achieved when the researcher reaches goals linked to comparing four main factors: status of education in the country, educational policy, status of teachers and curricula preparing learners for the 21st century. Research aims will be achieved by meeting the following goals:

1. Analyzing ideology, political considerations, and policy lines at the basis of conduct and national priorities of organizational mechanisms in the educational policy of both countries, in various countries, and in both countries - Israel and Finland.
2. Analyzing and defining educational services structural arrangements in both countries, including regulation mechanisms.
3. Identifying, analyzing, and defining educational policy components in leadership strategy, management style, level of autonomy, decentralization versus centralization in both countries.
4. Analyzing the status of the teaching profession with its social implication, training process and social status in both countries.

5. Analyzing and profiling threshold requirement to integrate into professions and paradigm about personality and professional abilities adapted to 21st century demands.
6. Analyzing considerations in choosing curricula in both countries.
7. Analyzing features in curricula matching 21st century adapted competences and abilities.
8. Analyzing the curricula response to the special need's spectrum of the learner population as presented in successful and applicable models in several countries in the world, as well as in Israel and Finland.

The research hypothesis. The researcher hypothesizes that a direct correlation will be found accompanying reciprocal effects between research variables including educational policy lines expressed by the status of education in Israel and Finland, management policy, paradigm bout curricula, management autonomy to make decisions and implement processes. The researcher also hypothesizes that the basis of the success of Finland education mechanism depends on appropriate regulation, directed professionally, devoid of political and budgetary pressures and blows, and in this situation makes a great contribution to the education establishment and its ability to respond to curricula changes, updates and 21st century adaptations, and formulating and developing the status of teachers within the education establishment.

The research methodology. Within the research the researcher was required to review and read sources, researches, opinion articles, statistics analysis, and monographs of opinion leaders and social and educational researchers from Israel, Finland and other countries. Political sciences and international relations theories are presented and examined within the review and analyses in order to present the development of geopolitical trends that have led countries, including Israel and Finland, to decisions regarding the educational policy in the country. Political processes that weighted and influenced civil - economic processes led some countries to the decision-making process to join the cosmopolitical move of globalization process, which contributed to competition between peoples and cultures. This process was reviewed to present reliable data from national institutes that have validity and reliability license as governmental offices. Organization as the World Bank data, UNESCO and the OECD, and information from authorities as the Central Bureaus of Statistics in Israel, Finland and every country, including Moldova. The subjects learning and analysis, the theoretical terms and the renewed definitions meet the university thesis requirements and the CNAA recommendations. First, in the first chapter of the thesis, the researcher presents philosophical discussion in the term definitions while expressing her opinion and defining it according to her understanding and personal

experience of dozens of years in the Israeli education system. The theoretical literature analysis includes ideas and messages from academic articles, researches and books of leading researchers from Israel, Finland, the United States, and some of the far eastern countries that are known in leading improved education systems as Singapore and China. Kim [142]; Hill [133]; Flawith [111]; Qingxin & Blyth [182], and other, are among the experts whose works are mentioned in the thesis. There is great attention to educational information sources from the educational establishment in Israel and in Finland. The researcher used methods for data comparison, data analysis and synthesis to make graphs and diagrams and to analyze statistical sources. The second chapter presents status analysis that examines all the research goals and the required objectives to confirm or refute the research hypotheses.

In addition, in order to find the influencing factors in the international comparison, the researcher has decided to complete the comparative finding map from the sources and conclude from it by having a statistical research based on variable quantitative analysis in regression model. For this purpose, statistical tools as Anova, T-test and correlation were used. The data analysis emphasized the relevant variables that required to be changed and improved to promote the educational system in Israel. The thesis third chapter includes diagnosis and learning of various models in the Israeli and the Finnish education systems. There is also a comparison that finds the factors who need to be changed or internalization of strategic concepts. The conclusion and recommendations chapter includes all the main conclusions and recommendations for the required structural and conceptual changes. It should be noted that the thesis ideas are already implemented in various cities in Israel and the application letters attached indicate this fact.

Justification of methods and research approach. The researcher employed a quantitative research method. This method is based on data collection from as broad a section as possible, many observations about numerical data, opinions, budgets, organizational structures and standards, quantitative response to survey results registered in stored information databases, and the like. After data collection, the researcher applied statistical tools to analyze it. Using statistical tools, research hypotheses will be tested and after data is annotated, it will be possible to draw conclusions and build action models and recommendations. Since in this case, a huge amount of data was collected, information was analyzed statistically to deduce conclusions. Among tools the researcher used are graphs, tables, data comparison and outputs over a number of years.

Informational support. All information presented in this thesis comes from reliable sources such as national bureau of statistics' websites in countries, information departments in

government offices, researched information from national research institutes as well as international information sites such as IIS, OECD, UNESCO, World Bank, CIA, and official information sites in various countries reviewed.

Summary of the chapters. In the **first chapter** of the thesis, the research author conducted a profound and philosophical discussion defining terms, expressing her opinions according to her understanding and personal experience of more than decades in the Israeli education system. The literary and theoretical analysis includes ideas on messages from academic articles, studies, and books by leading researchers in Israel, Finland, the U.S.A., and some far eastern countries known for leading improved education systems such as Singapore and China. From the Israeli researchers, the articles, books, monographies of Abu – Asbah [1], Belikoff [5], Ben David [6], Elboim – Dror [13], Blass [8; 9], Golan -Agnon [19], Keshti, Ariel & Shalsky [21], and Kfir [22]. From Finland's researchers, Aho, Pitkanen & Sahlberg [50], Flood [112], Halinen & Jarvinen [120], Hancock [122], Holm & Londem [137]. Among those experts whose works are mentioned in this thesis are Teichler [214], Sahlberg [190; 191; 192; 193] & Oplatka [32]. Much attention has been devoted to educational information sources from the education establishment in Israel and Finland. The researcher employed methods of comparing, analyzing and synthesizing data to produce graphs and diagrams, and also to analyze statistical sources.

The **second chapter** of the thesis contains an analysis of the existing situation in which all research aims were examined, goals required to prove or refute research hypotheses. Additionally, to find factors affecting international comparison, the researcher decided to conduct statistical research based on a quantitative analysis of variables in a regression model. For this purpose, statistical tools such as Anova test & T-test were used. Statistical analysis drew to the surface relevant variables needing change and improvement to advance educational arrangements in Israel.

In the **third chapter** of the thesis various existing models in the Israeli and Finnish education systems were diagnosed and learned, with an element of comparison to find factors necessary for change in or internalization of strategic views. Finally in the conclusions and recommendations chapter, all principal conclusions and recommendations for structural and perceptional changes needing action were written. It should be noted that the fact that thesis ideas have already been applied in various settlements in Israel, and evidence of this are letters of implementation attached to this work.

Research results and their contribution to solving the scientific problem. Over many years shoddy educational policy management tendencies have led the state of Israel from a leading place in the field of education (1970-1980) to the bottom of the worldwide table (of OECD countries, 2019-2020) in exploiting the abilities of Israeli students. This fact explains Israeli workers reduced productivity in many areas of employment, and a multi-professional workforce irrelevant to the future world of employment. The scientific results of the study include numerical data about students, learning results, economic concepts (national output, local output, employee percentage, unemployment percentage), comparison between models to develop education arrangements, critical review of educational policy in each country.

The comparison and learning process from Finland, as expressed in this study, will open an innovative and creative horizon to the state of Israel to leverage the status of education including structural change, curricula and training update and relevance, develop teachers' status and reposition the field of education in Israel. Solving this problem will open a different approach and significant direction to the state of Israel with the assistance of integrating an international component and new approach to addressing all population levels.

The innovativeness and originality of the current research is that it is the first-time comparative research has been conducted between two national education systems, where in one, Israel's, there is a genuine wish and real commitment to immediate change and internalization of innovative methods and approach in the educational system.

The researcher comes from the world of education and is an inspector in the northern region has tried to create change to stop the years' long deterioration process in the education system. In her opinion, on the one hand existing strengths in the Israeli education system should be strengthened, but on the other hand there is a need to adapt a contemporary management paradigm to meet the aims of this study. This response will be, according to the researcher, a fundamental change in Israel's educational policy, starting with macro process, until their micro expression at school level.

The volume and structure of the thesis: introduction, three chapters, conclusions and recommendations, bibliography with 275 sources, 9 tables, 24 figures and 12 appendices; 172 pages of basic text.

Key words: quality in education, educational policy, pedagogical control, teaching staff development, educational strategy, internationalization, educational systems, educational service, strategic cooperation, curriculum analysis.

I. EDUUCATIONAL POLICY AND STRATEGY, TRENDS AND PROCESSES.

The scientific literature analysis on the paper theme as well as reefing the research subject on a fruitful and academic discourse in political science, international relations theory and diplomacy, and defining the paper's methodologic basics, involves multidimensional research of events and social – political phenomena with correct reference to the educational policy discipline practiced in the countries, especially Finland and Israel. In this context, and considering that education policy issues were studied in many countries and many cases, according to the researcher, when comparing countries, it is necessary to make theoretical and methodological developments that allow a deeper and broader observation of the study subject. In the current research, the general theoretic literature will be analyzed in the researcher perspective, while presenting deeper understanding of the research subject, considering its new aspects and reidentifying and redefining new knowledge. This procedure will be made possible by analyzing data, theories and methodological approaches reflected from wide arsenal of sources on various educational policy models. The interdisciplinary approach, which is the research basis, as well as using diverse research methods, will lead to professional view of the research of international relations and political sciences in educational policy issues. All these will be expressed in formal and informal research methods, which allows the researcher to learn and renew an innovative prism of educational policy practiced in prosperous countries, emphasizing Finland and Israel, which are this research subject.

I.1. Educational Policy and Strategy in an Era of Globalization.

In recent decades, since the end of the 20th century, powerful process has taken place in the world known as globalization. These processes affect the economy, society, settlements, culture, and leaders, and even the daily lives of every country's resident [47]. Globalization processes are characterized by openness and lifting state boundaries, allowing rapid transfer of products, capital, people, information and ideas from country to country. Hence globalization has created a more uniform human society, in which companies and countries are more integrated with and dependent on one another. Countries, communities, economic societies and even individuals from all over the world can establish close connections with one another; economies, cultures and political movements are integrated with one another; and people behave to a great extent as if the whole world is one unit. Therefore, there are those who refer to today's world as a "global village" [48; 71; 82]. Burbules et al [79, 2-3 p.] maintained that globalization processes, which mainly consolidate economic systems and consider state borders and national

economy, bring about exaggerated returns in society, local culture, and priorities in choosing desired policies within each country. Dale [88, 288 p.] explained that just the movement of capital, products, people, and ideas, creates a designed reality of global geography, human activity, and sets new challenges for individuals in their relationships with their community, land, and state.

There are those who see technological developments in the second half of the 20th century as a key factor in accelerating globalization processes [91]. Mundy [165, 340 p.] explained that without these developments, globalization would not have reached the dimensions and power it has. He also added that technological developments in transport and new communication means frequently replace old ones, and hence produce a technological revolution, which serves as an engine for the spread of globalization. According to Ramirez, Meyer & Lerch (184, 44 p.], the technological revolution has changed the meaning of distance and time – it shortens distances and times, and reduces the costs of transporting goods, capital, information, and people around the world.

Globalization features. Globalization has a number of core features, and therefore the researcher will review some of them. The first feature is that multinational companies and corporations control all economic activity [145]. Brauch (76, 19 p.) referred in his article, "*Introduction: Globalization and Environmental Challenges: Reconceptualizing Security in the 21st Century"* to the national economic aspect and argued that prior to the global era, most economic activity took place in each country or as part of the links between states. Production was, on the whole, concentrated in one country, in huge factories or at least in a number of factories close to one another in which all stage of development and production occurred. Today, in the global era, multinational companies, also called multinational corporations. Now, Baruch [76, 16-18 p.] added, because of the amazing development of communication and transport means many multinational companies have discovered the benefit of moving certain economic activities to an external specialist source, even if they are fare away. Thus, over the last decade, an accelerated phenomenon of establishing outside sourced large companies, which are often established in less developed countries, provide various services such as telemarketing, customer service, software development, software testing and more. Another aspect the researcher wishes to address is the trade-economic factor, which links to international relations between countries.

According to Hogan, Seller & Lingard [136), in their article "*Commercializing comparison: Pearson puts the TLC in soft Capitalism*", the following the growth in global trade, countries have signed trade agreements. These agreements have created international economic

blocs such as, for example, the European Common Market (currently known as the European Union), which was intended to create a common economic market for a number of European countries; and the bloc established to encourage free trade between north American countries (U.S.A, Canada and Mexico).

Positive and negative globalization trends. Eyal [15] in his book "*The revolt against globalization*", from 2018, has argued that it is not yet possible to know what the final results of globalization processes will be, but it is possible already to summarize their effects on the present period. There is reasonably broad agreement that opening local markets around the world and their joining the global village includes a great number of benefits on the one hand, but on the other, difficulties. Alhaj [3, 15 p.] argue that globalization benefits and disadvantages change from time to time and country to country and depend on their location in a country's social and economic space and situation. For example, a **positive aspect**, but on the other hand also a negative one from a professional point of view, is the issues of investments and developing new technological employment centers which also lead to rewards in other employment sectors. The increasing demand for human resources in new employment centers attracts many workers from the field of agriculture [152]. The transition of human resources from agriculture to industry, technology and other sectors was also possible because of reduced demand for human resources in agriculture. This reduction followed the introduction of advanced technological means and methods into agriculture, as well as the possibility of importing agricultural produce in exchange for foreign currency acquired from exporting a country's principal products. Integration into global markets, therefore, reduces the number of people employed in agriculture and greatly increases those employed in industry and services associated with producing exports [123, 156-157 p.].

Steiner – Khamas [202] raised another **positive aspect**, which is the possibility of closing gaps between developed and less developed countries. According to Steiner – Khamas [202, 1-2 p.], and Vrger yet al [222, 22 p.], accelerating economic growth following integration into a global economy is an opportunity to close existing technological-economic gaps between less developed and developed countries. Less developed countries that have chosen to take part in globalization processes, were forced to adopt economic structures customary in developed countries, and thus close the technological-economic gap between them.

The researcher of the thesis adds [97], that less developed countries had to develop themselves without external influences, they would have needed decades or even centuries to reach development levels and life standards of development countries. Fortunately, the

globalization process greatly simplified and accelerated development processes and gap reduction. Additionally, less developed countries joining globalization processes enables sharpening of ideas, technologies, production methods, governance methods, principles and values accepted in western countries. Assimilation of these changes occurs differently and at different rates in every country – although in most cases, economic, technological and information areas necessary for a country's integration into the global market are assimilated first. Assimilating social and political values customary in developed countries is slower.

On the other hand, Wilson [229, 15- 17 p.] presents **negative sides** of globalization trends taking over the world. For example, one negative aspect is increasing the gap between rich and poor. According to Resnik [34, 83 p.], most residents in less developed countries do not benefit from economic growth and resulting economic profits. Unequal distribution of profits leads to noticeable differences in living standards – whereas a small proportion of residents, mainly those with capital and qualifications enjoy a real increase in their income, better living standards for most residents is much lower. Although the poor do not become poorer, the rich become richer and hence it can be said in general, that the globalization process in less developed countries (at least in initial stages) leads to increasing the gap between rich and poor. Greater inequality in income distribution leads to feelings of frustration and anger among huge layers of the public. **One issue on which there is complete agreement is the unambiguous need to reconcile a country's human capital** [34; 229; 48].

To integrate into advanced, and moreover international employment arrangements, countries must develop and adapt their factories to accepted western standards. In other word, to raise workers' skills and training levels, as well as training skilled professionals and workers that had not so far existed [48; 102; 47]. According to Adamali [47, 93 p.] every country must train a large number of workers with high abilities at various levels: from junior employees in key export industries, through mid-managers and free professionals, to senior managers, who have to adapt to customs and conventions accepted in the western business world. Furthermore, there is a high demand for international level service providers in the field of banking, economics, law, and marketing, in other words employment professions rich in knowledge economics [Anderson & van wert]. Bloom [71, 59 -60 p.] explored the issue and understood that to meet the demand for educated and skilled human resources, it had become necessary for strategic changes to the meaning of education and establishment of training centers at various levels: from establishing or expanding universities and colleges, expanding technological education, learning languages to increasing secondary school education, and in some places even primary school education.

According to Carmoy [82, 179 p.], generally this process is a political initiative translated into strategic change and educational policy, for example the U.S.A., South Korea, Finland, Australia and lately also Singapore. Teichler [214] in his article " *Internationalization Trends in Higher Education and the Changing Role of International Student Mobility*" found that state direction and encouragement, understanding the benefits of training human resources who can integrate successfully into the global market, will lead to significant improvements in a country's socio-economic abilities. Training professional and experts in various and diverse areas also leads to transferring the weight of employment to industrial and service sectors and changes the relationship between different sectors. Hence the researchers have concluded, and as appeared in her article "*The Comparative Advantages of the Internationalized Education System*" [97, 301-303 p.], that the component of an educational strategy in government policy directly and sequentially links to worldwide globalization.

Changes and reforms in educational strategies. Educational reforms are at the top of most country's agenda, although despite the huge growth in education costs (according to UNESCO [270], global education costs stood at 2 trillion dollars in 2019), and despite ambitions change efforts, the performance of many education systems have almost not improved at all for many decades. This is even more surprising because of the huge differences between the quality of education provided in many countries [88, 288 p.]. According to the 2020 McKinsey report [239], despite noticeable increases in expenditure on education and many well-intentioned reform efforts, the performance of many education systems has only slightly improved in recent decades. Few of the most common and supported reform strategies (greater school autonomy, for example, or reducing number of pupils per class) have produced promising outcomes. Nonetheless, some education systems have consistently demonstrated better and more rapidly improving performance than others.

Resin & Grunau [33, 80 p.] sought to explain that reform or strategic change in the world of education, or educational establishments, is an extremely complex process. Its success or failure depends on "reciprocal play" between change features themselves, and the education environment they seek to change. On the other hand, it depends a lot on reciprocal relationships between the entire educational "field and local government, responsible for policy guidelines. **Education required clear and consistent policy**, which will provide it with fair and constant funding, envelope an organizational culture aimed at excellence and achievements, investment in human capital, professional and political support to carry out desired changes and processes [79]. Both small and large countries have implemented strategic changes in their educational space as

a result of socio-political insights, which are linked to the previous chapter's subject – the influence of globalization.

According to Dale [88, 291- 292 p.], it is logical to think that the most important condition for the success of an education system is the money available to it. About 50 years ago, Singapore, Canada and Finland had failing education systems. Finland had one of the weakest economies in Europe and Singapore suffered from on ongoing civil war. Today they are considered as some of the most remarkable educational powers in the world. Finland's education system will be reviewed and analyzed in future chapters, and therefore the researcher seeks to present Singapore, Canada and other countries at this stge. Reforms carried out as part of a system's strategic, multidimensional management include changes in strategic lines translated into policy in different areas relating to the educational world. Below are examples of educational strategy based on government policy lines.

National education expenditure and structural reforms. Between 1990 and 2015, the public cost per pupil (minus inflationary effects) increased by 73% in the U.S.A [114]. In the same period the U.S.A. also employed more teachers: the pupil-teacher ratio reduced by 18% and average class size in American public schools in 2015 was smaller than it had ever been. The federal government, states, school councils, principals, teachers, teacher unions, corporations and non-profit organizations all invested tens of thousands of initiatives aimed at improving the quality of school education in the U.S.A. In contrast, practical outcomes, as revealed in American Ministry of Education independent assessments remained almost without change [153, 76 p.]. Although some improvement was found in mathematics, reading grades of 9, 13, and 17-year-olds in 2015 were the same as 1990. The U.S.A. is not the only country that has found it hard to improve it education system. In fact, almost all OECD countries greatly increased their spend on education during the same period and introduced multiple initiatives to achieve better value for money. However only a few of these education systems successfully improve their performance significantly. Many did not change at all. Pizmony- Levy [176, 125-127 p.] an American education researcher testified that reforms in the U.S.A. were no less ambitious and did not suffice with improving teacher-pupil ratios. They also tried structural reforms, first and foremost decentralizing authority in education regions, making schools smaller and opening public school charters – schools with greater autonomy and overall responsibility component. Policy makers in New Zealand profoundly changed the system's structure, decentralized authority to single schools, and put them under the supervision of elected councils.

Additionally, according to Schriewer & Martinez [196], two independent supervisory bodies were created and the role of central government in the education system was greatly reduced, after five years, at the beginning of the 2000s, almost a third of schools had failed. One decision maker explained: "*We were naïve to assume that the quality of classroom learning would improve on the basis of structural change alone*" [210, 425 p.]. A report analyzing similar reforms in Chicago, Milwaukee and Seattle in the U.S.A. concluded that "*the three regions decentralized resources and authority to schools in different ways and underwent significant organizational changes to carry out their ambitious educational improvement programs*" [210, 425 p.]. Unfortunately, reality, as viewed by many principals and teachers, was that regions could not widely change or improve educational doing. No one disputes that: "*It is impossible to improve learning without improving teaching*".

The only policy adopted in almost all educational policies was to reduce classroom size, but data has revealed that with the exception of the youngest age groups, reducing class size does not particularly affect pupils' achievements. Of 112 studies examining the effects of this change on pupils' grades, only 9 found any type of positive correlation. 103 found no fundamental correlation between reducing class size and achievements or alternatively identified a significant negative correlation. Even when any link was found, the effect was not great. More importantly all these studies showed that the typical class size in OECD countries brought to attention significant effects in terms of available resources: smaller classes needed more teachers, which reduced funding per teacher (same overall budget). The increased demand for teachers also forced education systems to be less fastidious in choosing teachers.

Nevertheless, looking critically and from another angle, there are education systems demonstrating faster improvement and progress. Singapore is at the top of the TIMSS (international mathematics and science performance test) table, even though it spends less on primary school education per pupil in relation to more developed countries [218, 430 p.]. In Finland, pupils only start their studies at aged 7 and study no more than 4 or 5 hours per day in their first two years, but at aged 15 they are already in first place in mathematics, science, reading and problem-solving tests – 50 points above their neighbors from Norway. According to the World Education Organization [259], Boston in the U.S.A increased the number of pupils meeting state standards from 25% to 74% in mathematics and from 43% to 77% in English, within only six years (to 2016). There are naturally unavoidable differences between schools: policy makers in Seoul, Helsinki and Chicago operate in completely different cultural and political contexts and have top cope with various challenges [202, 1-2 p.]. There are education

systems that appear to be at complete poles: Holland attributes a large part of its pupils' success to the most decentralized inspection system; Singapore argues that it succeeded because of close central inspection; the English education system covers 23,000 schools whereas Boston covers only 150.

However, there are basic similarities. It was found that excellent education systems, even if they are built differently and rooted in completely different contexts, greatly emphasize improving teaching because of its direct effect on pupils' achievements. According to Adam [2, 297 p.], the best education system successfully do three thinks consistently to improve teaching: (1) integrate the right people into the teaching field (the quality of an education system cannot improve without raising the quality of its teachers); (2) provide those chosen for teaching with professional development and turn them into effective teachers (the only way of improving outcomes is by improving teaching); (3) establish focused support framework and arrangements guaranteeing that every pupils can enjoy excellent teaching (the only way in which the entire system can reach optimal performance is by raising the performance bar for every student).

I.2. Educational Policy, Definitions, Streams and Influences.

In many countries, and especially the 34 OECD member countries, comparing education systems and results has become a real political and communication obsession in the past twenty years. In a few, it was a reason to celebrate, in others – a reason for panic and exchanging accusations. Across the range there are countries that know how to weigh international findings calmly, carefully, and critically before decision what actions, if any, to take. The idea of comparing educational policies may seem innovative, but to a certain extent, is not. International comparisons in education and global dissemination of educational ideas are part of the current era mainly as a result of globalization, which was discussed previously [25; 41; 54].

Time changes are noticeable in diverse life areas, and the expectation is that education systems, headed by educational institutions, belief in education of future generations, would adapt themselves to these changes and act to instill skills needed in the 21st century. Anderson [Anderson] presented an ideological dilemma, in which he analyzed various countries' educational policy as an outcome of educational approaches common in local culture, and decision makers' worldview. He maintained that these approaches led educational policy lines. Berger [66, 11 p.] agreed with the same ideological line and detailed *two principal educational approaches*. One is called *meritocracy* in education, which fundamentally argues for promoting excellence among capable students [65]. According to leading advocates of this approach, with a macro philosophical-meritocracy look, it is a socio-political view in which people with power

are chosen or appointed to their roles on the basis of their abilities. Therefore, a state is obligated to nurture individuals' abilities to man roles required to lead a country and its civic areas. The meritocratic principle determines that all who can and want to – succeed, and this too is how it is attributed in its interpretation and approach to the world of education. This philosophical approach is attributed here to the benefit of its contribution to educational policy aimed thus because it negates the argument that people with power are chosen according to their wealth, social status, or by public citizens. In other words, if a student proves him/herself, s/he will be able to progress on life's journey, everything depends on education and process.

The term was coined by Michel Dunlop Young in 1958 in his book "*The Rise of the Meritocracy*" [56]. Young coined the term in a derogatory manner, but over the years it has also earned a positive meaning. In contrast, the second approach called constructivism (or constructing knowledge) in which it was argued that any mental activity was based on building knowledge and abilities. Ansgar [56, 368 p.] pointed out that constructivism (in education) is an educational theory explaining how knowledge is acquired. The theory emphasizes the role of learners in the learning process and encourages active learning. Learning occurs in a process of doing, by constructing knowledge and learners' responsibility for this knowledge. The word 'construct' means building. Building or constructing knowledge is the guiding principle in this theory. The methodical foundation for this approach is that students' abilities in learning develop in parallel to cognitive development, and each stage is based on its previous stage through interactions with their environment in an active process of activating thinking, emotion, and social abilities. Antoniovoa & Mashal [57, 425 p.] philosophically expanded the traits of this approach and argued there were three fundamental views characterizing the constructivist approach to learning: (1) knowledge does not exist in isolation from knowers; (2) learning is a constructive process; (3) learning is a social activity. Here too, Bransford, Darling – Hamond & Lepage [75, 7;12 p.] mentioned that the idea is that students do not receive knowledge from teachers or textbooks passively but construct their knowledge themselves. In recent years, this approach has been widely discussed as a basis for reform in ways of teaching, The approach has been discussed in preparation for macro policy for various reforms in the education system. Educational approaches and views have created for themselves supportive audiences, both in educational and political environments responsible for determining educational policy.

Educational policy and reciprocal relationship between the educational establishment and the state. Fullan [115, 72 p.] looked at educational policy formulation as a tool for political application, enabled by transmitting messages, which at the end of the day,

produce the thoughts and social qualities of the public. Hay [128] in contrast argued that educational policy in countries around the world expresses values and norms society formulated about how their leaders view the next generation of citizens. This policy, on the whole, will determine arrangements, standards, norms, and framework to realize ideas and perceptions of education as policy leaders determined as right [134, 3 p.]. Mackinnon [155] advocated that the role of the state in designing educational policy, and its desired image of how future individuals will appear in civic society is often described in laws and values defining the aims of the overall educational system. Ocks & Phillips [172, 325 – 326 p.] added that defining these aims is fruitful grounds for competition and conflict about groups' accepted value systems, opposed in society, as well as educational aims defined in law. Popham [179] and Rizvi & Lingard [186] added that international comparisons of learning achievements are a politicly and socially charged field awakening strong public debate in many countries. The scope and power of this debate grows the lower the country's place on the table of international achievements. Therefore, the researcher asks, what is educational policy? Robinson & Aaronic [188, 140- 142 p.] explained that educational policy refers to principles and determining government policy lines in the field of education, as well as a collection of laws and regulations operated and legislated around educational systems' operations. Educational policy exists in many routes, for many goals and through many institutions. According to Thomas & Ely [216], educational policy can also refer to the budgetary and funding side by which educational facilities (schools, training centers, etc.) are funded, to the mix of funding sources supporting educational programs at all levels.

Another opinion was voiced by the education researcher Anyon [6, 76 p.], who researched educational policy in the U.S.A. over the past seventy-five years, both nationally and locally. Her findings revealed that this policy included reforms of curricula, administration, and funding, all in an attempt to improve the level of education. In other words, policy lines mainly addressed operational issues, and not the world of content. Hall [121, 276 – 279 p.] who researched educational policy in Britain revealed that the purpose of creating an educational policy is to realize policy decisions, investigate and analyze them, examine how they succeed in coping with the complexity of the problem of educational quality.

Hanushek & Woessmann [124] examined this more critically and explained that national policy in areas such as employment, pay, accommodation, tax, or transport, are likely to preserve marginality and poverty in certain communities, and hence to produce environmental conditions damaging the possibility of leading an organized and stable educational policy (for example, a policy that every country's Ministry of Education wants to lead). To illustrate this, Kozma [143,

5 p.] added the example of low pay for teaching staff policy, which has resulted in quality human capital not reaching the world of education. Another example is expensive accommodation and transport policies, which have led to family priorities making investment in education an elitist product for those of means alone. Its intention was to resolve systemic problems in the field of education, but it is not enough to improve school circumstances or status of education in society, but reform is needed in public policy as a whole.

Marginson [157] added, similarly to all opinions written here, that educational policy must include clear indicators to address national issues of laws and regulations in teaching, curricula and testing. Considering the huge influence of economic accessibility on learning achievements, strategies to improve the economic circumstances of weakened communities through educational policy, must be incorporated in all policy lines interested in improving a country's state of education.

Effect of teaching quality. The best education systems consistently attract the most qualified people to the teaching profession, which leads to better student outcomes. They do this by strictly filtering candidates for training, developing efficient processes for choice-appropriate candidates, and paying good salaries to novice teachers [61, 117 p.]. Aiello et al [51] added that systems undertaking these fundamental steps routinely raise the profession's prestige and ability to attract even better candidates. The quality of education systems depends on the quality of their teachers. Evidence that integrating the right people in the profession is a critical factor for high performance are *both anecdotal and statistic* [61; 59]. As stated by one policy maker in South Korea, "The quality of the education system cannot be higher than the quality of its teachers" [Bukingham]. 15 studies conducted in the U.S.A. showed that "*teachers' literacy level, as reflected in measuring their vocabulary and other standard tests, affect pupils' achievements more than any other teacher measure*" [85, 177 p.]. Some studies [87; 84; 118; 94] found that teachers working on the Teach for America program, which recruits best university graduates, produced better results from their students compared to other teachers. Harvey [127] added although these teachers only underwent a short training period, they worked in the most difficult schools. According to a McKinsey organization study in 2020 [239], the best education systems examined, recruited their teachers from the top third of every year to their education system: top 5% in South Korea, top 10% in Finland and top 30% in Singapore and Hong Kong.

Mackinnon [155, 91 p.] described how England turned teaching into the most in-demand profession among graduates and postgraduates in the past five years alone. Even systems in which the teaching profession was traditionally held in high esteem, the huge effect of policy on

teachers' quality was noticeable. Finland, whose teacher recruitment policy, and educational policy in general, which will be detailed later, raised the status of teachers in elementary schools in relation to high schools by increasing salaries by only 100 Euros per month. In South Korea, in contrast, there is a significant difference in the status of elementary and high school teachers; this different is attributed to a government policy of supervision of teachers' output at elementary teachers training institutions. In all education systems, it became clear that policy has a power influence on the status of teachers irrespective of the cultural context of its implementation. The researcher, in her article "*Incentives and Rewards for Teachers. The Case of the Israeli Education System*" [103], presented an overall look at different education systems and revealed common strategies and successful methods, especially to attract good candidates to the teaching profession. England increased its output of quality candidates using accepted business marketing and recruitment methods.

Importance of teachers' status. In all examined education systems, we discovered a strong link between their ability to attract the right people to the profession and professional status. Surveys conducted in Singapore and South Korea showed that the entire public believed that teachers contributed more to society those other professionals. Geeraerts et al [117] said that new teachers examined in all education systems reported consistently that the status of teaching is one of the most important facts in their decision to join the profession. In all education systems, teaching status is linked to powerful feedback loops. The more the profession's prestige rose, the greater the number of qualified people who became teachers, and thus professional prestige grows even more. This process is especially clear in Finland and South Korea, where strong traditions of teaching provided it with high status in the eyes of the public and allowed their education systems to recruit even more high-quality teachers and thus perpetuate this prestige. In contrast, when the profession suffers from a low status, it attracts less qualified candidates, pushes teaching status even lower, and with it the quality of people it can attract. The power of these feedback loops shows that seemingly small policy changes are sometimes likely to have an enormous effect on the status of the teaching profession. Teachers' status in all education systems is mainly affected by policy, and this can change this status very quickly. According to Hoxby & Andrew [138, 237 p.], there are two main approaches taken to change the status of the teaching profession.

A. Distinct branding: Boston, Chicago and programs such as *Teach First* (in England), and *teach for America* (in the U.S.A.), all produced distinct "brandings" alongside a different status. Hence, for example, the *Teach First* and *Teach for America* programs successfully

branded themselves as programs distinct from teaching in general. In other words, a chosen, special group with its own organizational values of quality and excellence. Teach First successfully made teaching acceptable to groups that in the past had seen it as having a low status by structuring its participants as an "elite group".

B. Systemic strategies: Singapore and England applied sophisticated marketing strategies, alongside recruitment programs intended to raise the profession's prestige. In both cases, the systems adopted proven modus operandi from the business field. Marketing activities were supported by tangible improvements to previous working conditions, especially salary increase. The **T**eaching and **D**evelopment **A**gency for Schools (TDA) in England tracked responses to its advertising campaign, and on the basis of feedback carefully adapted its approach.

According to Schleicher [195, 33-34 p.], the agency was asked to raise the quality and increase the number of candidates for teaching. To do this, it applied marketing and recruitment methods employed in the world of business: (1) it carefully identified its target audience; (2) tracked individual candidates using a sophisticated human resource management system; (3) made detailed plans for discussions between its representatives and teaching candidates; (4) collected feedback through surveys and market research. It also supported two distinct programs aimed at different market segments: Teach First for excellent university graduates and Fast Track aimed to attract and develop those with potential for educational leadership. Most education systems revealed that professional image was associated both with education demands and training given to teachers. Policy makers in Finland, for example, improved the profession's prestige when they insisted that all teachers had a postgraduate degree. Policy makers in Singapore achieved a similar result by strictly monitory academic levels in its training courses and providing 100 hours of paid professional development to all teachers.

I.3. Education Policy in Israel and Finland.

Educational policy and system in Israel. The complexity of Israeli society and its diverse human tapestry are reflected in its education system. The heterogeneity of the Israeli education system is expressed in different ways in its structure, policy governing budgets and existence of wide range of education institutions and streams in the state system [13, 45 p.]. Michaeli [29, 195 p.] added that the Israeli education system does not operate in a vacuum, it is an expression of the norms and values surrounding it, and hence refers to Swiriski [39, 233 p.], which argue that its fundamental structure is based on two streams of education accepted in the modern world, state-public education, and private education. This is not an Israeli invention, but

a model copied from many other countries. Hence, legislation and approval for educational framework and streams in Israel recognize three main educational streams, as well as other streams (and institutions) located under the system's organizational umbrella. Recognitions of these streams and institutions depends greatly on the nature of their ownership, and degree to which they are subject to the Compulsory Education Act (will be detailed later). Fundamental educational policies, decisions, priorities, budgetary nature and amount and registration steps for institutions and streams are determined and directed by the government through a Knesset (Israeli parliament) committee and the office of the Minister of Education [250]. The new Minister of Education is Dr. Yifat Shasha-Biton, who was chosen recently (15.06.2021).

Structure of the Israeli Ministry of Education. The Israeli education system includes formal and informal education. According to MOE [250], formal education is made up of the following main stages of education: preschool education, primary school education, secondary school education (junior-high and high school), further and higher education. Informal education includes actions in society and among youth in areas of adult education. The Ministry of Education's responsibilities are legislated in education laws and the Minister of Education supervises their performance, regulations and instructions published in internal directives (Director General circulars). There are also a number of laws, for which other ministers are responsible, but the Minister of Education also has authority for everything connected to education. The pedagogical secretariat, a professional unit in the ministry, is responsible for the technical-professional part [23, 173 p.].

The pedagogical secretariat is the highest authority in the Ministry of Education for all the educational system's pedagogical issues and branch setting out the ministry's pedagogical policy. Its activities include pedagogical planning, helping the minister and management formulate pedagogical policy, establishing professional teaching and assessment policy, encouraging and operating experiments and initiatives serving to formulate general policy. Subjects taught in the education system from kindergartens to teacher training colleges fall under the responsibility of the pedagogical secretariat and are at the heart of its activities. According to Serson [36, 175 p.], this responsibility includes subject policy, building curricula, determining learning content, accompanying training and development of professional teachers, supervising, and tracking different professional instructions and their assimilation and development on the ground, matriculation exams, learning materials and teaching aides, research innovations and projects, representing the profession both in Israel and abroad.

Smooha [38, 186 p.] explain that Israel's social complexity and diverse human makeup is reflected in its education system. Its heterogeneity is expressed in different layers of its structure and budget and existence of many types of educational institutions adapted to various sectarian needs. Inbar [20, 33 p.] adds that it is customary to present the Israeli education system's structure divided into four main sections: by age (educational stages), according to legal status of education institution, according to type of inspection and by sector. The researcher will explain using official information published by the Israeli parliament [249] each stage:

Sectioned by age (educational stage) – the education system in Israel can be divided into four main stages of education (or educational steps), according to students' ages: (a) Preschool education: pre-nursery school and pre-kindergarten – aged three – four; compulsory kindergarten – five-year-old. (b) Elementary education: grades 1 – 6 (aged 6-11) or grades 1 – 8 (aged 6-13). (c) Secondary education: junior high school: grades 7 – 9 (aged 12-14) and high school: grades 10 – 12 (aged 15-17); or high schools for grades 7 -12 (aged 12-17) or high schools for grades 9 – 12 (aged 14-17). (d) Further and academic education – aged 18 and over. This is the initial division, but at every level of education there are a range of possible frameworks, some of which combine two stages and some separate each stage.

Sectioned according to legal status – Israeli education recognizes three types of educational institutions according to the degree of state inspection: (a) official education – state and state-religious education institutions owned by the state or local authorities declared as registered official institutions. Generally, these are preschool to junior high school education institutions. Teachers in these institutions are mostly state or local authority employees. (b) Recognized education but not official – these institutions are not state owned but accept a certain degree of state supervision. They receive less state funding than official education institutions (up to 75% per student). Kizel [24] argue that these institutions have greater freedom in accepting students, employing teachers, and determining curricula. Many such institutions belong to ultra-Orthodox education, and principally to the two largest education frameworks in this sector – "*Merkaz Hachinuch Ha'Atzmai*" (independent education center) and "*Ma'ayan Hachinuch Hatorani*" (Torah education spring). However, there are schools of this status belonging to other religious communities (for example Christian Arab schools) as well as a small number of schools in Arab education who belong to one of the three types of inspection. Four-year and three-year secondary education institution are mostly unofficial, because they are not so declared in registration, even though some are owned by local authorities or the state. These institutions get the same budget per students as official education institutions.

Sectioned according to inspection – (a) State – non-religious institutions in the Jewish and non-Jewish sectors. State (and state-religious) education is provided by the state irrespective of political party, ethnic or other affiliation, and inspected by the Minister of Education [250]. (b) State-religious – Jewish religious-Zionist educational institutions. This is state education in institutions whose life style and curricula are religious, and whose teachers and inspectors are religious. (c) Ultra-Orthodox institutions tied to one of the two large educational networks ("*Merkaz Hachinuch Ha'Atzmai*" and "*Ma'ayan Hachinuch Hatorani*") and those not tied to them.

Sectarian – (a) Jewish – most children who are neither Jewish nor Arab learn here too. (b) Not Jewish – Arab, Bedouin, Druze and Circassian.

Sectioned by type of education. Alongside the regular education system, in which education institutions have a legal status and are inspected as presented above:

Special education under the Special Education Act (1988). The special education system is made up of students aged between 3 and 21 with disabilities and disorders who have been referred by placement committees to special education institutions or special education classes operating in regular education institutions [27, 62-63; 250]. These institutions and classes operate at all educational stages, in all sectors, statuses and types of inspection. They are divided by type and level of disability their students have. Special education classes are smaller than regular classes and have a higher ratio of teaching staff per student. Students in special education institutions have the right for transportation to and from their education institution, and sometimes – escorts for their journeys. Additionally, there are students with disorders who study in regular education and get special helps such as para-medical treatments, learning help and journey escorts.

"Compulsory Education Act". The Compulsory Education Act was passed in 1949 and determined that every child in Israel must be in an educational framework (kindergarten or school). *"The Compulsory Education Act is valid from age 3 in compulsory kindergarten to age 18 at the start of the academic year"* [250]. The law obligates parents to register children in educational institutions and ensure they attend their studies. The law forbids expelling students from institutions without ensuring an alternative learning framework until age 18 at the start of 12th grade and education in compulsory education institutions is free until the end of 12th grade. Other countries have similar laws. According to Shalberg [35, 133 p.], the practical meaning of this law is that every child from kindergarten age (starting at 3), elementary school, junior high school and to 12th grade must study at a recognized education institution. Thus, the law

determines that it is every child's parents' responsibility to send their children at the appropriate age to study in suitable educational framework. The law also determines that if, to the age of 18, a child does not study in such an institution, parents will be punishable (each one separately) by imprisonment or a fine. Another principle enshrined in law is the state's obligation to provide free education from kindergarten to the end of primary school (in other words elementary). Over the years this law has increased the right to free education to the end of 12th grade.

State Education Act. The State Education Act was passed by the Knesset [249] on 12 August 1953 and was meant to revoke the streaming method in education and move to state education. *The State Education Act unified various streams that existed in the Israeli education system to two streams:* state education and state-religious education. This division occurred despite the original intention of creating only one educational stream – state education – following heavy pressure from the religious. Kfir [22, 188 p.] added that in practice the law united two secular educational streams (workers' stream and general stream) and left the oriental religious stream as it was. According to Yogev, Livne & Feniger [43], the law gave state-religious education certain privileges and have an Orthodox religious person in charge and the Minister of Education was obliged to consult with a special committee with regard to everything in this education. In addition, the Ministry of Education retains a division for settlement education, which was a separate division serving primarily the workers' stream. Berger [67, 12 p.] argued that independent ultra-Orthodox schools and "*Agudat Yisrael*" Schools with political affiliations, remained outside the unified framework of the State Education Act. The reason for recognizing these streams was the desire to incorporate ultra-Orthodox streams into the state and assimilate them in Israeli state institutions, as well as Ben-Gurion's and others' belief that ultra-Orthodox Jewry would not continue to exist as it was over time, in light of modernism and the state's establishment. According to the Ministry of Education's vision for 2020-2025 [250], the purpose of state education is: "*education provided by the state according to a curriculum, without affiliation to a party political, ethnic or other organizational affiliation outside the government*".

Education system of Arab society in Israel. The researcher who is a member of Arab society in Israel, seeks to examine and review in this section the feature of the Arab education system in Israel. To start, she wishes to clarify, as published in her article "*Incentives and Rewards for Teachers. The Case of Israeli Education*" [103] that one of the accepted measures of modernization and development in human society is the level of education. Education and knowledge are significant milestones in individuals' lives, allowing people to realize their

abilities, formulate their worldview, build social awareness, and help make decisions in personal and professional areas. Abu Asbah [1, 12 p.] said that instilling education and knowledge to a population allows a state to improve its human capital and exploit its human potential. The Israeli educational policy aspires to instill knowledge and competences, expand the circle of learners at every level of education, reduce students' dropout rates and raise the level of education throughout its population [41; 19, 414 p.].

According to Central Bureau of Statistics' [242] data updated to the start of 2021, the Arab populations stands at about 1.92 million people, of who about 581,000 are children and youths aged 5 – 18 (from compulsory kindergarten to end of 12th grade). The rate of children and youths in the Arab population (31%) is higher than the same Jewish population (23%). The ratio of Arab children and youths in the 5-18-year age group (27%) is greater than the ratio of the Arab population in the whole country (21%) – from the **C**entral **B**ureau of **S**tatistics website [242]. The fact that this refers to a large segment of the population makes the issue of education in Arab society even more important. In the Arab education system in Israel, the teaching language is Arabic. It is divided into four sectors: Arab, Druze, Circassian and Bedouin.

Strategy and future planning education policy. The Israeli education system faces difficult challenges and therefore there is a multi-year plan led by the executive division for strategy and planning in the government ministry responsible for organizational vision, together with the entire ministry administration [9; 10; 16]. The executive strategic and planning division carried out work whose purpose was to develop a long-term organized strategic view for the Ministry of Education. To broadly map the system's challenges. Endbald et al [14] argued that the process of formulating a strategy commences with defining an organization's mission: promoting the question of "*what*" to "*how*". In the Ministry of Education, it is necessary to start with a much more profound and complicated question: what is the mission of education? A comparative analysis of ministry of education missions around the world was conducted to help transfer from a philosophical to a strategic discussion and examine how different countries perceived their ministry of education mission. This research [266] revealed that most countries had clearly defined their education systems' mission. Defining a mission refers to the system's aims and roles with an emphasis on their fundamental purpose. *Strong countries around the world place a relatively large emphasis on life preparation by instilling knowledge and competences, with reference to individuals, the labor market and society. In Israel, in contrast, there are multiple aims, there is less emphasis on the labor market and greater emphasis on education in the spirit of state's unique character* [250].

Almog Barkat & Dan [4, 112-115 p.] added to this and clarified the issue of “future trends”. In his opinion, the education system does not operate in "*laboratory conditions*". Many phenomena and trends in personal, social, labor market and technological areas affect expectations, behaviors, and difficulties of all players in the education system: students, parents, educational staff, labor market and society as a whole. Yuval [44] added that a review of trends examining different trends in the individual sphere including adopting digital habits, access to information, self-expression, establishing relationships and relationship to family and parenthood. Furthermore, key trends in society including demographic changes, changes in family makeup, urbanization and inequality trends, globalization and civil protests. Looking at work plans, recently key trends in the labor market were added, including automation of professions, change in rate of participation in labor forces in various populations, worker and employment characteristics and the development of a cooperative economy. All these helps build a reasonable “picture of the future” whose role is to reflect significant challenges facing the education system in the coming decade (2022-2032).

Equal opportunities in education for all populations. Equality is a central and declared value in today's modern society, and its centrality derives from the concept of equality of opportunity. In society, a meritocracy based on the principle of fairness [21, 120 p.]. Keshti et al [21, 122-123 p.] adds that the demand for educational equal opportunity is based on the argument that in order for norms of fairness to prevail over the rules of competition for social resources, the conditions of competition and equal opportunities must be ensured. The school is perceived as a mechanical channel for creating a society whose talent and effort determine the social status of the individual [60]. Therefore, the school is a system in which the student acquires educational resources and determines to a large extent our future life chance. Alhaj [52, 15 p.] argue that equality in educational opportunities serves as a source for continuing social inequality and preserving gaps. The problematic nature of the relationship between the child's family culture and the child's culture is the lack of congruence between the child's baggage and the culture that the child encounters in the school.

Swirski [39, 235 p.] argues that it is impossible to separate the influence of the school from the students' family and cultural background: situations of inequality imposed on children in their homes, neighborhoods and social connections continue to accompany them until they become the same conditions of inequality, where they face the adult life after graduation. Thus, argues that the education system has great power in order to deal with variance and with equal opportunities. In his opinion, the education system should create a program that will suit the

needs of the children, a program that will reduce the alienation that may be created for students from diverse cultural backgrounds.

Shevach [37] also adds that the Israeli education system's attitude toward Arab schools is not equal to Jewish schools and is perceived as a minority within society. As a result, educational reforms are implemented in the Arab education system. According to Mazaui [28, 60 p.] even in 1996 (when he writ his research), Palestinian Arab society in the State of Israel constitutes a national minority in a Jewish state and under social and political conditions in a country with social, political and national significance.

In contrast, Lustick [26, 63 p.] argues that educational systems take shape and change as a result not only of pedagogical considerations, but also of political considerations and the struggle between classes, ethnic, religious, sexual, national and other interests and adds that many decisions presented and perceived as stemming from educational considerations are actually influenced by political considerations and group interests.

Education policy and system in Finland. Finland is one of the five Nordic countries located in the northern continent of Europe. It does not belong to the Nordic-Viking races that came from Denmark. The origin of the Finnish people is from Siberia. Finland has two official languages: one million inhabitants, of which 550,000 are Finnish and Swedish [241]. According to Finland's government annual report [246], economic disparities are low: only 6.2% of Finland's children are poor children 3.4% are very poor – compared to 20% in the US. For almost 700 years, Finland was an integral part of Sweden. During the 19th century the Russian army conquered Finland and it was annexed to Russia in 1809. With the outbreak of World War I, and the October Revolution that took place in Russia in 1917, the Finnish Parliament declared Finland's independence this same year [50]. Finland is at the top of the United Nations' Human Development Index - as a country that allows its residents a high quality of life - according to different indices such as low infant mortality, longevity, developed education and health services, personal well-being, individual freedom, and an adequate standard of living. Finland is characterized by a high level of social justice through economic and welfare policies that guarantee low levels of poverty and reducing social gaps, and through a civil policy that promotes values of gender equality, social opportunity, personal freedom, administrative transparency and trust at all levels. An analysis of the nature of the Finnish education system requires reference to the unique values and culture that characterize it: trust, equality, and quality [92; 112; 119].

Finland's education system is considered a unique educational system [124, 611 p.]. Over the course of three decades, she has progressed from mediocrity to high educational performance, and is now a model of educational excellence. Finland is also exceptional because it has been able to build an education system that its students are well educated in, and that its fair education manifests only a very little variance in the performance of students in schools in different parts of the country at a given time [144]. This situation is rare in the world and has been achieved without extraordinary investment of financial resources and with less effort than other countries have invested in reforms. Finland shows that, with continuous and proven progress, it is possible to build an educational system that performs well with solutions that are not based on market-oriented educational policies.

One of the results of this success is that Finland can offer alternative solutions to chronic education problems in the United States, Canada, and the UK, such as high dropout rates, early teacher attrition, and failing special education [137; 149]. It can also offer solutions to defined demands for change that are emerging in other countries, such as how to interest students in learning, how to attract talented young people to teaching and how to formulate a holistic public sector policy. According to Leijola [147, 8-9 p.], the Finnish approach to reducing early school dropouts, enhancing teacher professionalism, prudent accountability, and student appreciation, and improving math, science, and literacy learning may serve as inspiration for other school systems seeking a path to success. Finland's international performance is also high in commerce, technology, sustainable development, good governance and growth. The education system has a close relationship with other sectors of society. In the public administration that includes other public sectors, such as health and employment, everyone seems to have a role in educational development and long-term educational changes. This is also true of income equality, as well as social mobility and trust in Finnish society.

General policy lines in Finland. Education is a fundamental right for all Finnish citizens enshrined in law, and it defines what compulsory education is. Education is adapted to all students with special needs and special abilities despite, and irrespective of their economic conditions [162; 170]. Shalberg [189, 15 p.] added that there is also a principle according to which at every stage of compulsory education, students have the right to free education and financial help from the state. Policy decisions are taken by the Finnish parliament which legislates in the field of education and decision on the principles of educational policy. The government, Ministry of Education and National Board of Education are responsible for implementing these principals at a management-operational level.

Saloviita [193] added that the Ministry of Education directs and controls all public funds. Most private institutions are a type of targeted professional education, but they also rely on public funding, and the education they provide is open to public control. The National Board of Education is the body responsible for developing elementary and secondary education as well as adult education. This body outlines guidelines for curricula and qualifications. It is also responsible for evaluating education methods except in higher education. Simola [197], in his article *"The Finnish miracle of PISA: Historical and sociological remarks on teachers and teaching and teacher education."* described the management approach and method by which Finnish governance is expressed geographically. The country itself is divided into six regions, and each region has an independent education administration. Recently (since 2015) local education management is in the hands of municipalities and local authorities, and as a result as they are already practiced in self-rule, they have the right to collect different municipal taxes. Most elementary, secondary, and professional education institutions, as well as institutions for adult education are funded by local authorities who in practice receive a targeted budget through government channels [200; 212].

Public funding system for financial needs in the education field. According to Ministry of education in Finland [243], the responsibility for providing education, structures and funding is divided between the state and local authorities or other education providers. Local providers receive state subsidies. Teachers' salaries are paid by schools or school owners. Most elementary and secondary schools are maintained by municipalities or regions. Only about 1% belong to the private sectors. It should be noted that higher education is not included in the current operational method but gets its funding directly from the state budget in targeted branches. In principal and legislatively, even after basic education studies are free. In Finland, the education system is built so that it can provide everyone with opportunities to acquire professional or higher education.

Valijarvi & Shalberg [219] describe another leading aspect of its educational policy is equality and multiculturalism. This social value is expressed by full inclusion of all resident populations, migrants, citizens irrespective of sex, gender or religion. Educational aims for migrants are identical to residents – equality, bilingualism, and multiculturalism [126]. The system is built in a way that educational institution networks cover the entire country. Basic education is located close to home or at a distance where reaching it is covered by a free bus journey. All students can register for high school, university, or professional education studies anywhere in the country. How the Finnish educational system developed is defined in an education development plan and university research, and the plan is approved by the government

every four years. Aho et al [50] explained that the general principles of education promotion plans are high quality, equal opportunities, and lifelong learning. Preferred areas include diverse language learning programs, information strategies, basic confidence in education, improving mathematics and science competences and cultural schools.

The Finnish education system is considered one of the best in the world and contributes to the fact that Finland is one of the leading countries in the world in comparative education tests and technological innovation and is considered as one of the best societies and economies in the world, together with other countries belonging to the Nordic model [168; 174]. According to Paksuniemi & Kekitalo [173, 79 p.], the Finnish education system has unique systemic features in contrast to other education systems around the world. It has few study hours, little homework, an emphasis of great student and teacher independence, belief in studies and all systemic factors, long-term relationships between teachers and students and great equality. Pollari et al [177] mentioned that the education system begins at a young age and is compulsory until the end of elementary education at age 15. From 16-18, students can choose whether to study at vocational or theoretical schools. The education system is free from kindergarten to university.

Core features in Finnish educational policy. Equality, which means equal rights and equal opportunities, is expressed in Finnish education in various aspects such as: free public education for all, from preschool to university degree [191, 148 p.]. Sivesind et al [198] describes the educational system that is equitable and freely available to all. Preschools and schools provide free feeding, health, educational materials and shuttle services. The kindergarten teacher ratio, one for 3 till age 4, one for 7 students. In schools, one teacher for 12 students has an assistant teacher in classrooms over another 12. Virolainen & Stenstrom [223] adds that addressing unique needs of students and diversity. Tyniala & Heinkkinen [217] presents the cultural issue as main feature. According to him, from an early age, the education system invites a nurturing and inclusive approach to responding to special needs and policies of integration, inclusion, multiculturalism, gender identity and equal opportunity. This policy explicitly prohibits filtering and exclusion for interpersonal and cultural differences. Almost all children receive personal care according to their needs and abilities, and progress relatively evenly in the education system [234, 232 p.]. The emphasis in Finnish education is on strengthening the week and preventing educational gaps. Therefore, the Finnish education system runs classes called "*special education*", in which about half of Finnish students are already in elementary school, for students who have difficulties and also strong students, to prevent labelling. Each institution has special education teachers, graduate education counsellors who accompany students, social

workers and psychologists [50]. Teaching and selecting teaching methods and learning materials. Assessment for learning and non-marking: Emphasis on self-esteem without competitiveness between students, teachers and schools. Assessment using grades is done only at the entrance to the high school. The purpose of the tests is to diagnose the state of the education system with the aim of improving it and not measuring grades and achievements. Learn from interest and to know and apply, and not to pass a test or to earn any grade.

Another core feature is the Quality value [259]. Hancock [122] in his article "*Why Are Finland's Schools Successful* " convinced that this value, which includes diligent, effective, rigorous, transparent, and excellent values, is reflected in the following aspects: Strict teacher training: Education and teaching subjects at universities are considered to be most sought after and meet high standards in terms of personalization and 10% of academic ability. Only accepted for teaching studies. Holm & Londem [137, 109 p.] adda that the studies take five years and include a bachelor's and master's degree. Elementary teachers (from first grade to 6th) must have a master's degree in education. Professional teachers who teach in the three upper grades must have a master's degree in education as well as the profession they teach. Executives must have a college degree in education and teaching, teaching experience as well as a management degree. The Ministry of Education sets educational goals and provides teachers with innovative teaching methods, but teachers have complete freedom to teach in the classroom as they see fit. Educational countries designated by professionals. According to the national policy of education systems and institutes [259], not political institute can ensure a quality, stable and long-term educational policy, the Finnish education system is run by professional educators who staff the "National Council for Education" without the interests of the ruling parties [147, 18-19 p.]. The Ministry of Education in Finland is relatively small and is primarily responsible for education policy, setting goals, core curriculum and teacher training. The bulk of educational, budgetary and pedagogical activities is the responsibility of local authorities and schools - with a small number of supervisory and less administrative mechanisms

Assessment and examining policy in Finnish education system. According to ministry of education in Finland, the Finland's history as an educational power began in December of 2001.The OECD (**O**rganization for **E**conomic **C**o-operation and **D**evelopment) published the PISA Evaluation with the first results of student tests. These results were very surprising. In all three academic areas - mathematics, science and literacy - Finland was ranked in one of the highest places in the OECD countries, with the gaps in the past compared to students from Japan, Korea and Hong Kong [255]. Morgan [162, 457 p.] said that Finnish students seem to have been

able to learn all the knowledge and skills they demonstrated in these tests, no private lessons, no after-school studies, and no large amounts of homework, unlike many of their peers in other countries. Especially small, the first reactions in the educational community after the results of the first PISA test were confusing. The world media wanted to know the secret of good education in Finland. In the year and a half after the results were published, several hundred foreign delegations visited Finland with the aim of learning how schools work and how teachers teach [15, 93 p.]. Questions that guest asked about Pisa's "Finnish miracle" were frequent, and the Finns themselves did not know how to give them reliable answers. Steiner – Khamas & Waldow [202, 558-560 p.] publish that the PISA research is an extraordinary study, looking "forward" to the future of students in educational systems - have they embedded the knowledge they have acquired throughout the years in the system? And do they know how to realize and apply it in everyday life in a way that is relevant and valuable? In other words, the study examines how mature the system is ready for life and is expected to contribute to the development of society and the economy as they integrate into the world of work.

According to the PISA data [254], through the following cycles of PISA tests - in 2003, 2006 and 2009 - they further strengthened Finland's reputation, and the interest of the world media in Finnish education intensified. The power of Finnish education is in quality, equitable and fair learning. PISA tests have shown that education policies based on equal educational opportunities and the perception that teachers' involvement in educational change should be high have a positive impact on learning outcomes. Further analysis of PISA data showed that family-related and geographic location factors explain the variance in assessing student learning and even their career paths in the future. It is also evident that the variation in student performance, due to geographical and social factors, is increasing. In conjunction with the continuing PISA tests, the level of skepticism among teachers and researchers in Finland has risen regarding the limitations imposed by international student assessments on their definition of student performance [256; 210, 55-57 p.].

Tracking policy for professional/vocational education in Finland. The general high school was organized until 1985, like any traditional school institution. This year the high school division's law was enacted, and it repealed the old system and launched a modular curriculum [182]. Two annual semesters were converted into five or six annual periods, depending on the way each school designed its own teaching. This meant that teaching and learning was reorganized into six or seven-week units, during which learners completed the course of their choice [200, 32 p.]. This change allowed schools to reorganize the teaching schedule, and also

affected the design of the local curriculum because schools had greater flexibility in assigning lessons into these units.

According to Sahlberg [190], the next phase of the lure was in the mid-1990s, when schools stopped the customary distribution of students into classrooms by age, and instead built a non-classroom organizational system. This new upper-division organization is not based on predetermined grades (formerly called the 10th, 11th, or 12th grades), but leaves students with a choice in planning their studies, both in terms of content and in terms of course order [207]. This new framework sees great importance in understanding students' cognitive development. It also encourages schools to best utilize their strengths and community. Although students have a greater degree of freedom in planning and choosing their studies, all are still committed to a core curriculum in 18 compulsory subjects. They must complete at least 75 courses of 38 classes each. About two-thirds of these are compulsory, and the rest they choose as they see fit for their high school diploma. Students usually pass this required minimum and study between 80 and 90 courses [219, 388 p.].

Thomas & Ely [215, 83-86 p.] in their article argue that student assessments and school assessments are other important factors affecting the nature of teaching and learning in the general upper division. Teachers evaluate each student's achievement at the end of each study period (six or seven weeks), i.e., five or six times for each academic profession each year. The national matriculation examination that students do after successfully completing all their compulsory subjects is a high-risk external examination, and therefore has a considerable impact on the curriculum and teaching.

There were also critics regarding the matriculation exams. A criticism that has been frequently heard by teachers and school administrators in Finland is that matriculation exams result in "*learning for the exam*," reducing the curriculum and increasing student and teacher stress. Indeed, significant changes have been made to accommodate the new economic and political circumstances. The structures, curriculum, and teaching methods have been renewed to meet the expectations of a knowledge-based economy and to provide the necessary knowledge and professional skills [220; 53, 14-17 p.]. One of Finland's main policy objectives was to increase the appeal of vocational education at the middle school level. In 2015, more than 40 percent of upper-division students begin their studies at a professional school.

If the author of the thesis looks at the structure of vocational education it seems that becomes simpler. According to instructions, the initial professional training required today consists of 120 credits - the equivalent of a full three years of study. A quarter of all studies are

assigned to general or elective courses. Students attending a vocational school may take the matriculation exam, but only a few did it. In light of this, education coordinators in the high schools are required to encourage transitions [50; 177]. The goal is to ensure that students in the professional high schools have access to the general high schools and vice versa, so that they can include courses from other schools in their curriculum. The curricula in the vocational schools were adapted to the changes made in the high schools, especially to the modular structure and needs of the labor market in a knowledge company.

The purpose of vocational education is to improve the skills of the workforce and meet the needs of the labor market. The ambition is to enable vocational education students to be qualified to continue the learning process throughout their lives. The Ministry of Education in Finland operates a *Department of Vocational Education* and is in charge of implementing government policy and developing programs to improve and streamline vocational education. The National Council for Education is the mechanism responsible for overseeing the professional education system and examining its achievements. Professional educational institutions should address the needs of students and the labor market at the local level, along with compliance with the basic core curriculum. According to Finland's education data system [257;251], in Finland, compulsory education is introduced until age 16: *95.5% of primary school graduates continue; 54.5 % continue to postgraduate studies; learners 2.5% - for vocational education and training* (another 38.5% and special education systems).

In the professional education system, you can study these areas: technology, communication, transport, tourism and household, education and the humanities, business and administration, natural sciences, culture, environmental studies, social work, nursing and welfare. In this system, you can combine theoretical studies and professional acquisition. Professional education is free. Students in vocational education in Finland in 2020 was more than 161,000 studied in the professional education system [234, 232-235 p.], **67** curricula prepare students for **144** in training programs. The goal of the Ministry of Education & Culture [251] is to create professional education tailored to the needs of working students and older workers who wish to complete and/or expand their education after working hours. The vocational education student can work as part of vocational training alongside his education in the education system. Vocational training is done through work at an employer. The new curriculum aims to balance the need for more general knowledge and skills with the specific professional skills needed. Assessment of professional knowledge and performance relies on three key factors: schools, employers and employee representatives.

The change in reform has led to the fact that the methods of teaching and training have also gradually changed in the professional upper divisions. At least one-sixth of the training is on-the-job training, as an integral part of the curriculum. Alternative workshops, virtual learning have become commonplace. The vocational school funding method includes a results-based component that gives a six per cent factor allocation, in addition to the school's core funding for staff development. Vocational schools are beginning to invest these resources primarily to upgrade the pedagogical knowledge and teaching skills of the teaching staff. Two key factors seem to influence the selection efficiency that students make at the critical transition point to the upper division. First, when a student enters high school in Finland, he has no prior experience in high-risk exams [245].

The reform of the Finnish education system has created a differentiation of the education system. Unlike a student who, in many other countries, tests are integral parts of school life, the Finnish student demonstrates knowledge and understanding in other ways. This is a radical change that has been realized [173, 78 p.]. In a comparative study examining perceptions of teachers working in systems where accountability (supervision, transparency, and reporting obligation) at various levels, we found that some teachers felt that a structured educational model of instruction accompanied by external assessment of student achievement had a dramatic impact factor. with the effects of climate high-risk tests include risk avoidance, boredom and fear. The study also shows that most high school teachers in Finland teach to help their students learn, not to pass exams. Pisa studies provide further evidence for this argument: Finnish students experience less anxiety in math learning than their peers in other countries. Second counselling and career selection - The element that contributes to the successful transition to high school education is that students are well prepared for the decisions they need to make regarding continuing their studies because guidance and career choice guidance are an integral part of basic education. During the three years of middle school, all students are entitled to two hours of weekly guidance and counselling regarding their continuing education. This counselling reduces the risk of students making unwise decisions about their future. It also helps students put more effort into the important areas of the track they are about to select in the top division.

According to the national educational system [153, 212-213 p.], Finnish students today reach the transition stage between middle school and high school, equipped with more effective skills, approaches and knowledge than before. The changes applied at the upper division stage in Finland had a fundamental impact on the school organization, especially on teaching learning. The traditional school organization, based on knowledge transfer and memorization models,

division into age groups, a regular set of hours and priority for work done in a classroom setting, has gradually changed and given way to more flexible, open and interactive learning environments that prioritize an active role for the student. The on-going school improvement has also happened thanks to the structural changes implemented in the high schools and enrichment of schools and classrooms with new teaching methods and alternative counselling arrangements.

I.4. Theoretical and Methodological Approaches to Educational Policy Research.

The current research theoretical basis is a result of multidimensional perspective that include the political sciences discipline, international relations theory and political theories around it, and diverse paradigms discussing educational policy. Each one of the factors is realized according to its essential characteristics and represents various concepts and aspects from the theoretical approaches that direct educational policy in each country, including Israel and Finland.

In this context, the power of liberalism theory is very prominent in the nationality trend in many countries. Liberalism, originated in the 17th century, and published by John Locke (1632-1704), is defined as individualist political philosophy that is based on liberty and equality principles. Liberalism supports principles as constitutional government and authority separation, and mainly focused on developing citizen quality [142]. According to Michaeli [29, 187-188 p.], John Locke has promoted the natural rights idea by which every person has the right to life, liberty, and property. The origin of these rights, according to Locke, is not in a government order or the kindness of a power holder, but in the very nature of man [29]. Therefore, while the government has the power to defend these rights, it has no justification for using its power otherwise. Some claim that the liberal thought started appearing in ancient times, especially in the cultures of Rome, ancient Greece, and ancient China [47; 50].

The current research subject, which deals with comparative analysis of education policy in Israel and Finland, raises questions about the adoption code of theory that seeks to highlight successes of one country or another on the social - economic aspect. Compared to Israel and Finland, the political theory accepted in some Far East and Eastern Europe countries, which seeks to put the state needs in top priority, beyond the freedom of thought and liberty of the individual, should be analyzed and reviewed. On the other hand, it may be noted that there is also a national civil approach. Berger [66, 6-7 p.] notes that according to the nationality approach, which was developed due to the universalist - liberal perception, assumes that every citizen who lives by law in a country is part of the nation. The national partnership is based on the existence of a unifying political frame; therefore, it is also called politic nationality, and it

will be expressed in directing behavior and education by adopting common educational policies. This approach characterizes countries as the United States, Canada and France. According to Berry [69], this nationality is mainly based on accepting common norms and rules of living together, i.e., things that depend on man will. It has an open, voluntary and pluralistic nature, where the individual can choose the country, he wants to join by the law. The researcher, in her article "*Characteristics of the finish education system: impact on social life*" [98], presents the different perspectives in each political approach of the research countries, Israel and Finland, in educational policy context. The educational policy components that form the basis of political science, and which are the disciplinary field for comparing countries that promote international relations, include sections and innumerable components. In order to focus the comparison analysis, the current research will include four subsections that will be used as the analyzed research variables.

Countries' education and knowledge status. Education systems, responsible both for building national human capital and formulating learning and society's image. In almost every developed country they are a large and rather complex system [69, 233 p.]. The status of knowledge, education and culture in any country is a consequence of strategic policy rooted in its culture. Berry & Sahlberg [68] stated that there are, however, some countries that have raised the issue of education to the top of their national priorities, but do not operate substantively to formulate their culture according to educational values, both individually and nationally. On the other hand, some countries put education at the top of their priorities out of belief, and sometimes circumstantial necessity, because they understand its huge future contribution to influencing human capital in socio-cultural-economic-employment and other civic areas. Darling – Hammond & Lieberman [90] tried to persuade readers to what extent there is a causal outcome correlation between investment in education, not just financially (as presented in the previous sub-chapter), but government and cultural attributions to education in the country. Therefore, a strategic decision that forces/leads decision makers to change the public agenda and act to improve the overall education system. According to Foster [114, 214 p.], it should be noted that the U.S.A. is known for decades to have made the world of education one of the highest decisions and funding issues for decision makers, both at a federal government and local government in every state level.

Another country that should be mentioned and recently "*starting to harvest the fruits*" of investment is Singapore. Yogev et al [43, 338 p.] presented Singapore as one of the biggest success stories in Asia, after it successfully transitioned from a developing country to a modern,

vigorous economy in less than half a century. Singapore achieved this by praising the state and field of education as the key to a flourishing economy. In Singapore, society is multiethnic. English is the language of teaching in schools, workplaces, and government. Nonetheless the spoken language in 59% of students' homes is not English. The status of teachers, knowledge/learning as a whole, and a consequence teacher training process (and strong school leadership) were key factors in Singapore's success, according to Tzu – Bin et al [218], decision makers elevating the status of education led to improved outcomes and attitudes in the local population. Education's status led to high government spending on education in its entirety. In 2010, Singapore spent 3.1% of its **g**ross **d**omestic **p**roduct (GDP) on education, a nominal rate constituting 20% of government spending, second only to its security spending. As part of the change, Singapore began to emphasize greatly ethical and civic education at school as fulfilling a core role in instilling values of integrity, commitment to excellence, teamwork, discipline, loyalty, humility, and national pride, as well as an emphasis on the public good.

The leveraging process of the *status of education in Singapore* did not start one day, but a government view that started in 1997. According to Ministry of Education in Singapore [250], in 1997 the Singaporean Ministry of Education began to implement a strategic arrangement called "*Thinking Schools, Learning Nation*" [250] to prepare the education system for the 21st century, where students were at the center. Among is key aims were: (1) to adapt learning spaces to qualities demanded in the century (with an emphasis on professional, technical, and mathematical education); (2) increase the number of graduates in the education system (elementary, secondary and university); (3) train teaching workers and improve quality of teaching; (4) improve Singapore's relative ranking in international tests. The national five-year plan revealed the need for a fundamental change process in relation to addressing the issue of human resources in teaching. From the researcher's experience, and as raised in her article "*Incentives and rewards for teachers*" [103] the essentiality of strengthening of the education system, and criticized what was done in Israel, compared to other countries. She argued that the status of education in every country is a consequence of socio-cultural perceptions. She pointed to capitalist countries such as the U.S.A. and Hong Kong who create social gaps as a result of an accelerated privatization of education process.

A remarkable case of the status of education in the eyes of the state is *Ontario, Canada*. Campbell [81], a Canadian researcher pointed to structural reforms to the system and the status of education as a whole. Starting with a decision that a future of socio-economic empowerment, given the possibility of huge absorption of migrants, was correct investment in education.

Professor Benjamin Levin [148, 213 p.], who led the educational reform in Ontario, presented the core change element in Ontario (starting in 2013) as "*personal treatment for every student*". All Ministry of Education documents contained the motto: "Reach Every Student". Its strategy was called *Student Success* and included three principal components: (1) to know in real time every student's learning condition; (2) improve teaching quality; (3) connect parents and community more profoundly and fluently. Thus, according to Levin, the status of education would be increased for years. These are examples of strategic actions that are an outcome of changing the status of education in national priorities.

Another example of educational integration of education scholars in national culture and local politics is *China*. According to Hay [128, 199 – 201 p.], the Chinese education system successfully inculcated one strong idea in Asian culture, which has survived to this day: education is the most important tool to improve living standards and is available to all from the poorest to the richest. From here, research literature can focus and understand how education system in Asia look today and why almost all Asian countries, and China in particular, successful lead international educational measurements. The status of education in China has undergone many vicissitudes.

According to Kymlicka [145], with the rise of communism in China, and following Mao's 'cultural revolution', the educated in China were sent to labor camps, factories, or fields. Professors were replaced by factory workers, soldiers, or farmers, all working class who the communists wanted to become the ruling class. In practice, without educated teachers, it was impossible to build a knowledge system, China's economy came to a standstill and the education system was completely destroyed in this period. Until 1976, the year of Mao's death, little remained of the Chinese education system and the 1980s was a period of 'building from nothing' a completely destroyed education system. From 1978 huge reforms in China commenced under Deng Xiaoping [145]. A study conducted at that time (1980s) revealed quotations such as "*it doesn't matter whether a cat is white or black. A good cat catches mice*" [233, 354 p.], this was also the government's approach to the education system. The Chinese government understood that without exploiting all possible resources, it would be unable to rehabilitate a devastated education system. Universities were opened to the public (not just relatives of government), the government authorized the establishment of private school throughout China and began to allocate growing state budgets into education. China began to invest not only in these facilities, but also in human resources. Within the framework of improving the status of education, China made strategic changes to educational perception. The Chinese education system's tools mainly

included a clear program every five years. The Chinese government and Ministry of Education define to this day clear goals for the entire education system every 5 years. The purpose is to present goals and necessary reforms in the education system so that every school is coordinated and the education system can respond appropriately to the demands of the labor market and its developing economy.

To conclude, Popham [178] in Glickman's book "*What we can do about the real crisis in public education*" discussing the contiguous relationship between economy and education, introduced a concept summarizing the essentiality of education at the head of national priorities, and not just its critical contribution to local economy. He conceptualized a socio-economic concept called "education as an investment product". In other words, economics differentiates over and above physical capital, another form of capital, which is not less critical as a means of production and that is human capital. Investments in human capital, such as educational rewards from kindergarten classes to university, can be expected in three principal economic influences: increasing accumulated human capital demands increased spending exactly like increasing physical capital demands investment. These costs are known as investment in human capital. Additionally, investment in human capital leads to increased productivity among individuals when people gain traits allowing them to produce greater output. The last influence is that the return on investment in education is calculated in the form of greater income.

The evaluation and examination methods. Many approaches and theories are about the learner evaluation method policy and how his knowledge will be examined. The assumption that there is only one method, and it is the proper one is wrong [13]. Anderson [55] notes that evaluation and examination methods are the template product of national and philosophical policy of the state expected way of life. Ball [62, 208-209 p.] adds that according to his observation, the evaluation and examination methods that are accepted today in education institutes are a methodological product of the dilemma in the diagnosis between both countries, tis subject, Finland, and Israel. On one hand, the researcher notes that the State of Israel adopts the realistic approach, which originates in a political science theory and international relations theory. Hans Joachim Morgenthau was the polit ologist who phrased this theory. According to Carmoy & Rothstein [82, 181-183 p.], the approach aspires to present world perspective "as is", without trying to correct it or make it prettier. The realistic perception assumes that states' nature is selfish and self-interested [88], therefore the researcher understands that the educational system has to prepare tools and indices that will prepare the graduator to the changing reality.

In addition, Kim [142, 55-56 p.] presents the issue and claims it is the first duty of every country - promote the national interest. On the other hand, it seems that both countries also believe in the rational choice theory of Adam Smith [142, 43 p.]. According to Smith [133], this theory assumes that a person will make a cost-benefit analysis to determine if an option is right for him. According to Morgenthau [230], the premise is that human nature is fundamentally conflictual and acts out of rational motives driven by the pursuit of power. Therefore, power and interest realization will always be pursued. The positivist paradigm and the constructivist paradigm are accepted in the current postmodern era. This innovative approach was developed after technologic revolutions in computing and communication, which make crucial changes in the fields of economy, science and society and challenge the old evaluation methods that were mainly based on positivist perceptions. The changes grew up new evaluation and examination methods, basically constructivist. Young [230, 6-7 p.], a senior education researcher in Israel believes today that the classic evaluation methods, which were used for many years, are not very useful and the system must move to an alternative evaluation. According to Maphosa & Mashau [155], alternative evaluation is a general term for the evaluation means in addition to the test or any situation that examines the individual's abilities. Alternative evaluation examines the level of student ability to apply the knowledge, skills and understanding they have acquired – in "real world" conditions outside the educational institute. Gay & Howard [116, 2 p.] adds that alternative evaluation assumes that in diverse society and in class with many intelligences and thinking styles, there is a great variance between students, so it is impossible to evaluate all the students with the same evaluation means. He adds that alternative evaluation is integrated as part of the teaching process. Evaluation does not occur at the end of learning but during it. Kumapulainen [144], who also agrees with the approach, claims that alternative evaluation measures intellectual and cognitive, but only this. Using alternative evaluation, it is possible to evaluate emotional, social and interpersonal aspects in each student's profile. The alternative evaluation does not rule out tests, but emphasizes their practical-applied aspect. According to Hill [133, 9 p.], many additional countries still use the strategy of evaluation and examination by result tests, but also engage with changing the current paradigm. Kumapulainen [144, 176 p.] notes it is important to mention that the relation between measurement and evaluation on one hand, and educational processes and results on the other hand, is mutual. He claims that measurement and evaluation not only reflect goals and results but also affect it. Flawith [111] adds that it known that practices that promote the achievement of some goals may, at the same time, undermine other goals achievement. Therefore, educated use in measurement and

evaluation must consider the benefit for students, teachers, institutes and the education system. this benefit will present the negative impact and losses that may accompany, and base on deep understanding of the connections between educational goals and different evaluation methods. So it is in Australia, Germany and even Britain.

Examination of curricula and training courses for the 21st century. The learning contents are directly related to the integrative policy that includes politics – economy – society. The social constructivism theory [148, 213-214 p.] joins to the above approaches. This approach is liberal – realistic theory in political sciences proposed by Alexander Wendt [181, 1276 p.], by which countries that care for their own benefit are the key players in global politics. According to Qingxin & Blyth [181, 1285 p.], the actions of these countries do not result from anarchy, but from the ways they socially "build" the meanings they give to the policy of power, and then react to those meanings, so when changing their settings, collaboration practices can be developed. In this manner also begins their influence on the educational policy in their country. basing on this action and thought countries decide to change the study contents and learner training for the required and expected contents in the 21st century. Young [230, 16 p.] claims that, as the political sciences theories influence and the international process attributed to international relations, is expressed in the ways of evaluation and examination, so, and even more, it will influence the curriculum assembly. Young [230, 21 p.], international relations researcher, claims that countries have different ways to act, and each country plan the studies and develop curriculum according to its nature and structure. However, Hirst [134] claims that the evaluation process is different, the change dosage and timing varies according to political processes in the country. some countries set the goal to evaluate the curriculum and its related processes in various means, while other countries focus on evaluating student achievements as the main indicator for having information about the program and its nature. Mackinnon [154, 91 p.] explains that there is a significant difference, because the development processes are also diverse: from development by governmental bodies to development by external bodies who have a mandate to develop by winning a tender. Yuval [44, 39 p.], geopolitical researcher in Israel, explains that the development influence on the field varies from complete influence up to the declaration of intention level. In all cases the school system in general and the teachers in particular take active part in implementation. I each country there are different stakeholders that take part in the process itself or its implementation on the field. According to the researcher opinion, and as expressed in her article "*Equal opportunities in the educational sphere of Israel*" [104], the countries are united in their approach to update the curriculum and adjust it to the 21st

century. the rational in the update base varies in each country – each country according to its needs. different stakeholders take part in the update process in various ways and the update influence varies in each country.

Comparative Examination of Teachers' Status in Educational System. Teacher and teaching professional status are a term that refers the social and professional prestige of teachers both as being professional and comparing to other professionals. Teacher status in political sciences philosophy aspects connects to various theories through the political and leadership prism. According to Maphosa [155, 322 p.], civil education is the way in which the country tries to shape its young generation of students and direct them how to act and behave as citizens in the country's regime method [206]. Education system in the democratic world, as the Israeli and the Finnish, copes with contradicting goals of civil education, which include the will to develop commitment to the state and the nation (patriotism), the will to develop political awareness, independent and critical thought, sensitivity to human rights, sense of justice (democratic and universal values) and the will to develop solidarity, social involvement and political participation. Gay [116, 3-4 p.] claims that teacher and teaching status is influenced by many variables, including the prerequisites for entering the profession, the required education and skills to engage it, the economic resources allocated, the salary and work conditions and the benefits related to the occupation, the occupation influence level on society, the target audience, the professional population, contribution to society, the level of independence and involvement in decision making of the employees, the society's acknowledgement in the profession importance and its necessity. According to Stumpenhorst [206], there are significant differences between the 21st century teacher characteristics and the 20th century teacher characteristics. If the 20th century teacher was usually more educated hand have more knowledge, the 21st teacher is characterized as connected teacher, especially online media means. Teacher today can and has to be connected to colleagues, updated information sources and interest groups. Inbar [20, 33 p.] adds that the connected teacher today can get greater support from colleagues. additional characteristic of the 21st century teacher is the technologic proficiency dimension. Darling-Hammond [89, 303 p.] notes that conceptualizing "teacher development" as a system is essential and has to be integral part of the educational policy in every country. in Finland there are many investments in the training stage. For their empowerment teachers have significant support and autonomy that expressed in allocating time for team work with colleagues and to develop curricula and evaluation methods. In Ontario, Canada beginning teachers go through a process of intensive internship, professional development and various other incentives. In Singapore new

teacher training and integration is emphasized within a very developed management system, which presents the knowledge, skills and position expected in each stage of the professional routing basing on evaluation and support, and indicates a series of different promotion channels for teachers.

For summary, according to thesis researcher opinion, the question of how to improve education systems around the world often assumed a baseless set of beliefs and paradigms in reality. For example, a no longer common paradigm that maintained in the past that significant and long-term improvements could be attained in education systems without fundamentally raising the quality of people entering the profession. Another erroneous view was those multi-meaningful variables, such as professional prestige, were outside the control of policy makers; attracting better people to teaching would necessarily require higher and higher salaries to be paid; turning teaching into a preferred profession for a large number of quality people was an impossible, if not far off, task. Experiences of the best education systems have shown that all these beliefs do not coincide with reality.

Education systems from Seoul to Chicago, from London to New Zealand and from Helsinki to Singapore have shown that turning teaching into a preferred career depends less on high salaries or "culture" and more on a narrow set of simple, but critical, policy decisions. Developing strong processes to select and train teachers, paying good initial salaries and careful management of the profession's status. Most importantly, good education systems around the world illustrate that the quality of an education system depends, after all, on the quality of teachers.

Educational policies in many countries are a "mirror image" of the socio-cultural dimension of a state's citizens and leadership [89, 304 p.]. Israel and Finland's education systems are reviewed and analyzed in this thesis to identify unique features in each system, with the purpose of moving the Israeli system forward from where it is today. An education system's power and performance ability derive first and foremost from legislation setting educational arrangements in a country [205, 398 p.]. The complexity of society in Israel and its diverse human tapestry are reflected in its education system. Its heterogeneity is expressed on many levels of its structure, budgets, and existence of many types of educational institutions adapted to the needs of different sectors. It is customary to present the structure of the education system in Israel divided into four main cross-sections: according to age (education stages), according to legal status of educational institution, according to type of supervision, and according to sector. In contrast, the Finnish education system is considered to be uniform [220, 1-3 p.]. According to

Waldow [Waldow, 645 p.], over the past three decades it has progressed from average to high educational performance and today is a model of educational excellence throughout the educational world. Finland is also exceptional in that it has successfully built an education system in which its students learn well, and whose fair education is expressed in little variation in school students' performance in different parts of the country at any given time. This is extremely rare around the world, and it was achieved without unusual investment of financial resources and fewer efforts than other countries have invested in reforms. Finland has shown, that with ongoing and proven progress it is possible to build an education system achieving good performance with the help of solutions that are not based on an educational policy aimed at a market segment.

I.5. Conclusions of chapter I.

1. A fundamental challenge facing countries and educational communities is the examination of systems during periods of far-reaching structural and cultural perception changes, and how well-adapted educational systems are to 21st century demands. Diagnosis must focus on how their outputs are assessed and compared and particular with regard to providing era-appropriate qualifications. The researcher differentiated between various educational paradigms based on common educational theories around the world from the beginning of the 20th century to today. Opinion leaders in the educational world of today have found themselves undecided about the effects and weighty presence of globalization, processes, advantages and disadvantages, and off course the effect of educational systems on their consumers, characteristics, location in the politicians' decision-making process.
2. Globalization's presence is characterized by negative and positive aspects, and among others the traits also necessitate the development of human capital in every country. This is a growing trend, in light of the conversion necessary to transfer from familial and national income sources from classic to modern industry, known as knowledge economy professions. These processes have produced a change in approach in educational systems, and a global research report produced by McKinsey in 2020, revealed an increasing investment trend in education overall and its systems and layers. Diverse opinions, which sometimes contradict one another, were raised in the chapter about the need for massive investment in educational systems. Agasisti et al [49] argued that investment in education does not necessitate a change in approach but serves decision makers more as a political statement. In his opinion, budgetary

investment in education does not resolve a change in perception about education's mission, but rather sings the "industrial calm" of those elected in the face of the electorate. Anderson & Van Weeret [54], in contrast, argued that investment in education is an initial declaration of intent, representing raising the importance of education to the top of national priorities in every country. Utilizing budgets intelligently and correctly is the next step. The researcher, in her article "*The Comparative Advantages of the Internationalized Education System*" [97] presented a revised definition of globalization effects on education systems and advocated the initial need to increase investment in education, but on the other hand, justified this idea because rethought is needed about the system, its role, characteristics, contents and particularly the need to improve students' competences in preparation for the world of employment in the 21st century.

3. Many researchers have defined educational policy around the world, which in practice guide the definition to a common denominator defining a country's educational policy as an expression of a set of values and norms consolidated by society as to how their leaders see the next generation of citizens. This policy, on the whole, will determine arrangements, practices, norms and framework to realize ideas and educational perceptions as policy leaders determined to be correct. The researcher, in her article "*Teacher Status in Finland*" [105], added and advocated in her revised definition that the role of the state in formulation education policy, and her request similarity how to see future individuals in civic society is often described in laws and valued defining aims of general educational systems. The researcher seeks to deduce that defining these aims constitutes a fertile ground for completion and conflict about accepted sets of values on opposing groups in society, as well as on educational aims defined in law.
4. Educational polity, influences, streams in education and definitions are characterized by two main educational streams. The first is meritocracy in education, and its source is a socio-political view in which those with power are chosen or appointed to their roles on the basis of their ability. Therefore, states decree, through their educational systems, nurturing individuals' abilities so that they can man the roles needed to lead states and their civil areas. The second approach is constructivism (or structuring knowledge), in which it is argued that every mental activity is based on building knowledge and abilities. Daun [91] summarized that constructivism (in education) is

an educational theory explaining how knowledge is acquired. This theory emphasizes the part of learners in the learning processes and encourages active learning. Learning occurs through a process of doing, by structuring knowledge and learners' responsibility for this knowledge. The researcher seeks to conclude that both approaches are important and it is recommended to integrate them both in educational systems. The researcher, from her 27 years' experience in the education system, can refer to tens of cases in which the system is required to integrate both belief in learners' abilities, and the need to 'build knowledge' to advance their abilities.

5. The quality of teaching, a subject of discussion for many years, has awakened perception precedents, processes and creative solutions to attract quality personnel to education systems. The researcher hence concludes that the best educational systems consistently attract talented people to the teaching profession, national policy leads to learners' results. These countries have accomplished this by punctiliously selecting entrants to the training process, developing efficient processes to choose appropriate candidates, and paying good salaries to newly qualified teachers. The researcher concludes that it is possible to learn from the training processes of progressive countries in the field of education, such as Singapore and Finland, which represent quality systems thanks to their consistent policy in actions based on three principles they have maintained over years and include: (1) strict selection explaining the integration of the right candidates into teaching (quality of education system cannot improve the quality of its teachers); (2) strict systemic enforcement of professional development for those chosen to teach and turning them into effective teachers (the only way to improve results it to improve teaching); (3) establishing focused support framework and arrangements guaranteeing that every learner can enjoy and be exposed to excellent teaching.
6. Education system's management policy in Israel and Finland, the topic of this study, presents fundamental differences between the two systems. This difference explains the perceptual gaps between the overall view of the state, its elected and citizens of the educational system and its socio-cultural status in the country. This difference will later also be expressed in the overall approach to reciprocal relations between the economic-employment system and the education system's role. The researcher concludes that base of these gaps starts in the system's structure, its historical roots and population makeup – demographics. The researcher concludes in a comparison

between the systems that the Israeli system is very centralized, characterized by perceptual centralization expressing lack of belief in educational framework. All the "doctrinal" areas of the educational world in Israel are concentrated in the Pedagogic Secretariat, and only it leads the development of learning content, without allowing any independent thought and activity for various framework (kindergarten – high school). In contrast, the Finnish system shows openness, delegates authority and includes 'the ground' in decision making about required pedagogy, including teacher assessment and teaching processes. The Finnish system also refreshes curricula every four years to allow updating contents and maintain ongoing connections with the needs of the economic-employment system (an issue that is almost never expressed in the Israeli system).

II. EDUCATIONAL POLICY ANALYZES IN ISRAEL AND FINLAND

The education policy is expressed not only as a detached term from each state's policy and ideology, but also as political subject, internal or external (foreign policy), with mutual impacts on the state status in relation to its neighbors. On one hand we know that the educational policy is a result of intra-political decisions, which are directly affected by main core issue engaging the governmental leadership regarding the state's life nature. On the other side, the researcher is aware to the fact that educational policy has main role in the state success and national – security stability that includes the national – community resilience of its citizens. Considering that the research comperes between what is customary in Israel and in Finland, the current chapter will include multidimensional analysis of the requested comparison of the educational policy components customary in both countries. the comparison will be conducted in four selected strategic variables, which are entrusted with the main decision nodes in building educational policy in each country. The compared variable components are education status in each country, examination methods and learner evaluation, how it is selected and the strategy of selecting learning contents that are adjusted to the 21st century, and teacher status and his training method. These variables were selected due to their impact on building the human capital in each country, and knowing that these variables play a key role in economic – employment - social success in each country.

II.1. Comparative Analysis of Education Status in Social and Economic Contexts.

The education world is currently in ideological crossroads, some say "identity crisis", some say "critical opportunity" [29, 195 p.]. Many countries discuss the education spirit in their country, how meaningful it is to social development or how committed it is too economic-social development by developing its human capital. According to Adamali, Cffev & Safdar [47, 93-95 p.], describing the world countries as a continuous line, which on one end placed a country in a very high development level and on the other end placed a country in a very low development level, we will have the following image: (1) a country in a high development level has high standard of living, education level and technology level. In such a country the population benefits from advanced infrastructures, wide variety of high-level services, long life and low birth rate. (2) a country with a low development level has a low standard of living, education level and technology level. The infrastructures and services level are low, the birth rate is high, population growth Is fast and life expectancy is low. But in most countries, according to Ball & Junemann [63] the development level is not uniform: in some areas it is more developed, while

in other it is less developed. The two countries, which are the subject of this research, Israel and Finland, chose differently the education status poisoning in society. This is what shows the indices that will be presented in this chapter.

Out of the whole indices the researcher of the thesis seeks to focus the analysis of comparing the two countries (Finland and Israel), the subject of this research, on the following socio – economic contexts: (1) the comprehensive education budget, its composition, expenditure structure, investment / expenditure policy. (2) expenditure as part of the product – development over the years – economic index – GDP (3) employed percentage (4) employment market productivity and income factors to state treasury from exports.

Finland – *government* expenditure for education. According to the global – economic website macrotrends.net [website macrotrends.net], the government expenditure in Finland for education (which includes also current budget, salary payments, and transfers to educational institutions) is part of the total government expenditures in all sectors (including health, transportation, environment, social services etc. Shalberg [192] argue that the budget will be usually transferred by the authorized factors, controlled, and distributed through the districts, local authorities or directly to the educational institute. The researcher (according to Finish Ministry of education in Finland] explains that the budget composition in the Finnish Ministry of Education (and also due to the administration instructions) is divided per age grades. Namely, there is a clear presentation of easily quantifiable budgeting levels by percentage / sums. Herein the Finnish education budget table (2.1) by the government division.

Change 2020-2021 by %	2021 EUR million	2020 EUR Million	2019 EUR million	2018 EUR Million	2016 EUR million	2014 EUR million	Type of expenditure
+0.5%	377	376	372	362	361	352	Pre-primary education
+0.16%	5,109	5,101	5,081	4,847	4,691	4,538	Comprehensive school education
+1.1%	763	755	753	728	730	738	Upper secondary general education
+0.2%	1,839	1,833	1,819	1,800	1,891	2,035	Vocational education
+0.7%	969	963	961	926	916	874	University of applied sciences education
+0.3%	2,281	2,277	2,287	2,261	2,284	2,320	University education and research
+0.7%	465	463	479	473	474	481	Other education
+1%	528	522	518	510	866	852	Financial aid for students
+0.34%	12,331	12,290	12,269	11,908	12,213	12,190	TOTAL

Source: made by the author [109; 245; 256]

The researcher learns from the table (2.1) that there are no significant values showing a constant significant development of budgeting data specific sections along the years. Although the data show budget growth in monetary values, since 2014 there is no significant addition to the budget part out of the gross product (the table last row). It is interesting to see that the state excels in vocational education. It seems that 2018 was the year the Finnish government decided to cut a little the budget, and indeed, it seems that most values and components went through a cutting process.

Stahle [200] presents the Finnish government point of view and says that in elementary and pre-school education there is no stop or reduction of budget, and it has a minor increase every year. I.e., the Finnish do not give up per-school education and see it as a critical starting point in the educational process. Takayama [209, 427 p.] adds that it is also correct for high school education (following the review from the end of the previous chapter). The Finns pragmatic vision, through educational policy lines regarding the importance of the link between employment and education, is also expressed in the support section of universities that teach knowledge economy professions. As reviewed in the previous chapter, the Finnish education system deeply believes in vocational education. According to Saloviita [Saloviita], almost half (46% in 2019) of the Finnish youth chose a vocational learning course in high school years. Therefore, there is the largest increase of 4.8% in budget in the years 2018-2019, as well as 3.8% of budget support in higher education institutes that encourage learning advanced science fields and technologic subjects [259].

Finland – *private* expenditure for education. According to the OECD- data [255], the household private expenditure for education services in Finland includes a "basket" of financial expenditures to fund the learner's needs. Leijola [147, 9 p.] explain that the expenditure includes all student study ages, from kindergarten age to university age. Some of the expenditures have direct connection to the students and some are for all household individuals – students and non-students. To calculate student expenditure for education services, an estimate was built summarizing the expenditure directly registered for the student with the household expenditure for the student [162, 456 p.]. Finland acts by a uniform policy line that aims to the application of the obligatory education law for all citizens. Informal education is also free of charge and funded by the local authorities that get governmental budget to fund it. Therefore, the family does not have to worry about the family and private budget, and except for minimal expenses, there will be no cost. According to the economical - statistical website *https://www.ceicdata.com/*, [266]

the private expenditure is 0.4% of the comprehensive education expenditure in the last 20 years (including tertiary education - studies in high education institutes).

Finland – *national* expenditure for education compared to the gross domestic product. Finland is largely a highly industrialized free market economy, with GDP per capita like in the U.K., France, Germany, and Italy. Its main economic sector is wood, metals, engineering, communication, industrial factories and electronics [223; 266; 256; 150]. According to Lindberg et al [150, 443-445 p.], the business system is largely based on barter. Due to its climate characteristics, the export is almost ⅔ of the gross domestic product. Finland excels in high-tech export, cell-phones, for example. Except for wood and several other minerals, Finland depends on imports of raw materials, energy, and some components for manufactured goods. Due to its climate, agricultural development is limited to maintain local supply of basic products. Forestry, an important export sector, provides the rural population a secondary profession [Roikonen]. In order to compare this research subject, the researcher has decided to present the data of investment in education as part of the domestic product and examine a correlation between the two. figure (2.1) will present the data correlating the domestic product and the budgeting percentage as part of the product.

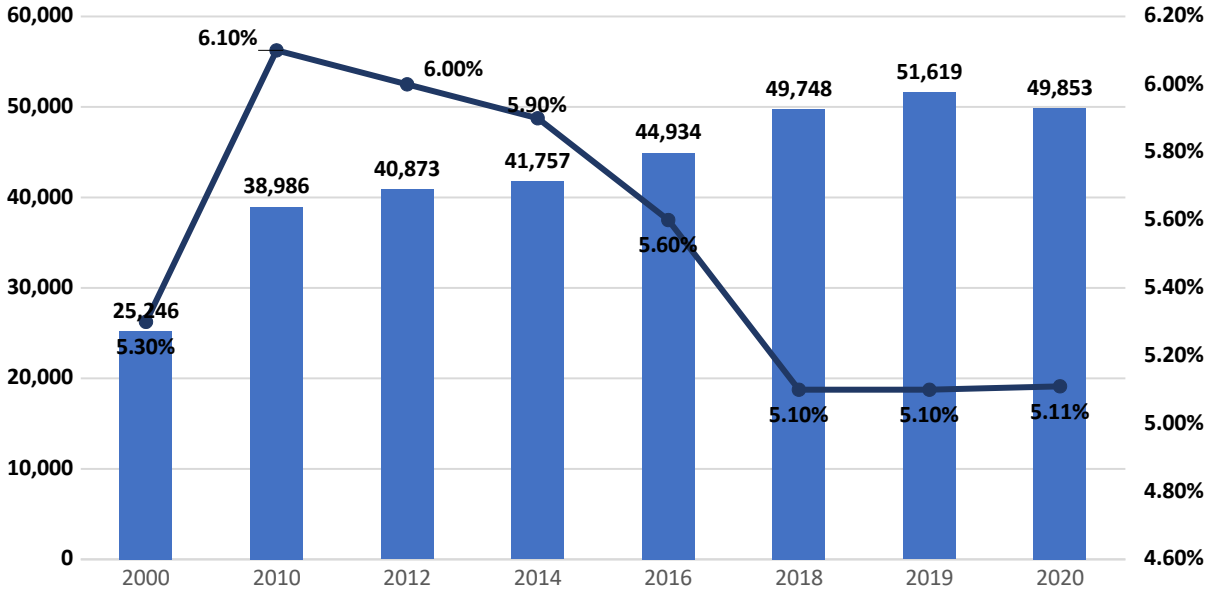


Figure 2.1. Education expenditure as a percentage of GDP % in Finland 2000-2020

Source: made by the researcher from [255; 256]

From figure 2.1 we may conclude the following conclusions: (1) Finland's gross product has been increasing for about 20 years (until the COVID19 crisis in 2020). Although it is not as high in percentages as the increase in Israel, as will be presented, it is a constant yearly increase.

(2) some of the government investment and support in institutional education (public and private) shows yearly decrease since 2010.

Elomäki & Ylöstalo [107] in their article discussing the education budgeting issue, he expressed resentment and argued against this consistent process for almost a decade, and indeed shows Finland's decrease in its scholastic products and the socio-economic meaning that will be presented in the next section. Elomaki [108] probably agrees with his opinion and claims that in 2012 Finland entered a recession that continued until 2014, after the Nokia national factory collapse, which has contributed about 4% of the state gross domestic product every year. Due to the weak results, the prime minister resigned and was replaced in June 2014. It was immediately decided to perform several reforms including raising retirement age, raising taxes, opening Finland gates to increased immigration, and minimally cutting the welfare system. In 2014 Finland's credit rating went from perfect (AAA) to "almost perfect" (AA+) mainly due to the large public debt. However, the state's economic horizon was raised from "negative" to "stable". Here came the finest time of vocational education which directly contributed to local industrial development, and today Finland is one of the richest and most advanced countries in the world. Its standard of living is extremely high, and its capital Helsinki is rated for years as one of the best cities to live in.

The human development index is 0.926, 12th in the world [255]. The vocational and secondary education frameworks in Finland are conducted on a two-tier track: (a) comprehensive / basic education - provided to all students in ages 7-15 in the responsibility of the Ministry of Education and Culture. The state responsibility and intervention are in the subjects of regulation, funding and training. (b) 3 years secondary education in ages 16-18. The education is dual in two courses. The first is a theoretical high school course - aimed to target the students to higher education in universities or higher education in technological institutes. The second is a vocational course integrating theoretical and practical qualification studies. According to *Finnish National Agency for Education's* (EDUFI) [259], this course graduators can address after graduation to higher education in universities or technological institutes, or go to labor market and continue their vocational training and experience and get professional classification diploma in their field, while the highest bar is artist certificate. There are 53 professional qualification certificates in this course, which are based on 119 curricula of various professions.

Finland - employed percentage. Until the 20th century Finland was one of the poorest and most backward countries in Europe, although industry was established in the middle of the 19th century, most of Finland residents were engaged in agriculture, this continued until World

War II [136, 245 p.]. After the war the industry in Finland was accelerated. Within 20 years the industry of electricity, petrochemicals, construction of machines and ships was developed. Aho et al [50] notes that the fast growth of the Finnish economy is also related to the fact that trade with the Eastern Bloc was interrupted with the disintegration of the Soviet Union in 1991. During the economic crisis the gross domestic product decreased by 13% and the unemployment rate increased from 3.4% in 1990 to 18.4% in 1994 [123; 70]. The crisis caused extreme changes in Finnish economy; many companies were privatized to stable the national budget. At the same time the government began investing a lot in technological higher education and in the electronics industry headed by the Nokia company.

The European Union [270] notes that Finland joined the European Union in 1995 a fact that added to its economic stability. The changes in the economy caused a significant decrease in the unemployment percentage that reached in 2008 to a low point of 6.4%. In 2020 the unemployment rate was 7.9% - a little over the European Union average. According to the OECD 2019 report [264], Finland's labor market is the least flexible among Nordic countries. Finland increased the regulation in labor market in the 1970s to provide stability to manufacturers. Unlike its neighbor countries (Denmark, Sweden) Finland allowed professional unions (about 80% of unified employees) to block more distributed contracts. Contracts setting employment conditions as seniority ranks, vacation rights and salary levels were legally acknowledged in many professions, usually as part of comprehensive income policy agreement. Lindberg et al [Lindberg et al] claims that those who prefer less centralized labor market policy see in these agreements bureaucratic, inflexible that with the tax rates are the main contributors to unemployment and distorted prices. Centralizing agreements may interrupt a structural change since there are less incentives to acquire better skills, however Finland already enjoys one of the highest skill levels in the world due to its education and training system, according to the World Bank [271]. figure 2.2 will present the employed and unemployed percentage in Finland in the last decade 2010-2020.

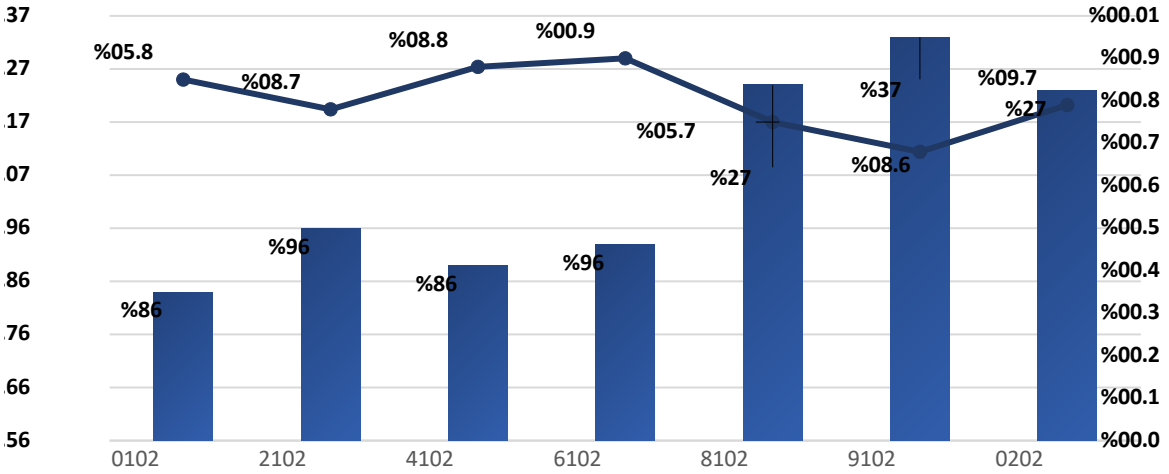


Figure 2.2. The employment rate among the unemployment rate in Finland 2010 – 2020
Source: made by the researcher from [255; 271]

The researcher observes in the figure (2.2) a significant leap in employed percentage (from 68.3% in 2014 to 71.6% in 2020) in the Finnish economy. Roikonen [Roikonen] explains the trend of employed percentage increase as a result of integrating hundreds of thousands of immigrants that arrived from Muslim countries to Finland, and in the country's joining to the European block. Until 2010 the education system did not manage to provide purposeful products of vocational education [70]. According to the Finnish education agency [259], vocational education and the training for popular occupational career in Finland attracts a wide variety of people of various ages to study [112]. In international standards, vocational education and training is also an international attractive option among local or immigrant young people. Young people who have graduated comprehensive school and study for B.A. degree, as well as adults who are interested in updating their skills and developing their abilities to respond the labor life needs enroll to vocational secondary education to improve their chances to integrate in the labor market [192, 207-208 p.].

Currently, in 2021, 72% of all high school students in Finland (ISCED 3) study in vocational education and training, while the parallel data in the OECD countries is 42%. The high data in Finland is by the number of students in adult education. In many other countries vocational education includes training of young people for the labor market, and therefore the students' age is naturally low. Kozma [143, 11 p.], a known employment and education researcher, adds that the official qualification offered, which entitles additional studies in the future, is the factor that strengthens the status of vocational education and training in Finland. Although vocational education paves the way not only to labor life but also to additional studies in many countries it is not the case in many countries, but in Finland it is part of the

governmental system “credo”. Technology as a very popular learning discipline is emphasized in vocational education and training.

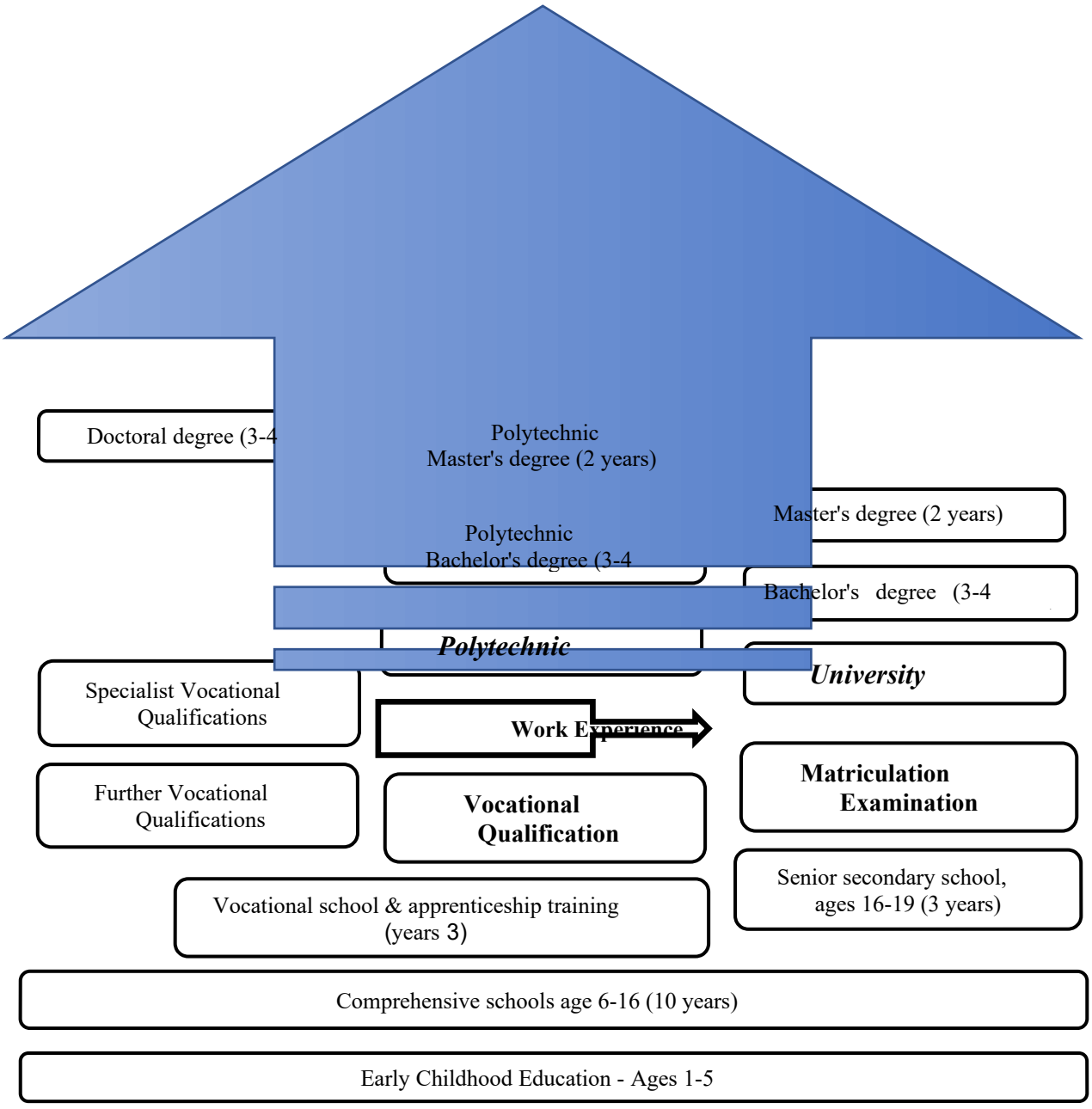


Figure 2.3. Finland's education Model (since 2012)

Source: made by the researcher from [260]

According to Merilainen, Isacsson & Olson [160, 49 p.], technology is, with no doubt, the largest discipline in vocational education and training. On average, 33% of secondary vocational education students in the OECD countries graduate in the technology field. It is also the most popular study field in Finland. However, its part is clearly smaller (24%) of the OECD average, and the number of students who study for certification in health and welfare is almost

identical (22%). An interesting issue is also presented by O'donnell [170] that indicates that most secondary education students both in OECD countries and in the European Union countries are men. In Finland the number of men and women in vocational education is almost identical while all students are included in comparison, not only the age group of those who have graduated comprehensive studies.

Finnish National Board of Education (FNBE). Sets requirements for certification of educational institutions at a national level, determines emphases and contents for each certification, prepares core curricula in partnership with employers' union, trade unions, teachers, students and other experts [161, 445-446 p.]. Curricula correspond to national certification framework and European certification framework. Vocational education providers set out their curricula based on the core of the national vocational education program. The key word if early planning and sharing information. Service provider directorates approve local curricula. Every student has a personal education and vocational training plan, at the end of which, they acquire basic professional competences. The researcher seeks to highlight the fact, as indicated in her article: "*Teacher status in Finland*" [105] regarding Finland's vocational training model effectiveness, that especially strengthens a lifelong learning educational paradigm. The Finnish model is pyramidally structured and educates the local youth about the necessity of challenging integration in the occupation world, which leads to high production ability (GDP) and of course contributes to the educational system's advantage in international tests. Figure 2.1 will present the model and its parts.

When analyzing the model (figure 2.3), and out of the literature review, the researcher understands that providing all citizens equal opportunities to quality education and training is a long-term goal of the Finnish education policy that directly links the educational space with economic - occupational characteristics. The key words in the Finnish education policy are *teaching quality* that leads to employee quality, *teaching processes efficiency* that will lead to future efficiency and productivity in the occupational field, *creating human capital* with occupational abilities and skills and open approach to international influences. According to this program, the basic right to education and culture is a state law. The educational - social - economical - occupational policy is built on lifelong learning and free education principles. Education is perceived as a key to competitiveness and economic welfare.

***V**ocational **E**ducation and **T**raining model* (VET) is designed both for young people with no high school skills and for adults who are already in labor life. The program was built to create continuous and logical transition between training stages for employment needs. the vocational

education provides the students ability for quick and updated integration in local occupation, emphasizing relevant professions in labor market. An additional main principle is developing continuous abilities throughout "*employment life*" [54; 160, 48 p.]. The Finnish vocational education model is very appreciated: 90% of the Finns think it offers quality learning and 40% enroll to vocational studies after basic education. The reasons of the success and evaluation include certified and qualified teaching, imparting communicational skills, self-management, time management and management skills. Tools that increase the occupational integration chances are also emphasized [182]. The VET program flexibility is one of the greatest powers of the Finnish system. The learners learn only what they do not know yet; the more they know, the shorter their studies. Practical engineer studies may begin any time, according to preliminary coordination with potential employers. Paksuniemi & Kekitalo [173, 86 p.] adds that the continuous process and the connection between study and training courses and the employment world may be discerned, and it may explain the relatively low unemployment percentage comparing to neighbor countries in Europe. The Finnish government flagship program in the educational-socio-economic context led Finland to be one of the wealthiest countries in Europe, despite the objective difficulties it has experienced due to the continual immigration of not high human capital value, and significant economic fall with the NOKIA company fall [182].

Finland – occupation market productivity and factors of income to state treasure from export. According to Bank of Finland [261], the gross domestic product growth and the state's export ability is an important factor in the state socio - economic development. The gross product growth comprises the changes in physical capital supply, work inputs, human capital supply and the general fertility. Fertility and productivity are indices of efficiency and may be defined as “hour amount” a work unit or equipment produce. Productivity is calculated as the ratio between output and labor inputs and capital investment. According to the 2020 OECD report [255], the COVID19 crisis put Finland in its deepest recession since the early 1990s, although the government’s quick support plan definitely reduced the socio - economic crisis. This fast action stabilized the Finnish economy compared to other western Europe countries. The current productivity level (2020 - 2021) is not high due to the COVID19 pandemic, but still the productivity reduction is smaller compared to many other OECD countries. The product and export of Finland reduced by 5% during the first half of 2020 [266]. This is historic contraction, but among the lightest in OECD countries, thanks to targeted enforcement measures that have limited the pandemic spread, and the financial support that prevented mass bankruptcies and job losses. According to the survey, Finland’s 2020 product will be reduced by 3.3% and will

gradually recover with 2.1% growth in 2021 and 1.8% in 2022, mainly in private consumption and export. According to global macro models and analyst prediction, the production in Finland is expected to be 102.69 points by the end of the current quarter. According to economic models Finland's output is expected to be developed in the long run at about 105.74 points in 2022 and 105.43 in 2023. The following figure (2.4) presents the fertility and productivity ability compared to products and services export ability in the years 2010 - 2020 (with a forecast for the years 2021-2022).

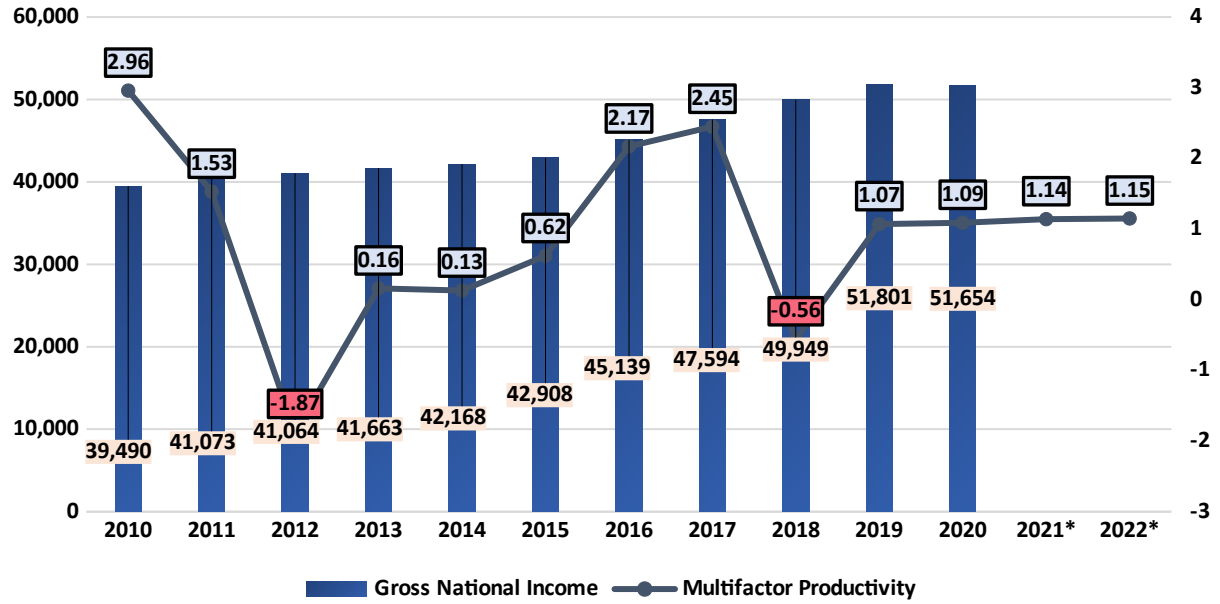


Figure 2.4. Multifactor productivity and the gross national income in Finland 2010 – 2022*

****Forecast information according to OECD data***

Source: made by the researcher from [255]

The figure (2.4) data show that after the crisis of Nokia company fall, which produced over 4% of the country's export income (the factory closed in 2012), there was a consistent growth of expenses, and the productivity, and products and services export increased. The VET program, which was presented earlier, started to be productive in these years and therefore is the constant increase in products and services export that escorts Finland's economy until now [191, 155 p.]. The vocational education purpose in Finland is improving labor power skills and responding to the labor market needs in a way that will allow the vocational education students to be competent and continue in learning process all their life. The education policy and the local occupation factors constantly act to develop a program that will improve and streamline vocational education, and therefore the impressive results.

Israel – *governmental* expenditure for education. It is known for years that the national expenditure for education in Israel is one of the highest among OECD countries [131, 25-27 p.]. The national expenditure for education in 2019 in education institutes in Israel was 7.2% of the GDP comparing to 5.6% in OECD countries. So shows the international comparison made by the Central Bureau of Statistics [241]. The public expenditure part in funding the expenditure for education in Israel in 2019, without pre-school education, was 81% comparing to 83% of OECD average.

According to Bental & Leviv [7, 19 p.] Due to Israel's state in international tests data, there is public demand to increase the investment in education in all parameters required to compete the successful countries. The structure of governmental expenditure for education in Israel includes budgetary basis but the budget is also subject to verity of political needs and supports for educational bodies all over the country. The issue is, according to the study's editor, there is currently no problem of financial investment in education in Israel. The education budget is the second largest after budget. According to the research editor, the problem is with the various uses that are made of the budget. When examining the four parameters of the variables of the present study, we find that the problem focuses on the policy lines adopted by the various organizations and decision makers [5]. Another issue of comparison is the private expenditure on education, which is very large in Israel, and hence leads to education gaps and capabilities between peripheral areas and the center of the country, which is rich in investment in private education.

In order to compare between the two countries has decided to present tangential sections between the two countries and therefore the table structure is similar. Table 2.2 presents the data of national expenditure for education in Israel in the years 2014-2021.

Table 2.2. National expenditure on education system by type of expenditure in Israel 2014 – 2021

Change 2020 – 2021 by %	2021 EUR million	2020 EUR million	2019 EUR million	2018 EUR million	2016 EUR million	2014 EUR million	Type of expenditure
+0.7%	831	827	822	801	783	768	Pre- primary education
+0.1%	3,798	3,795	3,791	3,587	3,376	3,288	Comprehensive school education
-0.3%	3,818	3,820	3,826	3,834	3,711	3,859	Upper secondary general education
-1.8%	452	460	463	471	488	491	Vocational education
-0.25%	1,643	1,649	1,643	1,647	1,651	1,658	University of applied sciences education
-0.09%	1,501	1,508	1,513	1,591	1,622	1,588	University education and research
+0.6%	742	738	730	643	564	529	Other education
+0.5%	1,610	1,602	1,594	1,587	1,580	1,445	Financial aid for students
-0.03%	14,395	14,399	14,382	14,161	13,775	13,626	TOTAL

Source: made by the researcher from [249, 241, 265]

The table (2.2) data show that Israel does not "suffer" from a lack of national budget for education, and in some sections even has larger budget than Finland (relatively to population size). The researcher identifies a clear trend of investment in education budget, so she wonders about the international results in the last 27 years. The section of supporting higher education students also constantly increases [30, 28-29 p]. The conclusion made regarding the budgeting policy is that it is not a financial issue but failing management policy, with directs budget to expenditure sections that do not create relevant product both in developing human capital (students) and in training teaching staffs. The section of investing in vocational education is a worrying datum due to Israel's status of technical and technological professionals, which decreases during the last decade (2010-2020) in Israel. There is also tendentious decline over the years in higher education budgeting, especially in research institutes.

Israel – *private* expenditure for education. The private expenditure for education is very high comparing to Western countries and the OECD countries [238; 39, 237-238 p.]. this expenditure is a result of family economic power to privately support the student during his learning and training years. This reality creates significant social disparities between communities in Israel, and with the state's non-intervention in clear policy that reduce private education investment, it perpetuates the increasing gaps between various populations and

geographic areas. The average private expenditure for education is 23.5% (the OECD average is 15.7% and the average in Finland is 0.4%) of the total national expenditure (governmental expenditure + private expenditure).

Israel – *national* expenditure for education compared to the gross domestic product. The 2020 national expenditure for education was 103 billion Shekels at current prices, which are 8.1% of the gross domestic product. Like in 2019, and compared to 95 billion, which are 7.8% of the gross domestic product in 2018 [271]. The 2012 national expenditure for education was 8.5% of the gross domestic product. Namely, relatively to domestic product, there is a constant decline of about 5% in investment in education during the last 15 years. The researcher identifies a clear trend of increase in national expenditure (especially in private expenditure section), but due to national priorities the investment component is not expressed in the product. Figure 2.5 presents the trend in the years 2000-2020.

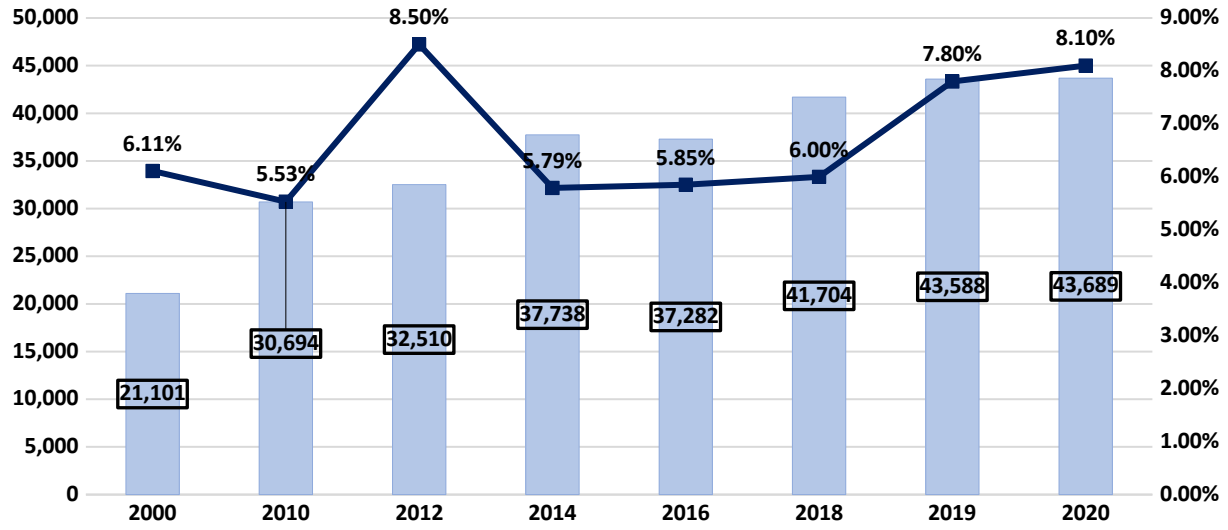


Figure 2.5. Education expenditure as a percentage of GDP % in Israel 2000-2019.

Source: made by the researcher from [249; 241; 255]

Like in other cases, investment in the entire education budget will bring after few years an economic contribution. It is also seen in this case because the increasing budget over the years affects the product, and we see a constant increase. The researcher, out of her experience and acquaintance of the educational system, knows to indicate that the product in Israel does not represent the system's transverse data, but is mainly concentrated in main production areas

(central Israel), while neglecting for many years the periphery, the Arab society and other minorities. This datum will be reflected in examining the following economical criterion – the unemployment percentage and its characteristics.

Israel - employed percentage. Until the beginning of the 2000s (2003-2005), participation rate in labor force in Israel was relatively low comparing to other OECD countries, especially due to men low participation rate in labor force [272]. For example, in main labor ages (25-54), men participation rate in labor force in Israel was about 84% in 2003 while the OECD average was about 92%. The unemployment in the last decade in Israel is characterized in many academics that are unemployed or employed not in their specialization field and earn relatively low salary. The unemployment rate in Israel Declines recently and improves over the years. According to Kizel [24, 112 p.], up to March 2017, the unemployment rate was about 3.6%. the unemployment rate in Israel is especially high among people with low education, particularly among the older and among Ultra-Orthodox men and minority population (mainly in Bedouin society). In 2020, due to the COVID19 crisis, there was a record number of unemployed people in Israel. As for April 1, 2020, the number of people apply in the occupation service was over a million people, 24.9% unemployment rate [241].

The old education policy has a direct implication on training and occupation system, which will lead to employment or unemployment [60, 190 p.]. As presents the budgeting policy analysis, the vocational/technologic training in Israel is at an unprecedented low and it directly prevent low skilled employees integrate in labor market. In addition, there is calculation "distortion" made by the Central Bureau of Statistics [241] that consider every person who works even "one day a week" as employed in every statistical analysis, therefore the situation is even more inaccurate. There are no actual work associations between the training needs of the employment establishment and education system’s training courses.

The socio-economic phenomenon that is the result of a political-educational policy in favor of the accessibility of higher education has also entered this matter, and it is the trend of *Surplus Education*. This phenomenon creates an "excess of degrees" in Israeli society, thus degrading the academic degree, and of course, the level of education while studying. Once the Israeli employee is not required to meet the performance, and is in fact rewarded according to the certificates, the employee's motivation will be based on seniority in the work and "collection" of degrees and certificates.

As will be presented later, every head of a professional area at the Ministry of Education integrates a number of “cronies” from the academic establishment, and there is very little

consultation with professionals from the industrial or employment worlds. These gaps, lack of committed contact, as exists in Finland, are not present at all in Israel. There have been many committees who have commented on this, but without any change or improvement over the years. Although the following graph, figure 2.6, will show a small unemployment percentage, the reality of the quality of employment does not emerge from the numbers.

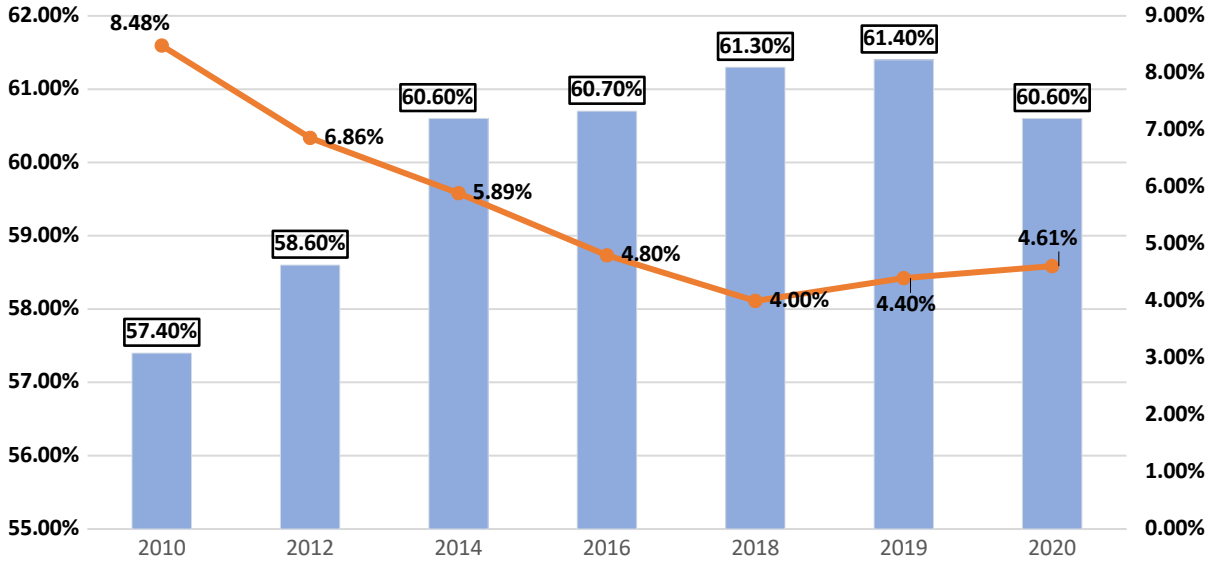


Figure 2.6. Unemployment & employment rate in Israel 2010 – 2020

Source: made by the researcher from [241, 270]

The figure data (2.6) show that although the registered unemployed percentage do decline during the last decade, there is no significant increase in employed percentage. This may bring to the conclusion that potential labor force is missing in the record and finds his livelihood in other income sources (as the state – by using national insurance institute allowances).

As previously explained by the researcher, from the Ministry of Economics and Employment in Israel's employment rules [249; 270], how employment is measured in Israel is unsound and unreliable (in the researcher's opinion) because it does not reflect the true reality of ability to make a living adjusted to the 21st century. It is impossible, in the researcher's view, to consider a person employed for one day a week or a number of hours spread across a week as employed, and not counted as 'seeking employment' or unemployed. A person who earns (as a result of minimum work) the sum of NIS 2,000 (Euro 530) a month in Israel, cannot maintain him/herself, and will require assistance from social institutions. This distorted measurement allows political persons to present low comparative unemployment figures, as shown previously.

The education system in Israel treats the student throughout his training years in classical educational institutes (kindergarten – university). The vocational education image was understood in the previous sub-section, therefore most of vocational training course (unlike in

Finland) is not the Ministry of Education responsibility but the occupational system (the Ministry of Economy and employment bureaus of the Ministry of Labor). This reality perpetuates the asynchrony of the occupational system characteristics and needs. on one hand, the students' vast majority come without background and preparing to occupation world, and on the other hand the abilities of the Ministry of Economy are very limited. The education and training model in Israel will present the strategic and managerial problem in Israel.

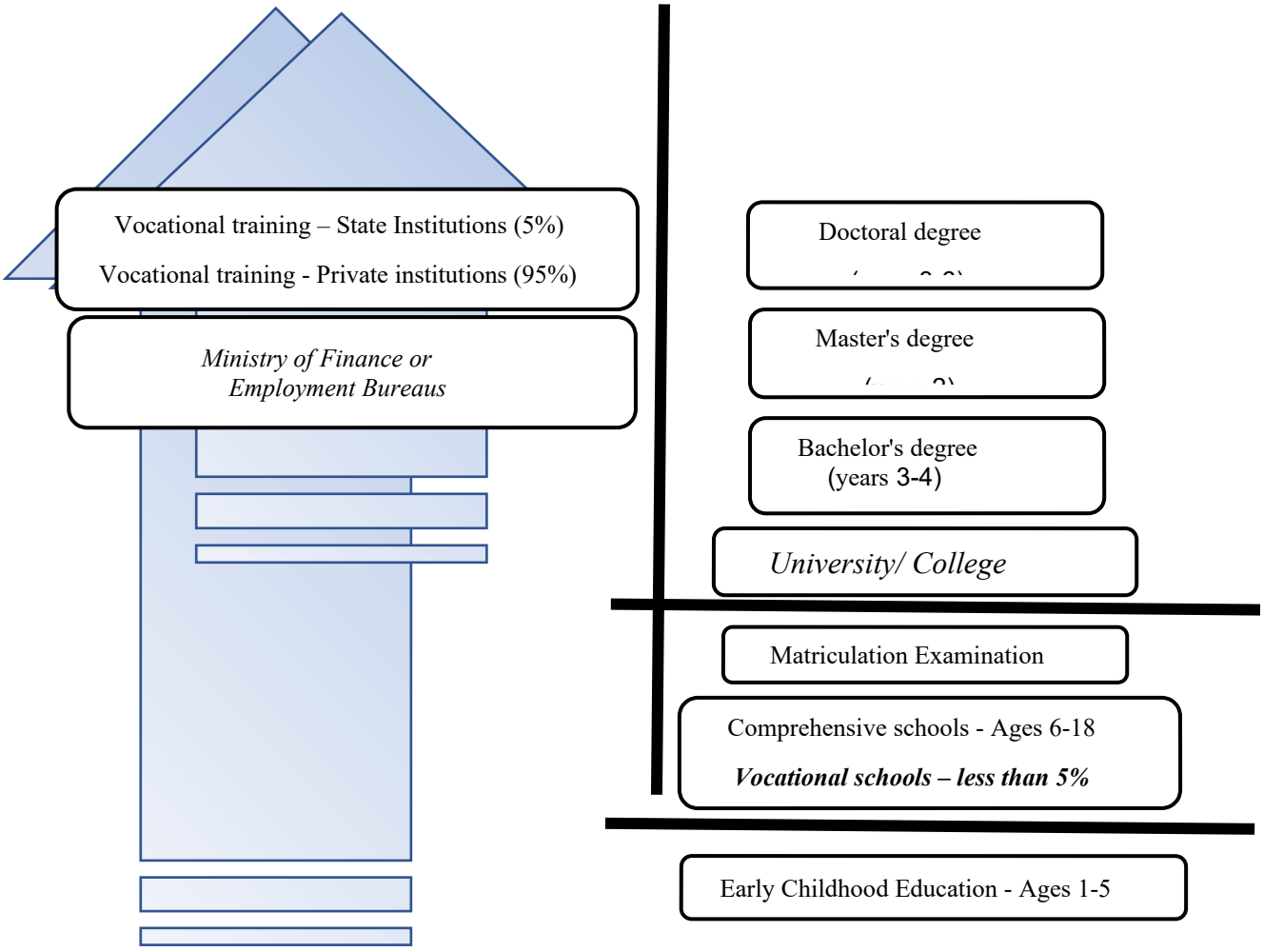


Figure 2.7. Israelis' education model 2021

Source: made by the author from [249]

This model (figure 2.7) is deals with the educational and training aspect in two separate courses that do not have any special work relations except for administrative controls and the adult education system, which is a platform of certifications and accreditations [2, 298 p.; 8]. The system suns without comprehensive mechanism but in a "double headed" structure in which they both pull to their own side without understanding or acknowledging the required mutual system. Years ago (over 15 years) the division for adult education was reduced, thus ending the

collaboration process between the processes of adult training and education (the labor force) in Israel.

Israel - occupation market productivity and factors of income to state treasure from export. Until two years ago, this datum was the "mystery" of Israeli economic policy. The western world could not understand how Israel is at the bottom of international exams and on the other hand has one of the highest numbers of international patents [24, 110 p.]. How does the economic and educational system neglect entire communities (minorities, periphery, Ultra-Orthodox, border settlements), but, on the other hand, leads in the number of technological successes in relation to population size? [22, 192 p.]. The new Minister of Finance, Avigdor Liberman, ordered research when entered his role (July 2021), from the Knesset research institute regarding the occupational productivity level in Israel [31, 12-16 p.]. This research showed that the low labor productivity in Israel compared to the OECD is mainly due to low skill level in the Arab society and the Ultra-Orthodox sector. The research results also showed that the product per capita in Israel, according to the purchasing power value, is lower in 9.5% from the OECD product per capita, and the product per work hour is even lower in about 23% from the OECD. The product per work hour in Israel in terms of purchasing power value in 2019 was 46.9 USD, lower by about 20% from the OECD average.

According to Neta [31, 17 p.], a complex of factors can explain the productivity gaps, especially the physical capital supply, human capital, work intensity, regulatory background conditions and industry structure. Before COVID19, there were low unemployment rates in Israel compared to the world (less than 4%) and the population in Israel was more educated compared to other countries. However, on the other hand, Israel gets low grades in employee skill measurement. The product per work hour was 46.9 USD in 2019 (and only 33.4 USD in COVID19 year 2020) compared to average of 58.9 USD in OECD countries (only 43.3 USD in COVID19 year 2020) - a huge gap of 20.4% in 2019 and 22.9% in 2020.

According to the Bank of Israel with Ministry of Finance [270], and the CBS [241], the 2019 comparison table of product per work hour in Israel in terms of purchasing power value shows that Israel is on the disrespectful 24th place among the 36 OECD countries. Ireland ranked first with about 110 USD per work hour, then Luxembourg with about 108 USD, Norway is third with about 93 USD. the product per work hour in the USA is about 77.1 USD, the OECD countries average is 58.9 USD, the product per work hour in terms of purchasing power value in Israel is 46.9 USD and Mexico is ranked las with 22 USD, and before is Chile with 30 USD and Greece with 37 USD product per work hour in terms of purchasing power value.

This data, and other socio-economic insights emerging from the in-depth Neta report [31] present a reality to which the researcher was exposed years ago, and thus her determination to examine the place of the Ministry of Education in the existing socio-political equation in Israel. A profound change is needed, whether in the professional relationships between education stages, or a more profound reform with regard to the place of teachers and educators within training arrangements for young Israelis. Such a paradigmatic change will increase the productivity of Israeli workers within years, thanks to a up to date and contributing to the economy education system.

Labor productivity obviously reflects on export. But here there is also the dilemma that export data (especially technological) are very high mainly due to the relevance to the current technology world. The researcher will present in the following figure (2.8) the productivity dimensions compared to export status.

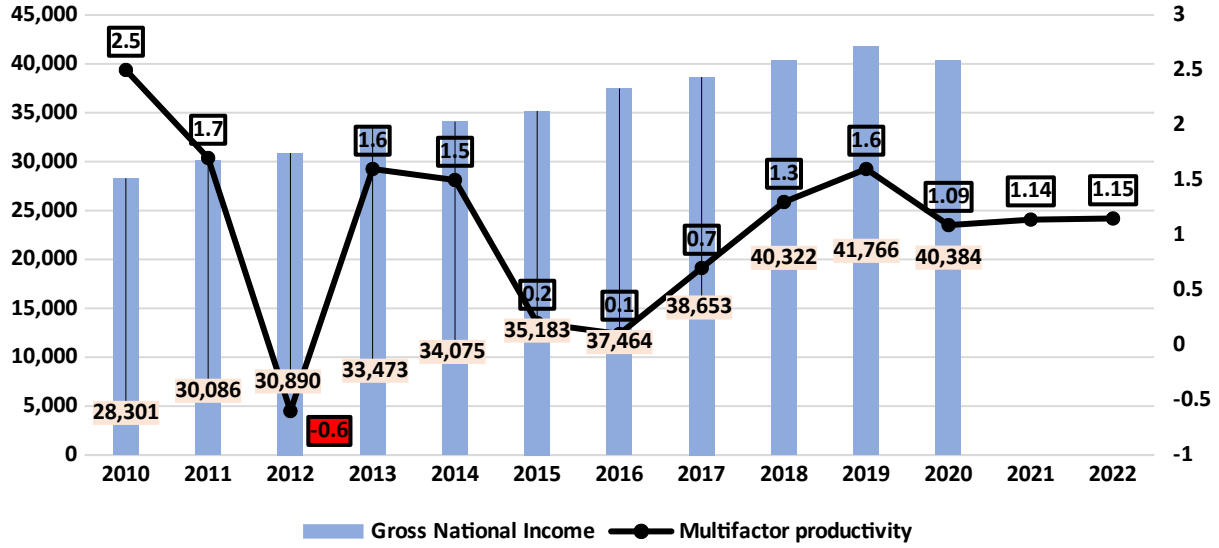


Figure 2.8. Multifactor productivity and the gross national income in Israel 2010 – 2022*

****Forecast information according to OECD data***

Source: made by the researcher from [255; 270]

The author of the thesis learns from the data results (figure 2.8) that the productivity level does improve every year, but the values are still low comparing to Finland (with 1.7 perennial average). The Israeli income of export services and products is high, but as mentioned earlier, it is greatly influenced by export of technology products and selling whole companies to stakeholders from West Europe and the United States. According to the Israeli export institute [262], over ⅔ of Israeli export was based in the years 2015-2020 high-tech industry export. Examination made by the Bank of Israel - the department of economy and export institute [262] showed that goods export had a 4% decline and was 54 billion USD, but on the other hand, there

was a 9% increase in exporting business services at 47 billion USD. It is mainly high-tech industries, digital worlds of Israel cyber, the fintech, big organization management systems etc. the Israeli high-tech became the main growth factor even more than it was so far and its part in total service export increases. The high-tech service export increased in 2020 by 11% compared to 2019 to 37 billion USD - double than in 2014. The assessment for 2021 and 2022 is that productivity level will be 1.14 - 1.15 in these years. These two factors are linked to the education policy in Israel in directing the resources and citizens' behavior about occupational selections in high income and product professions. As said earlier, there is no real work connection between training systems, therefore the high-tech system is the largest bearing the export and professional productivity burden.

Summarizing the comparison of education system role and status in social - economical contexts we learn that there is a substantial and fundamental difference at governmental level and the strategic perception of interaction between education and economy. On one hand the researcher concludes that in Finland there is a system of labor relation, national commitment, listening and adherence to society needs and local economy, which will be reflected in the design of student education and training policies for the country's economic-social needs [14, 217 p.]. Almog Barkat & Dan [4, 120-122 p.] argue that the vocational training system (VET program) is an example: high employment rate, low unemployment rate, investment in developing relevant occupational skills for diverse populations, mandatory education law and private funding reduction. While Israel is in a complex situation due to unsuccessful policies perpetuating social disparities (center and periphery, exclusion of communities and minorities), not investing in human infrastructure and minimizing or even canceling vocational education for students and adults. However, this policy results are currently "invisible" due to high-tech industry success, the last research ordered by the new Minister of Finance proves the future results of the labor economy in Israel [3, 15 p.; 11; 1; 60].

II.2. Comparative analysis and distinction regarding assessment and testing.

An additional criterion the researcher seeks to analyze and compare directly involved with education policy in pedagogical contexts that show social - educational perception. The evaluation and examination ways in each education stage show a perception that examines - evaluates - looks at the learner in the educational system.

"Change the way you look at things, and the things you look at change" [95].

The evaluation and examining methods are a discovery process that help to promote student achievements and improve teaching processes, because it provides findings-based data

and enables setting concrete goals for improvement [53]. Good mapping, in the process, and mainly after it, will direct the teacher and influence the way he plans his classes, how he teaches and the contents and various student learning in class. This policy is clear to all those who are engaged with teaching students, whether it is adults, or young people. But still, as a result of educational policy, we find differences between the two countries - Finland and Israel [17, 16 p.].

Finland - evaluation and examination methods. Due to reality in these years (2020-2021), with an education system completely different from the United States, Britain, Israel and even other European countries, Finland is at the top of the success table over twenty years [77; 92, 7-8 p.]. According to Finnish government publication report [245], the policy of evaluation and result examination in Finland allows students perceptual autonomy and creativity encouragement instead of putting the students in competitive race for numerical - quantitative achievements that is expressed in the following characteristics:

1. Elementary ages - the evaluation process starts in early age, but in broader, including and enabling approach. Encouraging the student to shape his opinions is one of the values already applied and examined in elementary ages (kindergarten and elementary classes). Therefore, the system will properly emphasize the learner's opinion. The evaluation and examination in these years will focus on promoting the child's health and welfare. The policy in evaluation processes is that the Finnish system refers the young learner as an individual (unlike classic evaluation guides that quantify the student in statistical indices of numeric grade), and aims to reach his full potential. Young students (up to 6th grade) rarely get homework. Teachers have full autonomy to use teaching methods that ease them to experience and help students learn in a more proactive way in personal and social context (learner community).
2. High school ages - students in Finland do not take national tests until the age of 16. The examination and evaluation processes are performed the teacher staff (of the system) and they determine the evaluation methods based on the targets set in their subjects. The comprehensive education policy also certifies the teachers to impart and develop the learner's self-esteem skills. Self-esteem helps the students to learn to be aware of their own growth and the learning process. The system procedure, as part of setting national policy, is that Finland does not use standard, uniform tests, but a variety of evaluation and examination methods to use the potential of the learner and the system to a wider arc of expression opportunities for the learner. In Finland's education system there is one central

standard test in high school ages, the national matriculation test. The students take this test by the end of their general high school studies, and it comprises four exams. The students have to be tested in native language, and then they select three of the following subjects to be examined: mathematics, foreign language, the second national language and general discipline as humanities or sciences. General education students are required to complete the matriculation test to get a diploma when graduating high school. Finnish universities and applicative science universities will use the test grades as part of their selection criterion. The universities may require additional tests as part of their evaluation, but due to the learners' school reports.

3. The general policy - Finland's education system does not aim the student learning in elementary studies as preparation for the standard - known tests. Instead, teachers get general evaluation guidelines and assess the students themselves. The Finnish system also encourages students to develop self-evaluation skills and develop their own standards to progress. The common approach, as part of the comprehensive education policy, and a national guiding line, is that instead of a test, the Finish government goal is "*to support in student growth towards humanity and responsible are moral friendship in society and provide them the knowledge and skills required in life*" [243]. However, Finland uses an annual test to evaluate learning results in school. These tests focus on mathematics, native language and literature subjects. Additional disciplines as art and multiculturalism are added due to the Ministry's goals. It may sound like standard evaluation and examination in a different name, but there are some main differences. First, the tests are based on a sample, they are not comprehensive results. Second, the grades are not used for student evaluation but for school, and it reduces the participant pressure. Finally, school grades are not related to funding or the national grading system. It is given to school principals for evaluation and development.

Israel - evaluation and examination methods. The evaluation process and examination methods in Israel had minor changes along the years, but are still based on product – result [Hemmings]. This is the policy since the state's establishment. The COVID19 crisis has created "pressure bubble" or opportunity in the educational system, and now it is going through a change process that may fundamentally change the evaluation and examination methods [42, 7 p.]. By the common approach in Israeli system in the "achievement evaluation" issue there are two main different approaches:

a. The *qualitative approach*, by which the evaluation is perceived as evaluation for learning, known as "formative evaluation".
b. The *quantitative approach*, by which the evaluation is perceived as evaluation of learning, known as "summative evaluation".

Each approach set different *evaluation goals* that influence learning and teaching culture in class and direct it. The evaluation goals by the first approach are providing detailed feedback to promote learning and teaching. The evaluation goals by the second approach are summary or report of learners' achievements, using a numeric grade, for sorting, certification etc. [32, 22 p.].

The Israeli system integrates the two approaches but do not give up on any of the approaches all the way, starting from kindergarten age until graduating university. The former Minister of Education statement [248] indicates the leading policy: "*it is acceptable to examine education system success by measuring outputs (scholastic achievements). the measured outputs are mainly student grades in general internal exams and comparative international tests. We will note that the question whether student grades on tests legitimate means of measuring education quality are in acute dispute. It was also claimed that measuring student achievements cause education system employees to over-focus on achieving maximal success in tests rather on achieving true knowledge*" [248].

According to Ministry of Education [249; 30], learner evaluation methods in Israel tend to numerical – quantitative direction as years go on learning process. But at the beginning of the student's first year in educational institute he goes through a process of observing his emotional, motoric and cognitive outputs and it quantified to verbal evaluation and numeric assessment that present his abilities in relation to himself (if he had improved over timeline) and in relation to his organic or statistic group peers. So will the process continue, a result of policy and educational perception based on proximity to result is characterized by the following age groups:

1. <u>Elementary ages</u> – the learner in Israel will be tested during his years in education frameworks (kindergarten and elementary school) almost in every way possible. The teaching method directs the teacher to examine learning results to produce maximal possible output in subject learning timeline. Curricula (the next comparison chapter) require many evaluation junctions, so the system will be able to produce progress data of the student and the teacher. The examination methods will be adjusted to the learner and his abilities, but starting from young age, the learner will be educated to present his knowledge and abilities according to the expected, and on the other hand go through numerical quantification process of the knowledge he has presented. Excellent student

will get high grade and struggling student will get low grade. However there diverse teaching methods are integrated (peer learning, workshop experiencing, group work etc.), all the expected knowledge has to be presented on a test.

2. Intermediate ages – in Israel, the 7th – 9th grade students are bounded in intermediate school grades – junior high school. this age group will transfer in 10th grade to high school studies towards designated learning course (theoretical / vocational). The evaluation and examination methods are similar to those of elementary ages, with accordance to the current age group.
3. High school ages – this student group arrive this education framework on 10th grade (16 years old) and continue up to 12th grade (18 years old). During these years most Israeli students will learn in high schools (less than 5% will study in vocational – technological high schools) and will go through evaluation and examination processes according to the general policy that requires numerical and verbal control and evaluation junctions along the years. Within the evaluation process and exams, the students will be tested using papers, quiz (short test), current tests and finally the matriculation tests (starting from 11th grade).

The *matriculation grade transcript* – every student who graduates high school course in Israel grants 2 graduation diplomas. One is school graduation diploma granted by the educational framework (12year studies 1st – 12th) and the matriculation transcript detailing if the graduator is "entitled" or "not entitled" a diploma [249; 4, 126 p.]. The first meaning of "entitlement" is the ability to admit higher studies in higher education. A graduator without "entitlement" will be obligated to retest the subjects he failed in order to be "entitled". Without entitlement, he will usually will not be accepted to the higher education system [21, 119-120 p.]. The value and "weight" of the diploma depend on the subject's study units, final grade and total average [27, 65 p.].

The common attitude in high school frameworks is a "natural" continue of evaluation policy that examines the student's ability to present his knowledge according to the curricula he studied. There is almost no individual - creative expression of the learner, opinion forming process or expression of thinking autonomy. The only skills tested are memorizing ability, content analysis and synthesize, according to his ability to adhere to requirements.

Comparative discussion between the two countries. The researcher understands from analyzing the two countries policies that there is a fundamental difference in the role each country attributes to the educational system. The difference in education status and its role is

expressed in the researcher article "*Education policy in Finland*" [99]. the connection between the systems, curricula synchronization and cultural dimension of learner development are very prominent in the policy of the learner evaluation and examination methods in Finland. Emphasizing development of thinking independence in social and individual contexts replace evaluation junctions that are translated to numbers in Israel. The Finns invest a lot, as part of cultural – social – political strategy, in developing human – citizen quality and in value of equality to all, and therefore create an open and egalitarian society that contributes in its wide basis to the local economy. The thinking spirit and this perception led them to conduct more empathic evaluation policy that emphasize the long run. A lucrative policy in international tests.

However, the State of Israel, takes the attitude of striving for *immediate results, a proven and measurable purpose*. The achievement measuring policy is imbued with Israeli culture. It is a cultural perception that is represented in every organizational culture in the labor and management systems. Tamir [40, 51 p.] explains this cultural phenomenon as constant anxiety due to historical reasons related to existential pressure and/or fear of some economic / security / political crisis. Therefore, the educational system is managed in an atmosphere of "no" strategy and "no" updated processive policy, but "firefighting" culture. A reality of such conduct creates socio – economic disparities that cause discrimination of communities in the state. In addition, this social approach loads on the education system pressures to meet clear targets, validated by numerical grade and require the officials (kindergarten teachers, teachers, principals, supervisors, university lecturers) constantly prove themselves. The two mentioned approaches have a short way to international tests' results.

Comparison between assessment processes and examination of international tests. International tests are conducted in the framework of international studies in which many countries from all corners of the world participate [82; 87; 118]. Their purpose is to allow a comparison between students' achievements in core knowledge area, learn about correlations between various factors, such as students' attitudes toward school and learning as well as investigating social, economic, and cultural influences on countries in which research about achievements is conducted [127]. Research results therefore allow a comparison between sectors and groups in a country's population and between countries [130, 448 p.]. Tests are conducted cyclically every few years. Research is conducted by two international organizations: OECD [255] managing PISA (Program for International Student Assessment) research and TALIS and IEA (International Association for the Evaluation of Educational Achievements) studies, in which Israel and Finland participate in PIRLS and TIMSS studies [246]. Data from 2019 tests

revealed that the average grade of outstanding students in Israel was relatively lower than the grades of outstanding students in developed countries [Weisblai]. In fact, the average grade of outstanding Israeli students was closer to that of students with the lowest achievements in China [7].

The test was conducted in March 2018 on a sample of 6,623 students from 174 schools, most grade 8 students. Israel was ranked in 37th place in the reading test (similar to is rank in the previous test, but the grade decreased by nine points to 470); in 42nd place in sciences, the lowest rank achieved so far and the worst grade since 2009 (3 ranks lower and seven points in students' average grade). In contrast Finland, which until the previous years had been among the leading countries in international tests, went down slightly in 2018 [255]. If one looks at the last 17 years, one finds that Finland showed remarkably positive and successful results in all tests (mathematics, literacy, language, and sciences). When both countries' achievements were analyzed by the OECD's educational department, one of the most prominent conclusions referred to existing methods of testing and assessment in each country.

Analysis of success factors in international tests in Israel and Finland. According to studies conducted by Tzur Carlitz and Noam Keshet on behalf of the Trump Foundation and called "*Factors driving student success in PISA tests*" [10], three main success or harmful factors emerged: (1) educational context; (2) effect of teaching characteristics on students' performance; (3) effect of educational level at preschool age. This researcher seeks to compare between the different methods employed in the two countries, Israel and Finland, to analyze and apply measures requiring change or retention.

Educational context. This expression refers to the socio-educational dimension called equity in education. According to Carlitz & Keshet's [10, 17-21 p.] research findings, the equity in education dimension showed an improvement trend in 11 countries that participated in PISA research. Equity in education is measured on the basis of the percentage of difference between students' performance explained against their socio-economic background. Inequality in education is reflected in high academic achievements among students from a high in contrast to low socio-economic background. Such findings often appear in the media and professional literature, to the extent that it appears that achieving equality is impossible in today's education system. However, countries around the world working to improve achievements of students from a low socio-economic background achieve continuing success.

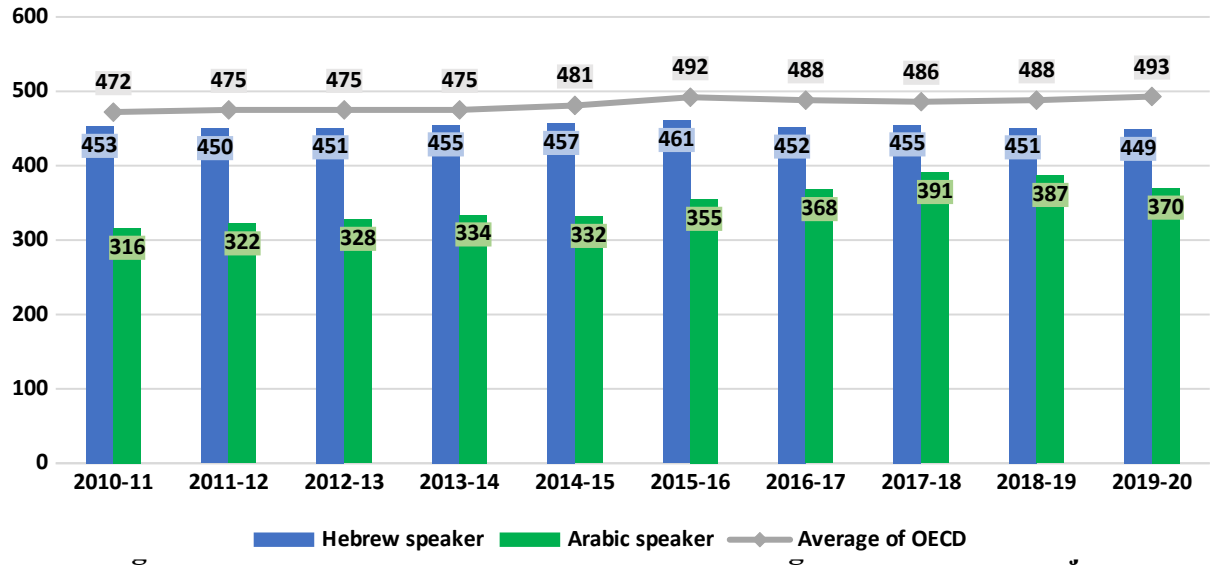
Equity measure in Finland versus Israel – as reviewed previously, the issue of equity in Finland is a result of legislation and a socio-political paradigm. **Equal education for all and**

views of diversity among students according to Finnish law is an integral part of the education system, and is not regarded as differentiating, but as **molding local society** (in other words multiculturalism). The right to education is a fundamental right and includes all state residents (even those who are not citizens). According to Pizmony - Levy [175, 128 p.], the Ministry of Education is committed to **every child having the possibility of acquiring education, adapted to their abilities and special needs, irrespective of economic status, age, place of residence or mother tongue**. Equality in education is the first priority in education polity. Nevertheless, the purpose of creating equality in education is not equality in achievements but providing equal opportunities for and equal expectations from every student. Therefore, the ministry provides free pre-elementary, elementary, and secondary education, social services and support in an enveloping system (food and travel arrangements) for all students of all ages at no additional cost. **This paradigm has led to the fact that there are almost no gaps derived from an absence of opportunity and/or discrimination between communities and cultures within the country**. Funding for schools is transferred from the Treasury's state budget to local authorities according to the number of students aged between 6 and 15 residents in their municipalities or authorities. A number of elements affect the size of transferred budget: low populated regions, populations speaking a large number of languages, local authorities in island and Swedish speaking regions and number of students speaking foreign languages living in a local authority area. These factors and aspects constitute the basis for higher funding from the government to local authorities. The Ministry of Education and Culture has a certain differential budget given to schools in which special learning materials are needed to teach migrant children as well as special funding for students with special needs [1; 13].

In Israel, there is noticeable inequality in learning and educational achievements, and these differences are remarkable in a comparison between **socio-economic echelons** (secular, religious, ultra-Orthodox) and between **Arab and Jewish society** [3; 5, 138-139 p.]. One of the main roles of the education system is to select and sort students in preparation for possible entry into the labor market. Systems try to identify the most talented and hardworking students and train them for high-earning and prestigious professions. Hence, for example, Israeli universities customarily have **high entry requirements** for electrical engineering and electronics, management, medicine, architecture, clinical psychology and more, and only a few candidates for higher education meet these requirements. Similarly, **matriculation exams sort high school students** into three categories distinguishing between those who accumulated lots of knowledge (four-five study units) in the most highly valued subjects (such as mathematics, sciences, and

English), those who sufficed with core subjects at an average level, and those who did not meet minimum requirements to be awarded matriculation certificates [249]. Only 22% of all high school students belong to the top category, and many belong to the bottom category. Matriculation certificates are a selection mechanism layering students' future chances, both in higher education and the labor market.

This researcher argues that in fact, the education system sorts and ranks students already in the early stages of their study journey [102; 104]. Teachers assess their students and rank them non-stop on a grades' scale. Grades were meant to encourage students to invest in their studies and reward those who achieve highly. Grades are not equal because they are ranked. If all students were awarded the same grades there would be nothing to encourage students to invest efforts in their studies, and grades would not reflect study success and would not serve as a foundation to sort students in preparation for their acceptance for future study programs. Much has been written and said in the public debate about low achievements among Israeli students in international tests, but it is more important to emphasize that Israel is one of the leading OECD countries in the degree of inequality in achievement among its students. An example of figure which presented below showing the gaps in grades between Jewish and Arab society over 10 years in the measurements examined in international test. Data comes from the national authority for measurement and assessment in education – a subsidiary unit in the Ministry of Education [241].



(Arab and Hebrew speakers), from 2010-2020.

Source: made by the researcher from [241]

An analysis of the findings reveals that there is a *gap* between language speakers (Jewish society and Arab society) which has continued over a decade (2010-2020). Although the gap has narrowed since 2015, it has grown between the Israeli average and that of other OECD countries

(also since 2015). This finding has led the researcher to conclude that although the state of Israel has invested in narrowing the gap preventing equity, it has not done enough to bridge the gap with other countries.

Gaps between Jews and Arabs are also noticeable when examining achievement levels of each population: only 6% of Arabic speaking students excelled in the test, in contrast to 19% among Hebrew speakers [19, 414 p.]. Those Jews who excelled also achieved a higher average grade than Arab students who excelled. Half of Arab students had low or very low scores in the mathematics test, whereas among Hebrew speaking students, on about a quarter (26%) received a low or very low score. The gap between resources invested in Arab education and Hebrew education is not only expressed in funding teaching hours. Teaching infrastructure and tools available to teachers and principals in Arab education do not allow meaningful learning, especially not to students from deprived backgrounds. There is a severe shortage of classrooms, physical infrastructure and digital equipment for teaching.

The next figure illustrates a comparison between countries and the large gaps that exist in success in international tests. The science subject constitutes in many countries a key indicator of their educational systems when it comes to paving students' way to professions attributed to developing knowledge economy professions in a country [29; 43]. In Finland, as reviewed in the previous chapter, there is a vocational education route, whereas in Israel much is done to minimize its existence and influence [92, 7-9 p.]. This data apparently leads to growing gaps between worldwide countries and the Israeli education system. Figure 2.10 illustrates the gaps in this subject between Israel and Finland.

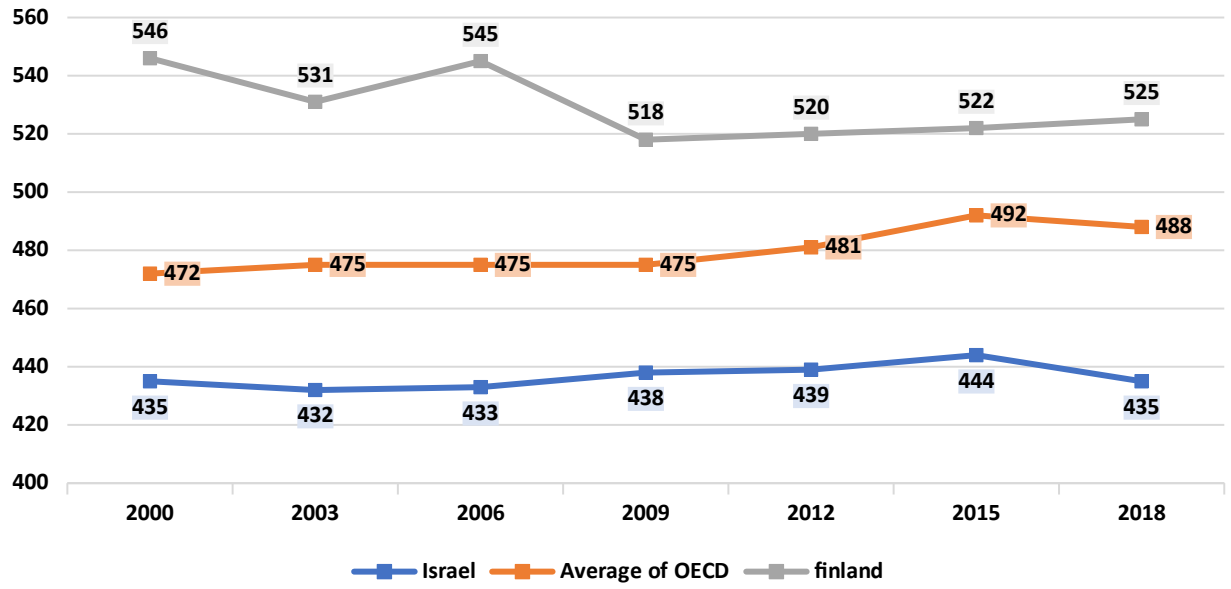


Figure 2.10. Comparison of PISA test results between Israel and Finland in science subject (age 15; 2000- 2018)

Source: made by the researcher from [254]

In light of the data presented, the researcher has concluded that success gaps have continued throughout the decade of 2010 onwards. Despite attempts to bridge the equity gaps existing in Israel, which has indeed narrowed, as presented in the previous figure, Israel is known for its inequality in education, and the gaps versus Finland have not narrowed at all, despite Finland's weakening in recent years, as a result of a highly significant migration crisis. Abraham Frank [17], who examined the education systems in Israel and Finland in an in-depth study, concluded the real value that produced the difference between the systems was the equity value. In his words, as a critic of the system in Israel, equality and justice instead of ethical ambiguity and large gaps are what show the Finnish system's adherence to values of equality and justice throughout the entire educational process ("*the first time students encounter competition is towards their entry into higher education*"), whereas in Israel, the results of both international tests and matriculation are published broadly with competitive "league tables", emphasizing the large gaps between different sectors in Israeli society [17, 16 p.].

Comprehensive tracking in the entire system tempts the educational line from developing thought and behavior to measurements and competition. The Finnish system sees achievements as developing students' thoughts, consolidating values and trust, collaboration, community help and absence of stigmas in theoretical, practical, mixed, or special education [162]. In contrast, the researcher [102; 103] presents that for the Israeli establishment, the numerical achievement is fully rooted in the view that competition is everything and the more it produces "excellence" measured by numerical results in national or international tests, the better. It appears that the trend has simply been the opposite for 30 years.

Effect of teaching characteristics on students' performance. Some of studies [180; 177] have shown that efficient schools require efficient teaching. For schools to improve, teacher's abilities to provide quality teaching must be strengthened. Part of the challenge is to identify which teaching practices are more or less efficient [202]. Two countries, Israel and Finland, hold principal teaching characteristics that are part of the classical teaching method in each country. To do this, based on the McKinsey Report [237] on PISA research conducted in 2019, in which both countries participated, a comparison will be made between teaching method characteristics. In the world of modern teaching, there are two main methods of teaching sciences: *standard frontal teaching*, or *teacher-directed instruction and the teaching method based on research and teaching*; inquiry-based teaching [217; 132].

According to Henderson-Rosser & Sauers [132, 116 p.] teacher-directed instruction refers to the frequency with which teachers explain and demonstrate scientific ideas, discuss students' questions, and lead class discussions. Inquiry-based teaching refers to the degree to which students take an active role and participate in creating discourse and discussion in class. In other words, the frequency with which students raise research questions, plan experiments to test their hypotheses, make deductions from their findings, and discuss their experiences in class. According to research findings about teaching methods actually carried out in Israel, the Israeli education system trains its teachers (will be discussed later) mainly in the teacher-directed instruction method, namely frontal teaching. Finland in contrast has been known for many years to employ and nurture the second approach, based on research and teaching [Valijarvi & Sahlberg]. Table. 2.3 presents the methodical differences between the two methods when teaching science subjects (which later will lead to grades in international tests).

Table 2.3. Comparison of learning method between Israel and Finland

Israel **Learning method: teacher-directed instruction**	**Finland** **Learning method: inquiry-based teaching**
Teacher explains scientific concepts; There is a class discussion with teacher; **Teacher** discusses our questions; **Teacher** demonstrates a scientific idea; Students experiment with a scientific idea; Students with teacher together make deductions (under **teacher's** direction).	**Students** are given opportunity to present their ideas; **Students** conduct experiments in a laboratory; **Students** are required to discuss scientific questions; **Students** are asked to make deductions from experiments they performed; Teacher explains how it possible to use a scientific idea that students learned in class to explain various phenomena (for example bone movement, materials with similar qualities); **Students** can themselves prepare experiments they conduct; In class there are discussions about studies; Teacher clearly explains the relevance of scientific concepts to our lives; **Students** are asked to conduct research to examine ideas.

Source: made by the author from [17, 9; 35]

From the findings, the picture is quite clear, and the researcher of the thesis can see that teaching characteristics have a critical effect on students' ability to cope independently with questions requiring abilities to decipher different components in internalizing steps of learning material, which gives an advantage to the inquiry-based method, as operated in Finland. For example, the following figure will present the Israel's and Finland's mathematic grades in PISA tests 2006 -2018.

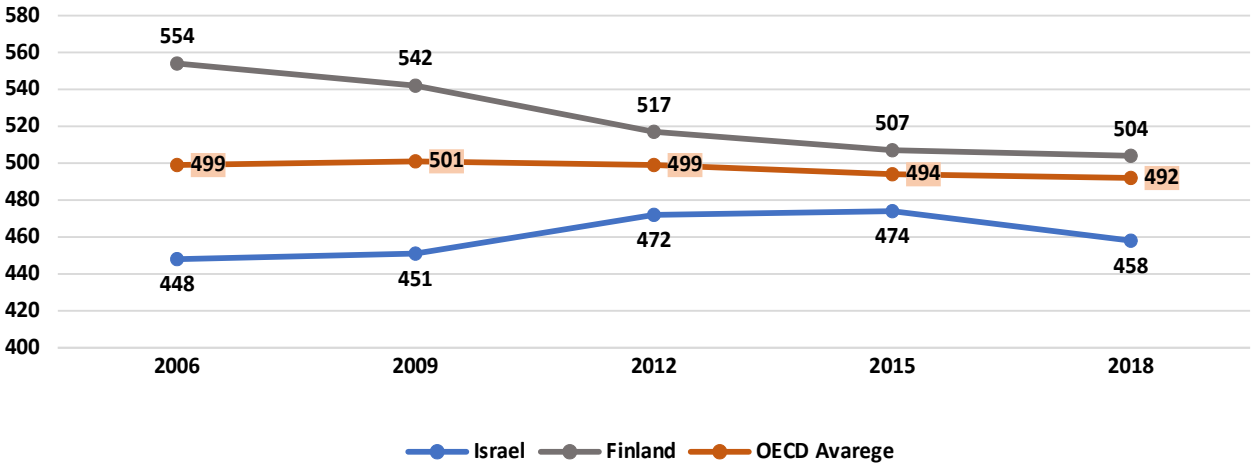


Figure 2.11. Maps Israel's and Finland's mathematic grades in PISA tests 2006 -2018

Source: made by the researcher from [254]

Figure data (2.11) shows that in this case as well, the state of Israel, on the basis of its teaching method policy (frontal teacher-directed instruction), is below the OECD countries' average as well as below Finland. Although Finland has undergone some sort of change in students' grades and has been on a general downward trend over 12 years (from 2006) from a general grade of 554 to 504, it is still above the average of developed countries, which represents quality teaching methods. Paksuniemi & Kekitalo [173] argued that one can attribute this fall to the fact that Finland absorbed hundreds of thousands of migrants since 2014 (refugees from African and western Asian countries), and therefore it will take a number of years for the change to stabilize.

To conclude this sub-chapter, it is possible to see that there is a fundamental difference between the two countries with regard to their policy of assessing and testing students at teaching institutions. There are two paradigms, which in the researcher's opinion, are the result of national culture, and life view about the role, purposes, and goals of educational arrangements in the country. The state of Israel looks at its educational establishment as a "production line" for human capital measured by socio-economic outcomes, and therefore the system is required to meet high levels of standardization of organizational outcomes quantified in numbers and assessments. The state does not have a strategic approach including the entire state population, and thus does not promote equality in education, which lead to consequential gaps expressed in international tests. Additionally, the state of Israel is not financial budgetary affected, and its expenditure on all national systems is high (security, welfare, health, transport). Therefore, there

is a national sense of pressure for results. What is sad is that this strategy does not lead to outcomes, just the opposite, it leads to increased gaps and frustration among internal communities. One of the other reasons for gaps in level, outcomes and grades is the relevance of the education system's learning content. Students' training routes, together with learning content that is not adapted to the forecast needs of the 21st century will lead to success both in grades, and mainly in future economic contribution of the human capital in the country. The next sub-chapter will discuss this issue.

II.3. Comparative examination of curricula and training courses for the 21st century.

The 21st century is characterized by accelerated changes and a high level of uncertainty with regard to the future [115, 73 p.]. Education systems around the world must acclimate to the changing reality to remain relevant, and one of the ways of so doing is adapting learning programs and material [129]. According to Hirst [134, 6 p.], national targets in education indicate the overall aims of the education system, define them, and direct the planning and working framework in each country. Schriewer & Martinez [195] added that there is a difference between countries' national targets according to their culture, challenges they face, their economic status and national ambitions. Hence for example in most developed countries (according to OECD publication), the view is that education is directed first and foremost at serving individuals, whereas the state enjoys the fruit of its investment as a consequence.

The OECD predominantly reflects this view and defines the sense of student welfare as a single national target. Tzu- Bin, Azura & Li- Yi [218, 427-429 p.] described how in Singapore, in contrast, education goals are nation-directed, in other words, training human resources to function in the global labor market and consolidating national identity. In contrast, there are countries where equality goals and nurturing educated civilians is at the top of their system's priority list [167]. The researcher seeks to note that according to Sleeter & Stilman [199], every country formulates policy to develop curricula corresponding to its customary educational policy line, and sometimes this refers to fundamentally the same by different wording. Takayama [210] presented examples of paths of program development policy operated in a number of countries: (1) develop academic abilities – Australia, New Zealand, Scotland; (2) curricula in favor of community welfare – OECD ; (3) equality and reducing social gaps – Australia, U.S.A., New Zealand, Scotland and Finland; (4) social tolerance and inclusion – New Zealand; (5) preparedness for economy and local labor market – Finland, China, Australia, U.S.A. and recently Singapore as well; (6) develop national identity – China and Singapore.

21st century curricula aim. According to the OECD's *Education Project 2030* [273], curricula are a core means of realizing national education goals in a country. Despite differences in national targets and unique features in every country, it was found that all curricula address three components:

- Literacy in knowledge areas
- Skills in thought and socio-emotional areas
- Education for values at social and individual levels.

The OECD's *Education Project 2030* is based on the importance of developing abilities in these three areas, instead of solely instilling knowledge. Israel and Finland, participants in the project program apply its principles according to their national education system policy lines. However, it is important to mention that discussed countries even integrate internal programs and ideas, which sometimes contradict the principles of the OECD program. For example, the state of Israel continues, despite all the reactions and conclusions of different committees (including the State Comptroller) to discriminate against various populations [166].

Finland. The local regional education system leads students mainly in the direction of **exploiting their abilities** to formulate their image as individual people contributing to themselves and their environment. The educational "climate" encompasses social principles to which socio-educational features are added such as equal rights, a subject previously analyzed. According to Sivesind, Afsar & Bachmann [Sivesind et al] a senior educational figure in the country, the model to develop curricula in Finland is based on meeting a number of criteria: literacy in knowledge areas, developing skills and education for values. Figure 2.12 presented the model's principles and outlines.

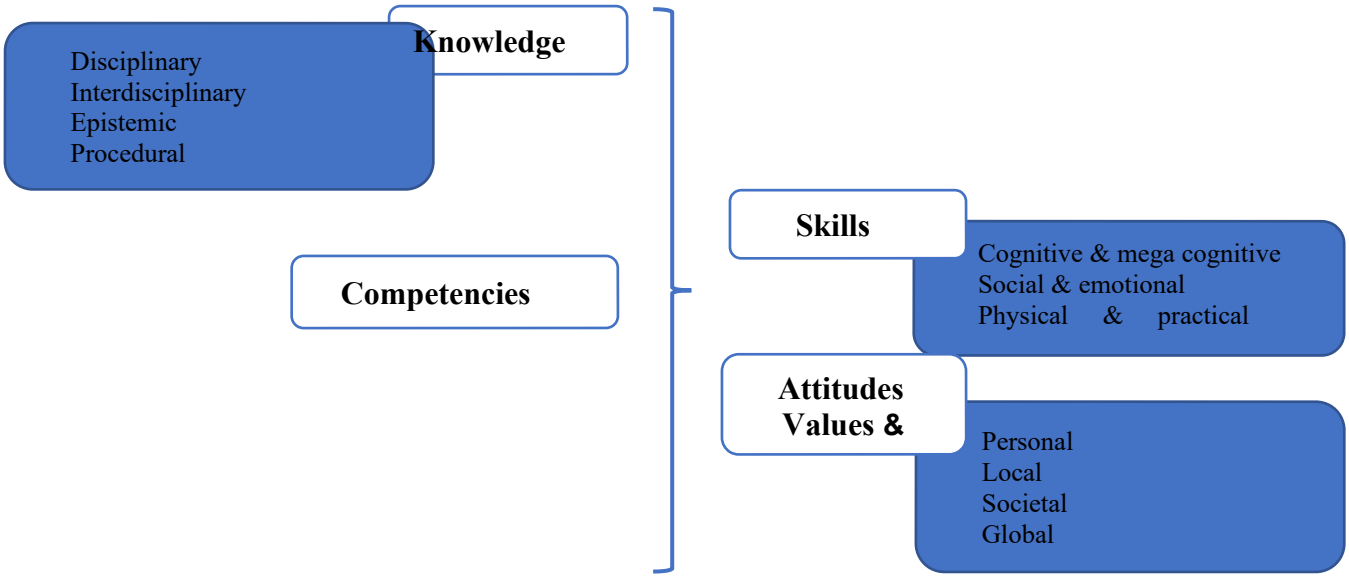


Figure 2.12. Model of guiding principles for Finland's curricula

Source: made by the researcher from [198]

The researcher will now review the components of the model presented in Figure 2.12:

Constructing knowledge – according to Sivesind et al [Sivesind et al], knowledge areas include study subjects divided into five categories: (1) arts: art, music and drama; (2) humanities and social sciences as well as English and English literature; (3) STEM subjects: technology, sciences and mathematics; (4) Subjects in health and welfare area: physical education, education for health, religion and ethics; (5) subjects aimed at the labor market: career education and counseling and business administration. According to some finish sources [219; 217; 234], policy in Finland does not refer only directly to study subjects but emphasizes *five* infrastructure areas that are meant to be expressed in teaching and learning different subjects: *language literacy*, *arithmetic literacy*, *digital literacy*, *information literacy and health literacy*. Approaches leading the Finnish system [259] in structuring curricula include:

1. *Interdisciplinary learning*: according to learning processes we will argue that 21st century skills must be based on integrative knowledge and not on separated knowledge areas. Therefore, Finland implements interdisciplinary learning in various ways. Broad learning subjects learnt in an all-subject framework, hence for example health and welfare subjects as well as language and arithmetic literacy are integrated into all school subjects in Finland.
2. *Balance between learning areas*: Finland gives preference, both in theoretical and vocational education to STEM (**S**cience, **T**echnology, **E**ngineering and **M**athematics)

subjects, over other subjects. Some institutions are trying to raise the status of humanities subjects in favor of learning reality subjects – as demonstrated in the STEAM approach which integrated art study with STEM subjects. However mostly there is a balance between real and humanistic learning areas.

3. *Balance between content scope and profound learning and instilling skills*: according to the education policy, it was decided to formulate curricula in light of the 'teach less learn more' principle. This approach refers to reducing the scope of learned material in favor of learning using innovative methods, such as research-based learning. These methods encourage profound understanding, acquiring concepts and basic skills and applying them in a range of contexts, as well as acquiring and practicing skills essential for the 21st century.
4. *Integrating technologies in learning and teaching* processes is viewed in Finland as essential to adapting the education system to the 21st century and its continual improvement. In Finland, technology serves in one or more of the following roles: supporting tool in teaching and learning, for example personally adapted and group learning; teachers' professional development, a tool for dialogue between teachers and students, monitoring and assessment, computerized measurement of students' achievements enabling identification of strengths and weaknesses.

Developing skills and values – the premise leading the line of thought in the Finnish education system is that in the future students will have to apply their knowledge is changing and unknown circumstances. Therefore, they will need a broad range of competences and values:

1. Thinking skills and strategies: thinking skills and strategies constitute a fundamental component in developing new skills. In Finland, there is significant emphasis on developing critical, independent, and creative thinking as well analysis and problem-solving skills. It is customary to teach thinking as an integrative part of all learning subjects and this together with specific learning materials and adapted to learning stage, and age of students. Sahlberg [192, 207-208 p.] added that unique aspects in the field of developing thinking were found; for example: emphasis on various types of thinking such as an emphasis on developing strategic and reflective thinking.
2. Different ways of developing thinking: in educational institutions, corresponding to various ages, different types of thinking are taught in various areas of learning. Hence, for example, developing a thinking ability called visual spatial thinking taught in design

and technology studies as well as computational thinking, and recently they also started algorithmic thinking taught in computer studies.

3. Socio-economic skills: Instilling social and emotional skills contributes to individuals' ability to formulate their personality and cope with an uncertain and frequently changing reality. These skills include personal skills such as self-efficacy, self-awareness, decision making abilities and interpersonal abilities such as empathy and cooperation.

The Finnish establishment emphasizes that teaching knowledge and skills, and their application, rely on an ethical foundation [200]. In curricula adapted to the 21st century, reference to values both at and individual level such as curiosity, initiative, determination and perseverance, and a social level such as tolerance of others, socio-cultural awareness and ethics was found [212]. Instructions to Finnish schools' state that cultural diversity enriches and contributes to human existence and therefore there are universal values that must be nurtured throughout the education system, such as human dignity and respect for life.

Curricula planning partners. educational leadership in Finland understands that applied curricula have the potential to be influenced by many stakeholders [259]. Therefore, they punctiliously choose and involve diverse stakeholders from the planning stage: personnel from academia, third sector organizations specializing in education, personnel in the educational field and end-clients of the system – students and parents. Finland believes in the idea that there is a national goal of preparing for the labor market. Therefore, personnel from the business sector and industry are included in planning studies. Curricula planning and assimilation processes include a number of stages [161, 450-453 p.]. First, there is a structured process that includes formulating initial curricula drafts by leading professional in education, getting feedback and reaction from people in the educational field and general public, amending curricula, pilot implementation project, curricula approval, implementation, and assimilation as well as follow-up. Partners are presented in the following figure.

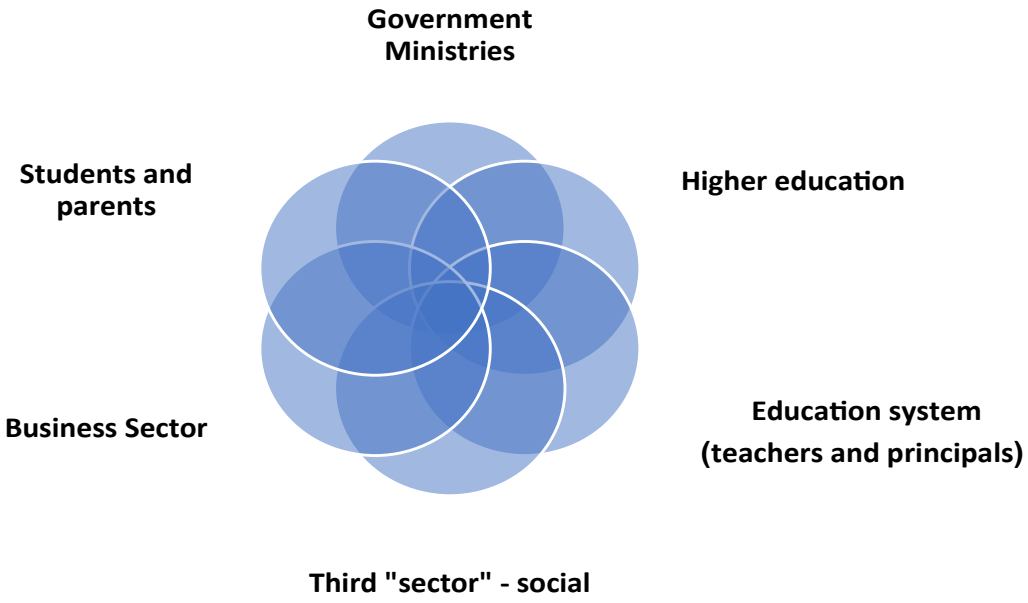


Figure 2.13. Writing partners for curricula in Finnish Educational Institutions

Source: made by the researcher from [260, 161]

As we will deduce from this illustration (2.13), strategic partners in preparing curricula in Finland, are divided between a large number of stake and knowledge holders. According to Robinson & Aaronic [187], every expression of interest ascribed to a body that is represented. The business-industrial sector is interested in preparing human resources suitable for its needs. So too higher education, which would prefer to acquire 'mature' students for academic studies. In the researcher's opinion, the involvement of parents, who were partners in preparing curricula, from their point of view is an interesting issue.

Work on local curricula is structured as a pedagogical process to develop a local-national curriculum. Starting in 2020-21, a gradual reform has been introduced, in which there will be a transition from "subject based" curricula to "phenomenon-based curricula" and the idea is to prepare students for their future working lives. This reform came about against a background of change that has brought modernization, industry, and technology to the world of work in contrast to what existed a century before. The hope is to enable students to develop in their high school years professional and intellectual skills according to their tendencies.

Thus, for example, according to Simola [197, 463 p.] students can choose "cafeteria style" lessons, in which they will acquire mathematical foundations, improve their abilities in foreign languages, practice their writing skills, and emphasize communication skills with others. Students with a more academic tendency will study "cross-subject" areas, such as "The

European Union" – a lesson in which acquiring foundations in subjects such as economics, history, language and geography will be emphasized.

The reform has already been introduced in high schools in Helsinki, and by 2025 it is intended to be introduced throughout Finland. In addition to a structural change in curricula, ways lesson is conducted have also changed: instead of frontal lessons in which teachers talk to students and they sit and listen, work will be in small groups in which students will have to solve problems (according to the comparison made previously in Table 2.3).

Since there is no inspection or national tests or measurements in Finland in the elementary education stage (to 10th grade), schools' guiding infrastructure are aims legislated in law, compulsory national curricula (core program) and professional requirements set by education system employees. In Finland, the emphasis is on a national curriculum and strong link between different levels of the education system. The curriculum in Finland emphasizes a holistic view and quality pedagogy. National and local curricula are constructed in a dialogic process incorporating diverse stakeholders. This provides a response to local emphases and needs. It helps identify points needed improvement, commitment to targets and goals as well as improving students' perceptions. According to the education policy in Finland, the system must be synchronized and all partners in program preparation (figure 2.13) will make shared decisions.

Degree of congruence between policy and curricula and performance. This subject examines the degree to which educational policy is translated into actual practice. Educational management and leadership institutions in Finland examine and control the association between various aspects of proposed, expected policy and curricula realization and how they are implemented in classrooms, as well as through assessment methods.

Finland defined a national curriculum obligating both basic and secondary school education. Finland is characterized by giving a large amount of autonomy to teachers [53]. Therefore, there are issues that are under school authority. For example, which areas of study are considered key subjects and what local emphasis will be given to subjects in the national curriculum [78]. The level to test feasibility in Finland, congruence between policy and curriculum, is supported by a testing process and reaching conclusion on an annual time axis. This process links activity in the educational field and decision-making echelons and provides a structured examination of planning against performance. Officially these controls are reexamined when international tests the government requests are held to make decisions and amend policy (if required) to meet international standards.

In Finland, there is a high degree of congruence between national goals and curriculum outline and content. According to the ET-2020 National Report of Finland [109] this is seen in how goals are time and again expressed in the curriculum, in a manner aimed at guiding schools and teachers in every lesson in every area, in a framework of principles, vision, values and of course key skills. Moreover, pedagogical instruction also promotes various curricula aims. From an organizational and functional point of view, the Ministry of Education is relatively small and is mainly responsible for education policy, setting goals, the core curriculum and teacher training. While most of the educational, budgetary and pedagogical activities are distributed to the local authorities and the local communities - with a minority of mechanisms of central supervision and of nationwide measurement and evaluation.

Finland's history as an educational power began in December of 2001.According to the OECD, is exactly when the OECD (Organization for Economic Co-operation and Development) published the PISA Evaluation with the first results of student tests. These results were very surprising. In all three academic areas - mathematics, science and literacy - Finland was ranked in one of the highest places in the OECD countries, with the gaps in the past compared to students from Japan, Korea and Hong Kong. Finnish students seem to have been able to learn all the knowledge and skills they demonstrated in these tests, no private lessons, no after-school studies, and no large amounts of homework, unlike many of their peers in other countries. Especially small, the first reactions in the educational community after the results of the first PISA test were confusing. PISA research is an extraordinary study, looking "forward" to the future of students in educational systems - have they embedded the knowledge they have acquired throughout the years in the system? And do they know how to realize and apply it in everyday life in a way that is relevant and valuable? In other words, the study examines how mature the system is ready for life and is expected to contribute to the development of society and the economy as they integrate into the world of work.

Finland's education system is considered one of the best in the world and contributes to the fact that Finland is one of the world leaders in comparative education tests and in technological innovation. Finland is also considered one of the best societies and economies in the world, along with other countries belonging to the Nordic model. To summarize the issue of curriculum building, the research seeks to present data in a table summarizing core features of the education system, in the education program for the 21st century.

Table 2.4. Table summarizing Finland's curricula criteria for the 21st century

National goals	Planning process	Knowledge characteristics	Thinking	Education for values, socio-emotional education	Digital technology and professionalism
Equal opportunity to receive education services and quality training. Education will be the basis for competitive skills and welfare in Finnish society	Process made up of three key stages led by the National Education Committee of Finland and with participation of representative from the Ministry of Education, teacher learning institutions, education publishers, teachers' unions, educational .providers and teachers Additionally, in the final stage information was presented that was open to reactions from all state citizens	Curriculum included traditional knowledge areas such as mathematics and language and .literature Alongside them new study subjects including consultation, religion and ethics, environmental studies, as well as handicrafts studies including reference to .design and technology Secondary school studies include subjects such as philosophy and psychology and mathematical studies. These studies are intended to be integrated, understanding links between areas and applying .knowledge from diverse areas Emphasis is put on interdisciplinary learning in various subject framework, as an independent unity developed by teachers and students and .interdisciplinary study subjects	Thinking is expressed in the framework with the aim of instilling lateral thinking abilities and learning as well as part of the ability to read and comprehend texts involving analysis and .thinking Teaching in Finland is meant to be aimed at lateral abilities. Moreover, there is reference to thinking in the framework of study subjects and .specific goals	Ethical education is expressed both in the goals of the Finnish education .system and lateral abilities Among values included: tolerance and reference to human dignity and rights, as well as active citizenship and .sustainability In some study subjects, as especially ethics, religion and environmental studies, there is structured reference to the .issue of values Reference to emotional and social education is provided in the framework of activity to enable students' growth as human beings and moral .members of society	Technology is learned in the framework of study subjects but not as a .subject in and of itself It is a tool and platform referring to achieving goals :such as Instilling communication abilities and transferring information in diverse ways and the ability to act in day-to-day live in a .technological environment In addition, technology is used as a tool aiding teaching and learning

Source: made by the researcher [189; 190; 192]

In conclusion, the researcher adds that in Finland there is an emphasis on a national curriculum and the strong link between different level of the education system. The curriculum in Finland emphasizes a holistic view and quality pedagogy. The national and region curriculum are built in a process of collaborative dialogue with diverse stakeholders. This provided an answer to local emphases and needs. It helps identify what need improvement, commitment to goals and aim as well as views. As Professor Hargreaves [125] wrote in his article: "*Finland is an example of a nation where there is no school supervision and no standard curriculum; there are almost no high-risk and fateful tests, and it does not see educational change in terms of a race to the top but as a springboard to quality and happy lives*" (125, 188 p.).

In conclusion, the researcher adds that in Finland there is an emphasis on a national curriculum and the strong link between different level of the education system. The curriculum in Finland emphasizes a holistic view and quality pedagogy. The national and region curriculum are built in a process of collaborative dialogue with diverse stakeholders. This provided an answer to local emphases and needs. It helps identify what need improvement, commitment to goals and aim as well as views.

Israel. In 2021 Israel, the issue of curricula of the entire system is coordinated by the Pedagogical Secretariat, the supreme pedagogical authority in the Ministry of Education [249]. According to Kizel [24, 110 p.], as a result of this, it is responsible for the ministry's pedagogical curricular policy outline, as well as defining all aspects and components (content and pedagogical) in subject matters learned in the education system and supervising their teaching. One of the central components for which the Pedagogical Secretariat is responsible is to set out learned contents and teaching-learning-assessment perceptions in each knowledge which it oversees, for which concrete expressions are *curriculum document.* This is a document which defining the aims, principles, contents, and skills included in subject matter learned in the education system, as well as pedagogical instructions addressing its teaching. Curriculum constitutes a foundation to prepare teaching in subject matter at schools and in classrooms and to develop learning material and books. Curricula are addressed to every principal, teacher and anyone who wishes to view a syllabus at an educational institution, as well as assessment program developers for the education system, textbook developers, teacher educators, inspectors, and instructors. Since 2002, the Pedagogical Secretariat has based curricula on a guiding document called "Standards Document". This document is the consequence of an evaluation and measurement approach, similar to the analysis carried out in the previous sub-chapter. According to Swiriski [39] standards in education are "*norms defining what a student must know (content)*

and what he must be capable of doing in every subject (content and skills) to be able to determine "how good is good" (performance complexity levels) in different subjects and at different ages" [39, 246 p.].

Structuring a curriculum for the 21st century. According to the Ministry of Education in Israel, there are two types of standards: (1) content standards; (2) performance standards.

1. Content standards – define what learners must know and be capable of doing. These standards mention knowledge and skills – ways of thinking, working, communication, judgement, and exploration as well as core ideas, principles, concepts, problems, and main knowledge in different study subjects.
2. Performance standards – are defined as more specific and concrete examples, and explicit definitions of what students must know and be capable of doing to demonstrate meeting content standards. These standards provide examples of learners' activities about what they have to know and be capable of doing to prove that content standards are met and expectation level of performance or understanding. These are quality indicators showing level of proficiency or mastery students' performance must reflect. In other words, "*how good is good*". These standards also indicate the nature of evidence required to show that content standards have been reached and also quality of students' performance that is considered acceptable or excellent. Performance standards include a ranked description of performance levels in the learning process so that it is possible to assess students' progress in their learning process.

As a result of the evaluation and measurement policy in educational institutions' "standards" document, the approach is *outcome related* and required in the following subjects: arts, sciences, heritage, humanities and social sciences, languages, and physical education. Each subject matter contains sub-subjects and branches of subject matters learned in educational institutions, according to clear age outlines. For example, the subject matter "sciences" includes mathematics for pre-elementary school, mathematics for elementary school, mathematics for junior high school and mathematics for secondary school. On the basis of this division, programs and requirements are added for science and technology subjects, physics for secondary school, chemistry for secondary school, biology, environmental sciences, agricultural sciences and earth sciences. Learning is "funneled" from elementary school age to the end of secondary school, in preparation for matriculation exams at the end of 12th grade. As previously mentioned, in literary sources and by the researcher, the education system in Israel is divided into 3 main stages: primary – junior high school – secondary, hence every year and at every stage, there is

evaluation and measurement of knowledge and skills paving the way for students to the next stage of education [12; 2; 25].

Secondary school classes (10^{th} – 12^{th} grade) are divided into various knowledge levels. Routes are divided into two main paths – theoretical studies and vocational studies [16, 99-101 p.]. In each of these, there are diverse routes directions and routes are divided into sub-routes. The theoretical route in secondary schools ends with matriculation exams, whose successful candidates earn a matriculation certificate. In the technological route in secondary school students can be examined in subjects with technological parts. Another route is the vocational route, where in addition to theoretical studies, students learn a vocation [27]. The main feature differentiating secondary schools from elementary and junior high schools is division study courses, in preparation for matriculation exams. A number of study courses are offered to secondary school students and each one chooses their preferred route. These study courses, called trends, are for example, physics trend, literature trend, film trend and the like. Every school has its choice of trends. Some trends are learned at many schools and some at few schools. The distinction between trends is expressed in the depth of study in certain subjects. depth is measured by number of learning levels called 'points' for matriculation exams. Mathematics, for example, in the practical trend is learned as *5 study points* (most in-depth), *4 points or 3*, and so too English. Over the year, use of the term trends has diminished and today students can choose a combination of subjects of learning “branches” [249].

Criticism of curricula in Israel. In 2021 Israel, there is plenty of criticism of curricula, and their lack of relevance to the 21^{st} century. Fox, Yanai & Weables [16] in his article argued that while recently efforts have been made in Israel to adapt matriculation exams to 21^{st} century skills, most *test still examine skill needed in the past*. Changes in assessment methods must be promoted by both the Ministry of Education and the higher education system. Adapting university acceptance requirement so that they examine 21^{st} century skills us expected to influence the entire education system and produce incentives to develop these skills in schools as well. Serson [36, 176 p.] added that the Israeli education system, which focuses on instilling general skills and tries to be relevant to life outside school walls but adapt itself to students’ personal traits and characteristics of communities in which they live. In other words, a skills-oriented education system must decentralize and reduce the weight of uniform standards.

Oplatka [32, 25 p.] added to the criticism and maintained that education researchers have emphasized that the uniform standards approach has led to “industrial” learning and makes it difficult to promote profound learning processes.

Although over years committees have recommended reducing the number of external matriculation exams in compulsory subjects and number of questionnaires in every subject and replace them with internal tests, in reality the number of tests has not decreased, and changes have only increased obligations and harmed abilities to carry out profound learning processes.

Another core argument was raised by Michaeli [29, 188 p.] stating that in fact there is no organized and directed process of one national authority covering the whole student training and preparation process in Israel, from kindergarten to adult age. There is no special connection between systems, there is no common view about required abilities and each body/institution is only concerned with its own needs. Therefore, the widespread phenomenon of students reaching the next stage of their education route, without required level of skills or knowledge.

Curricula content in Israel towards the 21st century. In a document named "*Adapting curricula and learning materials to the 21st century*", written by Professor Anat Zohar and Oded Bosherian [45], it was stated that the state of Israel had adopted the OECD approach according to which the system must prepare learners to develop their abilities and promote the wellbeing and quality of life of individuals in society. Personal wellbeing is made up of three main dimensions [256]:

1. **Functional dimension**. To experience wellbeing, people must function properly in their close environment: earn a minimum income, maintain health, establish social connections, develop cultural identity, fulfil civic obligations, protect the environment and use technologies.
2. **Emotional dimension**. This includes the ability to have positive feelings, mental health.
3. **Personal development and growth dimension**. This is where equivalent skills occupied with the area and operating such as the ability to direct life autonomously, occupied with actions that society defines as valuable such as culture and science, findings meaning and self-actualization. The third dimension can also be seen as one distancing itself from the accepted framework of personal wellbeing and addressing the human spirit. Its importance is not only its contribution to a sense of personal wellbeing, but also intrinsic importance (intrinsic motivation) taken from the normative view of worthy lives [169]. The working assumption of this report was that the curriculum must address these three dimensions and promote them in parallel, because wellbeing is impossible without any one of them.

Guiding principles' model for curricula in Israel [249;21; 9]. The guiding principles for integrating learning contents include general principles:

1. Learning planning must be based on educational aims reflecting appropriately changes today as defined and strive explicitly for their realization.
2. Learning planning in the academic-cognitive area must also be considered in aims in the socio-emotional area and address them.
3. Learning planning must encourage pedagogical autonomy among all levels of educational personnel, allow it to be realized and formulate guidelines to arrange it. Learning planning must strengthen teaching means advancing active learning and striving for profound understanding. As well as assimilating new curricula, new assessment and professional development process must be assimilated into the education system.
4. Learning knowledge and content is also important in the 21st century, therefore processes of structuring knowledge has a central place in curricula today.
5. It is recommended moving from learning focusing on knowledge memorization to learning dynamic knowledge that can be generalized and applied widely. In other words, move from learning separated facts, to learning knowledge linked to other knowledge in the discipline and other disciplines.
6. Curricula must give a central place to developing diverse strategies and types of thinking, such as argumentative thinking, critical thinking, systemic thinking, creative and initiatory thinking, meta-cognitive thinking, and the ability to self-regular learning, thinking tendencies and more.
7. Curricula must integrate knowledge and thinking strategies closely and inspirationally. Thinking strategies must be taught within learning areas and not cut off from contents. Additionally, they must be adapted to the epistemic structure of each subject matter and aspire to build them in a way fitting to their character and structure, as seen by experts in these areas.
8. One must aspire to organize knowledge around big questions or ideas and key principles, some within subject matters and some across areas. Considering the change nature of subject matters in the 21st century, curricula must allow inter-disciplinary learning and learning new study areas to meet future needs.

Figure 2.14 will present the key principles graphically, according to the Israeli model.

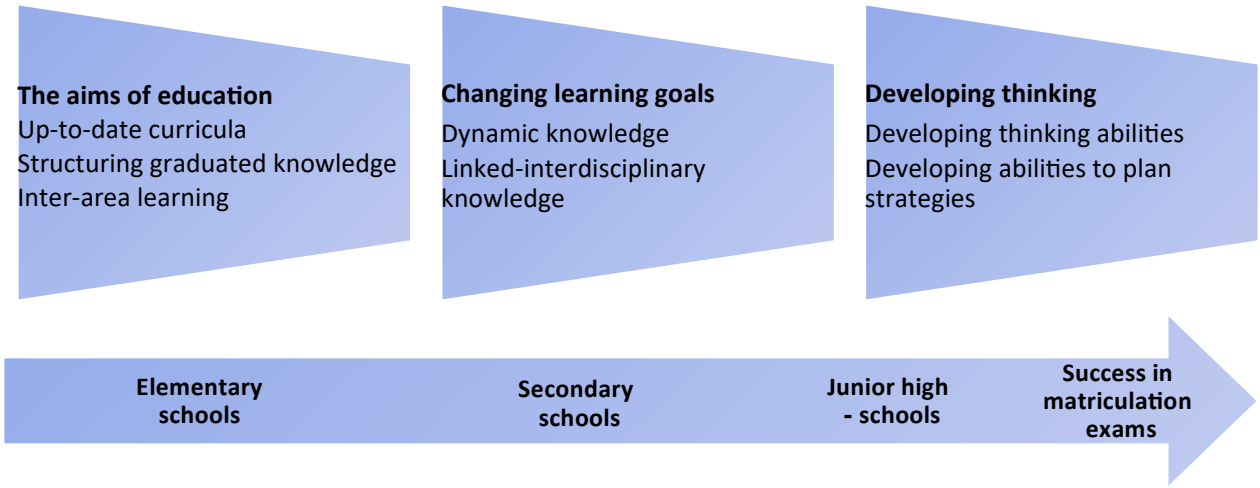


Figure 2.14. Key principals for Israeli education model

Source: made by the researcher [249]

Curricula planning partners. There are a number of partners in the production of curricula at the Ministry of Education, headed by the "subject inspector". According to Ministry of Education regulations [20, 34 p.; 18], subject coordinators are supposed to appoint committee members to help determine curricula and tests. Since they committee members, they can choose to appoint cronies, or people they who will not criticize the ministry's work. In fact, there is no representation at all from other government ministries (Economy and Industry, Finance, Labor, social Affairs and Social Services). Committee members who join are individuals without any particular influence. According to a document of the Pedagogical Secretariat at the Ministry of Education [249], the purpose of the committee is to "*consult on outlining subject teaching policy in the education system and propose ways of improving subject teaching, advise on curricula and changes and innovations in subject teaching ways*" (translated from Hebrew).

Committees are also supposed to recommend how to assess students in every subject, and methods of teacher training. In religious and ultra-Orthodox schools, committees are also authorized to recommend changes on learning methods in light of aspects associated with belief and ideologies of subject teaching characterizing them. As stated, according to Ministry of Education data, there are 129 subjects of choice for high schools. Despite this, today the Ministry of Education in Israel has not taken any steps to reduce the number of subjects or organize a list. Subject committee members include individual representatives from academia, industry and one or two teachers from school staff. Figure 2.15 presents the scope of choice of subject curricula.

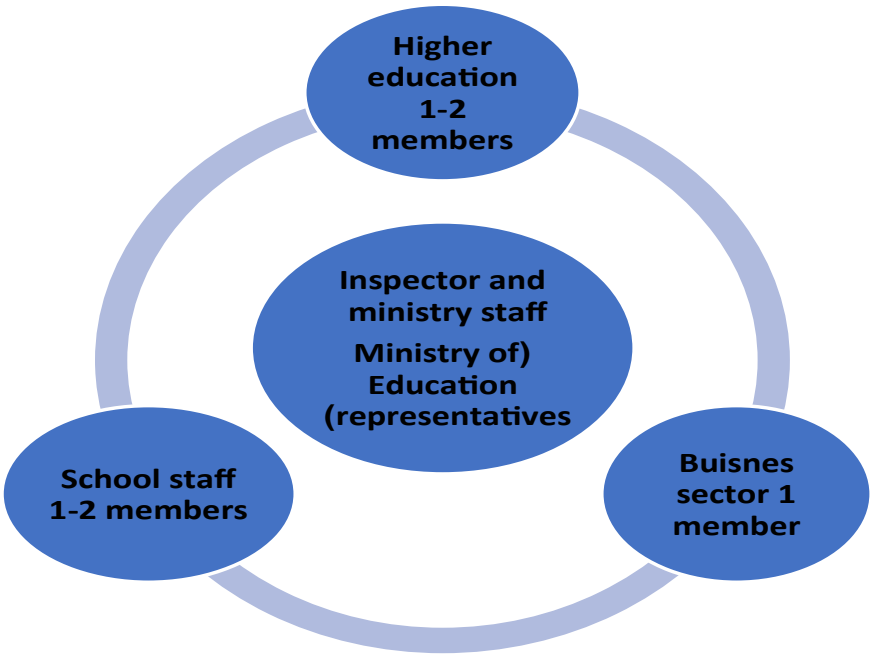


Figure 2.15. The subject curricula committee in Israeli education system

Source: made by the researcher [249]

The compliance level between policy and curricula and implementation in Israel. The evaluation policy of the compliance between the curricula and the implementation is not regulated as structured process in the Ministry of Education [44, 39-40 p.]. In fact, the compliance is not examined by the bodies approving the programs and the control is performed by the exam department in the Ministry of Education with the educational system representatives of the geographic area (local authority / the Ministry of Education district). The Ministry of Education conducts regular control of all education institutes all over the country in order to supervise instruction implementation, institute management routine, compliance with standards and proper use in the resources allocated for the institute [18, 20-21 p.]. Constant control of education institutes allows supervising the Ministry of Education instruction implementation, institute management routine, compliance with standards and proper use in the resources allocated for the institute. The control is performed all over the country, in all sectors, in ages (kindergartens, elementary schools, joiner high and high schools) and in all education types. The control is conducted by franchise companies in two complementary ways:

1. Cross-referencing different data information systems reported to the office by field officials (education institutes, local authorities).

2. Controllers visit in educational institutions. This control includes review of timetable, entering to classes, interviewing the principal and staff members in school, examining documents and parent surveys.

The control is based on institutes routine conduct, so the education institute does not require a special preparation or allocating many resources for the control process. The control main goal is to motivate improvement processes in education institutes; therefore, the controller staff work in full transparency with the institute management and maintain a balance between strict control and fair control.

The main observation regarding compliance level is usually performed by examining the grades and the matriculation grade eligibility level. The researcher seeks to emphasize that there is no compliance in the content aspect, the compliance between learning contents and the students, the impact on student skills and future abilities does not exist. The secondary education system is mostly directed by the matriculation exams, and examined by the eligibility rate for matriculation diploma, which are a convenient target to measure. The main observation regarding compliance level is usually performed by examining the grades and the matriculation grade eligibility level. The researcher seeks to emphasize that there is no compliance in the content aspect, the compliance between learning contents and the students, the impact on student skills and future abilities does not exist. The secondary education system is mostly directed by the matriculation exams, and examined by the eligibility rate for matriculation diploma, which are a convenient target to measure.

Teaching staff constitutes one of the most important components of the education system. The following is a look at the teaching staff compared to other countries. The issue of the teacher's continuum of professional development often comes up in public discourse. The public discourse undermines the manner of training the teacher's profession. This discourse is intensified in the era of accountability, transparency, efficiency, and the measurement of national achievements on a national and international level

Criticizing the approach. Berger [67] notes that the recent changes in the education system indicates one constant goal over the years: increase the eligibility rate for matriculation diploma. The rate of those who are eligible for matriculation diploma became a convenient index of examining the education system in general and the success of education ministers in particular. Hemmings [131] adds that this subject makes headlines and public debate every year, and is used to examine different populations' success level and as social disparities index. It was claimed against the matriculation exams that it depresses the students' intellectual abilities and

focuses them on the exams themselves and not on the studied contents, and that their very existence raises the level of tension, anxiety and stress of the whole system. An additional claim is that focusing on the exams pressures the system to reduce the exam demands and level, in addition to phenomena of exam fraud (bribery, forgery etc.). Do the exams become a target and not a means?

The centrality of matriculation exams has contributed much to increase arguments against and criticism of these exams and the education system, still heard today and that characterize uniform measurement systems applied to a large population. Inbar [Inbar] argued that in addition to harming the quality of education, curricula and expressing skills and creativity on an individual level, it is reasonable to assume that the uniform level will be closer to the minimum, because it is aimed at a uniform knowledge level. According to Resin & Grunau [33, 83 p.], the nature of exams is affected by the need to put together uniform inexpensive and easily marked questionnaires for diverse population layers, and the result is limited and superficial examination of material knowledge that does not encourage quality and creative teaching and sometimes examines knowledge that is irrelevant to graduates' lives. Tamir [40] added that because of efforts to cover material in preparation for matriculations exams, dictating material and pressure to achieve, teaching quality is harmed. This pressure, focused on examinations, also harms schools' autonomy and teachers' status. Yuval [44, 33-34 p.] argued that the examination system is not objective, is unreliable and inconsistent, and has no reliable predictive quality.

Andreas Schleicher [194], the director of OECD education field, has recently called the Israeli Ministry of Education to reduce centralization and give more independence to field factors, principals and teachers. He has also called, in May, 2020, to minimize the matriculation exams in Israel [253]. Schleicher has suggested minimizing matriculation exams and giving school evaluation in all other subjects. He said that many systems in Israel teach "a kilometer width, and a centimeter a depth" and the change must begin in the matriculation exams - learning small number of subjects but more deeply. He claims that "*education has to be based more on humanity and relationships, less memorization and content. It is not what you know, but what you know to do with the knowledge*" [194, 40 p.]. Schleicher added that towards the near future and the emerging competition with robots and artificial intelligence we have to strengthen the soft skills (emotional and social) - sensitivity and empathy, creativity, criticism, cooperation, and learn to live together as a group [253].

Table 2.5. Table summarizing Israeli's curricula criteria for the 21st century

National goals	Planning process	Knowledge characteristics	Thinking	Values education, emotional social education	Digital and professional technologies
-Providing knowledge and tools that will use the students in their adult life - in their work or as part of the basic knowledge the state believes an adult must have. -Values education and behavior codes accepted in society. -Strengthening the students' national feelings. Creating equal opportunities for students of different socio-economic classes	-The planning process is performed through the pedagogic secretariat and the discipline coordinator. -To each discipline a planning team is appointed composed of the Ministry of education representative, the higher education representative, teaching staffs (teachers) representative. National knowledge bodies as the national authority of education are not involved. -The compliance control also does not execute by those who planned, but it is divided between the Ministry of Education control institute (administrative control) and the Ministry of education district and the local authority that examines test results (international tests / matriculation exams)	-The education system has to define an agreed and uniform definition of knowledge, skills and values that have to be instilled to its graduates. -Make professional tools accessible to teachers so they can impart it and to promote various aspects in learning as interdisciplinary learning and independent learning. -In addition, the learning has to be adjusted to all ages and to requirements of specific students	-The Ministry of Education, as part of the systematic perception of standardization in the educational system emphasizes thinking abilities development as development of skills and creativity, critical thinking, independent thinking, initiative, vigilance for innovation, intellectual curiosity, physical activity encouragement and leisure culture	-The ministry policy leads the system into value "basket" that include personality and national values as dedication and responsibility, desire for mutual help and contribution to the community, respect to cultural identity, respect and responsibility for nature, as well as value education as respect the other's culture and views, love of the people and country and loyal citizen. Striving for peace and tolerance and involvement in Israeli society	-Computer, communication and internet technologies and the 21st century skills caused significant changes in the way of teaching various disciplines and in breaking the boundaries of time and place of learning. -Innovative learning technologies are an infrastructure for challenging learning opportunities that promote thinking performance, understanding and learning

Source: made by the researcher from [249; 22; 14]

In conclusion, the researcher adds that despite the State Comptroller comments in 2009, 2018 and 2020 [263], no change has yet been implemented in the system structure in the ministry's curricula towards the 21st century. The difficulty to promote policy in a complex system, which examined the meaningful learning reform implementation, which did not succeed in 2016. It was written in the report that the reform implementation was incomplete because there was insufficient cooperation between units in the Ministry of Education.

For example, due to lack of coordination between the pedagogic secretariat and the elementary education department in the pedagogic administration, most curricula were not updated in elementary schools in order to fit the learning principles. We will also note that out the Ministry of Education in Israel also operate factors that influence the implementation of education policy, including the Ministry of Education units that act at the local and sectoral level, teacher organizations, parent and student organizations, research bodies that operate in teacher training institutes and universities, educational networks and third sector organizations.

II.4. Comparative examination of teachers' status in educational system.

The professional status of teacher and teaching is a term referring teacher social and professional prestige both as professional and comparing to other professional [180]. The teacher and teaching status is influenced by many variables, including the preliminary requirements to enter the profession, education and skills required to engage it, the economic resources allocated, the salary and work conditions and the benefits related to engaging the occupation, the occupation influence on society, the target audience, the professionals' population. Also, the contribution to society, the professional's level of independence and involvement in decision making, the society acknowledgement in the profession and its necessity [194].

The discussion on teacher status issue is not new. In fact, it seems that during the last decades this subject is always on the agenda - in media, in public discourse, in educational discourse, in academic research - in Israel and around the world [217]. Teacher status is discussed in hundreds of articles and academic researches, and it often seems that there is no other profession that its social status is so extensively analyzed and intriguing as teaching. Maybe the great interest in teacher status is a result of its social positioning duality. Zeichner [232] adds that there is no doubt about the immense importance of teachers as socialization agents, and as those who fill main role in shaping the young generation. The general appreciation for the tremendous impact of teachers on their students is expressed in the respectable place the education history assigns to wonderful teachers.

It seems that like the difference in the two countries, Israel and Finland, attitude towards the education discipline in general, so will be the attitude regarding teacher status in the educational system.

Teacher status in Finland. The education system in Finland recruits' teachers in very high academic level [234]. Geeraerts et al [117] indicates that teaching profession is acquired on universities (not in teaching colleges as in Israel). Only exceling university graduators are accepted to teaching. All teachers hold an M.A. degree and teaching is considered a very demanded profession, ranked third in demand level after medicine and law. Until the teaching studies reform, which began in 1979, high school graduators could integrate in teaching studies in teaching training seminars. They were receiving two to three years mainly practical training in the seminars and then integrate in schools. The idea was that as long as the student has sufficient basic knowledge in specific discipline he can be trained in pedagogy and become a teacher was failed and since 1980 teaching training method was changed. Darling Hammond in her article "*Teacher education around the world: What can we learn from international practice*?" [89] expresses more than anything else the professional prestige for teaching profession in Finland. She claimed a high-quality equal education system exists in Finland and rely on perceiving teaching as a sophisticated profession where all teachers hold an M.A. degree (2 study years) that include disciplinary knowledge and pedagogic knowledge and integrates research and practice. Teaching became a very demanded profession after medicine, and many teachers aspire to PhD degree and persist on teaching. The perception in Finland is that teaching must be a long-term profession in which people can grow to leading positions and develop expertise in their field.

The researcher, as expressed in her article " *Incentives and Rewards for Teachers. The Case of Israeli Education System*" [103], **claims that teacher status is a result of several complementary factors that go through an awareness – social – economic – occupational "ripening" process, and eventually form clear policy**. These factors are expressed in the teacher training method in Finland. Herein the factor analysis:

1. *"Teacher development" conceptualization as a system* – teacher development systems in Finland include a series of policy decisions that coordinate and balance various fields including recruiting quality candidates, training them, integrating them, caring for their professional development, evaluation and developing professional path and keeping them from dropping out the system. Finland invests a lot in training stage. To empower the training process, teachers get significant support and autonomy that expressed in allocating time for team work with colleagues and developing plans and evaluation methods. There is a

process in Finland of institutionalizing the entry to teaching for beginning teachers that include intensive mentoring and professional development and various other incentives. In addition, new teacher training and integration is emphasized within a very developed management system, which presents the knowledge, the skills and attitudes expected at each step of professional routing basing on appreciation and support. This action indicates a series of promotion channels for teachers in Finland. It was found that about 97% of the state teachers reported they have gone through some professional development in 2018 when a survey in this subject was performed [Saloviita].

2. *Standards for teaching as strategy for building a profession* – one of the raising strategies in Finland (and in additional countries as Singapore, Canada and Australia) is setting standards regarding what teachers should learn and be able to do. The action theory is that such standards, which guide to issue a teaching certificate and teaching license, may guide the teacher learning and affect their entry to the profession and their persistence. Finland leads in this aspect, and it was found that senior teachers who meet the required standards are more effective than those who do not meet it, and therefore the licensing process helps teachers improve teaching [191]. In the last years (2018), a program for beginning teacher performance evaluation was built in Finland (INTASC = Interstate New Teachers Assessment and Support Consortium) with 1,000 teachers from all over the country participating and the standards are presented in Values, Skills, Knowledge terms as presented in figure 2.12.

These quality performance evaluations may create an entry standard that cancels the claims regarding the quality of traditional and alternative training courses and place a significant milestone for all programs and candidates. The Finnish Ministry of Education has also adopted the American perception in the Values, Skills, Knowledge model that emphasizes innovation, independent learning, critical thinking, commitment and service. According to the plan, new teachers are assessed for 8 out of 16 skills in three fields (commitment to the student and his learning, professional knowledge and teaching experience). Since 2012 the program was also expanded to educational leadership and the additional standards refer to expectations from training and professional development. The standards for teaching in Finland act in *two* ways:

2.1. A common framework that guides teacher training at the eight universities where training programs are held;

2.2. Through entrance exams for teaching training candidates for elementary schools;

The training program is aimed to train teachers and researchers and using researches as well as skilled people of action who refer every child's needs, deeply understand children development and learning, have a rich teaching strategies repertoire and ability to distinguish between support and teaching [197].

3. *Entering the profession*

   3.1. Recruitment – strengthening the teaching profession requires reciprocity between standards, training and support. The whole training in Finland is funded by the government and the candidates collect existence support or salary while their training. Everybody gets the same quality training program [212]. Teaching is considered a prestigious profession and only one quarter of the candidates are accepted. This cultural pattern, in addition to supporting integration program, promotes persistence and recruiting new students. The salaries are competitive compared to other professions. There is high demand to be accepted for teacher training and it allows the institutes maintain high entrance requirements (grades, interviews, portfolio, volunteering in schools). This approach dramatically reduced dropout of teaching and candidates from more diverse populations, with lower representation and minorities were attract to teaching. The higher salaries to teachers are in Australia and Finland, while in the United State – the salaries are at the lowest checked [255].

   3.2. Training – uniform / similar and quality teacher training is a very explicit goal in Finland, teachers' study 2 – 3 years for M.A. degree before entering the job. There is a process of building pedagogic thinking skills within training, and it allows teachers to manage teaching process in a diagnosing method while using research as a basis of teaching and managing action researches as practical guidance [219].

   3.3. Continuous professional development – teachers take responsibility and develop the curriculum and evaluation method together as part of their professional role. The national curriculum is limited to general guidelines. Professional development does not consist of a fragmented course collection, but structured as systematic and theoretically based learning in order to bring a broad school improvement. Diverse responsibility areas are integrated in the teacher role without the teachers dropping out of teaching, there is an option to be assigned to higher positions hierarchically and rewardingly. They are encouraged to continue in academic studies. a recent survey (2017) shows that teachers devote additional 7 work days a year to studies at their own expense [173].

4. *A broad - professional approach to improving collective action / learning* – the professional development conceptualization within the educational policy in Finland continues as part of a joint effort, not as an individual action. The importance of the raising professional horizon of teacher and educational leader learning in Finland is critical as systematic strategic view. The assumption is that everything required of a teacher in school will be implemented somewhere in the country. Finding and sharing applied practices may contribute the existence of organic improvement process led by educators, which is essential to preserve progress. In order to avoid support in endless experiments, perform reforms that quickly disappear, learning projects are budgeted in wide verity of schools for experiments. The number of new projects declines in order to wide implementation of those who were the most effective and spread at the whole system [160].

The researcher summarizes the teacher status issue in Finland and claim that teacher status is derived from policy guidelines related to integrative approach of all education issues. The efficiency with which teacher training process in Finland is examined brings him as a leading professional in the country. The action sequence taken by the state, which involve establishment of candidate recruitment, integration and sorting mechanisms significantly increase candidate selection, taking only the most suitable for the education policy. Then, guiding principles that leverage the teacher status by maintaining his relevance to local society and economy. According to Finnish literary sources [162; 147; 189; 200], these criteria include:

- Recruiting quality candidates to quality training program by promising compatible salaries, financial subsidization for candidates in training process and uniformity in training program shaping and quality.
- Connecting theory and practice by planning educated courses and integrating quality clinical experiencing in frameworks supporting good teaching.
- Using professional teaching standards to focus and keep the attention on learning and evaluation of knowledge, skills and dispositions.
- Evaluating teacher performance relying on professional standards connecting between student learning and teaching in class.
- Establishing integration models supporting beginning teachers by skilled mentoring, cooperative planning and reducing teaching load that provide leaning time in school and careful building of teaching method repertoire.
- Supporting professional development allowing teachers routinely study with and from peers in schools and universities.

- Building wide professional ability that create strategies for wide sharing in research and good teaching, which acknowledge teaching methods in successful classes and schools and allow expert teachers and principals to lead the entire system.

Teacher status in Israel. Teacher professional status is an issue that concerns policy makers in Israel, as is other countries, for several decades [6; 24; 17]. Some surveys recently published indicate systematic and consistent harm in teacher status and teaching profession in Israel. The teacher professional status concern policy makers in Israel and all over the world for many years, due to economic, social and technological developments that undermine the teacher status as a source of knowledge and authority and harm his ability to compete other professions, both in the occupation attractiveness and the financial reward [16; 23]. In addition, there is shortage of teachers in Israel (in the 2021-2022 study year), and according to the Central Bureau of Statistics a shortage of over 15,000 teachers is expected until 2025 in all the education system [241].

The Ministry of Education in Israel [249] implements since 2008 two reforms aimed, among other things, to improve teacher status and increase teaching profession attractiveness – "*Ofek Hadash*" in pre-elementary education [32] Elementary education and some of Junior high schools, its application was completed in 2013 study year, and "*Oz La'tmura*" in high school education, that its application has begun in 2012. In addition, the ministry conducts special programs aimed to increase the number of teaching candidates and their quality. during the last decade (2010-2020) the number of teaching graduates in academic education colleges increased in about 68% [241]. The part of teaching academic retraining graduators of all graduators significantly increased in these years – about 47% in 2020, compared to about 20% in 2012 [20, 33 p.]. The teaching colleges currently train about 11,000 teachers a year and the universities train about 2,500 additional teachers every year, most of them for high school education. Like in analyzing the issue of teacher status in Finland, the researcher, based on reliable literary sources [24; 32; 29; 30], will present the factors she believes caused teacher low status in Israel.

1. *Admission requirements for teacher training institutions* – teacher training in Israel in the state and state – religious education is currently made in two courses:
   1.1. Teaching studies in academic colleges of education – studies that grant the graduators B.Ed. academic degree, which trains them to teach in specific age grade and in one or two disciplines as offered in the specific training institute.

1.2. Teaching studies in education schools in the universities and in academic teaching training courses in academic colleges, which are designed for those who study for university degree or students who have a degree and study for teaching certificate.

It should be cleared that both courses graduator is eligible for an academic degree. According to the data published by the Central Bureau of Statistics in 2018 [CBS], about 78% of teaching certificate graduators in the academic colleges of education and about half of the teaching certificate graduators in the universities are employed in teaching. The teacher training department in the Ministry of Education is the factor supervising the academic colleges of education. According to the department circular (Council of Higher Education – CHE), the admission prerequisites in 2020 are eligibility for matriculation diploma with average of at least 85, psychometric grade of 425 (out of 800) points at least, integrated grade of at least 181 points and addition interview [265].

2. *Teacher training* - for some reason in Israel of 2021 teacher training types are still separated based on 3 main groups: Jewish society, ultra-orthodox society and Arab society. Since 2006 the instruction basic assumption is that in order to improve teaching profession status an agreed and comprehensive knowledge body must be determined. One that teaching students must study as part of their professional training, as accustomed in other professions. A basic outline was established for teaching studies that include a theoretical component of education and teaching studies and practical experiencing component. In addition, teaching cadets' study disciplinary studies. The total studies are 90 to 96 academic hours for 4 years of studies, while the fourth year will be mainly based on internship (practical experiencing) when the teacher practice teaching several days a week in school accompanied by instructors from school, and a mentor from the teaching organization.
3. *Teaching licensing* – the candidates for teaching studies in the universities and in academic teacher training courses are required to complete B.A degree with average grade of at least 75. Academic degree holders in natural sciences, life sciences and exact sciences must have average grade of at least 70. Students who have completed at least two thirds of their studies and their average grade is at least 71 may be accepted. Students who are interested in having a teaching certificate in subjects they do not hold an academic degree in, are required for complementary studies. universities can determine additional admission terms according to the specialization course the candidates select, and some do it. for example, the admission terms at the Hebrew University are B.A. graduation or two study years for B.A. degree with average grade of at least 80 (besides the chemistry, mathematics and physics faculty students

who accepted with average of at least 75). in Israel, according to the Ministry of Education instructions, a teacher is required to have a teaching license to work as a teacher in the education system. In the teaching license are defined the grades and disciplines the license holder are allowed to teach. According to the Ministry of Education protocol, teaching specialization will be will generally be in the grade and disciplines to which in certain circumstances it is possible to obtain a temporary teaching license, which confers a right to a qualified trainee to teach the detailed subject and grades. Such license is usually granted during the first two years of teaching, and it may be extended for additional year. in order to get a permanent working license, the temporary license holder is required to complete the proper education and training. professional teachers in high school are required to also hold an academic degree in the discipline they teach.

4. *Teacher salary in Israel* – the issue of teacher salary in Israel occupies the Israeli public for years. The educational system is in salary agreements managed for dozens of years by two organizations representing the teacher public in Israel (kindergartens + elementary schools, and junior and high schools). The salary scale is applied not only on public employee teachers but on all teaching employees on the public education system. the salary does not depend on the employee living place and mainly determined by his education level, seniority, advanced training rewards and additional roles the teachers fill at school besides teaching. It should be mentioned that there is no evaluation component in setting teacher salary, and his performance is not rewarded or connected to his salary level. Analyzing teacher salary data and comparing it to Finland and other countries with advanced education systems, teacher salary in Israel is not on "a bad place". The comparison has to be scaled by the average salary of other academics in the country, thus obtaining a comprehensive image of teacher status in relation to educated workforce employed in professions that require education level and similar development and training course. In 2010, teacher salary in Israel (15 years of seniority) was 87% compared to academic professions, while teacher salary in Finland was 92% (15 years of seniority) and the OECD average was 85%. Namely the salary was low, but not gaps that justify large professional gaps or gaps in the total teacher status in the country. For deeper analysis, and getting wider image, it is also true to refer the teacher professional seniority. Table 2.6 presents the gaps in financial terms (USD).

Table 2.6. comparison of annual salary of teachers in Israel and in Finland (15 years seniority) in USD, 2018-2020

Criterion / Country	Israel			Finland		
	2018	2019	2020	2018	2019	2020
Early childhood education, 15 years' experience	35,030	36,880	38,079	32,870	34,050	34,594
Primary, 15 years' experience	31,530	32,170	33,163	42,180	43,340	44,179
Lower secondary, 15 years' experience	34,860	35,570	36,717	45,560	46,810	47,714
,Upper secondary years' experience 15	33,450	34,930	35,768	49,180	50,020	51,496

Source: made by the researcher from [241; 255]

The table data analysis indicates that except for kindergarten, where the teacher salary in Israel is higher than in Finland, in all other education levels the Finnish teacher has an advantage. The average salary of Israeli kindergarten teacher is about 6,690 USD more than the Finnish kindergarten teacher over 3 years. However, in elementary education the triennial average gap is 11,000 USD more to the Finnish teacher, 11,000 USD in junior high school and 15,728 !! in high school. These gaps are very significant, especially in high schools, where quality education is essential, since preparing the graduate for his adult life is critical and required.

Summarizing the sub-chapter discussing the teacher status, the researcher claims that teacher status in Israel, which is relatively low comparing to other professionals' status, involves several factors. Beyond a low expertise level and improper salary, it stems from violation of teacher authority, which is part of the general trend of authority erosion in diverse life areas due to postmodern perception strengthening in Western society. Additional factor is the massive parent involvement in education system in Israel, which is expressed in pressure to change specific educational decisions and criticizing the teacher in front of the child. Another factor in teacher status decline is related to school violence, which part of it is directed towards the teachers. And finally, teacher knowledge authority decline due to the increase in alternative knowledge sources also harms teacher status. Global examination of teacher status indicates that teachers in Israel are located last in this list. In addition, there is a high variance between countries. While in some countries, as Finland and East Asia, teachers have high status, in other countries the teacher status is low [255]. This comparison shows that teacher status is not predestination, but may be improved with the proper tools, and this issue will be discussed in the third chapter, for the research problem solution stages.

II.5. Conclusions of chapter II.

1. Comparative analysis of the educational policy customary in each country should begin with understanding the national perceptions regarding education position in each country. The researcher first learned that there are three main perceptions. The first, the socialization ideology, which seeks to train the students to effective integration in society while responding its economic - occupational and normative - functional needs. The second is the acculturation ideology, which engaged in instilling values and legacy of the culture they delight to honor. The third is the individuation ideology, which sanctifies the individual and gives him space for personal search, development and creation. There are great differences in the development level between the countries. These gaps are not static and in some fields the gaps are reduced, while in other fields the gaps grow. However, Israel and Finland have some similarity in the demographic profile and multiculturalism components, they are very different in their perception of education policy. Finland, as part of its national perception of civic social equality advocates a social educational approach, while Israel prefers the competitive approach, with many standards quantified to immediate products, looking on the education world as "economical - social project". This variance is expressed in all the research variables, as will be explained next.
2. The status of education world and all education factors in Finland is at the top of the economical - social priority. The national reference as presented in national expenditure table (table 2.1) and the government investment level in relation to the local product growth (figure 2.1) is a result of this priority. The Finnish administration has created a model for educational system (figure 2.3) that integrates all the education levels and synchronizes the learning sequence in all the learning years. The figure (2.3) also presents an equivalent perception between vocational training and theoretical education as part of responding the state economical - occupational needs. However, Israel, which invests huge sums in the education systems (table 2.2), and shows a significant increase in the domestic product (figure. 2.5), presents an educational model (figure. 2.7) that does not maintain working relations and coordination between the systems. Israel is also known as a country that has “depressed” vocational education and reduced the training institutes up to 5% of all institutes. Out of this data the researcher concludes that Israel, unlike Finland, "sucked" into economic approach in its educational policy, and this perception leads it to be conducted by expectation to short term products, without integrative vision of the system.

3. Comparison between the countries on the issue of compliance between curricula and implementation showed large gaps, both in examining evaluation and testing methods, to controlling the processes and imparting contents, and the scholastic products as expressed in international tests. The evaluation and testing are different in each country. Finland hardly brings the local student into a test situation at young age. The research process and the resulted learning leads the teaching strategy in young ages. However, Israel requires its students to face numerical estimation tests (success vs. failure) already in kindergarten age, and maps its students in young age. The Israeli students are expected to cope without getting tools for emotional - cognitive coping, and the results are in accordance. Finland leads for years the international test result tables, while Israel is at the bottom of the OECD grade table [254]. The researcher concludes from the information that a country that invests in thinking processes over demand to immediate products, will eventually be more successful.
4. The learning contents towards the 21st century is part of the research variables that are compared between the two countries, Finland and Israel. The curriculum in Finland emphasizes holistic view and quality pedagogy. The national curriculum, and as a result the local, are built in a process of sharing dialogue with the various stakeholders. It allows them to address local emphases and needs. It helps to identify issues to be improved, commitment to targets and goals and to the national perceptions that support several main criteria connecting all education stages. Knowledge characteristics, thinking characteristics, value education and digital technology integration in learning and practicing processes are emphasized (as presented in table 2.4 – Finland; 2.5 - Israel). The State of Israel, on the other hand, seeks to emphasize three main dimensions: the functional dimension that leads the Israeli learner experience welfare, learn how to properly function in his close environment, provide minimal income, keep health, create social relations, develop cultural identity, fill civic obligations, defend the environment and use technology. In addition, the emotional dimension is emphasized and includes the ability to feel positive feelings and mental health, and the third dimension refers to individual development and growth. All are impressive principles, but the researcher knows the Israeli establishment well, and in fact there is no one hand, uniform and continuous, that directs the learner development since he enters the system until graduation. We have to constantly "reinvent" ourselves, and in most cases, there is no overlap or coordination with what has been done before or after. The researcher concludes that there is no Israeli student who is ready in his scholastic contents for the 21st century.

5. The researcher concludes from the comparison between the countries in the subject of teacher status that this issue is in fact a byproduct and not a purpose. Namely teacher status in each country is a result of educational - social - economical - occupational policy made earlier regarding the education world, by which the teacher status is formed. The Finnish administration refers great importance to the education system. This importance is reflected in the realization of national values, investment, and of course careful selection of teaching candidates. The conclusion is that if we want an excelling system that implements educational policy according to the outline of national and social values, we must select the best people that will implement the policy. Therefore, the researcher concludes that the system selects the teachers carefully (require M.A. degree or higher), rewards them while studying, financially rewards them for their work years and enables them economic welfare so they can focus on their work. This policy shows the Finnish society the importance of teachers in the economy and the occupational society, and therefore their high status for the public. On the other hand, the researcher finds the system in Israel allowing low admission terms and minimal prerequisites and integration, this reality and the low social - economic - public status drives quality candidates away from teaching. The low entrance bar to teaching in Israel allows inappropriate candidates to integrate the system. However, the Israeli Ministry of Education is "satisfied" with this trend, it actually leads to a significant decline in teaching quality and brings inappropriate products that are not adjusted to the 21st century, and places Israel in low place on international tests. In addition, the researcher (who works in the Ministry of Education and escorts within her role early childhood teachers at the beginning of their work) claims that low teaching quality causes the Israeli teacher a problem when asking for appropriate reward for his work. However, teacher salary in Israel is not low (see table 2.6), but his social positioning among academic educated professionals is very low.

III. MODELS AND SOLUTIONS TO IMPROVE EDUCATIONAL STRATEGY AND POLICY

The pragmatic approaches the researcher tries to show in the research will be expressed in this research in seeking for practical solutions, which may change the status of education in Israel and lead the education system into a significant change of comprehensive improvement, which will also increase national – cultural and civic values in Israel. The chapter will focus on examining and analyzing models from main countries, which have developed successful educational policy system. These countries, despite having different demographic and topographic values from Israel, are still similar in their social – economic characteristics and in the strategic process they went through from the social – economic crisis starting point to global status and leading a glorious education system. by the end of the chapter the researcher will present implementation of mini models based on the thesis ideas and interdisciplinary proposal for realizing organizational vision to develop the education system in Israel.

III.1. Applying solutions to change educational policy in certain countries (Singapore, Canada, U.S.A & Republic of Moldova).

Time permutations are noticeable in a range of governmental and organizational systems in every country, and the expectation that the education system and at its head schools responsible for education the future generation will adapt to these permutations and operate to instill the skills required in the 21st century [8, 199-200 p.]. Education researchers [76; 89] have pointed out that in the 21st century, the education system must move the emphasis from learning defined materials based on repetition and focus on instilling general skills able to serve students throughout their lives. Educational systems in many countries seek changes and adjustments necessary to adapt to the changing world, and work to provide solutions and processes improving the system's strategic line and as a consequence policy about various issues. In the current sub-chapter, the researcher will review models, solutions, and adaptations to improve education systems in Singapore, Canada, U.S.A & Moldova. The researcher will present key strategic principles behind the system's success in each country.

Singapore. In 1965, Singapore declared its independence, and today is the third most crowded country in the world. Its education system is considered to be one of the greatest successes in Asia, after it succeeded in less than half a century to change from a developing country to a vigorous modern economy. Singapore achieved its impressive economic development by putting at the top of its national priorities educational quality and successfully persuaded the nation and leadership of the association between education and developing a

thriving economy [167]. In Singapore, society is multi-ethnic. English is the language of instruction at schools, workplaces, and government. However, the language spoken in the homes of 59% of students is not English. The strategic line of this successful model emphasizes and number of core features and principles most of which overlap with the variables of this study [218]. Firstly, government expenditure on education. In 2020, Singapore spent 3.6% of its gross domestic product on education, constituting 22% of government expenditure, second only to security expenditure. The second feature is the system's structure and makeup [112]. The Singapore education system is small, there are only about 526,000 students in 360 schools. Courses are divided into six years of elementary studies and four-five years' high school (there is no junior high school as in other countries), in other words, students complete their studies in 11th grade [43, 344-355 p.]. Aged 11, after six years of study in the elementary school system, all students take a test to allocate them to pre-high school theoretical and vocational courses for a year. After a year, graduates of elementary schools who completed a theoretical course are sent to humanistic and technological theoretical practical schools for four to six years, and graduates of pre-vocational elementary schools are sent to technological and vocational junior high schools. Aged 15-16, students are tested again and after these tests, they apply, on the basis of their achievements to pre-university (theoretical) high school studies, polytechnic (technological) high school studies, and technological-vocational high school studies. Approximately 28% (correct to 2021) of students go to pre-university theoretical education and 72% of students to vocational study courses.

The system in Singapore is known for its large classes in relation to OECD countries. The number of students in 10th and 11th grade is 1.5 times greater than the OECD average [255]. In 1997, the Singaporean Ministry of Education began to implement strategic steps called "*Thinking Schools, Learning Nation*", whose principal aim was preparing the education system for the 21st century with students at the center [250]. Its key aims included:

1. Adapting learning spaces to qualities required in the 21st century (with an emphasis on vocational, technical, and mathematical education).
2. Increasing the number of educational system graduates (elementary, secondary and university).
3. Educating teachers and improving the quality of teaching.
4. Improving Singapore's relative place in international tests.

Singapore innovative thinking framework for its education system was established in 2004 [250] and acquired in 2007 the status of multiyear strategic plan. This thinking framework

is made up of four separates but connected components of strategic vision: (1) vision for the entire nation; (2) vision for Singaporean education; (3) vision for applying educational changes; (4) vision for collaborative structures – vocational learning communities – necessary to anchor the changes in all schools [167; 218].

1. **Vision for the nation**. The first vision in the working framework is "***Thinking Schools, Learning Nation***". The meaning of this vision is that building a nucleus of life skills (thinking, creativity, problem solving), attitudes (cooperation, amazement) and tendencies (tolerating impreciseness, perseverance) among students that will produce thinking patterns of innovation and initiative, necessary for the prosperity and welfare of people and the country. In Singapore there is synchronicity between the city, state and country allowing the government to plan, implement and support broad changes and therefore, it is possible to develop support within the community, schools, and the country.
2. **Vision for education**. The second vision in the work plan framework is "Teach Less, Learn More". This vision bridges between 20th century education and 21st century skills. 21st century skills include global skills of learning and innovation; career skills; science, media, and technology skills; practical life skills (family, school, community, state, and nation). The vision "Teach Less, Learn More" was expressed in a pilot for schools called "Teach Less, Learn More (TLLM) Ignite Schools". These schools focused on **promoting the internal issue in learning**. These elementary and high schools of different sizes guided by skills' tasks.
3. **Vision for implementation**. The third component is "Tight, Loose, Tight". According to this component it is necessary to adhere to core planning principles (tight) with adaptations to needs, resources and constraints occurring in each school or region (loose), when these do not clash with a theoretical work framework (tight) and stated aims and desired outcomes (tight).
4. **Vision for cooperation**. The fourth component is professional learning communities. In this vision, schools in Singapore have opportunities to develop professionally to function as professional learning communities (PLC) with resources available through the Ministry of Education, schools' TLLM networks and their professional development planning teams. PLCs are found in all TLLM Ignite Schools. TLLM Ignite Schools are committed to the vision of professional learning communities. **The Ministry of Education expects these schools to present their progress annually**. Schools are made

up of learning teams, members of whom work in structured cooperation to drive the implementation process. Team members are obligated to implement the outcomes of their professional learning communities and finally the process yields teaching and learning links.

Strategy to improve the education system and bring it into the 21st century – Teach Less, Learn More. Singaporean arrangements focus on the second component of the thinking framework, on the vision meaning "*Teach less at school, but learn more profoundly*" (Teach Less, Learn More). The Singaporean Ministry of Education [250] maintains that the idea behind this vision means that learning is lifelong. They break the concept down into two concepts: Teach Less and Learn More. They explain that the idea "teach less" refers to the fact that the world of knowledge expands daily at an almost imperceptible rate. The curriculum is flooded with information. The expectation is that teachers will soak up all knowledge in their taught subject and will be up to date on a wide range of subjects, such as: politics, economics, medicine, technology and more. In addition, technology increases the burden of information. And today, the digital world in the education field is stuck in an era of learning everywhere and at all times with platforms such as Blackboard and Moodle and shared, interactive whiteboards.

Teacher education policy. Teaching in Singapore is a highly prestigious profession, with a high social image. Among others because standards of acceptance are high, and not every candidate definitely completes the course [167]. Selection teams including serving principals choose potential teachers from the upmost third of every year's students, in other words different from the state of Israel, there is no place or mandate for national inspection in placing teachers. High academic abilities and non-academic qualities are important considerations during the recruitment process, and thus only candidates with a suitable nature, talent, and ability to teach and develop are recruited as teachers. From the moment potential teachers are accepted, they receive full scholarships, as well as a monthly allowance, similar to the monthly salary of new graduates in other areas. All teachers are educated at the National Institute of Education at the Technological University of Singapore and must commit to teaching for at least three years. There are close working relationships between the university and schools. The Ministry of Education [250] closely supervises salary levels to guarantee that teaching remains an attractive profession for new graduates, and high performing teaching can earn noticeable additional amounts from performance payments. To establish the strategy of investment and reward, the country developed an employee evaluation scheme based on the following principles:

- Students studying on teacher education courses are eligible for study and living grants. All teachers are educated at the National Institute of Education (NIE), and government steps guarantee maintaining the quality of education. **From the training stage, the Singaporean Ministry of Education employs teaching students**. There are four training courses for teachers. Two educate teachers for elementary school and two for high school. After graduate studies in teaching (during which teachers specialize in their chosen subject and one other), it is possible to apply to one of two one-year courses: course for elementary school teacher education and course for high school teacher education.
- Professional development – the Ministry of Education encourages teachers to remain up to date in their subjects by providing them diverse learning opportunities during their careers. Teachers can choose between three professional development routes: teaching route focusing on pedagogical practice; senior expert route focusing on area of knowledge; and school leadership route. Every teacher is required to devote 100 hours per annum to continued professional development. Teachers can choose courses from the Academy of Singapore Teachers or the National Institute of Education. Continued professional development courses led by the Academy of Singapore Teachers maintain a culture of excellence in teaching. Moreover, the Ministry of Education funds equipment and professional literature for all teachers valued at 400-750 Singapore dollars per teacher per annum.
- Assessment and salary – after three years teaching, teachers are assessed annually to examine their suitability for one of three career routes – master teacher, teacher specializing in curricula or research and school leader teacher. **Each one of these routes is built on salary and reward scales**.
- Intern management development – teachers with school leadership potential are promoted to middle management teams and receive training preparing them for their new roles. Performances of these workers are also assessed to examine their potential to become deputy principals and later principals.
- Maintain being updated and innovation ability – every stage of a teacher's progress requires a range of experience and training preparing candidates to lead schools and innovation. Young teachers are assessed continuously to examine their leadership potential and have opportunities to demonstrate their ability to learn, for example by participating on committees or leading departments at a relatively young age.

Teachers in Singapore mention that the opportunities to influence the development of children and contribution to society are what motivated them to choose this career. The status of teachers in Singapore is ranked 10th of the 35 countries measured in the world scale of teacher status. According to the 2018 measurement, the average annual salary of teachers in Singapore was $50,942 and increases with seniority and professional development.

Canada. Canada is the second largest country in the world and divided into 10 provinces and 3 territories. Although there is a central government, each province has its own ministry of education that it manages completely independently. More accurately, each province is divided into even smaller areas, each of which has its own budget and management autonomy [81, 277 p.]. Research conducted by the OECD determined three possible criteria for Canada's success in reaching high education achievements: the Canadian culture, the Canadian welfare policy, and three specific factors in polity determination: choosing teachers, equal funding, and curricula [81. 290 p.].

Decentralized management strategy and welfare policy have advantages in that it allows choosing the most suitable learning approach [148, 222- 223 p.]. Even if one region does not provide good education, one can find it in a neighboring region, because there is no geographical belonging restriction. In other words, there is competition between educational institutions, a trend that does not necessarily exist in other countries. Since the country is divided between English and French speakers and Catholics and secular people, Canadian law dictates that if a minority is large enough, it is entitled to its own school.

For this reason, it is possible to find in every Canadian region regular school at which English is spoken, regular schools at which French is spoken and Catholic schools for each language [152]. The educational reform existing in Canadian provinces including Alberta (2200 schools) was achieved through an agreement between its ministry of education and teachers' unions and testifies to an interesting direction: **reducing state involvement in individual educational demands and increasing teachers' autonomy. The focus of change emphasizes learning and not teaching processes**. In other words, there is a greater emphasis on developing skills in all knowledge areas at the cost of reducing content requirements. The aim of strengthening learning processes at schools that develop students' skills and competences, where knowledge acquisition is attained by developing and improving students' skills [159]. Another change is the recognition that teachers, like doctors and lawyers, must get the professional certification and registration from professional personnel and not necessarily the state.

Strategic policy about school styles and belonging provide diverse learning infrastructures for students, special subjects existing solely in certain schools and teachers with unique teaching styles. Current policy lines (since 2012), over and above four main types of schools are divided into dozens of other types of diverse schools. The strategic principles Canada has employed to drive the system successfully over years, and its system's outputs respectable placement in international tests are as follows [148]:

1. **Equitable education system**. Despite existing decentralization features (as explained previously), it is one of the most equitable education systems in the world. When examining Canadian grade data, one finds almost no gaps between different geographical regions in spite of the fact that **there is no "head" ministry of education** managing different areas. One of the explanations for this phenomenon is the high importance the Canadian government attributes to education, and thus Canadian culture that reveres learning and education. Another explanation for the system's equitability is the existence of a government office whose role is regulatory, to control and identify what succeeds in various regions and share knowledge among them. The government office has the ability to enforce its conclusions and create cooperation and balances between regions.
2. **National mechanism to manage the education system**. As previously mentioned, there is a head ministry of education which does not manage the overall system but is based on a different organization model. Below is the model's structure:

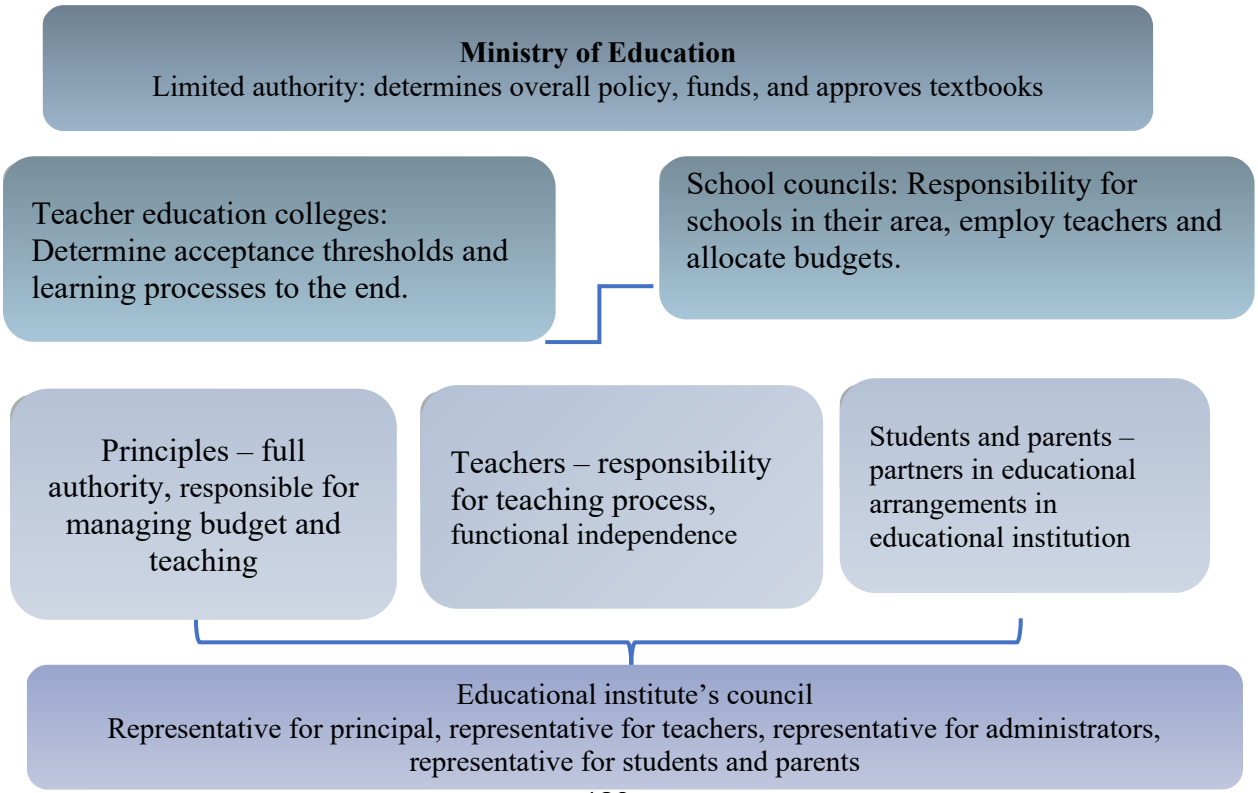


Figure 3.1. The managnment Canadian educational model (Through the local provinces)
Source: made by the author [148]

Analyzing the Canadian model, one can distinguish that the most significant aspect of its strategy is the involvement of additional stakeholders, which opens the system to other viewpoints and interests, over and above the known structure, as it exists in Israel and other countries, where instructions and procedures come from above (ministry authority) downwards (schools and teachers). In this case students and family cells are involved in educational processes.

3. **Teacher education policy**. Teacher education systems and professional development in Canadian provinces are significantly different from one another, but they have a common basis and include adapted policy decisions that balance different areas including recruiting quality candidates to the profession, their education, absorption, professional development, assessment, developing professional pathway and preventing dropouts from the system. Nonetheless, every province chose to focus on its unique aspects. In certain provinces there is great investment in the education stage. To empower teachers, they are given noticeable support and autonomy expressed in time allocated to teamwork with colleagues and developing programs and means of assessment. In Ontario, entry of new teachers into teaching is institutionalized including intensive mentoring and professional development as well as various other incentives. In Alberta, emphasis is on educating and absorbing new teachers into a highly developed management system, which sets knowledge, qualifications and attitudes expected at every stage of the professional pathway and based on assessment and support, and sets various promotions paths for teachers. Stakeholders (according to the model) agree on the quality of human resources needed to succeed in the process, mainly as a result of the absence of the government education ministry in control and assessment processes of teaching staff.
4. **Application and matching theory to practice**. The Canadian system also seeks to connect the education system to economic and social outputs (like Singapore). Therefore, there is a structured process of examining the system's practice with an emphasis on the quality of teaching staff according to the following tests:
    4.1. Recruiting quality candidates to quality education programs by guaranteeing competitive salaries, financial subsidies for candidates and greater uniformity or similarity in education programs' design and quality.

4.2. Connecting theory with practice by planning rational courses and integrating quality clinical experience in framework supporting good teaching.
4.3. Employing subject teaching standards to focus and postpone attention on learning and assessing knowledge, qualifications, and attitudes.
4.4. Conducting teacher performance assessments based on professional standards linking student learning with classroom teaching.
4.5. Establishing absorption models supporting novice teachers through skilled mentors, shared planning and reducing teaching load allowing time for in-school learning and careful building of a repertoire of teaching means.
4.6. Supporting professional development enabling teachers to learn routinely with and from colleagues within and between schools and universities.
4.7. Building broad professional abilities creating strategies to broadly share research and good teaching, recognizing successful classroom and school teaching means and enabling expert teachers and principals to lead the entire system.

U.S.A. The American education system is one of the most complex in the world and changes from state to state, and even from city to city. It has approximately 5.3 million teachers teaching in about 100,000 schools. Like Israel, there are also cities in the United States that successfully provide quality education to its students, in contrast to those who fail in the task; with excellent and innovative schools alongside schools that harm the future of the communities they serve. It also deals with a heterogeneous population with economic and social gaps [70].

The structure of the education system in the United States follows a similar pattern to similar education systems: preschool education (generally starting at age 4 and continuing for two years) followed by elementary school, middle school, and high school. Following 12 years of school study, students can continue the academic education at colleges and universities offering six different levels of degrees and certification [74]. There are two education systems in the U.S.A., public and private. The public system is managed on two levels at state level and local level. **There is no national education system**, although the government allocates resources and advice for federal programs both in the public and private sector. **The American Ministry of Education supervises these programs** [274]. The public school system, from kindergarten to high school, is provided free of charge. All American states require children to attend from age 5 to 18. By law, every child is eligible to learning irrespective of religion, gender, race, physical disabilities, ability to speak English or citizenship.

Public education system. The public education system accepts children aged from 5 to 16 although the government does not enforce a uniform curriculum but supervises school programs. It is clear and agreed that certain subjects are considered core subjects in the overall education framework. All public school teach arithmetic, science, reading, writing, social sciences, history, and geography. At many other schools' physical education, music, art and additional languages are taught as part of an expanded curriculum.

There is no cost to studying at public schools and they are funded by taxes paid by householders in a school's region. The common policy to develop high abilities (and therefore budgets are so allocated) include the following criteria:

1. Teachers in the public sector must be more qualified than those in the private sector both in terms of their education and their professional experience.
2. Government laws obligate these schools to provide diagnostic services and services for physical disabilities. The public system is obligated to provide, in most cases, supportive frameworks for gifted students.
3. It is possible to meet children from diverse backgrounds, cultures and socio-economic status in public schools.

In 2002, President George Bush signed an education reform law called "No Child Left Behind Act". The aim was that states in the U.S.A. and their communities would take greater personal responsibility for how education systems were conducted in their areas. During President Obama's era, the public education system in the U.S.A. received a real change in direction and since then, it has been undergoing a structured process of constant improvement.

The model led by President Obama included three strategic factors intended to stand at the head of national priorities among decision makers with relation to educational policy. Model in figure 3.2 presents these factors.

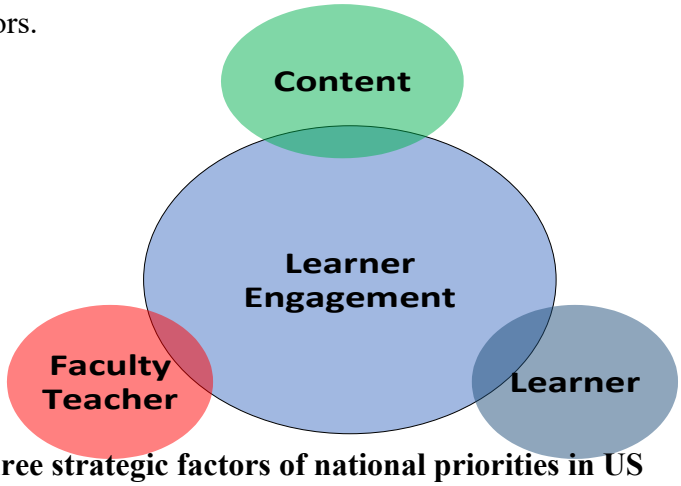


Figure 3.2. Three strategic factors of national priorities in US

Source: made by the author [274]

Content – learning contents including subject arrangements, including an emphasis on technological-scientific subjects. This generally refers to three aspects making up all certification and obligate adaption to 21st century needs:

- Knowledge – knowledge in certain disciplines, inter-disciplinary knowledge, epistemic knowledge, understanding knowledge boundaries and their power, procedural knowledge.
- Skills – cognitive and meta-cognitive skills, social and emotional skills, practical skills.
- Approaches and values – personal values and local, social, and global norms.

American education researchers have stressed that to instill 21st century skills it is necessary to put on emphasis on each one of the aspects and examine their returns. Instilling skills also required adapting the whole ecological system surrounding students, including school, teaching staff, parents, friends, and communities to which children belong.

Faculty teacher – educate and recruit quality teaching staff by rewarding them according to results. The plan refers to professional development processes in teleprocessing programs intended to promote innovative pedagogy in schools across the country. The aim of professional development is to encourage teachers to integrate rationally content and digital books, content worlds, computer cloud environment and digital tools in teaching, learning and assessment processes and make it relevant in the 21st century. Therefore, systems in every state must push teachers to experience digital learning within their professional learning framework enabling them to undergo synchronic and a-synchronic digital learning experiences, and furthermore, to choose from a range of educational courses according to their personal needs. Additionally, the system must develop an interdisciplinary approach to core subjects among staff:

- Increasing teachers' autonomy to teach together a number of scientific subjects.
- Encouraging science and technology learning outside school walls as well as making them accessible to wider populations.
- Integrating computers into teaching; funding, opening, and upgrading computer classrooms.
- Educating and professionally developing teachers; establishing teacher communities in academic centers for teachers.

Learner – preparing learners for assimilating 21st century innovation and creativity. Subjects such as in-depth understanding as the basis of knowledge defined in the curricula and

choice subjects (cognitive ability). Additionally, 21st century skills require students to think critically and solve problems, creativity and innovation, communication and collectivity, science and media literacy, information and communication technology literacy, develop independent and autonomous learners, lifelong learning and community involvement. The "Public Speaking" program is essential skills and is based on nurturing 21st century skills and six learning functions and is characterized by an in-depth process that ends with preparing and presenting outputs.

Learner engagement – the idea is in raising learners' involvement (similar to Canada's strategic line – Figure 3.1). The new program leads meaningful learning rooted in three core principles: value to learner and society, learner and teacher involvement, relevance for learner. Value means that what is learned is regarded by learners as challenging, arousing curiosity, worthwhile and contributing to them and society. Involvement refers to learners being active in the learning process, developing profound and structured understanding of knowledge.

Republic of Moldova. The education system in Moldova is a historical-political and even operative product of the Russian system. According to Vedomosti [236], one of the most important factors in the post-Soviet history of the Education system in Moldova is geographic, political, and cultural proximity to Romania. Therefore, during the 1990s, many study books in the Romanian language were contributed to Moldova by its western neighbor. Shipman [196] adds that the post-Soviet years are characterized by economic differences that are also in the scholastic education system. in many schools there are no basic infrastructures as a central heating system. Over 40% of the buildings required thorough renovation in 2008.

However, considering its economic abilities, Moldova invests a lot in the education system. for example, according to calculations made by The Global Economy organization [268], the expenditure on education in 2012 was 85% of the gross domestic product – high expenditure in international comparison to neighbor countries. School Moldovan education is enshrined in Article 35 of the constitution and the education law. These regulations determine that the state is obligated to free high school education, while studies in 1st to 9th grades are mandatory. State education is defined as secular, but the state is obligated to freedom of religious education.

The historiographic development of the educational policy in Moldova. Several bodies are responsible for the management and development of education in Moldova. The council of curricula and evaluation develop education strategies, and the Ministry of Education engages with curricula reforms and implementation of educational strategies at the national level. At the regional level, education is managed by education directorates [269]. Scholastic education

in Moldova is of 12 years: elementary (1st – 4th grades); Junior high (5th – 9th grades); high school (10th – 12th grades), in a structure similar to Israel [196]. The government approved the "strategy 2020" program in 2014 to make education more effective, adjusted to each student and emphasizes learning skills to train young citizens for the 21st century [236]. The Moldovan parliament has approved in June 2020 the 2030 national development strategy called "Moldova 2030".

This strategic program goal is to significantly improve life quality in Moldova, reduce the brain drain of young people, increase the republic's economic-trade attractiveness and create occupational infrastructures all over Moldova (not just in the capital city) and individual development opportunities for young professionals. Professionals call the program "Moldova 2030 National Development Strategy". It is supported by the international monetary fund and has declared and doable goals by the Moldovan administration, which has committed to the United Nations (together with 192 countries) to apply it. A short time after (2015) the state established a national council for sustainable development, which is supposed to coordinate the implementation of the Sustainable Development Goals (SDGs). This statutory body supervises the adjustment of the state organizations, regulations and legislation required, and the integration and implementation of the 2030 agenda and its goals. It consists of ministries' representatives, the National Bank of Moldova, the National Statistics Authority of the Republic, trade unions, employers' organizations, and the National Association of Local Authorities [72, 503-505 p.]. The present administration changed the former development strategy – "Moldova 2030" – in 2018 to make its goals more appropriate for the 2030 agenda. The title of this paper's draft is "Moldova 2030" and it prioritizes four areas that their strengthening will support raising the education status in Moldova. Figure 3.3 presents the components:

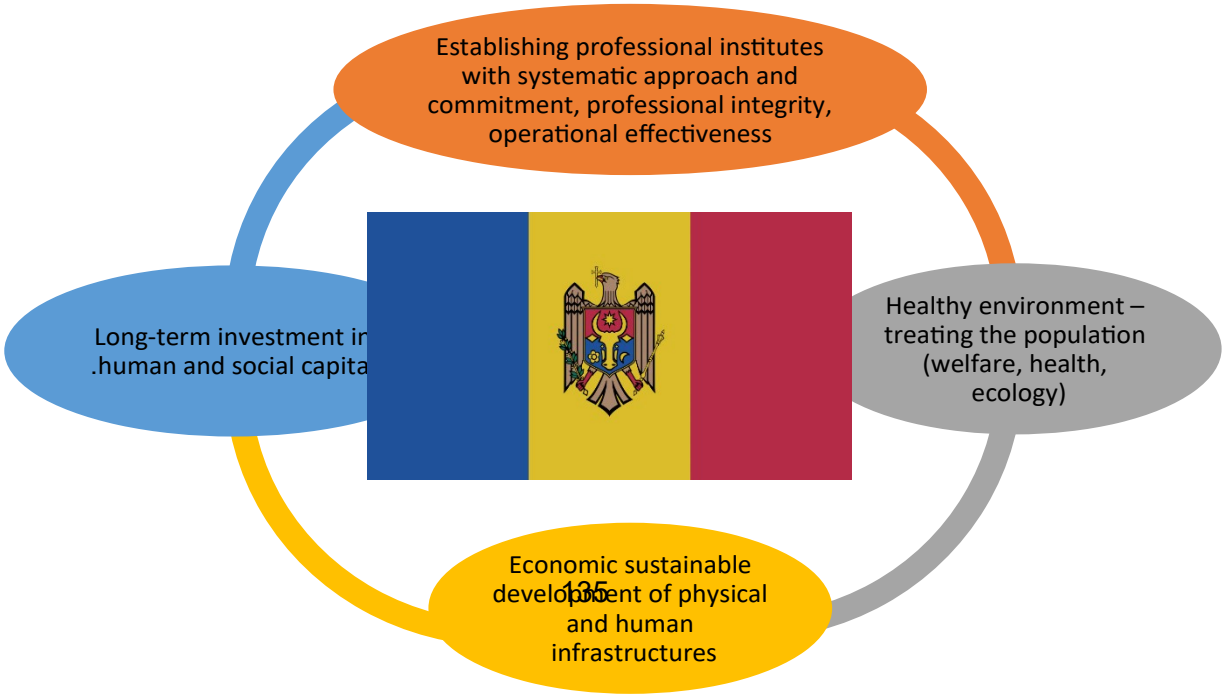


Figure 3.3 The characteristics of national development strategy "Moldova 2030"
Source: made by the author [275]

Currently, the program includes ten development goals that the state has to achieve by 2030. Unlike in previous years, the focus is no longer on economic development but people. As a result, the strategy offers a holistic framework both for the implementation of the 2030 agenda and the association agreement with the European Union.

Strengthening the education status in the republic. A central and significant part of the commitment of the Moldova 2030 program was strengthening the education status. The administration and the program planners are convinced that strengthening education status will strengthen the economy and its social implications as the product and employment. Therefore, the republic has started a systematic treatment of the training course's structure and built a new system based on the following age groups: (1) elementary education – the republic advanced to making the education level back to its level years ago (before separating the Soviet Union). Education is compulsory from 6 years old to 17 years old and begins in elementary school from 6 years old to 10 years old. (2) junior high education – pre-high school education trains the human capital as a preparation stage for the next three years. In these frameworks, students complete their joint curriculum in various disciplines, based on uniform curricula, and as higher their skills, the better their way to a suitable framework [235]. (3) high school education – students who continue in academic education complete the last two to three years in scola media or lyceums. In the last case, at about the age of 18, they might be eligible to apply to post-secondary studies having a matriculation diploma. (4) vocational education – alternatively, they can study in vocational school after completing high school studies (scola media), or study 10^{th} to 12^{th} grades in vocational school, and then they will be free to study for a tertiary grade, although they did not have a matriculation diploma. In December 2010, the Republic of Moldova announced the initiative to create a sustainable framework for improved vocational training in rural areas, and therefore significantly stimulate economic growth and thus increase the product in the periphery. (5) higher education – there are two types of post-secondary education in Moldova.

The colleges offer technical/vocational higher training in many occupations and their programs are usually two to three years. Some lead to B.A. degree-level skills. Some private universities are funded by the state, but the State University of Moldova, which was established in 1946, is the most impressive.

The evaluation and examination methods in the Moldovan education system. The evaluation and examination policy in Moldova is very similar to Israel. The evaluation scale is graduated in a numerical distribution starting with high grades (class A) to failing grades (class D). This evaluation policy is a byproduct of Soviet education that supports rigidity and national and high standardization, which requires frameworks to meet measurable quantitative goals. According to ETF [110], the administration in Moldova understands that civil society is slowly becoming a knowledge society, namely economy that leans on knowledge economy professions. This step requires the educational establishment to meet new development directions that are adjusted to the vision of technology integration.

Updating curricula to the 21st century. Changing reality led to a series of changes in public education curricula as part of the "Moldova 2030" program. This change is a result of the changing global economic reality, which sets the development directions in education: the knowledge is open and available to all, a fast pace of knowledge renewal, multiple information and knowledge sources, multiple knowledge interpretations, transition to the knowledge economy, selling services based on knowledge consumption growth, information and Internet technologies entry into all life and employment areas. Therefore, the individual in the global changing labor market, which is based on personal communication abilities, is expected to be able to adjust to fast changes and teamwork, be flexible in human relations, and other personality qualities. According to the decision of the Ministry of Education and Culture in Moldova in its publication MODELE DE PROIECTE DIDACTICE DE LUNGĂ DURATĂ Anul de învățământ 2020-2021 [235], there is an obligation for specific contents, gradual content units, which will eventually will shape the evaluation tests and examination methods:

(1) Obligatory skill units - are treated in the teaching-learning process and evaluated by MECC;

(2) Units of mobile content units as an extensible service - only according to teaching staff decision within teaching-learning process, only when all mandatory provisions are implemented; not necessarily evaluated through assessment and examination;

(3) optional competence units - are treated by the teaching staff decision in the teaching-learning process, only when all mandatory and extended provisions are implemented; not evaluated in official exams.

The teaching staff will act according to the curriculum priorities to plan: (a) short and long-term didactic planning; (b) while developing/selecting/adjusting evaluation exams.

The teacher status and his training method. The educational establishment in Moldova has created a graded training system. According to this training, a teacher can teach only in the system he was trained for. Teachers in elementary school are trained in teacher training colleges for four years. Teacher training in high schools is divided into two courses: junior high school (gimnaziu) education teachers are trained in a five-year program at the university. High

school (liceu) teachers are trained for five to six years in universities, polytechnics, academies, institutes, and conservatories. Teachers who want to teach in higher education will be trained for five to six years in universities, polytechnics, academies, institutes, and conservatories. A Ph.D. degree is mandatory for professor emeritus and/or professor. Figure 3.4 presents the training level of elementary education teachers.

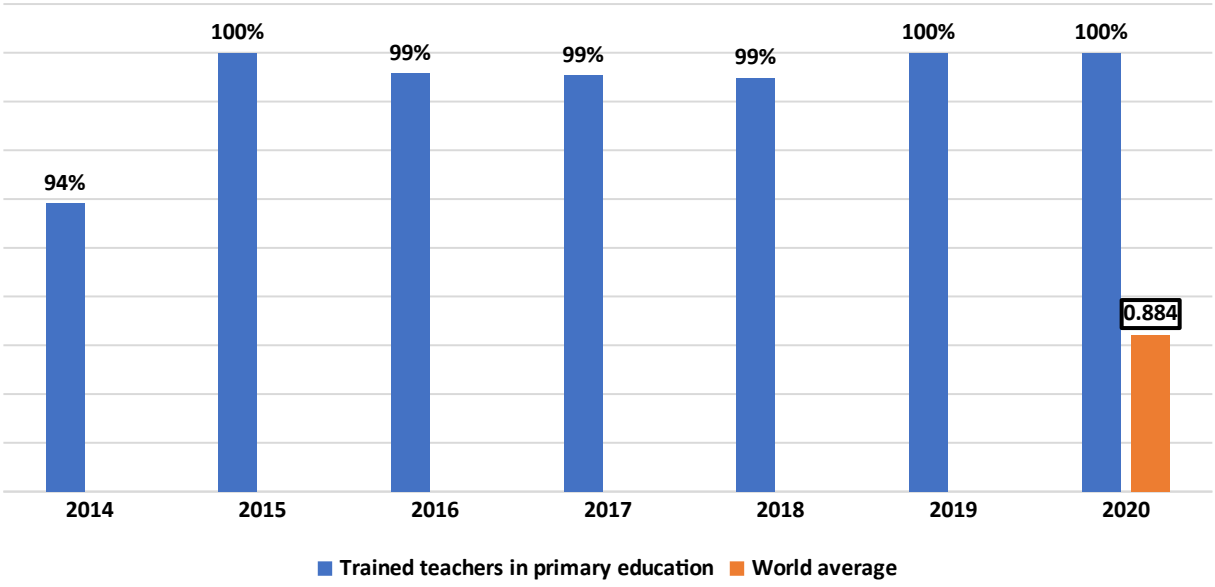


Figure 3.4. Mapping teacher training percentage in the elementary education systems in Moldova 2014-2020

Source: made by the author [255; 268; 242]

Indeed, this orderly policy with the implementation of economic immigration policies, development of international students' academic mobility, and opening of the republic to internationality orientation have led the country to the beginning of a positive trend in all social-economic-political indices, even to the final decision to join Moldova to the European Union (July 2022). To summarize all the solutions Moldova tries to provide for improving education policies the researcher finds integrative solutions, which are not based only on one activity related to Moldova's Ministry of Education, but on a sequence of actions setting an innovative policy that is reflected in a comprehensive model as indicates the following figure (figure 3.5).

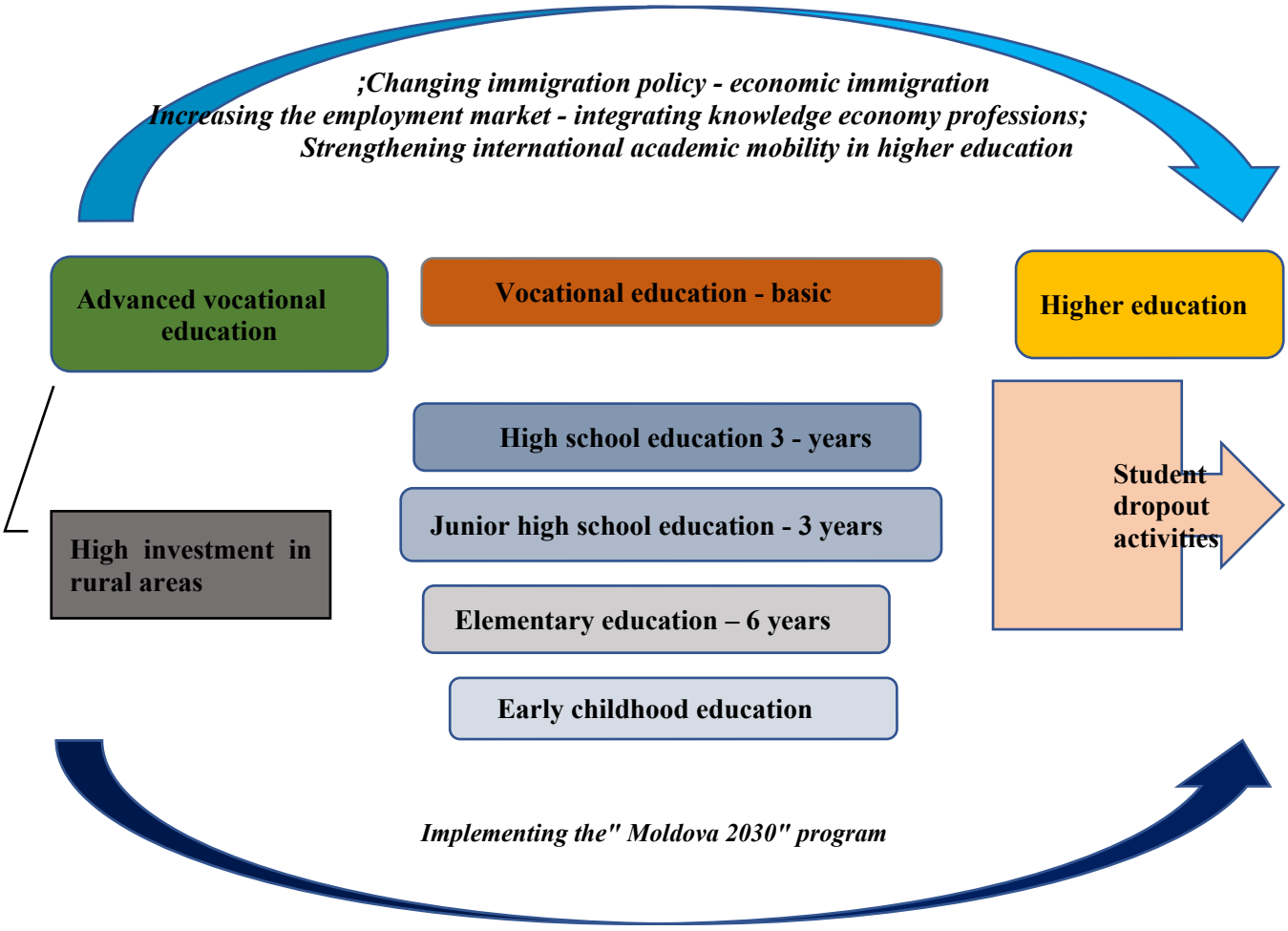


Figure 3.5. The model of education in Moldova and the administration's background activity to promote education
Source: made by the author [275;235]

The proposed model is a product of the researcher's interpretation of the whole image. Such a process explains the economic growth, despite the republic's objective difficulties, as brain drain, lack of productivity, and an economic-social phenomenon of excessive education by which highly educated employees do not have suitable skills for their roles. It is important to note that the government in Moldova is aware of the existing gaps between population groups and that there is an educational-training problem that causes economic-occupational problems and significant social gaps between the city residents and the village residents [172].

According to the World Bank decision [271] from June 2, 2022, the board of directors of the World Bank has approved an emergency operation, a policy of developing resilience and competitiveness (DPO) for 159.24 million dollars for the Republic of Moldova. This budgetary support will help the government of Moldova to reduce the influence of the war in Ukraine on

refugees and households as well as build resilience and improve competitiveness to reduce the vulnerability to future shocks. According to the bank reports [271], Moldova has suffered many shocks in recent years, starting with the COVID-19 pandemic, the severe drought that has reduced agricultural production by 34% in 2020, and the European gas crisis that has raised gas costs in about 400% at the second half of 2021. Just as Moldova came out of these shocks, the social and economic transformations from the war in Ukraine jeopardized its short-term economic recovery and its long-term economic prospects.

Inguna Dobraja [271], World Bank Country Manager for Moldova notes in the report "the recent series of shocks to Moldova have significantly affected Moldovan citizens, but especially poor families and small businesses. The government is committed to addressing the unfinished development reform agenda to support the country's economic, social and structural change. This budgetary support will help the government respond to the immediate needs of the country while maintaining momentum in the long-term agenda of building resilience and improving competitiveness in Moldova.

This support is part of a financial assistance package made up of international partners, including the International Monetary Fund, the European Union, and the EBRD, prepared in response to the ongoing social-economic emergency in Moldova. Since Moldova joined the World Bank in 1992, more than 1.3 billion dollars has been allocated to more than 60 activities in the country. Currently, the World Bank portfolio includes 12 active projects with a total commitment of 638.1 million dollars. The support areas include regulatory reform and business development, modernization of government services, tax administration, land registry, education, roads, health and social sectors, including COVID-19 emergency response, agriculture, water and sanitation, and energy.

The following table (3.1) will summary all strategic components of the countries which analysis.

Table 3.1. Strategic components in education management models in countries

Strategic component	Singapore	Canada	United States	Republic of Moldova
Emphasis on educational arrangement structure	System with government mechanism to lead a national program "Thinking Schools, "Learning Nation	Provincial/regional division. Self-management with almost no government intervention. Integrate mechanism with community – school council	Federal Department of Education coordinating doctrinal-regulatory side of education. Every state conducts itself independently – self-management of institutions	Emphasizing gradual educational structure and hierarchy on the transition to the next age grade. There is a national approach in the system regarding structures, handling the weak points .(dropout, treating the periphery)
Curricula	Government curriculum with core components: vision of nation vision of education, vision if application, vision of cooperation	Curriculum based on dialogue between all stakeholders (education system, teachers, parents, and students). Emphasis on equality for all citizens and residents. Increase school autonomy to choose learning content adapted to the 21st century	Choice in core curriculum of relevant subjects. Allocating large resources in favour of state public education. State independence to choose program emphases. Support programs promoting innovation, integrating technology into learning processes. Requirement to implement 3 flower program (Fig 3.2)	Structured curriculum that integrates instructions on a national level (obligatory program) and academic freedom .in selecting local teaching staff Integrating the evaluation and examination contents and the skill imparting contents (without .evaluation)
Educating teaching staff	Selective choice of teaching candidates. Need to meet measured goals. Education route integrating theory and practice. Financial support for teaching students	Prioritization for those choosing teaching routes. Financial support and education grants for candidates. **Not over strict about teaching qualities**	Emphasis on choosing and education teaching candidates. Arranging education program and requirement to have development pathways for teaching staff in .educational institutions	Integrating teacher training centers, and universities, ensuring an M.A. degree when entering .work A national approach for making teaching a professorship with interdisciplinary .requirements

Source: made by the researcher

To conclude this sub-chapter, the researcher identified a number of interfacing points in every country, and they can be presented because they are close to the research topic. Firstly, we found different approached at the level of government involvement in educational processes. On

the one hand, there is heavy involvement leading also to results in a local aspect, for example Singapore, considered as one of the rising economic-educational powers in the world. On the other hand, Canada, where educational services are decentralized and local/provincial and regional authorities are empowered to manage education in their districts.

The U.S.A, which previously had privatized educational arrangements took a step back and nationalized or strengthened public education. These are three successful models, each from its point of view. Another common interface is the issue of education teaching forces. The researcher discerned in her analysis of countries that teacher education is a very significant component in each of the systems reviewed, including Finland which is country to compare. All countries invest a great deal of thought, strict recruitment and funding processes, financial support, fair financial reward at the end, and very high status-image of teaching. Certain differences exist in curricula choice, but in these cases too, it appears that the need to adapt contents to the 21st century based on personality and technological qualifications and skills is a central dimension in the decision-making process about feasibility of integrating relevant contents.

3.2. The Israeli education system: good practices and innovative paradigms.

The complexity of society in Israel and its diverse human tapestry is reflected in its education system. The education system's heterogeneity is expressed on various levels in its structure, budgets, and existence of many types of educational systems adapted to the needs of various sectors. The Israeli education system is in many senses a mystery. On the one hand, Israel has some of the best universities in the world. Its population is among the leading countries in number of years learning per person and the rate of academic degree holders. On the other hand, school children in Israel achieve among the lowest grades in international tests in core subjects such as reading, mathematics and sciences.

This mystery is also expressed in the labor market. On the one hand, Israel is among the most advanced countries in the world in the high-tech field and many Israeli experts work in leading high-tech centers around the world, such as Silicon Valley. On the other hand, many working-aged Israelis lack the skills necessary to compete in the modern labor market. Average work productivity in Israel is not only low relative to most developed countries but is even less – in relative terms – to countries leading this measurement for many decades. Current research variables revealed through theoretical analyses that there are huge gaps in managing Israel's education policy relative to Finland, and additionally, in comparison to educational models in other countries (U.S.A., Singapore, Moldova and Canada).

The researcher, who has been concerned with education for over twenty years and is greatly experienced in the Israeli system, seeks to examine, and analyze both measurements and opinions from the field, to present combined and crossed aspects of interface points of the system requiring updated and innovative views and policy. Therefore, a survey questionnaire was compiled for quantitative study in which 158 role holders in the educational system were asked about key issues, the subject of this study's variables in 34 questions (questionnaire attached as Appendix No. 1). Following are the key results that explored various aspects of the educational paradigm as expressed currently.

The researcher presents mainly the findings of statements associated with four main factors on which the education paradigm in Israel is established, **and as reviewed, analyzed and compared in relation to Finland, and in the third chapter, to 3 countries**: **(1) Status of teachers and education in Israel; (2) means of assessing and examining students; (3) curricula and preparing students for the 21st century; (4) teacher education process**.

Research results are presented below:

1. Demographic questions revealed that of the 158 asked, about 82.3% were women (130), and 17.7% were men (28). This picture, according to data from the National Bureau for Statistics is a representative sample of the population of employees in the Israeli educational system.
2. The dominant age range among those asked was between 41 and 50 and the second largest group was aged 50+. This also represents the current predominant age spread in the educational establishment in Israel (Appendix No. 2).
3. Approximately 58% of those asked had postgraduate degrees (M.A.), 36% graduate degrees and 6% with doctoral degrees (Appendix No. 3).
4. 76 of respondents were teachers, 48 had management roles and 36 were educational inspectors.
5. Most of those asked (62%) worked in schools (elementary or high school) and some were Ministry of Education employees or combined teaching with a management role (Appendix No. 4).
6. The following Figure 3.3 is an integrated presentation of common results of statements representing questions 7-12 schematically and addressing educational policy and status of education in the eyes of decision makers and leaders of educational policy and funding.

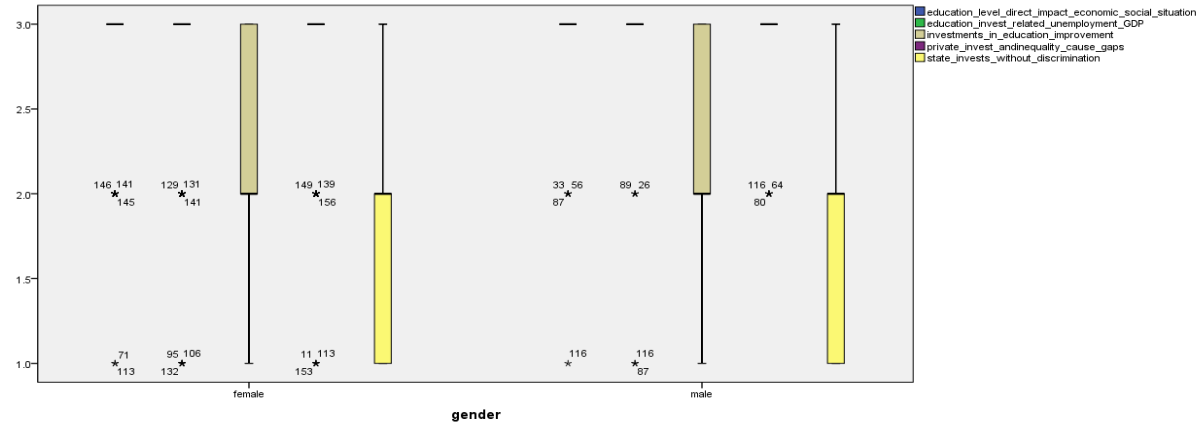


Figure 3.6. Common results of statements representing questions 7-12

Source: made by the researcher

Findings: The author define that **majority of respondents agree that education level has direct impact on economic situation, investment in education is related to GDP and unemployment levels, private investment and inequality in education cause gaps**. About **<u>half</u>** of respondents **not so agree that governmental investment in education is done to improve education system**, and many **do not agree that the state invests in education without any discrimination**. There are not differences between male and female subjects. The researcher concluded in addition respondents did not think there was any budgetary problem, but an issue of priorities. The following figures (3.4 and 3.5) present integrated answers to questions 13-18 (adapting means of testing) and question 19-24 (curricula and preparing learners for the 21st century) each of which examines from a different angle the contribution or damage to students' future abilities as a result of testing means used in Israel, and consequently to preparing students for the challenges of the 21st century.

The researcher presents a summary of the findings in 2 figures.

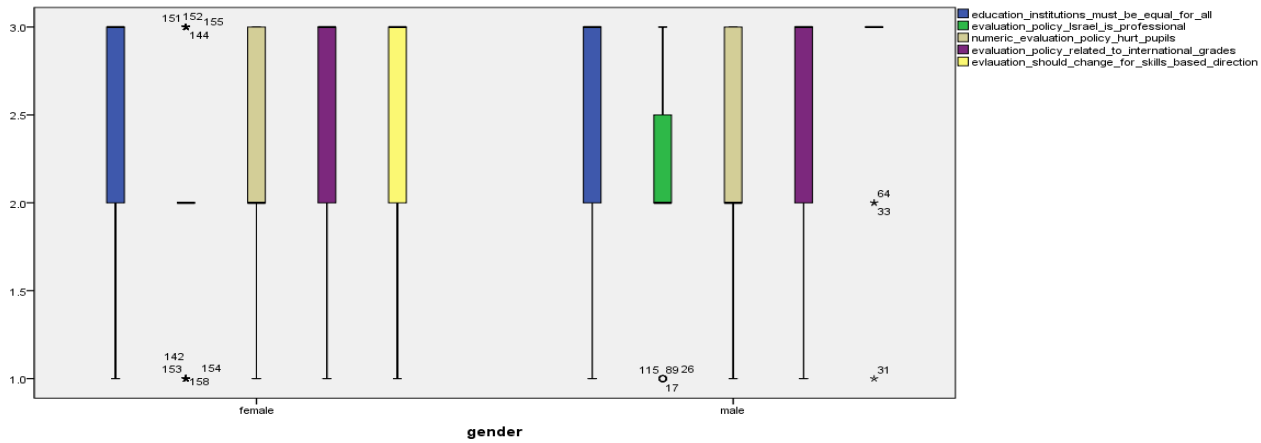


Figure 3.7. presents satisfaction with assessment means policy versus equality of opportunity and investment

Source: made by the researcher

Findings: The majority agree that education institutions must be equal for all, not so agree that evaluation policy is good and professional in Israel, not so agree that numeric evaluation hurts pupils, do agree there is a relation between evaluation methods and reduction in pupils' achievements, like international grades. The majority agree evaluation should change in favor of skills-based direction. No significant differences may be noted between genders.

The researcher concluded from the findings that there is no single policy about investment for the entire population, and therefore assessment and testing policy, although professional and satisfactory, is unfair as a result of a lack of equality. Additionally, staff is satisfied with the quantitative-numerical means of assessment in Israel, but assessment still required updating to be based mainly on instilling skills.

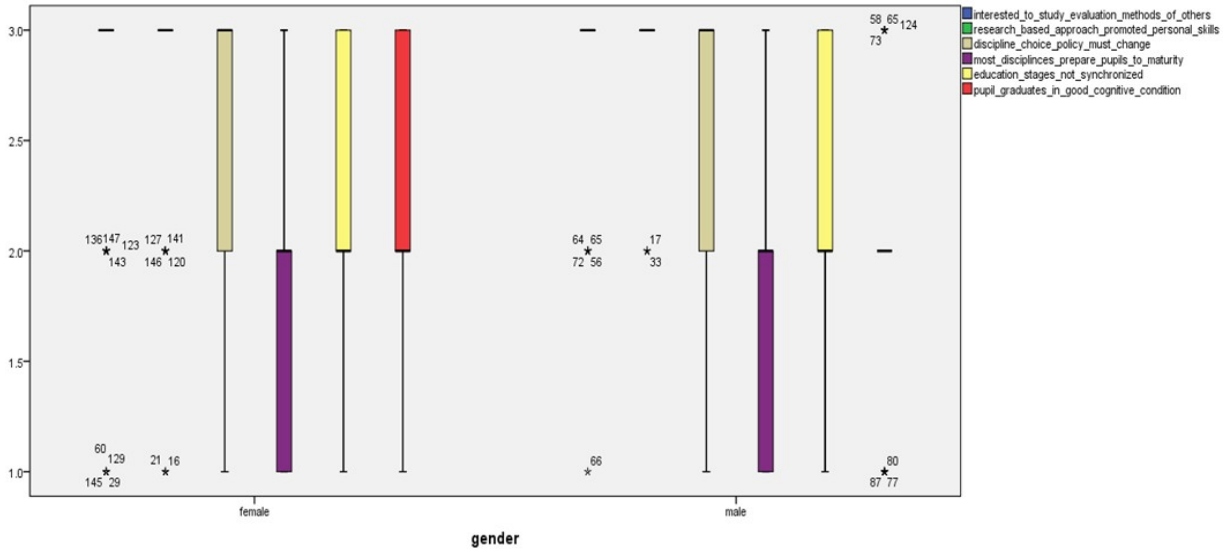


Figure 3.8. Comparative findings in approaches to assessment and testing between Israel and Finland

Source: made by the researcher

Findings: Most of respondents are interested to study evaluation methods of other countries, like Finland. The most agree that research-based approach in teaching promote pupils' independence and personal skills. Also, the most agree that Israeli discipline choice policy in education system must change immediately. The most of respondents do not so agree that existing disciplines prepare a pupil for mature life, not all of them agree that education stages are synchronized. The majority not agree that Israeli pupils graduate in good cognitive conditions. No differences are revealed between the gender

The researcher concluded that although respondents supported existing means of assessment and testing (mainly based on numerical – grade data), they were open to changing their minds towards something similar to that done in Finland, agreed that innovative learning methods based on research would be tangibly more beneficial than existing programs, and in fact

most paradigms and disciplines that do not include synchronizing curricula do not lead to or preparing learners for the 21st century.

8. With regard to questions about the status of teachers in Israel, working conditions and training programs (questions 25-30) it emerged that Female respondents agree more than males that studies do not contain enough economic knowledge. Most of the respondents agree that education system must adjust to 21-st century. Most disagree that teacher's position in Israel is high. Most disagree that Israeli teacher is professionally free. Most of the respondents agree that education system leaders should be responsible for a teacher's position. Absolute majority agree that school environment hurts teachers (Appendix No. 5)
9. In summarizing questions (questions 31-34) the following findings emerged, which together summarized the findings of the variables and combine them, from which it emerged that:
    9.1 Most of respondents agree that teachers' recruitment and training impact their employment position. Absolute majority agree that policy makers must change teachers' position, and education policy is directly related to socio-economic state. Most also agree that in Israel there is no equality in education policy approach. Also, most of the respondents agree that synchronization and innovation are needed in education system, and also quality education policy is needed to attract better human resources to teaching. No differences are revealed between the genders.
    9.2 The majority of respondents disagree a teacher's position in Israel is high, and also disagree that a teacher is professionally free, especially the teachers (and less principals and inspectors). Most of the respondents agree that education system leaders are responsible for a teacher's position, that school environment hurts teachers, and recruitment and trainings impact job position. Also, the majority agree that policy makers must change teacher's position in Israel.
    9.3 All the respondents agree major changes are needed in Israeli education system: more equality, more synchronization and innovation, changes in police making to attract more qualified human resources to teaching.

The survey questionnaire was analyzed statistically and possible differentiations and correlations were examined between variables to identify the most relevant factors, which if addressed will change the educational map in Israel and perhaps even improve the educational

system's ability similarly to what occurs in Finland. Therefore, a number of tests were chosen and below or their results:

1. Independent samples **T-tests** do not reveal any significant differences between the genders in all the 28 variables (Table in Appendix No. 6).
2. One-way **ANOVA tests** (Table in Appendix No. 7) were used to compare mean values for the three types of position (teacher, principal and inspector). The significant differences were found for education_level_direct_impact_economic_social_situation (teachers agree less than others), state_invests_without_discrimination (inspectors agree more than others), interested_to_study_evaluation_methods_of_others (teachers agree less than others), evlauation_should_change_for_skills_based_direction (teachers agree less than others).
3. From the **Spearman correlations** (Appendix No. 8) we can see that in the factor analysis, the following three factors were revealed: ***1***. Age, education, inspector, teacher (negative), General state claims, learn innovate willingness, policy change needed; ***2***. Principal, General pupil optimistic claims, Teacher position optimistic claims; ***3***. Gender, Equality professionality (gender is higher for male respondents).
4. From all the tests, it was found that there was a possible correlation and association between a number of core factors, whose updating in a renewed and up to date paradigm would allow change. These are marked in the following figure (3.6).

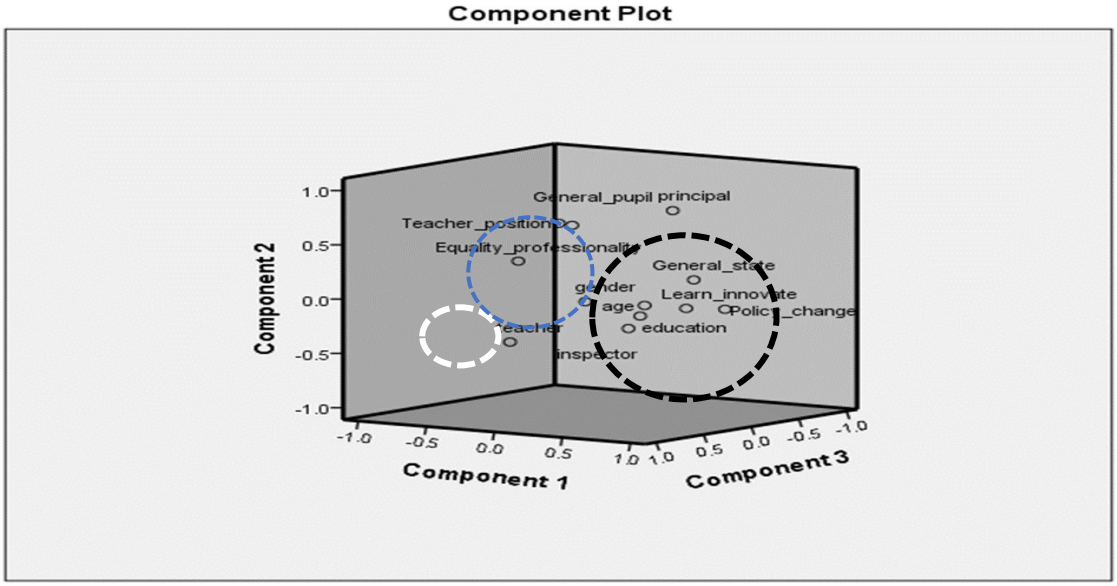


Figure 3.9. **Presentation of core factors to change the educational paradigm in Israel**
Source: made by the researcher

The regression linear (Appendix No. 9) model explaining policy change needs. The explaining variables are General state (which impact is positive) and Equality professionality (which impact is negative):

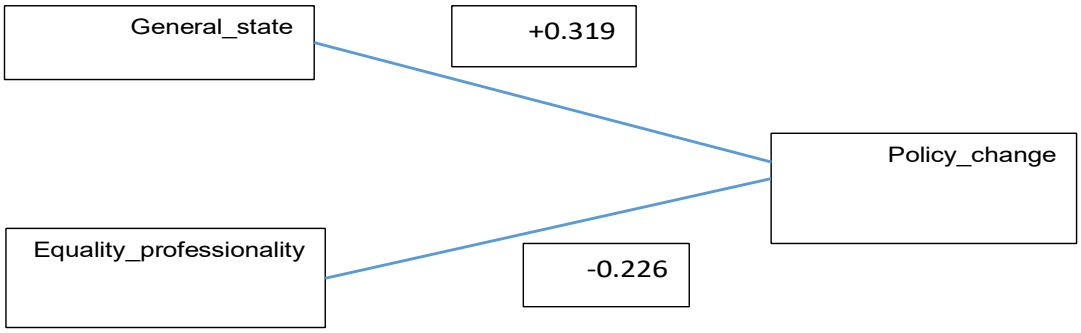


Figure 3.10. The main factors for changing the educational paradigms in Israel

Source: made by the researcher [According to Appendix 9]

From the regression model, it emerged that two factors associated with teaching quality, content quality and teaching staff quality and professionalism, together with general factors associated with government policy, education status among decision makers, and budgetary investment, would improve and change policy. These findings prove the researcher's hypothesis and have led her to propose a change to educational paradigm in Israel.

Proposal to renew the educational paradigm in Israel. From the findings of the literature review, comparative analysis conducted between Israel and Finland about research variables, analyzing existing models of successful educational systems in other countries, and statistical research findings from 158 Israeli educational system workers, the researcher proposes the following innovative paragraphs according to the variables examined:

1. **Status of education in Israel** – although Israel is a very "educated" country (according to data from the National Bureau for Statistics), the state must focus more on addressing the field of education in a socio-economic context on the basis of the following criteria:
   1.1 **Organized and consistent data collection about over education** – data about the premium for academic education in terms of average salary, external salary, and as much as possible about the rate of graduates who found work appropriate to their field of study. In addition, the government must create intended discrimination of funding and investment in populations that are known that their benefit to the economy and society are less, such as those demographically and ethnically weak.

1.2 **Alter funding model of the Planning and Funding Committee to address "superfluous" education** – most subsidized university and college funding comes from direct government budgets. This means lower funding for courses where the education premium is lower. The idea is to increase the status and value of education, and not continue with a policy in which the contribution of most of the educated population is not productive, and therefore the opposite step is taken.

1.3 **Allocate budgets to vocational education systems**. At the same time as reducing subsidies for academic courses in subjects at risk of unemployment (low salary premium), funding must be allocated to vocational training systems, to make it more attractive to students for whom the premium of academic education is relatively low, as well as workers in all employment sectors (public or private) interested in accumulating knowledge relevant to their work. As well as reopening (following closures in 2006) vocational training directions similar to the model in Finland for youth and students.

1.3.1 **Reestablish vocational education in Israel** within educational institutions by adapting them to subjects and especially competences required in the 21st century. This step will be part of the required change to also update and refresh curricula. Emphases needed in reopening vocational training routes are: school involvement – vocational training can be an additional route for students with diverse personal and cognitive abilities; equal education for all – vocational training arrangements will be equal in opportunity and infrastructure investment (equipment and teaching staff) equally and uniformly for all, without discrimination against certain populations. This should be seen as a springboard and opportunity for students to acquire skills necessary for the labor market and higher education; develop skills – the big advantage of vocational training is that it prepares students for innovative knowledge economy professions, and on the whole not just for a special work area. One must understand that the 21st century employment world is highly dynamic and students must be equipped with as broad a set of skills as possible, which will not only meet employment needs in the economy but also the social needs of these students; choice options – vocational training courses must reflect as much as possible students' choice and increase chances of long-term and not just short-term employment.

2. **Means of assessment and testing** – the researcher seeks to emphasize that in her opinion, means of assessment are associated with means of teaching and learning, and not only their

outcome. Assessment means must be diverse, adapted to teaching means and accompanied by constant feedback and dialogue between students and teachers. These are important to assess achievements and receive ongoing feedback on teaching and learning according to this renewed program. Below are innovation proposals:

2.1 **Assessing achievements will be conducted throughout the learning process and will be called formative assessment**, by providing detailed feedback to progress students and improve students. Nonetheless, matriculation exams (as customary in Israel) remain substantially weighted in writing and laboratories (which will be known as summative assessment).

2.2 **A new step will be integrated known as assessment for learning process**, which will be adopted, including a number of key steps, in which teachers and learners are partners: (1) preparing teaching and learning steps (2) setting goals whose achievements are assessed (3) designing tasks and determining criteria against which performance will be assessed (4) assessing performance while providing constructive feedback (5) identifying strong points alongside difficulties and failures and re-plan necessary steps.

In this assessment process learners should understand in advance what is expected of them in terms of content, learning skills and thinking, what they should attain and how they can achieve goals which they were partners to setting. Learners will be active participants during learning and thus improve their comprehension performance of learned material.

Hence the researcher seeks to convey a message taken from this view that assessment should relate to the following aspects:

- Maintain the link between teaching, learning and assessment processes (throughout study years, kindergarten – university)
- Assessment will refer to learners' comprehension performance both in content and thinking and learning skills.
- Assessment will occur through a framework of ongoing dialogue between teachers and pupils to prove their capabilities and comprehension of learned material and learning processes (including self-assessment and peer assessment).
- Assessment will include meaningful and challenging tasks, that will be performed in diverse learning environment (laboratory, computers, employing internet-based tools and methods).

3. **Innovation in curricula and preparing learners for the 21st century** – the researcher proposes innovation in content based on three main principles: (1) up to date and relevant literacy in areas of knowledge and content (2) skills in personal cognitive abilities, and socio-emotional areas (3) emphasis on education and social, communitarian and individual values. Innovation in these three areas of knowledge and learners' value system are meant to respond appropriately to gaps in knowledge and abilities versus leading educational policy countries around the world. According to this proposal, it is recommended that the Ministry of Education adopt the following innovation:

   3.1 **Up to date and relevant literacy in areas of knowledge and content** study subjects will include innovation in the arts; humanities and social sciences and emphasis on languages; emphasis on STEM (science, technology, and mathematics) subjects; subjects in the field of health and welfare (physical education, education for health, religion, and ethics); subjects aimed at the labor market, as well as education for and career counselling and business management.

   Interdisciplinary learning: as part of innovation, it is proposed that study areas be based on 21st century sills of integrative learning and not isolated knowledge areas.

   3.2 **Skills in personal cognitive and socio-emotional abilities**: in the researcher's opinion, **thinking skills and strategies are the essential component in developing new skills**. Therefore, she proposes

      3.2.1 **Developing: Significant abilities** to develop critical, independent, and creative thinking, as well as analysis and problem-solving skills. It is important to teach thinking as an integral part of all learning subjects and this combined with specific learning material and adapted to learning stage and students' ages.

      3.2.2 **Emphasis on different types of thinking**: emphasis on developing strategic thinking, emphasis on reflective thinking, developing spatial-visual thinking that is critical for design and technology studies, whereas computational thinking and algorithmic thinking are needed to be taught in computer studies.

      Instilling social and emotional skills contributes to individuals' ability to formulate their personalities and cope with an uncertain and frequently changing reality. These skills include personality skills such as: self-efficacy, self-awareness, decision making skills and interpersonal skills such as empathy and cooperation.

Teaching knowledge, skills and employing them rely on a value. Therefore, it is recommended integrating learning innovation to develop value skills such as curiosity, initiative,

determination, and perseverance, and at a social level, skills such as tolerance of others, socio-cultural awareness, and ethics.

4. **Status of teachers in Israel and their training courses**. For this variable, the researcher proposes learning from all those countries reviewed in this study, and adopt support and control policies, selection processes and educating and accompanying teachers in their first years in the system. Therefore, innovative proposals include the following principles:
   4.1 **Conceptualizing "teacher development" as a system** – teachers' development systems will include adapted policy decisions balancing between various areas including recruiting quality candidates to the profession, their education, absorption, professional development, assessment and developing professional pathways and preventing their dropping out from the system.
   4.2 **Teaching standards as a strategy to build a profession** – it is recommended that standard be reformulated with regard to what teachers must learn and be capable of doing. The working theory is that this type of standards, guiding awarding of teaching certificate and teaching registration, are likely to guide teacher learning and affect entry to and remaining in the profession.
   4.3 **Applying innovation** will be expressed in the following stages and components:
      4.3.1 **Recruiting supply of teachers -** strengthening the teaching profession obligates reciprocity between standards, education, and support. The government must produce a feasibility equation of candidates for teaching professions. Therefore, it is expected that there will be significant financial support at the stage of selecting candidates and requirements that they all complete a comprehensive and intensive training program. All will receive the same quality training program, but teaching will be considered as a prestigious profession and only 1 in 4 applicants will be accepted (similar to the policy in Finland). Additionally generous support in the form of salaries, training, books and laptops. Commitment of 3-5 years' teaching according to type of program (Singapore model).
      4.3.2 **Education process** – teacher education will continue to postgraduate degree level (model in Finland) before starting work. Additional step of receiving teacher certificate and registration, and thus creating organized procedures between existing education programs at universities, even when there are other pathways offering completely different levels and types of education (model in U.S.A., Singapore, and Canada). The two-year extended postgraduate degree significantly

expands practical experience and deepens education to teach heterogeneous populations of student. It will be found that teachers will feel much more ready for the challenges facing the in classrooms at the end of such a program.

4.3.3 **Accompanied by ongoing professional development – absorption stage** – it is recommended that comprehensive support be given in which graduates are recognized and rewarded on a progressive scale, with a clear goal of supporting teachers in their first two years of work. New teachers will receive a "support pack" including mentoring, different course and peer support, general orientation, mentoring and professional development in key areas as identified by starting teachers.

If we present schematically these innovations, one can see that an innovative paradigm is proposed that does not exist in the Israeli education system and which, if adopted, will integrate more professional indicates that it is reasonable to assume their implications will also be on the rest of the system requiring refreshment and innovation. Structure of innovations and emphases are expressed in the model figure.

Figure 3.11. Innovation model for educational system in Israel

Source: made by the researcher

To conclude the innovation proposal, the education system requires, as stated, organizational systemic innovation and the state has a key role in encouraging and developing

innovation. Mariana Mazzucato, profession of economics from the University of Sussex showed in her book "*The Entrepreneurial State*" [Mazzucato] that a large part of significant technological inventions in our world, which we tend to ascribe to the private sector, were funded and developed mainly by the government sector. In terms of innovation in the paradigm of the system, the researcher refers to change aimed at the learning system, which invests resources in development and improving its performance, based on research and innovative data, in which experiments are conducted in new ideas and methods. In addition, it has organizational mechanisms and budgets encouraging learning, renewal, creativity, and cooperation that can lead to breakthroughs. The proposed innovative infrastructure includes processes arranged between relevant units and 4 main research variables, whose application in the system can present that innovative activity is not temporary, coincidental or one-time, but activities that explore and teaching, and if necessary, will spread to and expand the entire system.

III.3. Applying innovative paradigms in the Israeli educational system.

The new paradigms suggested by the researcher have already been applied at a number of education institutions, but not comprehensively enough to represent a clear policy in which the Israeli Ministry of Education has declared its initiative about innovations and insights learnt both by the education system in Finland and in other countries. Many delegations over the years (2012-2017) have travelled for "collegial learning" visits including the researcher herself in April 2019, as part of the central region of the Ministry of Education, on a professional visit to the Finnish education system, and was exposed to the same trends and processes the system espouses (education continuum from preschool age to university; teacher education program; synergy between ages and programs). Despite this, there is no process of systemic adoption, and in the best cases, it relies on local initiatives like some of those that will be presented in this sub-chapter. Before presenting examples of assimilating the ideas of this thesis in educational institutions, the researcher will present the ideas and messages the Israeli education system seeks to implement. The idea is to present a master program to implement a renewed educational policy based on the following principles and measurements:

1. **Improve the status of teaching in Israel** – an improvement program based on the ideas revealed in chapter 3.1 and including steps at a government level to raise the statutory and image status of teachers in Israel, and automatically also the status of education in Israel:
   1.1. Improve salary conditions – similarly to models existing in reviewed countries (Singapore, Canada, Finland) it is the government's duty to improve employment conditions of teachers and all educational staff. Firstly, it is appropriate to consider

shifting teacher employment from the state to local authorities and educational authorities, and in the future even to schools themselves. It appears that it is better that this authority should pass to the hands of local authorities more closely linked to schools both in terms of budgets and operations. The system must allow institution principals to recruit teachers on personal contracts where both sides are interested in this, obviously in subjects in which there is a local or national shortage. Personal contracts will allow institution principals to find answers that will meet the needs of their institution by paying higher salaries independent of seniority or qualifications.

1.2. Reestablish vocational education in Israel – from the moment graduates of vocational education systems go out into the employment market and fill workplaces, the status of education, and mainly the essentiality of the education system as "leverage" to the economy will raise its status in Israel. The recommendation to apply the innovation is made up of the following two steps:

1.2.1. Engineering-science route – a route serving as "*a foundation to continue studying in universities and technological colleges*". In such a route students will study "basic sciences" (physics, chemistry, biology) as an introductory subject like students specializing on the theoretical-science route. These students will be directed to future knowledge economy professions.

1.2.2. Technology route – a route serving as "*a foundation to promote future learning and employment*" based on advanced technology and contributing to students themselves, their communities, and the national economy. Regarding curricula in this route, it should be noted that they will rely on the assumption that the nature of professional knowledge and skills will change over time, and that they will be a continuum to study "technological sciences" subjects, as a compulsory introduction to the route. These students too will be directed to future knowledge economy professions with an emphasis on technical-technological roles.

1.2.3. Employment route – a route serving as "*a foundation to develop an employment career throughout a student's life and allows him and his family social and economic mobility*". In relation to this route too, it should be noted that it will be necessary to study an introduction subject (like the technological routes). These routes will combine a noticeable component of practical, relevant, and up to date experience, to advance students to creative employment contributing to them, their families, and the national economy.

2. **Means of assessment and testing** – the recommendation to implement an innovative program to improve means of assessment and testing is based on the chapter headings presented in Chapter 3.1 and is mainly to change the general perception of testing and assessment as carried out currently in education systems. From the review and comparison to Finland and other countries, the researcher proposes an innovation that does not reject numerical means of assessment and testing, but rather seeks to emphasize a new paradigm to be implemented:
    2.1. Comprehensive and multidimensional assessment approach examining a diverse range of skills and skills and focuses on cognitive and ethical skills.
    2.2. Ongoing assessment approach, accompanying teaching-learning and thus encouraging meta-cognitive, reflective, and social processes.
    2.3. Assessment affiliated to the learning context in which it is conducted, examining genuine, authentic situations that are meaningful to learners.
    2.4. Assessment sensitive to differences between individuals and range of their abilities.
    2.5. Translating goals into assessment criteria. It is also possible to translate goals into general dimensions, and each dimension into assessment criteria.
    2.6. Decide on the relative weight of each criterion according to the importance of the goal and amount of time dedicated to achieving it during the teaching process.
    2.7. Detail each criterion into 3-5 well defined performance levels (standards).
    2.8. Divide criterion points between performance levels ascribed to it.

These suggestions will be passed on to decision makers both at a content and management level in educational regions.

3. **Curricula and preparing learners for the 21st century** – the researcher seeks to emphasize that curricula are required for meaningful reform, and she must re-conceptualize the basic concepts and various provisions the system must teach to learners. Below is a review of 21st century skills she proposes:
    3.1. Based on digital tools: in the pedagogical field there is a broad world of digital applications with the potential to make a noticeable contribution to learning processes. Among those are learning applications that are much more effective than learning notebooks and standard books, modern tools to analyze information, tools for efficient communication between teachers, students, parents, and other personnel as well as a diverse range of tools. The education system must adapt itself to the modern world and exploit the pedagogical possibilities found in these tools. Moreover – it is important to

emphasize that digital tools are central in the world outside the education system and ignoring them is likely to make school institutions irrelevant.

3.2. Transferring the source of knowledge from teachers to the internet: today, with infinite knowledge on the internet, the role of teachers is changing – from the authority holding most information in their hands, to a figure intended to help students trace and analyze knowledge acquired from various sources. This change can be expressed in the fact that most teaching will be dedicated to processing and analyzing knowledge students acquire from external sources by turning teachers from lecturers to mentors. Hence, in the digital age where vast amounts of knowledge are accessible on the internet – the place of teachers in the system changes from knowledge source who pass on certain contents to students, to mentors and creators supporting students in independent learning, exploratory and creative processes. In other words, educators are meant to instill independent learning skills that will remain relevant throughout life.

3.3. Transition from learning certain subjects to interdisciplinary and multidisciplinary studies: curricula today are based principally on a division into separate subjects, where on the whole there is no interaction between them. This approach leads to narrow views and sometimes to simplifying learning areas and types of possible solutions to problems. In contrast to what is accepted today – many researchers emphasize that curricula seeking to instill 21st century skills must encourage interdisciplinary and multidisciplinary studies. Such studies demand integration between different subjects, contents studied and methods acquired to analyze knowledge. Hence, for example – it is possible to address certain events from different aspects of social sciences – from historical, geographic, economic, and social aspects. Accordingly, it is possible to analyze different natural phenomena on a broad scientific basis – including mathematics, physics, chemistry and biology by examining relevant technological applications; and even address philosophical social and economic aspect of discovery.

3.4. Project based learning/ problem solving/ research/ curiosity: Transition from disciplinary learning intended to instill defined knowledge to broader studies intended to inculcate skills is especially complex as a result of the fact that it is customary to relate to defined knowledge as the basis of the pedagogical process, which allows methodical learning and clear assessment of learning outcomes. An alternative basis for the pedagogical process, much more suitable to 21st century demands, is learning based on students solving problems and carrying out projects, where 21st century skills are acquired and

exercised by meeting project challenges. In this manner knowledge and skills are assimilated by learners through experiential processes more relevant to individuals and their personal and unique worlds, by developing their curiosity.

4. **Status of teachers in Israel and their training route** – building a quality teaching force requires the education system to dedicate resources to attracting good people to the profession and train them to best fulfill their role. Demanding study courses and high thresholds for acceptance to the teaching profession, including registration and specialization tests, are means applied by many countries (Finland, Singapore, Canada, Holland, Estonia) to guarantee the quality of teaching staff and thus improve the prestige and status of the teaching profession. Nonetheless, with a shortage of teachers, there is concern that the number of candidates meeting this threshold will not meet the needs of the system and it will be forced to accept into teaching teachers who do not meet these conditions. Therefore, the researcher recommends making a number of changes to the policy of employing and training teachers to raise their status and image among the public and systems in Israel (at the same time as raising the status of education). Teachers are the performance factor of educational policy and serve as "ambassadors" of the education system to the learning audience. Therefore, it is recommended making the following changes:
   4.1. Strengthen the culture, policy, and status of teaching – the system's success in attracting talented people to teaching (or its failure) is ascribed to factors apparently outside the control of policy makers: history, culture, and status of the profession. In the specific context of large education systems, their success is in the special importance of education and their culture and the traditional respect given to teachers.
   4.2. Rebuild mechanisms to choose candidates for training – examine qualities that will allow identifying them before they enter teaching: high general level of literacy and mathematical ability, high interpersonal and communication skills, willingness to learn and desire to teach.
   4.3. Systematic recruitment processes – the state must manage the process of choosing student teachers. The state must examine candidates before they enter the training process. It is recommended carrying out a two-stage process. At the first stage, candidates undergo a national selection process. At the second stage every university selects its candidates from those who have passed the first stage. It is also recommended limiting the number of places on training course to establish a balance between supply of graduates and demand for them.

4.4. Budgetary control over the number of places – the researcher, following the argument in subchapter 3.1 about "over-education" in the system, recommends stopping some of the "funding taps" to limit the number of candidates, and as a result the supply of training places. This approach assumes that limiting supply will lead universities to operate strict selection processes to guarantee that only the best candidates are chosen. This approach works best apparently in England that defines the skills new teachers need, operates a strict system to guarantee quality and punishes training providers who do not meet required standards. All these incentivize training providers to operate strict selection processes.

4.5. Good starting salary – one of the essential components to attract appropriate people to the teaching field is a good starting salary. All the excellent educational systems pay comparable (at least) starting salaries with average earnings in OECD countries, relative to their gross national product per person.

In conclusion, the recommended changes to government and municipal education systems are possible and will contribute significantly to both national and local education systems. Today there are a number of localities/institutions that have already adopted the ideas of this thesis and I will present them according to the list of variables examined during this thesis: status of education in Israel in socio-economic contexts; means of assessment and testing, curricula and preparing learners for the 21st century; status of teachers in Israel and their training route.

Implementing innovation on the issue of the status of education in socio-economic contexts. Here we find that a number of localities and education institutions have an innovative approach to the place of education in decision making processes of the settlement. And strengthening the status of education both as a municipal policy and school policy are definitely expressed. Examples of institutions that have adopted the ideas of the thesis with regard to policy reinforced the status of education:

Lod municipality (where the researcher lives) – management decided to strengthen the status of education and therefore is taking a number of steps including different programs at core junctions of educational activity in the town. These actions include:

1. The town works to empower educational leadership and educational staff, by developing respectful and personal dialogue in teacher-student contact and creating a unique learning environment inviting creative and activating teaching. In this framework, the town encourages and initiates unique programs and various educational initiatives including:

1.1 Utilization and excellence programs.

1.2 Programs nurturing involvement and contribution to community.

1.3 Learning programs corresponding to the core locality's topic and general Ministry of Education content lines.

As well as benefitting the status of education, the education division promotes innovative pedagogy in the fields of science, technology, and information and communication technology, and provides a unique and adapted response to students with special needs. The division allows students and families adapted enrichment, support, diagnostic, counselling, and therapy services. The division's activities reflect its educational vision and are realized in a multi-year program corresponding with Ministry of Education programs. The education system aims for this vision and acts to realize it through cooperation and linking resources of all formal education factors in the town. An educational institution called "Scientific Future" is operated in the town and has reached management excellence as a result of its achievements: percentage achieving matriculation: 100%, percentage achieving excellent matriculation: 69.7%, dropout percentage: 0%, percentage taking 5-points English: 92.5%, percentage taking 5-points mathematics (highest level): 62.5%, the most popular enhanced subjects at the school and average grade in each subject: computer science: 91.38, physics: 87.96, chemistry: 87.58, average Israeli success measurement in education: 9.5 (2019 measurement – 9.8).

The educational institution also decided to change its means of testing and today has a different assessment policy, which is expressed by adopting the main ideas in this thesis with regard to a formative assessment. The assessment process and testing means are based today on the following figure.

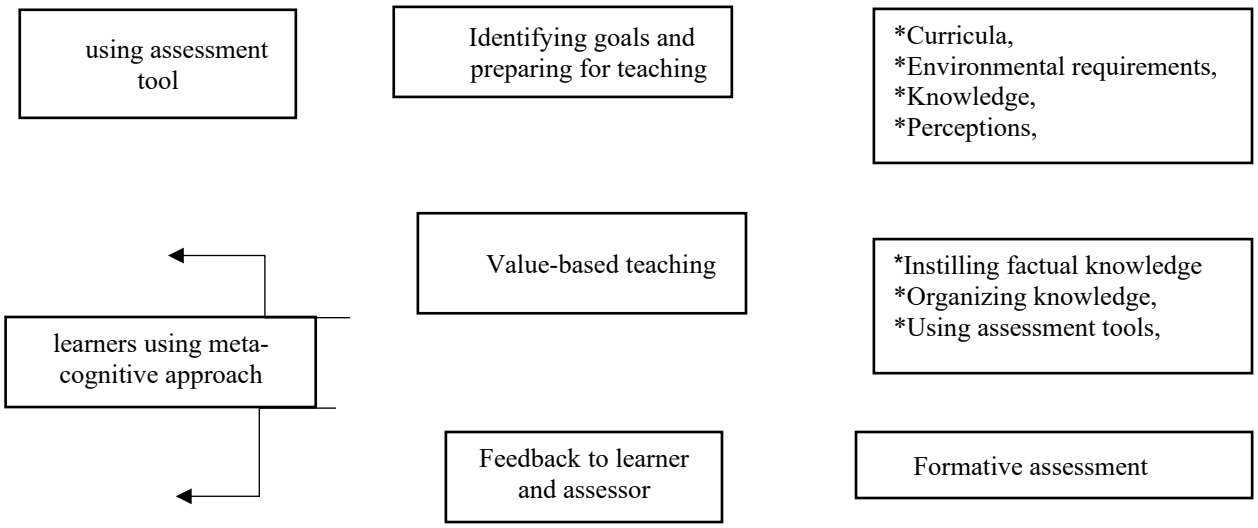


Figure 3.12. Educational institution model in the town of Lod (Israel)
Source: made by the researcher

Analysis of the innovation showed that the educational institution adopted some of the researcher's ideas and applied an innovative approach to assessment means based on continual dialogue between all stakeholders. The change in ways of testing led to the fact that assessment and testing processes were assimilated after a period of instilling an organizational assessment culture carried out through learning principles of formative assessment and how it is carried out. This was all done, according to the aforementioned, in a continuous dialogue and long-term organized learning. Therefore, test results and the success of the educational institution are not at all surprising.

Tira municipality – a town found in eastern Israel. The town has always promoted the issue of education and benefitted residents with a wide range and of educational activities for students and adults. From acquaintance with leaders of activity in the town we have learned that the central role of educational leadership is to lead education institutions educationally and pedagogically (preschool – graduates) to improve all students' education and learning. Five additional areas of management enable raising the status of and support for education: (a) formulate the future picture of educational institutions – vision and change management; (b) team leadership; (c) its management and professional development; (d) focus on the individual; (e) manage links between school and community. The town operates actively and has adopted the ideas in the thesis to strengthen the status of education recognizing that the power found in education to take individuals out of vicious circles, move them onto the right route that will contribute to their socio-economic abilities is real. Details of main actions:

- Formulating school educational view emphasizing requirements for high learning, social and personal-behavioral achievements; developing sense of self and collective efficacy; strong motivation to learn; encouraging learners' involvement in learning processed; promoting quality learning outputs that are meaningful to learners' growth.
- Developing school culture and ethos in the ethical-moral and civic-democratic behavior sphere accompanied by an emphasis of individual and group commitment to act based on recognizing diversity and equal opportunities for every individual to shine and establish a way of life rooted in recognizing the rights and obligations of every individual and social group, in the community and society.
- Defining educational and learning goals on the basis of mapping student needs and school community needs and ongoing follow up of everything linked to achieving goals, processes and means of realizing them.

- Developing basic skills of getting acquainted with cultural assets, world knowledge, research processes and high thinking skills by adapting suitable and diverse teaching-learning means and learning environments to support meaningful learning for all students.
- Designing educational institutions to be educating institutions nurturing children and youth friendship rooted in mutual respect, attentive and open discourse, cooperation and encouraging active initiative.
- Absorption, professional accompaniment, and teaching staff leadership aimed at revival and change processes from educational, teaching and learning centers.
- Leading assessment, reflective, feedback and measurement processes in the educational institution in everything relating to teaching, education and learning in classrooms, with the purpose of supporting improvements in teaching, learning and educational achievements.

The town operates **teaching and training arrangements for adults**. The municipal college in Tira is a center of learning and enrichment, operating for the benefit of town residents within the framework of the department for adult education, municipality community directorate and with the assistance of the Ministry for Social Equality. As "a learning town" whose motto is promoting education and knowledge acquisition, Tira is proud of the unique activities of its municipal college, allowing applicants to expand their knowledge, employment opportunities, career retraining and personal development.

Implementing assessment and testing methods innovation; Renewed curricula towards the 21st century. The researcher believes that ways of alternative assessment tools to assess progress, reflective and critical ability, meta-cognitive thinking and more. Alternative assessment is currently implemented in a number of schools by various factors in the educational framework: teachers, students, colleagues, and external experts. Although the issue of ways of assessment and testing methods in Israel is hardly debatable (although the statistical findings showed that the matter is requested by professionals), there are still places that were willing to adopt the research findings and try alternative teaching methods that they have experienced so far. Alternative assessment methods are employed in a number of elementary schools, junior high schools, and certain high school classes.

The Department of Education in the Tira Municipality has adopted a significant part of the ideas of this thesis, and after a few short months feedback has been received indicating a change in approach and/or perceptual paradigm regarding outputs created by the change. Table

3.2 below summarizes the changes implemented and feedback received during the school year 2021 – 2022.

Table 3.2. Old versus new education paradigm and participants' feedback

Criteria	Previous Paradigm	New Paradigm	Participants' Feedback
Change of assessment methods and testing	Tests and quizzes in each period (grade and quantitative assessment)	assessment. Adopting 360° formative assessment .process approach Involving stakeholders in the process	A decrease in the level of students' ;anxiety ;Sense of constructive criticism Increased level of motivation for ;learning Partnership in the learning process and ;pedagogical interaction
21st century-oriented curricula	Classical curricula with no link to the contemporary world of reality Frontal learning	Curricula based on economic applied knowledge (sciences, mathematics); Shift to research-based learning Interdisciplinarity between subjects (finding connections) Developing curricula to impart interpersonal skills technological capabilities	;Partnership within the study teams Interest and motivation in learning ;processes Raising level of interest in the study ;material, particularly in its application Emphasis on scientific-economic aspects in study materials and STEM subjects
Integrating vocational education (curricula renewal towards the 21st century)	Closing study frameworks for students and adults	Opening technological routes in high school frameworks (industry, metalworking, electronics systems, mechanics, electricity). Additionally, opening vocational training frameworks in computer subjects (software and .hardware) for adults	Students joining high school study frameworks and expressing high .satisfaction (December 2021) Collaboration with the Ministry of Economy and Industry for budgeting adult education Decrease in rate of unemployed in the .town

Source: made by the researcher

From the findings presented in the table, the researcher identified an intra-organizational process that has taken place in coordination with the administrative system of the Department of Education, and indeed, results are not surprising. The researcher wishes to present the challenges of the education system in Tira so as to continue the successful process that has already taken

place - the emphasis on improving teachers' capabilities and status (which has not yet been emphasized in the local system):

1. It is recommended planning and implementing a reform in the bodies entrusted with training of teaching candidates and the professional training of teachers in town (if not carried out by the national training institutions).

1.1 It is advisable to make sure that teachers who come to work in the local authority are well familiar with principles of adapting pedagogy to the 21st century. New teachers should experience on their own the content and teaching and learning methods for themselves they will be required to apply in class.

1.2 It is recommended monitoring the effectiveness and assimilation in classrooms of content, skills and approaches taught in in training.

2 It is recommended encouraging the formation of teacher communities for mutual support in implementing innovations in schools in the town. It is advisable to examine use of technological tools for the purpose of engaging in mutual learning processes among teachers (e.g., filming lessons and analyzing them retrospectively).

3 It is recommended creating an environment that supports teacher communities and individual teachers who try to promote unique pedagogy at the organizational level, financial resources, and physical conditions. The town's administration must provide effective incentives that will enable practical implementation pedagogical autonomy in schools.

4 It is recommended creating rigid incentives for the assimilation of advanced educational technology in schools according to clear standards. Ways must be found to cope with teachers who avoid adopting such technology.

Ramla - St. Joseph School – The city of Ramla has been an education leading authority for many years. Due to its problematic objective data (socio-economic composition) the city administration realized years ago that education is the best way to address the city's problems. The researcher proposed her ideas to the city's education administration, and it was decided to hold an urban experiment at St. Joseph School. The researcher suggested implementing the following ideas:

- Improving educational and academic achievements
- Preventing students' dropout educational institutions
- Reducing gaps in education between population groups
- Development scientific-technological education and creating a natural transition to vocational education

- Advancing students with special needs
- Constructing and developing advanced educational and learning environments and their development towards the challenges 21st century economy and employment
- Developing local educational leadership for implementation and application of future programs.

All of the topics are structured goals derived from the research variables and are, in fact, the outcome of a process in which the city, and in this case the school will make a change and adopt the ideas presented in this thesis. The main project at St. Joseph School began with a pilot in which the main emphasis was on strengthening teachers' status. For the success of the process, the following steps were taken:

1. **Recognition of the importance of the profession and its professional-social-image status**. Teachers' role in the present era, has changed beyond recognition. If in the past teachers were the sole source of knowledge for their students, then according to plan, today teachers in the school are learning facilitators, do not apply authoritative control but are rather in constant dialogue with their students towards constructing their knowledge and learning processes.
2. **Professional authority**. Teachers' professional and value authority is not a function of their very role, but is built in their interactions with their colleagues, students, and parents. Teachers have to work hard to gain their status, which may deter those seeking an instant status, and therefore the teacher will receive guidance through the regional inspectorate.
3. 360° open communication. Beyond teachers needing to acquire their status and gain trust their students' trust, they also need to gain parents' trust. Teachers in the educational institution involve parents in the conduct of school. One direction in which the school staff has chosen to improve teachers' status and turn teaching into a sought-after profession, is increasing trust in teachers and their professionalism. Mutual respect is the basis for dialogue between teachers and students, and between teachers and parents. An open respectful discourse, based on the recognition of teachers professional and value qualities now establishes the teachers' status and boosts the demand for this important profession among the teachers in the city.
4. **Professional autonomy (similar to the Finland model).** Trust in teachers' professionalism was also reflected in giving each of them greater autonomy, which allowed for initiative, diverse curricula writing options for developing curricula, teaching

and assessment methods, encouraging educational initiatives and "getting out of the box" in determining teaching regularity and learning spaces. Strengthening teachers' autonomy deepened their perception of ability and their sense of belonging to the education system.

Management in collaboration with the inspectorate and teaching staff created a model for implementing changes in the school, some of which were adopted from the ideas of the thesis. The following are the actions taken according to the new paradigm in comparison with the old paradigm.

Table 3.3. Old versus new education paradigm at the St. Joseph Educational Institution – 2021

Criterion	Previous Paradigm	New Paradigm	Outcome of Change
Teacher status upgrade	Exclusive source of knowledge based on frontal teaching and dependence on teacher feedback	Learning facilitator, class leader Conducting a continuous dialogue with students A source for regulating knowledge	Developing independent learners reviewing and examining their steps independent of teachers Developing learners' personal skills
Strengthening education and teacher status - contact with stakeholders	High parental involvement or severance of teacher-parent relationship	A partnership model that describes a situation of shared responsibility and authority between partners working to achieve a common goal - the development learners	.Rise in teachers' status Higher self-esteem and .professionalism Stable and professional organizational conduct, and work processes without parental .intervention
Plans for the 21st Century	Curricula accordance with a curriculum determined only by the Ministry of Education	Core subjects based on compliance with Ministry requirements. Development teachers and students' :cognitive skills Ability to absorb, process and organize information - understand, and analyze (analysis) and join (synthesis), critical thinking and .creative thinking Ability to represent knowledge in a-variety of ways Ability to apply knowledge in broad-"contexts - "elaboration Developing personal-emotional-skills - ability to internalize relevance from events and learning Interpersonal skills that will be reflected-in the ability to collaborate, work in a team, empathize with others, negotiate, solve local as well as global problems - ""Global competence	Teachers and students with creative and innovative abilities, Ways .of thinking Critical thinking, Problem .solving .Decision Making Teaching Leadership"" .and meta-cognition ICT Literacy

Source: made by the researcher

The table shows that the educational institution chose to begin the overall change and implementation of educational innovation through the development of teachers' status. The educational institution cannot directly influence teachers' training because the state is responsible for it. On the other hand, the institution directs teachers to adapt itself to the needs of the local system, and thus contributes to the process. The educational institution's belief is that developing teachers' status will lead teachers' ability to bring about various changes both in ways of assessment and testing, updating, and developing curricula to the 21st century, and obviously, and ultimately raising the status of education. Figure 3.10 presents St. Joseph Educational Institution's application model.

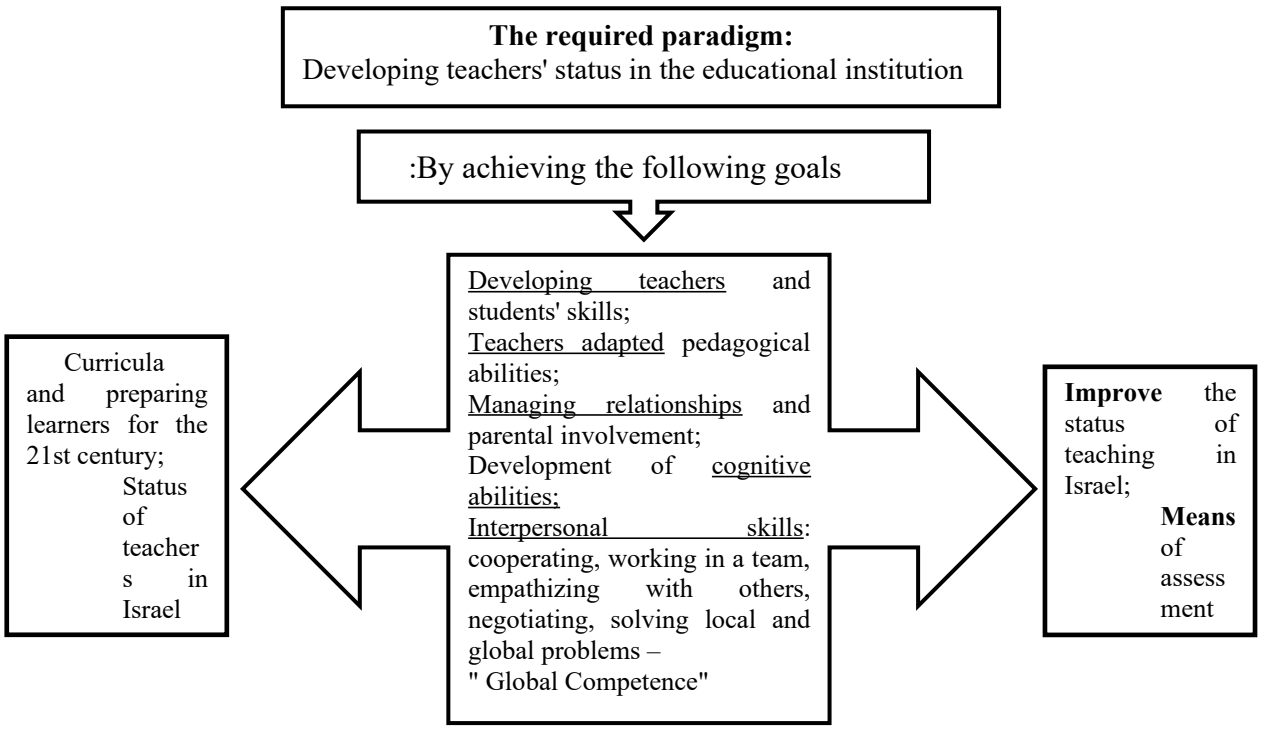


Figure 3.13. St. Joseph Educational Institution's application model

Source: made by the researcher

In the researcher's opinion, this action pattern, as seen in the figure, also has an indirect effect on the research variables and insights, because enhancing teachers' status through policies to leading advanced educational paradigms in the school will naturally pave the way for their ability to influence and update curricula, as well as refreshing ways of teaching and testing. The impressions that emerged from the model applied at St. Joseph School are highly positive, and statements such as "Our status in the community has risen significantly". "We now feel much more beneficial to ourselves and the students due to the change that has taken place."

To summarize the applications in educational institutions, the research wishes to emphasize that the research findings should not only be "as experimental editions" for a limited number of educational institutions but rather an integral part of changing the overall educational policy of the education establishment in Israel. The applications in the selected educational institutions have highlighted the importance of the existence of innovative educational paradigms, which are already implemented in countries such as Finland and other countries on the one hand, but on the other hand require adaptation to Israeli work culture.

The importance of teachers in the educational process has always been most central. The main conclusion that emerges from the stage of applying the idea suggested in this thesis, is that the characteristics of education systems that managed to improve and become leading systems in the world were actually in the idea that "the quality of an education system cannot exceed the quality of its teachers" [64].

This insight is especially true with regard to an education system required in the 21st century, emphasizing students' acquiring and improving skills rather than specific contents that students must acquire. The pedagogical staff should be able to adapt to permutations and changes in teaching and learning methods. The difficulty is particularly great when it comes to technological applications, since the younger generation was born and raised in a digital environment, while the generation of teachers in Israel is still considered "immigrants" in the technological-economic-employment world.

III.4. Conclusions of chapter III.

1. Out of the first section in the third chapter, the researcher concludes that the reviewed countries have begun the educational paradigm change in starting points similar to the current status in Israel. Singapore, which until the late 1990s was a failing country in economical – educational aspects, has made a comprehensive change of the entire economical – social – occupational and educational system, and now it is a country that leads both in international grades and in educational approaches that bring innovative models and role model. The ideas of "vision for the nation", "vision for education" and system improving strategies have created successful organizational model whose "fruits" are received in the economic data. It has also happened in Canada, where it was decided reducing policy control and direction by the government, and empowering the districts and provinces to self-management (fig. 3.1). the third country reviewed was the United States, which although it does not excel in managing its educational establishment, the leap in investment in public education and strengthening the equality aspect (fig. 3.2) are considered leading steps to

rehabilitate the education system in the country, and then bringing it to excellence based on international indicators. Table 3.1 presents comparison and summary of the solution review the countries presents.

2. In order to have a comprehensive image including the literature – theoretic review, analyzing pedagogic - managerial data and findings as part of comparing education policy in the two countries (Finland – Israel), and review additional countries, the researcher has decided to add field people opinion that are the educational teams and officials. Therefore, she had a comprehensive (quantitative) survey of about 158 teachers, principals and supervisors. The survey questionnaire was legally and regulatory validated by the "head scientist" department in the Ministry of Education. The research findings showed a reality that was not far from the researcher point of view, and indeed the findings were examined in statistical – quantitative tests. The demographic question chapter indicated interesting findings, which have indicated that the number of women is larger than the number of men, namely, the profession nature in Israel is mainly feminine.an additional datum, a little problematic and concerning (but not surprising), is that the participants (staff) average age is over 50, namely it is a population that has professional experience and wide perspective, with long years observation on the Israeli system.
3. In analyzing questions 7-12, the researcher first concludes there is understanding of the tight connection between education and economy, and that the theories connecting the two are known to the educational staffs, in all roles (teachers – managers – supervisors). In addition, the governmental effort for the educational system and the budgets invested in the educational establishment are acknowledged. A prominent issue is **budget distribution**, and the question of equal distribution where most education employees indicate inequality in the system and many years preference of Jewish sectors over other sectors. The researcher concludes from the finding analysis and personal acquaintance that the questionnaire data reflect existing reality which is a big obstacle in the success of education system and its products – results (fig. 3.3). the question findings focused on the research variables, and it may be concluded that the staffs see great benefit in changing student examination and evaluation methods. In addition, the staffs see (without role differences or organizational hierarchy) that perceptions and paradigms regarding teacher status and training should be changed, and of course almost nobody objected curricula refresh and change for the 21st century.

4. The survey questionnaire was analyzed based on several statistical tests in order to improve and focus each group variable validity. The tests performed included: T-test (appendix No. 6), Anova Test (appendix No. 7) and Spearman Correlation (fig. 3.7). the researcher examined optional correlations between the variables in order to reach the most relevant factors that treating them will change the educational map in Israel and maybe even improve the educational system like in Finland. The Spearman Correlation test (fig. 3.7) indicated several consistent and prominent variables, which strategic educational change that will cause political moves in education, may lead the system to success and bring it out of over 30 years crisis. These factors include the "education generator" (teaching quality, content quality, teaching staff quality and professionalism) and the administration policy. Figure 3.7 presents the statistical significance of the factors compered to policy change result.
5. The section discussing the renewed education paradigms presents several education institutes where the managerial echelon has adopted some of the thesis ideas and adjusted it to the local and objective characteristics of this educational institute. The researcher concludes that only educational leaders leading (sometimes with direct intervention) will make the required changes. The first presented case is of the educational institute in the researcher living town, Lod. An educational institute in this town chose to focus on changing examination and evaluation methods, and instead of the classic method accustomed in in the Israeli establishment, the formative evaluation approach was integrated and formed a process of goals identification, renewed evaluation and measurement tool use (not only qualitative – numerical), curricula examination, environmental requirements preparation and analysis, personality skills imparting and transition to develop meta-cognitive approach by the learners. It is a great example for an organization that takes an idea (research variable) creates and adjust it an application (fig. 3.10).
6. Additional applications of the educational paradigms were also in the city of Tira that has education which went through drastic change due to educational leadership intervention supported by the local authority. In the educational, that has adopted the thesis ideas, they chose to focus on three main aspects out of all idea: changing evaluation and examination methods, curricula refresh and change for the 21st century and additional aspect adjusted to two age groups (adults and children) – vocational education integration (as part of curricula innovation for the 21st century). The educational and political leaders in town thought these three ideas are central, require immediate treatment and possible in current social – political contexts. They had carefully planned the budgets and standards for staffing appropriate

personnel, and now they are in the first change stages. Table 3.2 compare the "*old*" paradigms and the new ones, and the feedback from the field. There is great satisfaction from the change products and stakeholders (teachers, officials, local authority, students and parents) cooperation is high. The researcher concludes here too that the update is blessed and makes renewed interaction in applying educational policy adjusted to the 21st century.

7. The city of Ramla has applied an additional educational paradigm in *Saint Josef* educational institute. This institute is known for being very open to educational advanced ideas and they have adopted some of the thesis ideas, and above all the idea (variable) relating to the teacher status, or rather, improving teacher status. The educational staff showed great sympathy to research recommendations and even asked "where were these ideas before?". "Brain Storming" discussions were performed in the educational institute and the meetings products have yield a model that its perceptual vision increases teacher status, and thus will directly influence other indices (which are also part of the ideas / research variables). This model (fig. 3.10) has won the institute management recognition and was approved by the local authority, and it is implemented since the beginning of the current study year, 2021-2022. The reactions for these processes are great. There were no difficulties found in applying the teacher ideas and the cooperation of all factors brings satisfaction and policy change that may last a long time.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

1. The 21st century is characterized by substantial and rapid changes in diverse life areas. Many professions and labor previously carried out by people have undergone automation, as well as a sharp transition to digital-computerizes field. Against this background, there is worldwide discourse about the need to make changes in the education system, and redesign it on the basis of curricula focusing of developing and strengthening relevant skills and not instilling defined contents. Researchers and research results believe that educational policy and systems should focus on strengthening essential skills for successful integration into 21st century society and economy. These processes, as the researcher concludes, are driven by the dramatic presence of globalization characterized by negative and positive aspects. Among others, the need to develop human capital in every country stands out. This trend is getting stronger, in light of needed change in family and national income sources from classic to modern industry, known as knowledge economy professions. These processes created an approach change in educational systems, and from a global economic report conducted by McKinsey in 2019 [237, it emerged that there is an increasing trend of investment in education in all systems and at all levels, as a result of the need to meet economic goals, internal national social needs, and growing competition between countries.
2. Changes and strategic reform in education have become a byword in every country's academic-philosophical discourse, and the idea of increase investment in education, particularly from a budgetary point of view, has proved not necessarily being efficient and unequivocal. The researcher has concluded from the academic discussion presented in chapter one and as highlighted in her article "Teacher status in Finland" [105], strategic reform or change in the educational world, or establishment, is a highly complicated process. Its success or failure depends on a "reciprocal interface" between the features of change itself, and the educational environment it seeks to change. On the other hand, it is greatly dependent on reciprocal relations between the educational "field" in its entirety, and local government, responsible for setting out policy. Education needs clear and consistent policy. Policy that provides fair and ongoing funding, envelops an organizational culture aimed at excellence and achievements, investment in human capital, professional support, and political support to make and create desired changes and processes. Small and large countries have made strategic changes in their educational spaces as a consequence of socio-economic insights. Evidence of this is that about 50 years ago, Singapore, Canada and Finland had

failing educational systems. Finland had one of the weakest economies in Europe and Singapore had suffered from ongoing civil war. Today these are two of the remarkable educational powers in the world.

3. Diverse aspects and features influence system's conduct and success. The researcher sought to examine and analyze four main criteria, which constituted the research variables, according to which the Israeli and Finnish education systems would be compared, to find the main factors to strengthen the Israeli system, to which the researcher belongs. The first criterion discusses the status of education in the country. From the literature review, the researcher concluded that some countries put education at the top of their priorities believing, and sometimes owing to circumstantial necessity, in its enormous future contribution to human capital and its socio-cultural-economic effects and all other civic areas. Other researchers Waldow [226], Hancock [122], Adam [2], Blass [8] share this view. According to them, there is a cause-effect correlation between investment in education and national socio-economic output, not only financially (as presented in the previous chapter), but in government and social attitudes to developing human capital in the country. Such a strategic decision that forces/leads policy makers to change the public agenda and work towards improving the overall education system.
4. The second criterion, presented as a research variable is the effect of teaching quality, leading human capital, on the systems. The best educational systems consistently attract talented human capital to the teaching professions, government arrangements leading to the best student achievements at all ages (kindergarten – higher education). These countries, in the opinion of the researcher, take these steps through strictly filtering those entering the training process, developing efficient processes to select suitable candidates, and paying good salaries to starting teachers. Moreover, the researcher concluded from what Keshti, Arieli & Shelsky [21] said that systems performing these basic steps well, increase the profession's prestige and ability to attract even better candidates. According to Ball [62], the quality of any educational system depends on the quality of its teachers. Evidence that integrating the right people into the profession is a critical factor for high performance are both anecdotal and statistical [82; 34]. Of all the countries who training processes were reviewed in depth (South Korea, Singapore, Hong Kong, U.S.A., Britain, and Canada), it is possible to conclude that a multidimensional process occurs combining national systems (education, economy, employment) in favor of utilizing candidates' abilities to "earn" the best.

5. As a result, the researcher, in her article “Incentives and Rewards for Teachers, The Case of the Israeli Education System” [103], presented an overall view of different educational systems and revealed common strategies and especially successful methods of attracting good candidates to teaching. For example, Britain that increased the supply of quality teachers when it employed marketing and recruitment tactics from the business sector. Further to this approach, it was found that most systems leave place for mistakes and develop mechanisms to remove bad teachers from the system. The researcher seeks to add that almost all the best educational systems operate on two central axes. The one, they develop efficient mechanisms to choose and train teachers, and the second they ensure a rewarding salary from the start of their employment. These two axes have a clear and proven effect on the quality of people entering teaching. These features are often missing in less successful systems.
6. The Israeli and Finnish education systems were reviewed in the literature review chapter, and later in the comparative analysis chapter. The findings revealed a fundamental-systemic difference between two worldviews. Changes in education policy lines, and **the status of education** in its entirety expressed by perceptual gaps in the system’s structures (Figures 2.3; 2.7), national approach to system funding (Tables 2.1; 2.2) and implications thereof both on the side of private expenditure on education and the economic-employment side. The researcher concluded that the source of these perceptual gaps was overall attitudes of economic-educational policy makers and leaders, educational system’s elected and leaders, and their status in each country’s socio-cultural tapestry. This difference, the researcher adds, is expressed in the approach to reciprocal relations between the economic-employment system (Figures 2.2; 2.4; 2.6; 2.8) and the education system’s role. Gaps begin in the system’s structure, its historical roots and population-demographic makeup. The researcher concluded in her comparison of systems, that the Israeli system is highly centralized, characterized by perceptual centralization broadcasting lack of trust in educational framework. All the doctrinal areas of the education world in Israel (Figure 2.7) are concentrated in the hands of the “pedagogical secretariat” and only it leads curricula development, without any independent thinking or action for education framework (kindergarten – high school). In contrast, the Finnish system (Figure 2.3) is open, authority is devolved and the “field” cooperates in decisions about required pedagogy, including teacher and teaching assessment processes. Likewise, the Finnish system revitalizes curricula every four years to update them and maintain a fluent link with its economic-employment system (a topic that has almost no expression in the Israeli system).

7. From an analysis of the second variable's finding, the research concluded that Finland designed means of examination based on an inbuilt and gradual "difficulty scale", only commencing at elementary school age, and increasing. This approach was the system's wish to "support pupils' growth towards humanity and morally responsible society and provide them with the knowledge and skills needed in their lives" [109; 240]. Therefore, authority for educational bodies is devolved locally to those who best know their target audience. Educational staff have pedagogical independence, which needs to meet quality supervision standards that are constructive and not critical. In contrast to this is the Israeli approach, from which the researcher concluded that the view in Israel is means to examine outputs and result quantitatively. In other words, a systematic approach versus a results-led approach (which in most cases is also immediate). These gaps in approach are expressed in international test results that have shown huge gaps over years with Finland (Figure 2.10). It should be noted and remembered, and part of the conclusions, that Israel's low results derive from gaps between populations in Israeli society. The Israeli establishment has not known over all these years how to advance and nurture minorities (Arab society, Figure 2.9), and therefore, over the years knowledge and ability gaps have been created that influence until now the employment-work productivity system and has implications for the economy.
8. The difference between the two systems also appears in the differences and gaps related to the third variable, updating **curricula, and preparing learners for the 21st century**. Data and program findings presented, the researcher concluded, show that Finland operates according to the OECD's Project Education 2030 [OECD's Project Education 2030], and close to its accompanying strategy regarding core components: literacy in knowledge areas, thinking and socio-emotional skills, and education towards values at social and individual levels. The Finnish government directs curricula according to these content factors (Figure 2.12) from which overall policy is derived to revitalize or renew contents (Subject committees, Figure 2.13), and required teaching methods. The conclusion arising from the summary of Finnish features (Table 2.4) is that the state promotes educational innovation, organizational transparency, equality, and pluralism in its approach to curricula and the need to adapt learners to 21st century demands. The state of Israel, in contrast, although it too adapted the principles of the OECD's education department (Figure 2.13), has not translated them into any fundamental changes. The system remains centralized (Figure 2.14), examination means remain as they were, and there is no fundamental or purposeful

discussion about changing/updating curricula. Adapted strategy remains in the 1980s, and except for "cosmetic" changes, there has been no perceptual revolution (Table 2.5).

9. Addressing the fourth variable discussing **teacher status**, and training process, the researcher concluded that in this case too, there is a practical difference deriving as a consequence of the gaps in the previous three variables. In other words, the difference in the status of education in each country, continuing with government strategy and funding policy, lack of equality with regarded to weakened population, continuing with examination means, and their effect on updating-revitalizing-innovating curricula, are all suggested as an "explanation" for the status of teachers in its employment system and social status. In Finnish society, teachers' status is high, hence quality human capital is attracted to teacher training, which allows meticulous selection processes, and advance, at the end of the process, on the best to teaching. In contrast, the status of teachers in Israel is at an unprecedented low (February 2022). Society's attitude to teaching staff is embarrassing and outrageous, and therefore the system's best is fleeing. Many candidates who are not fit to teach are drawn into the educational system, and hence training requirements are absolutely minimal (to fill positions in institutions). Thus, the Israeli education system remains in cause-effect cycle to this day, without any genuine effort or willingness to exit this situation.
10. Models and solutions proposed in the third chapter, and describing successful models applied in a number of countries that new how to develop and promote innovate educational policy, with a starting point of national level educational crisis, such as Israel's today. The chosen countries were Singapore, Canada, and the United States. The research emphasized that these countries were chosen following a strategic crisis in their educational systems similar to Israel, and in the end had similar characteristics regarding the four research variables analyzed. Singapore is known today as a leading country in its education system, with excellent results in all examined parameters in all international tests. Additionally, it is flourishing economically and technologically and is slowly reaching a permanent place among leading countries around the world. The country changed its educational policy and upgraded all indicators corresponding to the examined research variables (Teach Less, Learn More program). Canada, mainly in the province of Ontario, but in others too, developed and education management model that also provides an appropriate response to the examined research variables, with an emphasis on full equality, transparency, and an organizational culture of systemic openness, successfully developed a stable and progressive educational system (as presented in Figure 3.1). The U.S.A. with a heterogeneous and multicultural

population experienced a huge crisis in the public education system in the 1990s. The start of the 2000s saw a perceptual and assessment turning point and comprehensive reform. To focus, a strategic vision was written, quantified in policy, part of which set down three main directions for the development of an innovative system (Figure 3.2). The researcher, in her article " Equal opportunities in the educational sphere of Israel" [104], also presented the general directions surrounding reform in the U.S.A. and compared them to what was happening in Israel. Table 3.1 summarizes the three countries beneficial solutions and seeks for them to be adopted in the Israeli system.

11. To consolidate an overall and integrative program rooted in interdisciplinary solutions, the researcher decided to conduct a quantitative study employing a survey questionnaire as the research tool, which produced a broader and more profound picture from the “field” – teaching staff and key role-holders in the system. Questionnaire output would give the researcher an enveloping picture to prove or refute the findings arising in the comparative study whose results were analyzed and raised in the second chapter. Therefore, she distributed a questionnaire approved by Israel’s chief scientist (organization parallel to ANACEK. The main conclusions arising from this part were not surprising and in fact reinforced the findings throughout the literature review, comparative analysis between Finland and Israel, and presentation of administrative solutions and models applied in countries presented. 158 survey participants (principals, coordinators, inspectors, and teachers) pointed to inequalities in funding gaps and investment in the Israeli system (Figure 3.4). The drawback of the Israeli system compared to assessment and testing means between Israel and Finland (Figure 3.5), and results of the regression model (Figure 3.6), which testified to the factors linking quality of teaching systems and meats and how they are tested, quality and updating of content, quality, and professionalism of teaching staff **together with** other factors (funding/investment/reducing gaps and policy of equality) linking government policy are what will lead to change. Policy must be expressed in a “leveraging” process of the status of education among decision makers, and funding investment in the right places, will lead to improved and changed policy.
12. Contents of the first chapter’s literature review, together with findings of the comparative analysis between the two countries conducted in the second chapter, presentation of models and solutions from other countries, and findings from quantitative research conducted with educational staff in Israel, raise the conclusion that the research hypothesis was proven, in other words, was found to be correct. This argument is based on the fact that a direct and

causative correlation, accompanied by reciprocal influences between research variables, was found. These influences include educational policy lines expressed in a comparison **between** Israel and Finland in relation to everything covering the status of education in Israel (including funding implications), testing and assessment policy, paradigms about curricula and preparing learners for the 21st century, teachers' status and how they are trained, **and** the state of the educational system in Israel. The Israeli education establishment has reached a point where perceptual change is necessary – including to develop an appropriate and innovative educational system that will meet the socio-economic challenges facing Israeli citizens in the 21st century. Therefore, these findings prove the researcher's hypotheses and have led her to propose a paradigm change in education in Israel.

Recommendations

1. The researcher recommends a comprehensive plan that embraces the involvement of the required government ministries and does not rely solely on a Ministry of Education master plan. The reason for all lies in the fact that structural and perceptual reform will succeed only in the formulation of an orderly policy, over years, based on interdisciplinary treatment of all government systems, with the involvement of the business-industrial sector, and the third sector. The study recommendations will address each of the four study variables. As for strengthening **the status of education in Israel**, the researcher recommends following the following sections:

   1.1 Orderly and consistent data collection about excessive education – There is a need to collect data on the higher education training processes, and to provide a series of incentives that steer behavior towards of employment-adapted education. Such an examination will be done by examining the average wage, median wage, and employment position of the acquired profession. This also calls for government and / or its auxiliary units (local authorities) create deliberate discrimination of budgets and investments for populations that are known as beneficial to the economy and society, for example, weakened populations on a demographic and ethnic basis.

   1.2 Demand to change tertiary education institutions budgeting model - Today, most of the revenue of subsidized universities and colleges comes from direct government budgets. This means lower budgeting for study tracks where the education premium is low. The idea is to increase the status and value of the relevant economy building education, and not to pursue a policy by which the contribution of many of the educated population is not productive, and thus the opposite step is taken.

1.3 Multiple repeated investment in the vocational training system. At the same time as reducing the subsidies for academic routes in professions with a risk of unemployment, increased budgets should be directed to the vocational training system, in order to make it more attractive to relevant students, and for professional conversions for an adult population with irrelevant occupations.

1.3.1 **Re-establishment and increased establishment of vocational education in Israel within educational institutions** while adapting it to the professions and especially skills required in the 21st century. This procedure will be part of the required change also for updating and refreshing curricula. The required emphases in reopening vocational training routes are: involvement of schools - vocational training can be an additional route for students of various personal and cognitive abilities; Equal education for all - the vocational training system will be equal in opportunities and investment of infrastructure (equipment and teachers) equally and uniformly for all, without discriminating specific populations. These series of and further steps, will strengthen the status of education and vocational training in Israel because they will create a new equation of socio-economic status, which on the one hand invests in the educational side and on the other hand enjoys well-being and family.

2. The obviously emerging recommendation regarding a change in **assessment policy and methods of examination** in the educational institutions should be varied, adapted to teaching methods and accompanied by constant feedback and dialogue between students and teachers. These ways are important for assessing achievements and for receiving ongoing feedback on teaching and learning. The researcher recommends the following steps:

2.1 The assessment of achievements will be done throughout the learning process and will be called **formative assessment**. The evaluation will take place while providing detailed feedback to promote learning and improve teaching. However, matriculation exams naturally carry considerable weight (as is customary in Israel) in writing and in the laboratory (whose name will be a **summative assessment**).

2.2 It is recommended integrating an innovative procedure called an assessment process for learning, including: (1) planning teaching and learning processes (2) setting goals, whose level of achievement that is to be assessed (3) designing tasks and setting criteria according to which each task will be assessed. (4) Execution while producing constructive feedback (5) identifying strengths alongside difficulties and failures and redesigning the necessary steps. In this assessment process,

learners should understand in advance what is expected of them in the areas of content and learning and thinking skills, where they are supposed to go and in what ways they will be able to achieve the goals they were partners to setting. Learners will be active partners during learning and will thereby improve their comprehension performance in the material being taught.

2.3 Hence the researcher seeks to convey a message that derives from this perception of the essence of assessment, it is suggested to address the following aspects:

2.3.1 Maintaining the connection between teaching, learning and assessment processes (throughout the school years, Kindergarten - University).

2.3.2 Assessment will address learners' comprehension performance both in the field of content and in the field of thinking and learning skills.

2.3.3 Assessment will take place as part of an ongoing dialogue between teachers and students to prove their ability and understanding of learnt material and the learning processes (including self-assessment and peer assessment).

2.3.4 Assessment will include significant and challenging tasks, which will be performed in diverse learning environments (laboratory, computers, use of tools and internet-based methods).

3. The recommendation regarding **innovativeness in curricula and preparing learners for the 21st century** proposes innovation in the curriculum, reflecting extra-educational factors such as the Ministry of Economy and Industry, the business sector, and the third-social sector. The involvement of all stakeholders (government education - economy and employment - production and service sector) will lead to overall systemic involvement and commitment and up-to-date products in everything related to the training of human capital in Israel. Such cooperation, similar to that in Finland (Figures 2.7, 2.13) and Singapore, will establish an updated content policy program based on 3 main principles: (1) up-to-date and relevant literacy in content knowledge (2) personal cognition and socio-emotional skills (3) Emphasis on education and social, community and individual values. Innovation in the three knowledge areas and the learners' value systems will provide an appropriate response to competitiveness vis-à-vis countries leading educational policies in the world. According to the recommendation it is advised to act as follows:

3.1 Up-to-date and relevant literacy in the fields of knowledge and content knowledge: subjects will include innovation in the fields of the arts, humanities and social sciences with an emphasis on languages; Emphasis on STEM subjects (technology, science, and

mathematics); Subjects in health and welfare fields (physical education, health education, religion and ethics); Subjects directed at the labor market. Interdisciplinary learning: in the context of innovativeness, it is proposed that the fields of study will enhance 21st century skills emphasizing integrative knowledge and not detached fields of knowledge.

3.2 Skills in the field of personal cognition abilities, and in the socio-emotional field: (1) Significant abilities in the development of critical, independent, and creative thinking as well as on analysis and problem-solving skills. (2) Emphasis on different types of thinking. Imparting social and emotional skills contributes to an individual's ability to shape his or her personality and cope with a reality of uncertainty and frequent change. These skills include personal abilities such as: self-efficacy, self-awareness, decision-making ability, and interpersonal abilities such as empathy and cooperation.

3.3 Teaching knowledge and skills based on values - it is therefore recommended to combine academic innovativeness to develop value abilities such as curiosity, initiative, determination, and perseverance, both at the societal level such as tolerance for others, socio-cultural awareness, and ethics.

3.4 It is recommended to shift from studying subjects in separate fields of knowledge to interdisciplinary and multidisciplinary studies - the researcher recommends writing a curriculum that seeks to impart 21st century skills and is therefore required so as to encourage interdisciplinary and multidisciplinary studies. Such studies will lead to integration between the various subjects, the content taught in them and the methods acquired for the analysis of knowledge.

3.5 Project-Oriented Learning - Research Programs - An alternative basis for the pedagogical process, which is more suitable for future challenges, is problem-based learning and students performing, as 21st century skills are acquired and practiced while meeting project challenges

4. The researcher recommends, regarding enhancing teachers' status in Israel, and setting renewed training routes policy, changes that include adopting a supportive and control policy, screening, training, and accompanying teachers during their first years in the system. Hence, the innovativeness proposal includes the following principles:

4.1 Conceptualizing "teacher development" as a comprehensive systemic policy - the idea here is to look differently at teachers' development and create an orderly-binding-balanced and coordinated policy between recruiting quality candidates to the profession,

training and absorbing them, their professional development, assessing and developing their professional path and ensuring they do not drop out.

4.2 Re-standardizing the process of building a profession in the field of teaching - It is proposed that standards be redesigned regarding what teachers need to learn and be able to do. The theory of action maintains that such standards, which guide and condition the awarding a teaching certificate and teaching licensing, may guide teacher learning and affect the entry into the profession and perseverance. This policy will require budgetary commitment (teacher education institutions, Ministry of Economy and Industry) before enabling the development of such an innovation that shapes a new recruitment policy:

4.2.1 Increasing teachers' supply and recruitment - Strengthening the teaching profession requires reciprocity between standards, training, and support. The government must create a feasibility equation regarding candidates for teaching professions. Therefore, it is expected that there will be significant financial support at the candidate selection stage. All applicants will receive the same quality training program. In addition, generous support in the form of salary, guidance, books, and laptops

4.2.2 The training process - Teacher training will continue until a master's degree (model in Finland) is obtained before entering work. In addition, the process of obtaining a teaching certificate and teaching license will be extended (American model, Singapore, and Canada) and accompanied by a program that significantly expands practical experience and deepens training for teaching heterogeneous student populations. It will be found that teachers will feel much more prepared for the challenges they face in classrooms upon completion of this program.

4.2.3 Accompaniment in continuous professional development - The researcher recommends overall and comprehensive support whereby mentors who have received training at the training institution are recognized and rewarded on a promotion scale and have a clear mission to support beginner teachers in their first two years of work. New teachers will receive a "support package" including: mentoring, various courses and peer support, general orientation, tutoring and professional development in key areas as identified by the beginner teachers.

5. The researcher recommends transferring a considerable part of the management and operational authority of the education systems to local authorities. This recommendation derives from the fact that Israel is one of the leading OECD countries in the field of education

system centralization. Most educational decisions in Israel are made outside educational institutions. More precisely, 81% of them (CBS). About 69% of decisions are made by the government, and another 12% are made by the districts and local authorities. Principals and teaching staff have only 19% left - that is, one in five decisions. The State of Israel is ranked 4th out of 35 countries in the number of decisions made by government and 20th in the number of decisions made in educational institutions (kindergarten - high school).

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APPENDIX

Appendix No. 1.

The Survey questionnaire

Survey questionnaire: FINLAND AND ISRAEL: A COMPARATIVE ANALYSIS OF STRATEGIC EDUCATIONAL POLICY

Hello,

My name is Dasman El- Fahel and I conduct a Survey questionnaire for my PhD dissertation. My research theme is FINLAND AND ISRAEL: A COMPARATIVE ANALYSIS OF STRATEGIC EDUCATIONAL POLICY, and would like to distribute a survey questionnaire to teaching staffs, principals and supervisors. The questions subjects are: Personal details; Questions regarding the status of education in Israel in social - economic context; Questions regarding evaluation and examination methods; Questions regarding curricula and preparing the learner to the 21st century; Questions regarding teacher status in Israel and his training course; and general questions. Each question includes several answer options. The survey is anonymous and used for research purposes only. I will appreciate filling in the questionnaire by marking a circle around the most suitable answer.

Personal details:

1. **Gender:** a. Male - boy / b. Female - girl
2. **Age:** a. 21-30 b. 31-40 c. 41-50 d. 51+
3. **Education**: a. Senior teacher b. B.Ed. c. M.Ed. c. Ph.D. d. other
4. **Role in the education system:** a. Teacher b. Principal c. Supervisor
5. **Teaching subject:** a. social sciences b. Exact sciences c. foreign language d. Technological subject e. Discipline combination
6. **Employment education framework:** a. Elementary school b. Junior high school c. high school d. Ministry of education supervisor e. Integrated role (teaching + supervision)

Questions regarding the status of education in Israel in social - economic context

7. The level of education in Israel has direct impact on the economic and social abilities of the state.

Agree	*Moderately agree*	*Disagree*
1	2	3

8. There is a correlation between education level and investing in it, and the unemployment level and the economic product of Israel.

Agree	*Moderately agree*	*Disagree*
1	2	3

9. The Israeli government invests budgets to improve the educational system abilities.

Agree	*Moderately agree*	*Disagree*
1	2	3

10. The private expenditure for education, and inequality in the educational - social system in Israel cause educational gaps between students.

Agree	*Moderately agree*	*Disagree*
1	2	3

11. The Israeli government works hard to increase the education level of students regardless of their societies and cultures (Jews, Arabs, Ultra-Orthodox, periphery).

Agree	*Moderately agree*	*Disagree*
1	2	3

12. The Israeli educational establishment should act for all educational service components in full equally among all societies and cultures in order to increase the educational system positive impact on economy and society in Israel.

Agree	*Moderately agree*	*Disagree*
1	2	3

Questions regarding evaluation and examination methods

13. The policy of student's evaluation and examination methods in Israel is good and professional.

Agree	*Moderately agree*	*Disagree*
1	2	3

14. The Israeli policy of evaluation and examination methods which is based on numerical quantification of each product and the evaluation node harms the student on the long run.

Agree	*Moderately agree*	*Disagree*
1	2	3

15. There is a correlation between evaluation and examination policy and the decrease of student ability in tests, independent / hybrid (integrated teaching method developed during the COVID19 crisis) learning and the grade level in international tests.

Agree	*Moderately agree*	*Disagree*
1	2	3

16. I would like to learn about the evaluation and examination methods in other countries like Finland.

Agree	*Moderately agree*	*Disagree*
1	2	3

17. The education system based on research and teaching leads the student to the independence of thinking and develops personality skills.

Agree	*Moderately agree*	*Disagree*
1	2	3

18. The Israeli educational unit should change the methods of assessment and examination, develop students' skills; do not rush to evaluate them in grades and relative assessments, which usually depress the student's growth process.

Agree	*Moderately agree*	*Disagree*
1	2	3

Questions regarding curricula and preparing the learner to the 21st century

19. The Israeli education policy of selecting learning disciplines requires an immediate change.

Agree	*Moderately agree*	*Disagree*
1	2	3

20. Most learning disciplines in schools in Israel prepare the learner to his adult life.

Agree	*Moderately agree*	*Disagree*
1	2	3

21. There is no content - professional synchronization between educational contents of all education systems (kindergarten - 12th grade).

Agree	*Moderately agree*	*Disagree*
1	2	3

22. The average student arrives the next education level with good scholastic - cognitive readiness.

Agree	*Moderately agree*	*Disagree*
1	2	3

23. The system of learning contents does not include sufficient preparation for knowledge economy professions (science, computers, energy, industry, economy, biology).

Agree	*Moderately agree*	*Disagree*
1	2	3

24. The educational establishment must change its approach and adjust the learning contents to the 21st century learning requirements.

Agree	*Moderately agree*	*Disagree*
1	2	3

Questions regarding teacher status in Israel and his training course:

25. The teacher social and professional status in Israel is high like other senior occupational professions (medicine, industry, computers).

Agree	*Moderately agree*	*Disagree*
1	2	3

26. The teacher in Israel has professional independence regarding teaching methods, selecting relevant contents and examination methods.

Agree	*Moderately agree*	*Disagree*
1	2	3

27. The educational leadership (minister of education, senior officials in the system) is responsible for the teacher status in Israel and not the teacher himself.

Agree	*Moderately agree*	*Disagree*
1	2	3

28. The salary and reward levels, the professional burnout and school's organizational environment harm teacher status.

Agree	*Moderately agree*	*Disagree*
1	2	3

29. Teacher's acceptance terms and training course in Israel influence his status in occupational society.

Agree	*Moderately agree*	*Disagree*
1	2	3

30. The political establishment in Israel is obligated to changing the attitude to teaching role including changing the acceptance terms, the training process, thinking about salary and reward levels and reexamine professional independence in order to increase teacher status.

Agree	*Moderately agree*	*Disagree*
1	2	3

Summarizing questions

31. There is a direct and binding connection between education policy in Israel and the impact on the economic-social situation.

Agree	*Moderately agree*	*Disagree*

1	2	3

32. The State of Israel does not take an equal approach to all populations and the educational needs of each community and culture.

Agree	*Moderately agree*	*Disagree*
1	2	3

33. The professional systems, which include setting learning contents and evaluation and examination methods, need a reform and system and content synchronization, which are adjusted to the 21st century.

Agree	*Moderately agree*	*Disagree*
1	2	3

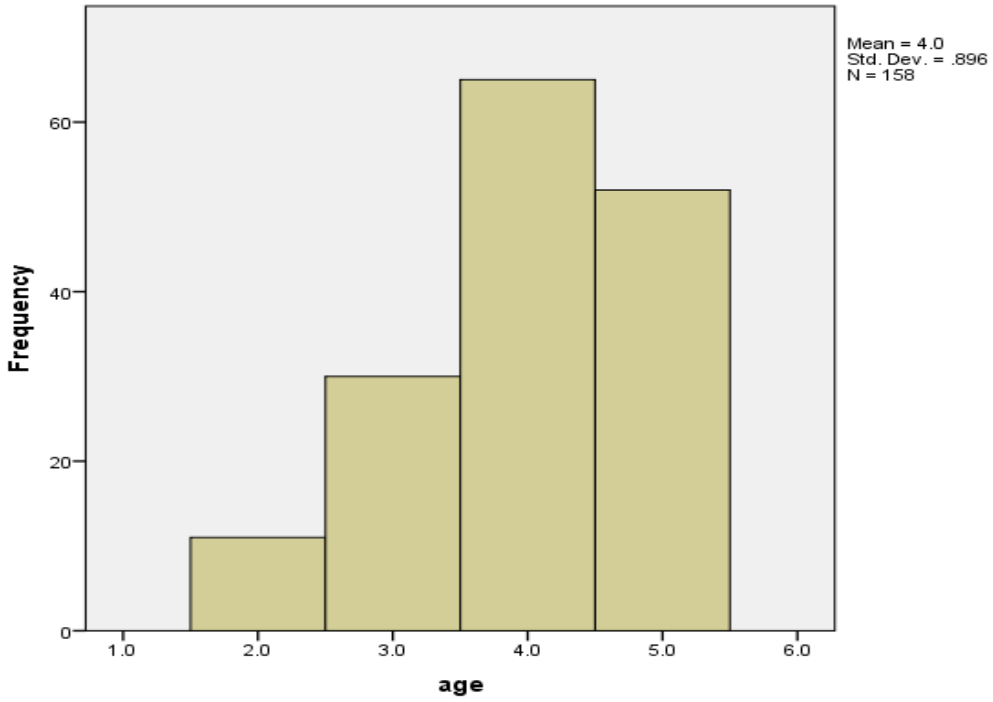
34. The political establishment in Israel needs to change its attitude regarding the education and teacher status in order to attract quality human capital to teaching and create future influence on the system and is learning products.

Agree	*Moderately agree*	*Disagree*
1	2	3

Thank you for filling the questionnaire!

Appendix No. 2.

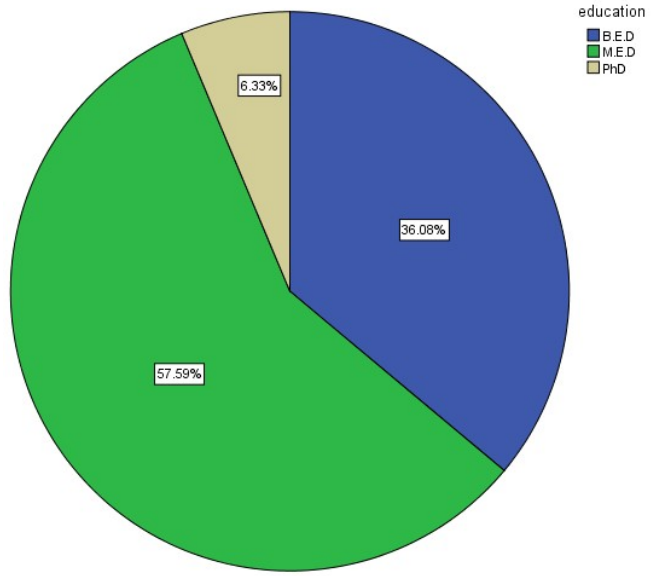
Age of respondents in the research questionnaire



Source: made by the researcher

Appendix No. 3.

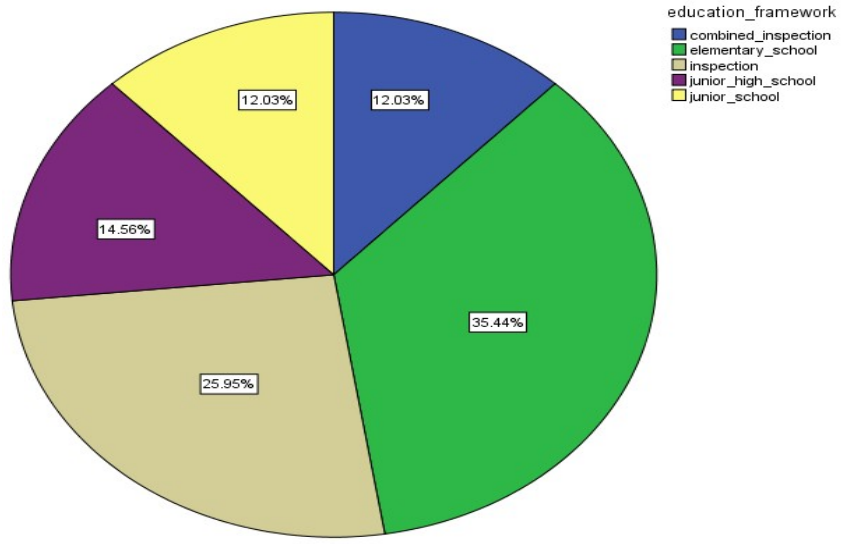
Higher education degrees of the respondents



Source: made by the researcher

Appendix No. 4.

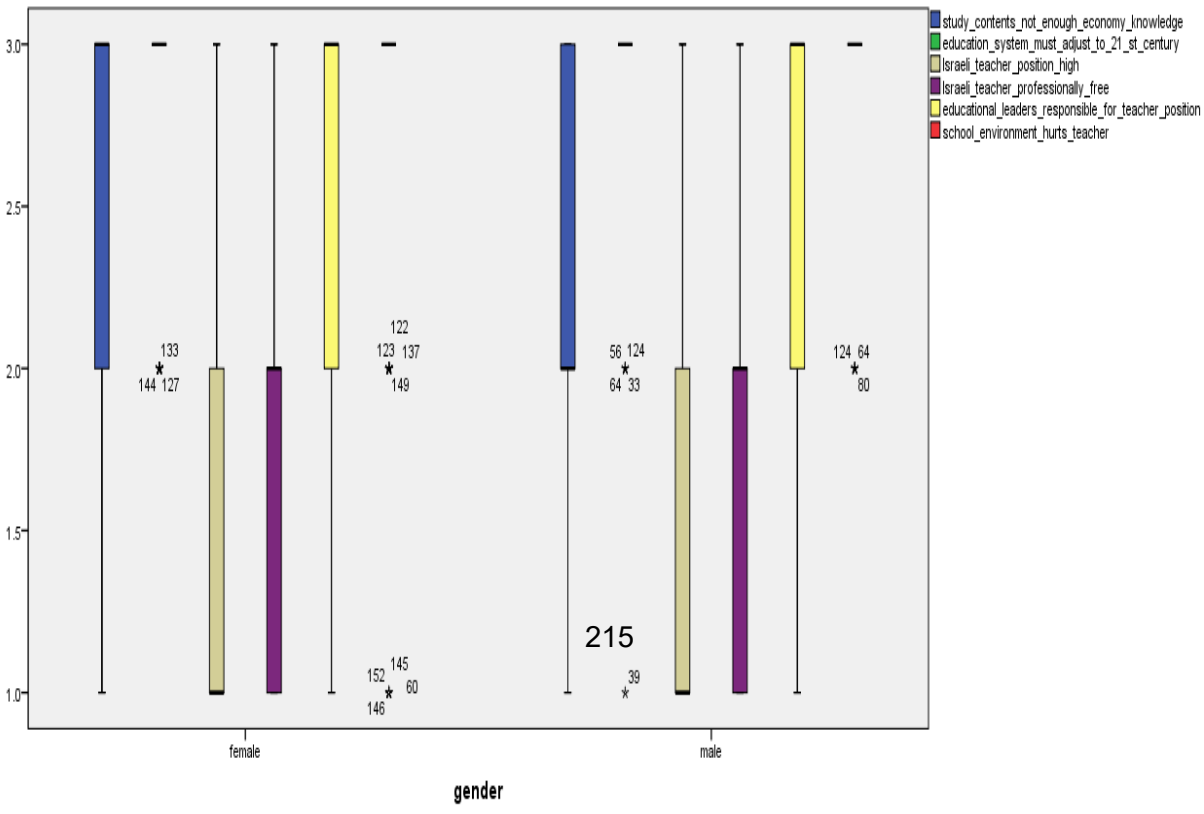
Labor force of the respondents



Source: made by the researcher

Appendix No. 5.

Results of the connection between education and economic



Source: made by the researcher

Appendix No. 6.

T. test statistical findings

Group Statistics

	gender	N	Mean	Std. Deviation	Std. Error Mean
education_level_direct_impa	.0	130	2.815	.4274	.0375
ct_economic_social_situatio n	1.0	28	2.750	.5182	.0979
education_invest_related_un	.0	130	2.746	.5181	.0454
employment_GDP	1.0	28	2.750	.5853	.1106
invetments_in_education_im	.0	130	2.100	.6803	.0597
provement	1.0	28	2.179	.7228	.1366
private_invest_andinequality	.0	130	2.792	.4773	.0419
_cause_gaps	1.0	28	2.821	.3900	.0737
state_invests_without_discri	.0	130	1.715	.7178	.0630
mination	1.0	28	1.750	.7993	.1511
education_institutions_must_	.0	130	2.592	.6188	.0543
be_equal_for_all	1.0	28	2.643	.6215	.1174
evaluation_policy_Israel_is_	.0	130	1.946	.6139	.0538
professional	1.0	28	2.071	.6627	.1252
numeric_evaluation_policy_h	.0	130	2.331	.6396	.0561
urt_pupils	1.0	28	2.286	.7127	.1347
evaluation_policy_related_to	.0	130	2.531	.5865	.0514
_international_grades	1.0	28	2.679	.5480	.1036
interested_to_study_evaluati	.0	130	2.815	.4788	.0420
on_methods_of_others	1.0	28	2.750	.5182	.0979
research_based_approach_	.0	130	2.862	.4083	.0358
promoted_personal_skills	1.0	28	2.893	.3150	.0595
evlauation_should_change_f	.0	130	2.723	.4983	.0437
or_skills_based_direction	1.0	28	2.857	.4484	.0847
discipline_choice_policy_mu	.0	130	2.600	.5651	.0496
st_change	1.0	28	2.607	.5669	.1071
most_disciplinces_prepare_	.0	130	1.754	.6596	.0579
pupils_to_maturity	1.0	28	1.714	.7127	.1347
education_stages_not_sync	.0	130	2.315	.6474	.0568
hronized	1.0	28	2.321	.6118	.1156
pupil_graduates_in_good_co	.0	130	2.077	.6543	.0574
gnitive_condition	1.0	28	1.964	.6372	.1204

study_contents_not_enough_economy_knowledge	.0	130	2.585	.5943	.0521
	1.0	28	2.357	.6785	.1282
education_system_must_adjust_to_21_st_century	.0	130	2.892	.3112	.0273
	1.0	28	2.786	.4987	.0942
Israeli_teacher_position_high	.0	130	1.415	.7020	.0616
	1.0	28	1.464	.6929	.1310
Israeli_teacher_professionally_free	.0	130	1.646	.6804	.0597
	1.0	28	1.821	.6696	.1265
educational_leaders_responsible_for_teacher_position	.0	130	2.485	.6498	.0570
	1.0	28	2.464	.6929	.1310
school_environment_hurts_teacher	.0	130	2.800	.4886	.0429
	1.0	28	2.821	.3900	.0737
teacher_recruitment_and_training_impact_job_position	.0	130	2.615	.6273	.0550
	1.0	28	2.714	.5345	.1010
policy_makers_must_change_teacher_position	.0	130	2.846	.4215	.0370
	1.0	28	2.821	.4756	.0899
education_policy_directly_related_to_socio_economic_state	.0	130	2.692	.5952	.0522
	1.0	28	2.821	.3900	.0737
policy_approach_no_equality	.0	130	2.708	.5348	.0469
	1.0	28	2.536	.7445	.1407
synchronization_and_innovation_need	.0	130	2.700	.5520	.0484
	1.0	28	2.679	.6118	.1156
quality_HR_attraction_policy_neede_in_education_system	.0	130	2.838	.3899	.0342

Appendix No. 7.

Anova statistical findings

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
education_level_direct_impact_economic_social_situation	Between Groups	1.746	2	.873	4.638	.011
	Within Groups	29.172	155	.188		
	Total	30.918	157			
education_invest_related_unemployment_GDP	Between Groups	.266	2	.133	.473	.624
	Within Groups	43.607	155	.281		
	Total	43.873	157			
invetments_in_education_improvement	Between Groups	2.205	2	1.103	2.382	.096
	Within Groups	71.744	155	.463		
	Total	73.949	157			
private_invest_andinequality_cause_gaps	Between Groups	.617	2	.309	1.453	.237
	Within Groups	32.902	155	.212		
	Total	33.519	157			
state_invests_without_discrimination	Between Groups	4.771	2	2.385	4.682	.011
	Within Groups	78.976	155	.510		
	Total	83.747	157			
education_institutions_must_be_equal_for_all	Between Groups	1.522	2	.761	2.021	.136
	Within Groups	58.358	155	.377		
	Total	59.880	157			
evaluation_policy_Israel_is_professional	Between Groups	.921	2	.461	1.192	.306
	Within Groups	59.920	155	.387		
	Total	60.842	157			
numeric_evaluation_policy_hurt_pupils	Between Groups	.336	2	.168	.393	.676
	Within Groups	66.202	155	.427		
	Total	66.538	157			
evaluation_policy_related_to_international_grades	Between Groups	2.051	2	1.025	3.120	.047
	Within Groups	50.937	155	.329		
	Total	52.987	157			
interested_to_study_evaluati	Between Groups	1.702	2	.851	3.745	.026

on_methods_of_others	Within Groups	35.216	155	.227		
	Total	36.918	157			
research_based_approach_promoted_personal_skills	Between Groups	.426	2	.213	1.389	.252
	Within Groups	23.783	155	.153		
	Total	24.209	157			
evlauation_should_change_for_skills_based_direction	Between Groups	1.945	2	.973	4.196	.017
	Within Groups	35.928	155	.232		
	Total	37.873	157			
discipline_choice_policy_must_change	Between Groups	.194	2	.097	.303	.739
	Within Groups	49.686	155	.321		
	Total	49.880	157			
most_disciplinces_prepare_pupils_to_maturity	Between Groups	1.143	2	.571	1.289	.279
	Within Groups	68.731	155	.443		
	Total	69.873	157			
education_stages_not_synchronized	Between Groups	.423	2	.212	.515	.599
	Within Groups	63.754	155	.411		
	Total	64.177	157			
pupil_graduates_in_good_cognitive_condition	Between Groups	1.701	2	.851	2.035	.134
	Within Groups	64.786	155	.418		
	Total	66.487	157			
study_contents_not_enough_economy_knowledge	Between Groups	.806	2	.403	1.070	.346
	Within Groups	58.384	155	.377		
	Total	59.190	157			
education_system_must_adjust_to_21_st_century	Between Groups	.149	2	.074	.596	.552
	Within Groups	19.320	155	.125		
	Total	19.468	157			
Israeli_teacher_position_high	Between Groups	2.546	2	1.273	2.665	.073
	Within Groups	74.042	155	.478		
	Total	76.589	157			
Israeli_teacher_professionally_free	Between Groups	2.697	2	1.349	2.993	.053
	Within Groups	69.841	155	.451		
	Total	72.538	157			
educational_leaders_responsible_for_teacher_position	Between Groups	.134	2	.067	.154	.857
	Within Groups	67.309	155	.434		
	Total	67.443	157			
school_environment_hurts_te	Between Groups	.424	2	.212	.952	.388

acher	Within Groups	34.494	155	.223		
	Total	34.918	157			
teacher_recruitment_and_training_impact_job_position	Between Groups	1.008	2	.504	1.354	.261
	Within Groups	57.700	155	.372		
	Total	58.709	157			
policy_makers_must_change_teacher_position	Between Groups	.225	2	.113	.606	.547
	Within Groups	28.819	155	.186		
	Total	29.044	157			
education_policy_directly_related_to_socio_economic_state	Between Groups	.846	2	.423	1.328	.268
	Within Groups	49.338	155	.318		
	Total	50.184	157			
policy_approach_no_equality	Between Groups	.080	2	.040	.119	.888
	Within Groups	52.458	155	.338		
	Total	52.538	157			
synchronization_and_innovation_need	Between Groups	.278	2	.139	.439	.646
	Within Groups	49.140	155	.317		
	Total	49.418	157			
quality_HR_attraction_policy_neede_in_education_system	Between Groups	.398	2	.199	1.326	.268
	Within Groups	23.254	155	.150		
	Total	23.652	157			

Appendix No. 8.

The component Matrix

Component Matrix[a]

	Component		
	1	2	3
Gender	-.045	-.063	.092
Age	.542	-.007	.307
Education	.517	-.106	.318
Teacher	-.688	-.518	-.036
Inspector	.610	-.175	.575
Principal	.202	.719	-.474
General state	.537	.152	-.217
General pupil	-.127	.635	.112
Equality professionality	-.140	.383	.659
Learn innovate	.547	-.096	-.122
Teacher position	-.226	.643	.111
Policy change	.537	-.166	-.544

Undefined error #11401 - Cannot open text file "C:\PROGRA~1\IBM\SPSS\STATIS~1\21\lang\en\spss.err":

a. 3 components extracted.

Appendix No. 9.

The model summary

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	2.288	2	1.144	27.952	.000[b]
	Residual	6.344	155	.041		
	Total	8.632	157			

a. Dependent Variable: Policy_change

b. Predictors: (Constant), Equality_professionality, General_state

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.196	.172		12.746	.000
	General_state	.319	.059	.373	5.417	.000
	Equality_professionality	-.226	.044	-.352	-5.119	.000

a. Dependent Variable: Policy_change

Appendix No. 10

Implementing letter 1

בית ספר סנט ג'וזף
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ST. JOSEPH SCHOOL

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Tel: 08-9220249 :هاتف
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stjosephsram@gmail.com

To: Academy of Public Administration of Moldova ***Date: 2.12.21***

Ph.D. Dissertation: Dasman El Fahel (028313955)

I would like to remark Mrs. El Fahel PhD in her dissertation and the conclusions and recommendations that summarize the paper.

The PhD dissertation is edited professionally and presents a sincere and genuine comparison between Israel and Finland policies and education systems.

The theoretical analysis along with the statistical presentations brings the reader to conclude a profound change is required in the education system in Israel.

I thank the researcher for the ideas she had presented and indicated applying the thesis ideas and its two main subjects from the thesis recommendations regarding improving the teacher status, which significantly improves education importance and status.

We have also decided to adopt and apply the idea of changing the learner testing and evaluation methods, and we have already started a pilot in the largest high school in town.

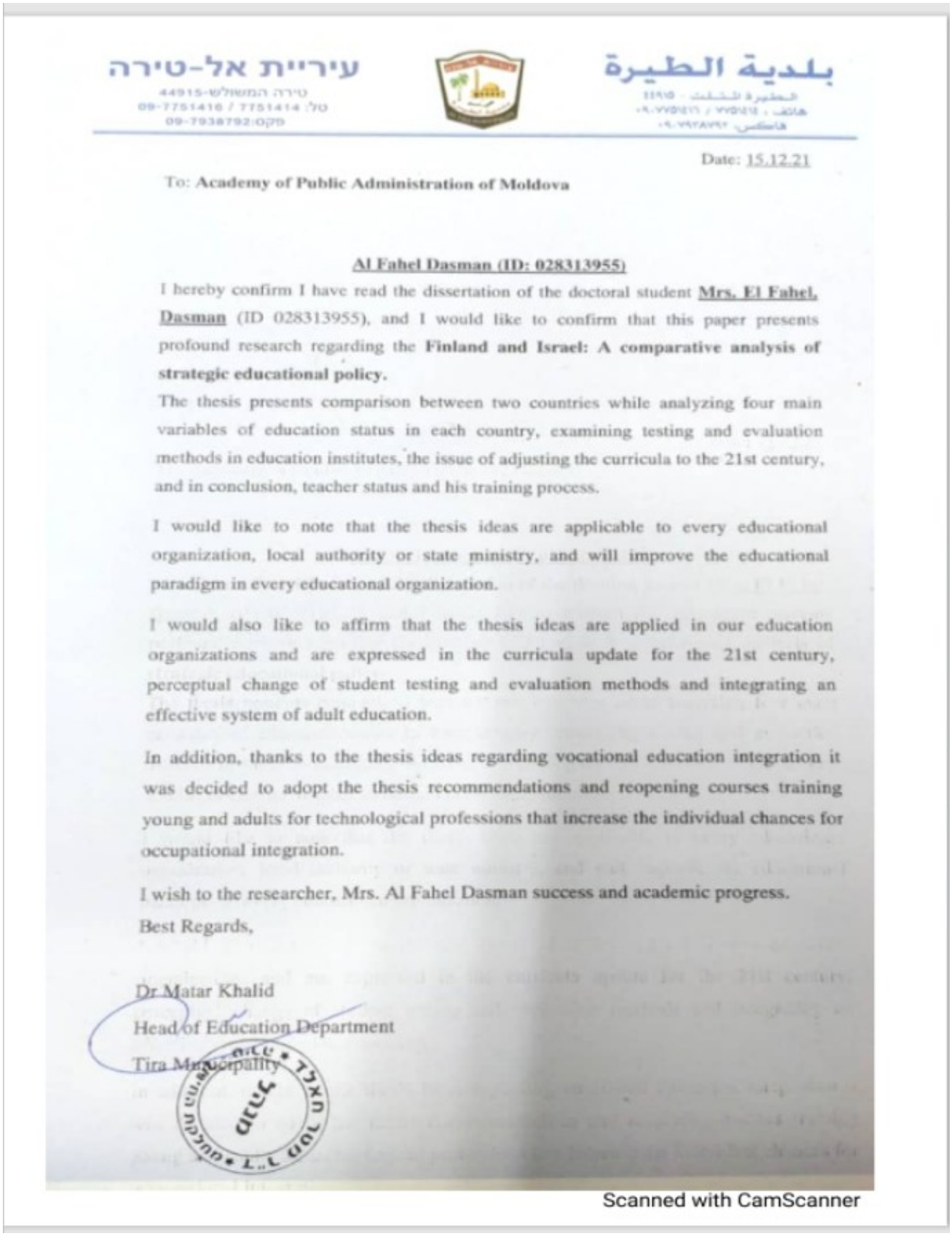
We wish her all the best, and successes in her academic career.

Yasmin Alkalak

Director of Saint Joseph school Ramla

Appendix No 11

Implementing letter 2



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الطيرة المثلث - 44915
هاتف: 09-7751414 / 7751416
فاكس: 09-7938792

Date: 15.12.21

To: **Academy of Public Administration of Moldova**

Al Fahel Dasman (ID: 028313955)

I hereby confirm I have read the dissertation of the doctoral student **Mrs. El Fahel, Dasman** (ID 028313955), and I would like to confirm that this paper presents profound research regarding the **Finland and Israel: A comparative analysis of strategic educational policy.**

The thesis presents comparison between two countries while analyzing four main variables of education status in each country, examining testing and evaluation methods in education institutes, the issue of adjusting the curricula to the 21st century, and in conclusion, teacher status and his training process.

I would like to note that the thesis ideas are applicable to every educational organization, local authority or state ministry, and will improve the educational paradigm in every educational organization.

I would also like to affirm that the thesis ideas are applied in our education organizations and are expressed in the curricula update for the 21st century, perceptual change of student testing and evaluation methods and integrating an effective system of adult education.

In addition, thanks to the thesis ideas regarding vocational education integration it was decided to adopt the thesis recommendations and reopening courses training young and adults for technological professions that increase the individual chances for occupational integration.

I wish to the researcher, Mrs. Al Fahel Dasman success and academic progress.

Best Regards,

Dr Matar Khalid

Head of Education Department

Tira Municipality

Appendix No. 12

Government Certificate for the questionnaire

ירושלים, 14 דצמבר, 2021
14 דצמבר, 2021
תיק 12122 ל

משרד החינוך
לשכת המדען הראשי

היתר לביצוע המחקר בנושא "מדיניות החינוך בישראל ופינלנד -ניתוח השוואתי"

ע"י עורכת המחקר גב' דסמאן אלפחל

מסמך זה בתוקף החל מהתאריך הרשום לעיל ועד לסיום שנת הלימודים תשפ"ג בלבד

במסמך זה ההתייחסות לכל מי שאינם מזוהים לפי שם היא בלשון זכר. זאת מטעמי נוחות בלבד, והכוונה היא גם לנקבה אם לא מצוין אחרת.

היתר זה ניתן בהסתמך על הצהרות האחראי/ם למחקר מהן עולה כי המחקר המבוקש **אינו** עונה לאף אחד מהאפיונים הכלולים בנספח המצורף

המסגרת שבה נערך המחקר: לימודיה של עורכת המחקר לקראת תואר שלישי ב- Academy of Public Administrtion במולדובה

עיקרי המרכיבים של המחקר לעניין היתר זה:

הנבדקים: חברי צוות, מורים ומנהלי בתי ספר

הליך איסוף המידע: העברת שאלון מקוון בנושא המחקר

פרטים נוספים על אודות הליך איסוף המידע ועל כלי המחקר מצויים במסמכים שיוגשו ע"י עורכת המחקר לבחינתו של מנהל המוסד החינוכי, כחלק מהבקשה להסכמתו לביצוע המחקר.

תנאים והוראות:

1. המחקר יעמוד בכל כללי הנוהל לפעילות מחקרית במערכת החינוך[1].
2. לצורך בקשת הסכמתו של מנהל המוסד החינוכי לביצוע המחקר, יש להמציא העתק של מסמך זה לעיונו ביחד עם מסמכים אלה: תקציר הצעת המחקר, כלי המחקר ומכתב פנייה למועמדים להבדק.
3. הסכמת המנהל לפעולה המבוקשת נתונה לשיקוליו, בהתאמה לסמכותו ולאחריותו בנוהל הנזכר לעיל ולכל שאר נהלי משרד החינוך הנוגעים בדבר.

הבהרות:

1. אין במסמך זה משום חיווי דעה של לשכת המדען הראשי על איכותו של המחקר.
2. לא נדרש היתר לביצוע המחקר מטעם המחוז.
3. ההיתר תקף לכלל המגזרים והמחוזות.
4. ההיתר כפוף למילוי ההנחיות העדכניות של משרדי הממשלה הנוגעים בדבר באשר להתנהלות הנדרשת במוסדות חינוך למניעת התפשטותם של נגיפים ובכלל זאת, עמידה במגבלות החלות בהקשר זה על כניסתו/ם של עורך/י המחקר למוסד וביצוע של הפעולות המחקריות בתחומו/באמצעותו.

[1] לנוהל, כולל הגדרת המושגים הרלוונטיים למסמך זה, ראה תחר מנכ"ל עה/9(ב), המופיע גם באתר לשכת המדען הראשי

1 http://www.education.gov.il/scientist אתר הבית: 073-3931641 טלפון: 951402 כתובת דואר: רח' דבורה הנביאה 2 ירושלים
073-3931640 פקס: madan@education.gov.il דואר אלקטרוני:

RESPONSIBILITY STATEMENT

The undersigned, declare on my own responsibility that the materials presented in the present doctoral thesis is the result of my own researches and scientific achievements. I am aware of the fact that, otherwise, I will bear the consequences in accordance with the law in force.

El Fahel, Dasman

Signature:

Date: 25.02.23

CURRICULUM VITAE

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Education:

2018 – Ph.D. student at Academy of Public Administration of Moldova. Faculty of Political Science.

2009 – 2010 Diploma Studies of Familial Consulting in the Education Systems, Tel Aviv University.

2004 – 2006 M.A. of Educational Consulting with Specialization of Early Childhood, Derby University, Israeli Extension.

1993 – 1994 B.Ed. (B.A.) Degree of Teaching of Early Childhood, Beit Berl College.

1990 – 1993 Teaching Certificate, Beit Berl College.

Employment and Experience of Teaching:

2019- Today - Supervisor of kindergartens in the Ministry of Education in the Central District.

2012 – 2018 - Pedagogical Guide of the Early Childhood in the Central District of two cities Ramla and Lod.

2007 – 2011- Educational Consultant of the Early Childhood in the area of Ramla and Lod.

1995 – 2018 - Principal of the Preschool Kindergarten (Arava Kindergarten) in Lod City.