

## Ten Lies, Half-Truths and Prejudices of the Israeli Education System

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### Abstract

Israeli educational system has suffered substantial deterioration from the early 60ies until now. In this article 10 of the most common lies, perceived as "truths" causing this decrease in achievements, are examined: Each youth can earn a matriculation certificate; A matriculation certificate is necessary in order to succeed in life; The rate of matriculation entitlement in Israel increases every year; Everybody is entitled to have access to higher education and the state holds the responsibility to materialize this right; Increase in the teachers educational level results in an increase of the school level and a higher rate of success among their students; Integration among children from different socio-economic background helps to increase the academic achievements of the weaker children; A higher rate of matriculation entitlement increases the earning level; Israel has a serious problem of large teacher/student ratio; Sufficient amount of money assigned to education will improve its situation in Israel; Self-confidence in learning is the key to high achievements.

**Key Words:** Israeli education system; achievement deterioration, high educational level.

### Introduction

This book calls for the transformation of American education – a transformation not just of means, but of ends. We also need to change the way schools do business. We also need to redefine educational success.

My targets are not the usual suspects. I do not inveigh against high dropout rates, low test scores, or obdurate teachers' unions. My indictment is much broader: The educational system is living a lie.

The lie is that every child can be anything he or she wants to be. No one really believes it, but we approach educational problems as if we did. We are phobic about saying out loud that children differ in their ability to learn the things that schools teach. Not only do we hate to day it, we get angry with people who do. We insist that the emperor *is* wearing clothes, and that those who say otherwise are bad people.

Call it educational romanticism. We have idealized images of the potential that children bring to the classroom and of our ability to realize that potential. When the facts get in the way, we ignore them. Try to think of the last time you saw a newspaper story of the No Child Left Behind that mentioned low intellectual ability as a reason why some students don't perform at grade level. Try to think of the last article about young people who do not go college that used the intellectual demands of college-level work as an explanation. I doubt if you can think of a single instance in either case. I certainly can't. The silence about differences in intellectual ability on educational topic that scream for their discussion is astonishing; it amount to living a lie.

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If the system had living a kindly lie, I would not have this book. The lie is certainly meant kindly. Everyone wants only the best for every child. But its effects play out in the lives of young people in devastating ways. The nine-year old who has trouble sounding out simple words and his classmate who reads *A Tale of Two Cities* for fun sit in the same classroom day after miserable day, the one so frustrated by tasks he cannot do and the other so bored that both are near tears. The 15-year old who cannot make sense of algebra but has an almost mystical knack with machines is told to stick with the college prep track, because to be a success in life he must go to college and get a BA. The twenty-year old who knocks the top off standardizes tests is still turning in rubbish in his college term papers because no one has ever taught him ever how to be his own toughest critic. They are all products of an educational system that cannot make itself talk openly about the implications of diverse educational limits.

And so a fog of wishful thinking, euphemisms, and well-intended egalitarianism hangs over the discussion of education, obscuring simple truths. This book is about four of them:

- Ability varies;
- Half of the children are below average;
- Too many people are going to college;
- America's future depends on how we educate the academically gifted.

The unifying factor of the chapters that follow is that we are unrealistic about students of every level of academic ability – asking too much from those at the bottom, asking the wrong things from those at the middle, and asking too little from those at the top.

The policy implications of ending educational romanticism cut in many directions. While half the children are below average, the current educational system shortchanges their ability to profit from the assets they do possess. The students on college campuses who do not belong there include many with high IQ's. Those who are lucky enough to be academically gifted will play a crucial role in America's future, but the last thing we need is an educational system that pampers them. In the final system I describe an educational system that embraces the simple truths (Murray, 2008, pp. 11-13).

Here is a list of 10 of the most common lies about the Israeli education system, lies that everybody wants to believe in, but unfortunately they are not consistent with the reality of gradual but constant decrease of the achievement level of the Israeli student.

### **1. Each Youth Can Earn a Matriculation Certificate**

This claim can be dealt with either in the philosophical-theoretical or practical point of view. It is most likely a waste of time to investigate the theoretical aspects of this issue, as no matter whether this statement is true or false – reality contradicts it. There is not even one society, one culture or one country where all pupils are entitled to the matriculation certificate.

Furthermore; the level of the Israeli matriculation certificate has gradually declined and its value has reached a minimal stage. Educators and academics have protested for years, whenever new rules and easier requirements have been taken place in order to increase the rate of students entitled to the matriculation certificate. For example, here is what Prof. Daoud Bshouty, a 1953-born mathematician from the Technion, The Israeli Institute of Technology, has said:

During the passing years the policy of our ministry of education was to lower the level of the matriculations examinations, a phenomenon of which we suffer as long as 30 years. At this stage we have reached the point where the knowledge level of first year students at the Technion is unsatisfying. This is the immediate consequence of high school teaching, where the teachers teach solely for the matriculation examination and nothing beyond it. In addition, the 5-point high level math exam is taken during 3 years, in grades 10-12, and the students forget the material after they are examined on it (David, in press).

It is quite obvious that when the level of the matriculation certificate decreases, more youths would be entitled it. Thus, the more interesting question is: does every youth need a matriculation certificate?

Israel has a high rate of matriculation entitlement in comparison to many other developed countries. For example: in Germany only about 35 of 19-year olds are entitled to the matriculation certificate: about 30% of the boys and 40% of the girls (Hosenfeld et al., 1999). However, policy makers have been striving for years to increase this rate even more. It is quite interesting that in the OECD 2006 report (Machine, 2006), the only country described in length as initiating programs for increasing the rate of matriculation entitlement is Israel (Lavy & Schlosser, 2005), While all other counties focus on decreasing the high school dropout rate.

Regarding matriculation entitlement, Israel is in the company of developing rather than developed countries. In China or Germany, for example, there are special educational tracks for students who get instruction related to the profession they are to acquire. In Australia and New Zealand, though there is no separate system for professional education, the regular high school consists of separate tracks for the academically oriented

and others who prepare for a future in the work market. In Finland and Norway the educational system went through a substantial change in the decade starting in the mid 80s. In the last 15 years all students can find a suitable track in the comprehensive school, whether high level purely academic, full professional preparation or any combination of the two. Without any special programs for dropout reduction, the change of the school itself was followed by a large decrease of school dropout in these 2 countries. In 2007, 92% of Israeli youth have graduated from high school in comparison to 82% in the OECD countries (EAG, 2009, Tables A2.1, A2.2, p. 56-57). In spite of these high rates Israel scored not only below the mean of the OECD countries in the PISA achievements in 2006 (OECD, 2007) and the TIMSS 2007 (Mullis et al., 2008), but far under the international achievements as well. In fact, in 2007, of the 30 OECD and partner countries Israel scored 5<sup>th</sup> in the graduation rate from upper secondary school (EAG, 2009, Chart A2.2, p. 48).

## **2. A Matriculation Certificate Is Necessary In Order to Succeed In Life**

The question: "why is a matriculation certificate necessary?" appears to be legitimate, but not in Israel. The mantra: "we aim to increase the percentage of matriculation eligibility" has been heard by all Israeli ministers of education (e.g. Eliezer, 1999; Kashti, 2009; Zelikowitch, 2009a, 2009b). This aim has been published in many official documents. For example: "one of the most important educational targets of the minister of education, Gideon Saar, is a constant improvement of the matriculation entitlement rate" (*The State of Israel believes in education*, 2009, p. 13). However, this statement was made after a decrease in the matriculation rate, occurring in spite of the substantial changes in the matriculation examinations aimed to enable more youths to obtain the desired certificate. One of the main changes was decreasing the number of obligatory examinations (ibid, p. 24).

The first time professional success is measured in Israel is when getting drafted for obligatory military service; the "professionally successful" are assigned to serve in more prestigious army units than others. The army uses its own batteries for measuring cognitive abilities, in order to discover the more able youngsters, but apparently there is no significant substantial correlation between youth appointed to desirable courses, requiring high intelligence, and those entitled to the matriculation certificate. The "cutting

point" is between those entitled to the prestigious matriculation certificate, e.g. containing at least 30 units and including a minimum of 3 subjects taken in the highest possible level (about the concept of the "prestigious matriculation certificate and the Israeli unit-system see David, 2009), and ALL others (Dvir et al., 2009). We can thus see that even at the first professional selection of the Israeli youth, the military classification, a matriculation certificate plays no role and certainly is no criteria for high cognitive abilities needed for more prestigious army units.

Not only in the army but also in the job market there is a slowing demand for higher educated individuals; there is preference towards less educated younger individuals over older with tertiary education (EAG, 2009, Chart A1.5, p. 35). We can thus summarize, that neither regarding the army nor in "real" life there is preference for those with a matriculation certificate or university education, accordingly. Neither guarantees a well-paid profession or high social status. Why is it still almost an obsession among policy maker to increase the rate of matriculation entitlement? Why is so much money invested in order to increase the percentage of youth entitled to an almost useless higher degree? This is still a mystery.

### **3. The rate of matriculation entitlement in Israel increases every year**

Unlike the yearly data published by the ministry of education, which is based on the matriculation entitlement rate of all 12<sup>th</sup> graders, the 2009 report of the Adva center (Konor-Atias & Abu-Khala, 2009) is based on the whole 17-year old cohort. Here are some of the data from this report:

- In 2008 less than 80% of 17-year old were 12<sup>th</sup> grade students.
- Only 44.4% of the 18-year old were entitled to the matriculation certificate in 2008.
- In that year, 13.2% of the matriculate certificates did not meet university entrance requirements. Thus only 38.5% of the age group met university entrance requirements.

- Since 2005 there has been a decrease in the rate of matriculation entitlement. This happened in spite of the fact that the matriculation examinations had become easier to pass every year.

The rate of entitlement to the matriculation certificate has been around 45% for over a decade. Taking all these facts into consideration it is quite obvious to conclude that the matriculation certificate has no longer been a lever to future higher education, high quality status, well paid position or even a good professional standing.

#### **4. Everybody Is Entitled To Have Access to Higher Education and the State Holds the Responsibility to Materialize This Right**

The rate of Israeli students has substantially increased since the beginning of the 90ies. While in 1991 only 23% of the relevant age group started academic studies, a decade later it was almost doubled: in 2003 – 42.2%; in 2004: 43.6% and in 2005 – 41.8% (*Higher education index*, 2006). The vast majority of matriculation certificate holders acquire higher education, so the goal of "opening the gates of the academia" has been reached.

However, too many academics have complained about the deterioration of students' academic level. Young adults, who have successfully graduated from high school and hold a matriculation certificate meeting university requirements start their academic education without the ability to express themselves satisfactorily either orally or in writing. In many university departments Israeli-born new students are demanded to take Hebrew language compulsory classes when failing the entrance examinations, formerly taken only by new comers. One of the professors of the Ben Gurion University has phrased this situation saying: "When I meet a student who does know how to formulate a Hebrew paragraph I nurture her or him, regardless of other qualities, because of the rarity of this quality".

This does not include public college students, where the demands are even lower in most cases. In fact, many of these colleges are in a constant competition with each other, as the financing they receive depend on the number of their students. This situation causes sometimes extreme phenomena. For example: in three different teachers' colleges where I

have taught, I had been asked about my opinion regarding the issue of: "students who copy their assignments". All these colleges have written regulations containing sanctions against copiers, varying from marking the course as "F" to expelling from the college. Thus, I was astonished to learn that many of the lecturers had different opinions, such as: "if the student had copied she must have learnt something during the copying" or "we should take into consideration that copying requires investing some effort, so the student should be rewarded for that effort".

As for higher education: In 2007, 44% of adult Israelis had university education in comparison to only 28% average in the OECD countries (EAG 2009, Table A1.1a, p. 37). In Germany, for example, only 19.3% of the population has higher education (Country Profile: Germany, 2008), and Germany is by no means inferior to Israel: the mean salary is much higher, the poverty level is much lower, the income gaps – much smaller, its economy much stronger: 5<sup>th</sup> in the world (International Monetary Fund, 2010). Thus it is quite unclear how increasing the percentage of those with higher education even more can contribute to the well being of the Israeli citizens or economy.

##### **5. Increase in the teachers educational level results in an increase of the school level and a higher rate of success among their students**

The participating countries in the 2007 TIMSS examinations could be divided into three groups regarding the educational level of their teachers: I. More than 20% of the teachers hold an MA or its equivalent; II. 20%-90% of the teachers hold an undergraduate degree; III. A substantial part of the teachers have no higher education.

Let's take, for example, the subject matter of mathematics. 29% of Israeli math teachers hold a second degree. The education of math teachers is higher than in Israel among two groups of teachers: 1. From the ex-USSR countries, where no BA studies were possible until ~1990, and thus all teachers, as all other professionals, held at least an MA or MSc degree. The countries of this group include: Armenia, Bulgaria, the Czech Republic, Georgia, Lithuania and Russia; 2. The 3 English-speaking countries, the USA, Australia and the UK, where due to the professionalism process teachers start after finishing their

undergraduate studies, the rate of teachers holding MA is substantially higher than in Israel.

Svirsky and Dagan-Buzaglo (2009) described in their work the expectations of raising the teaching level by increasing the educational level of the teachers. However, as already stated by Ariav (2007), Galili (2009) and Kfir (2007), these expectations did not materialize. The educational level of the teachers had enormously increased in Israel in the last 20 years, but the achievement of the students had decreased according to all measures.

In 2007 only 4% of Israeli teachers did not hold an academic degree. These comparatively older teachers had acquired their education in teachers' seminars – where they studied between one year after high school – kindergarten teachers who had graduated prior to 1980, and three years – junior high school teachers who had completed their education in the 80ies or during the 90ies in an institute that had not completed the requirements for BEd awarding yet. In Hong Kong, for example, 12% of the teachers – 3 times more than in Israel – have no academic degree, while in all international examinations children and youths in Hong Kong score much higher than in Israel. In China 22% of the teachers have no academic degree, and in Japan – 8%. In spite of that the achievements in these countries are better than in Israel

## **6. Integration among children from different socio-economic background helps to increase the academic achievements of the weaker children**

In Israel there is a high correlation between the socio-economic status and the achievement level. That is not to say that children from underprivileged socio-economic background cannot achieve highly, while those from high SES will always do. However, there is no research proving that the learning together of children from a variety of backgrounds increases the learning level. On the other hand, there is a lot of evidence, mostly from case studies of individuals from deprived background, who had "made it" – socially and economically, in spite of objective difficulties. The repeated motive in many of them is the psychological difficulties caused by the forced integration.

Here is data demonstrating the fact that the integration in the education system in Israel (Amir et al., 1984) did not contribute to increasing the achievement level.

I. "The 'Integration Program'" of the Israeli education system, initiated in 1968 and almost completed in the mid 80ies, did not result in higher learning achievements. A continuing decrease of international achievements has been observed in Israel since 1963. One of the results of the unsuccessful process was the flourishing of private schools, starting in the early 90ies (Kashti et al., 2001).

I. Children with special needs, learning in regular classes, benefit from the integration only when massive amount of money is invested in order to enable them the optimal conditions for both their learning and social integration.

## **7. A higher rate of matriculation entitlement increases the population's earning level**

Of the 37 developed countries listed in the *Human Development Index* [HDI] (2009), Israel scored 27<sup>th</sup>, preceding only Andorra, Slovenia, Brunei, Kuwait, Cyprus, Qatar, Portugal, UAE, Czech Republic, Barbados and Malta. The HDI measures the 3 following components: 1. [Life expectancy](#) at birth; 2. Knowledge and education, as measured by the adult [literacy](#) rate; 3. Standard of living. The Israeli standard of living is far below the European:

Malta, Hungary, Lithuania, Slovenia, Costa Rica, Poland, Latvia, Bulgaria and Mexico – these are just some of the countries whose residents enjoy a higher standard of living than Israelis, according to a survey published Wednesday by *International Living* magazine. France won first place, while Somalia came last (Israel ranked 47<sup>th</sup> in standard of living index, 2010).

As we have already shown, while in Israel the percentage of those entitled to the matriculation certificate is much higher than in most OECD countries, Israel lags behind almost all developed countries regarding standard of living. That has mostly to do with the very high inequity level regarding life standards caused mainly by income gaps among different sectors and within each sector. This situation has been described in detail by Ben-David (2010), and summarized in short in *Haaretz* (21.4.2010):

The rates of inequality and poverty in Israel are among the highest in the West, the professor goes on to say. “As long as the country doesn’t take systemic action to reduce inequality and poverty at source, meaning gross income, it will have to keep expanding its social safety net in order to keep more and more families from falling below the poverty line. The sums involved are growing continually, and the state cannot finance them forever.”

The main reason for the poor performance in all three parameters, the report concludes, is that a growing proportion of Israeli society cannot cope in an open, competitive, advanced economy. Worse, this non-coping segment is growing faster than the segment that can cope and that has to finance the safety net.

[...]

Nonemployment among Haredim and Arabs is indeed very high, but it turns out that among non-Haredi Jews as well it is around 25% above the average for developed nations.

“The figures on nonemployment add to astonishing data I discovered about the education system. Here, the surprise is in the direction and the intensity of the changes.

“I found that in the last decade, the number of students in the mainstream state education system dropped by 3%, while enrollment increased by 8% in the national-religious system, by 33% in the Arab education system and by 51% in Haredi schools. These are astounding figures – and that’s just in a single decade.

“Now let’s see what happens if we extrapolate this pace of change 30 years ahead, to when our children are the age that we are today. If we continue down our present path, in 2040 we will find that 78% of Israel’s children will be studying in the Haredi or Arab education systems.

The report makes the racist assumption that “Arabs” are backward and a threat to the state, which reflects on Israel’s open discrimination against its Palestinian Arab citizens (*Haaretz*, 21.4.2010).

## **8. Israel has a serious problem of large teacher/student ratio**

Regarding the mean number of children in a classroom, Israel is one of the crowded in the Western world (Zelikowitch, 2009c). However, when calculating the teacher/student ratio, the situation is quite different. Let us look at the data from Israel Central Bureau of Statistics, 2009:

- i. In the 2008/9 school year the 617,380 1<sup>st</sup>-6<sup>th</sup> grade Jewish students had teachers, about 12 students per teacher (Statistics, Israel, 2009, table 8.16). Even if we re-calculate this ratio by taking into consideration only full time positions, summing up to , the mean would be less than 15.7 students per teacher.
- ii. In the Arab education the situation has been similar: 13.5 students per teacher or 15.37 students per teacher for "full time equivalent jobs" (ibid).
- iii. In junior- and senior high school there were teaching positions, and in the Arab education – "full time equivalent jobs" (ibid). This is very similar to the 2007 international report, according to which there was one full time equivalent job for 13 students (Mullis et al., 2007, Exhibit 3).

Among the 59 countries participating in the 2007 TIMSS (ibid, Exhibit 3), the only 9 with a smaller student/teacher ratio than Israel – Austria and Latvia: 12:1; Malta, Norway and Qatar: 11:1; Hungary, Italy, The Netherlands and Sweden: 10:1 had not necessarily had better achievements than Israel. Furthermore, the mean math achievements in grade 4 among the nine countries with the smaller student/teacher ratio than Israel was 481, while the international mean was 500 (ibid, Exhibit 1.1). The mean of grade 8 students among the 6 participating countries of these 9 was only 459.5 (ibid).

On the other hand, in Korea, for example, where the teacher .student ration is 1:28' more than double than in Israel, the achievements were much higher (ibid). In Hong Kong (607, 18), Singapore (599, 24), and China (576, 17), where the teacher/student ratio was 1:18, 1:24, 1:17 correspondingly (ibid, Exhibit 3), the means of grade 8 students in the math TIMSS 2007 were 607, 599 and 576, correspondingly (ibid, Exhibit 1). Thus, it is difficult to accept the assumption that Israeli achievements had been higher had the classrooms been less crowded. According to Chrumachenko (2005), in South Korea and Japan the number of students in a classroom is 36-49, while the achievements were much higher than in most other countries, all with much lower student/classroom ratio.

Furthermore: "In 1963/4 Israel had the best achievements of 12 developed countries in math both in grade 4 and 8" (David, 2008, p. 106). The mean student/classroom ratio back then was much higher than now, when Israel scores at the bottom of all developed countries (Mullis et al., 2008; OECD, 2007).

Reducing class size does not necessarily contribute to equity in education, as it does not appear to reduce the achievement gap within a class (Konstantopoulos & Chung, 2009).

In a recently published American report of the education situation in the US in comparison to the OECD countries, Schleicher (2009) referred both to class size and to quality of teachers regarding the international achievements:

The United States spends the most per student on education, but performs worse than many countries that spend significantly less, including Finland and Korea. As Schleicher explained, this difference can be accounted for by looking at how countries spend their money. U.S. funding goes primarily to lowering class sizes, while Korea, for example, has sacrificed small classes and invested most in teachers, giving them higher salaries and creating a good working environment with professional development opportunities and ample time for instruction and planning. Schleicher explained that, while small classes are always beneficial, policymakers must choose from a variety of policy options and investing in teachers is more cost-effective (ibid).

In summa:

I. The question: "where have the teachers disappeared", stemmed from the gap between the low student/teacher ratio and the high classroom/teacher one has remained unanswered. However, a partial answer was given in an article published in the teachers' online Journal (overpay school administrators, 2010). By saving the 90 million shekel of those overpaid (ibid), the Israeli ministry of education can hire 1800 new teachers, whose initial salary is currently less than 4000 shekel a month (salary by occupation, 2010)

II. In addition, in 29.4% of elementary- and 46% of junior high school classes the students did not receive all learning hours assigned for them (Knesset press release, 2010).

III. Furthermore. In 96% of the classes checked "both administrative and pedagogical deviations were found" (ibid). "Administrative deviation" means violation of the ministry of education's instructions regarding the number of hours taught, the teaching of the "core subjects", or the cancellation of teaching hours that are not followed by external examinations, such as physical or social education for the sake of preparing the students to national or international examinations (ibid).

We can conclude that a small student/teacher ration does not ensure high learning achievements; that there is no connection between crowded classes and the deterioration of the Israeli student by international standards, and the only correlation found between number of students per class and learning achievements, both in Israel and abroad, is that in general achievements are higher in bigger classes than in smaller ones.

### **9. Sufficient amount of money assigned to education will improve its situation in Israel**

When the Israeli expenses for education are compared to those of European countries it is quite often forgotten that standards of living are much lower in Israel than in most European countries. Let us take Germany as an example. The mean annual salary of a German machines engineer is 38,805EU, which is equivalent to 218,247 IS (Salary Survey for Country: Germany, 2010) in comparison to 130,103 of the Israeli (Salary Survey for Country: Israel, 2010). A post-doctoral German student receives a yearly amount of EU (Salary Survey for Country: Germany, 2010), which is equivalent to 167,230 IS, in comparison to the Israeli post-doctoral scholarship of 10,000-20,000\$ (Salary Survey for Country: Israel, 2010), which is less than half of the German. Thus it is clear why the demand of comparing the actual amount of money spent on education in Israel to that spent in west Europe or the US is exaggerated.

Here are some facts regarding Israeli expenses for education:

- In 2006 Israel scored the second among all OECD countries regarding spending on education as % of GDP: 7.8%, while the average OECD spending was only 6.1% (EAG, 2009, table B2.2).
- Israel scored 21<sup>st</sup> of 180 countries in public spending on education, as % of GDP (7.31%). The only 4 European with a higher percentage of spending on education were Denmark (8.39%); Iceland (8.13%), Norway: 7.69% and Sweden: 7.53%. Hong Kong, whose achievements were much higher than in Israel, scored 105; China scored 167<sup>th</sup>, with a meager spending of only 1.91% of its GDP, about a quarter than in Israel. This did not

stop Chinese students to achieve much better in all international studies (Education Statistics, Public spending on education, 2010).

- There is no correlation between the county's wealth and its educational achievements. For example: Qatar, who scored 296, 58<sup>th</sup> of the 59<sup>th</sup> examined countries in the TIMS 2007 among 4<sup>th</sup> graders and the last among 8<sup>th</sup> graders – 307 (Mullis et al., 2008, Exhibit 1.1) has the highest world GDP: about 83,840\$ (PPT) per capita (International Monetary Fund, 2010) and a teacher student ration of 11:1 (Mullis et al., 2008, Exhibit 3).

- According to the report of the Knesset member Orlav in the education committee of the Israeli parliament, "when there is data it shows that in 20-30% of school days there is no learning in the classes; some is for good reasons, such as annual tours, matriculation exams, preparation for parties, etc. Some of this learning cancellation is legal, but is still reducing the time of learning (Knesset press release, 15.3.2010).

- Between the beginning of the 90ies and 2003 the national expenses on education increased in Israel by 60% while the student population increased just by 35% (Education in Israel, 2006). Achievements, in spite of the substantial investment increase, had decreased.

## **10. Self-confidence in learning is the key to high achievements**

In the TIMSS 2007 examinations, the 4 countries scoring the highest in self-confidence levels were: " [...] Israel, Jordan, Qatar and Egypt (55% or more at the high level)" (Mullis et al., 2008, p. 193). On the other hand, the 6 countries where less than 30% highest achievers had high level self-confidence were Korea, Indonesia, Malaysia, China, Thailand and Japan. The average achievement level in these 6 countries was 570, much higher than the meager 397 of the 4 countries with the high level self-confidence.

In addition, in "self confidence in math learning" among 8<sup>th</sup> graders Israel scored the first among all countries participating in the TIMSS 2007, with 59% of its students having high self confidence. However, the average achievement of this self-confident group was 495 (ibid, Exhibit 4.10), just 3 points above the international average (ibid). There was not even one developed country where the high self-confidence group has had such low actual achievements, and in the 4 highest scoring countries among high self-confidence students,

Singapore and Japan (638), Korea (668), Chinese Taipei (674) and Hong Kong (622) the rate of high self-confident students was only 17-41% in comparison to 59% in Israel.

Taking into consideration all these facts, we can conclude that high self-confidence in math abilities might be at most culturally-dependent, if not harmful to the students.

### **Summary**

This critic is by no means a critic against the Israeli teacher who is the worst-paid in comparison to teachers in all OECD countries. There are many thousands of good, some even excellent teachers, who dedicate their lives to nurture the young generation in spite of the low status of their profession, the overcrowded classrooms, the increasing involvement of parents who have, in many cases, exaggerated demands, and the increasing school violence aimed, in many cases, against them as well.

However, even under excellent conditions, decent salaries and high social prestige it is quite likely that substantial educational improvement would not have occurred unless parents take a much more significant part in education of their children. When such a large portion of teaching time in school is dedicated to tasks that are not directly connected to learning, e.g. discipline problems, violence, solving urgent social problems, trying to track students who have copied their homework from their peers, handed papers found in the internet or cheated in examinations – even the best teacher cannot teach properly for high achievements in the meager time left.

Israel has a world record in cancelling classes and even full learning days in order to prepare ceremonies, to rest after school tours, to prepare for examinations and rest after them. For example: a few months of 6<sup>th</sup> grade learning time is dedicated, in too many schools, for preparing the end-of-school party; a similar part of grade 9 learning time is dedicated to a similar purpose. In grade 12 there is practically no learning in the second half of the year: formal classes end between the middle and the end of the second trimester, and the students come to school only for instructions for the matriculation

examinations, setting for the "protective tests" – given by the school and determine 50% of the final matriculation grade, and doing the actual matriculation examinations. Under such circumstances even the best teacher lacks a most important ingredient for success: *teaching time*.

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