



COURTESY EDUCATION MINISTRY

After describing the sharp decline in the number of high school students graduating at the highest level in mathematics as a 'strategic danger,' Education Minister Naftali Bennett tries his hand at teaching math to students in Petah Tikva, May 28

# Ten ideas for Naftali Bennett

## The new minister needs to put his shoulder to the wheel to get the education system extricated from the mire

**HERE ARE** 10 ideas for Naftali Bennett, the new Education Minister in Israel's 34th government, who, on May 14, began to lead the vast, expensive and troubled bureaucracy that educates our children.

*Education is what remains after one has forgotten what one learned in school.*  
– Albert Einstein

What did Einstein mean? I think his intent is clear. Nineteenth century education, shaped in Victorian times and lingering to this day, stuffed children's heads with existing knowledge, much of it memorized. Twenty-first century education should, but rarely does, prepare children to create new knowledge, as Einstein himself did.

To create new knowledge, you must indeed first master old knowledge, as Einstein did. Creativity builds on mastery. But the key idea is to stimulate children from kindergarten up to challenge what they learn, rather than swallow it whole, so that eventually they can produce their own ideas, rather than replicate those of others.

For countries like Israel, which earn their living with their brains, this is vital. Israel's schools seem to follow not Einstein but Rav (Abba Arika), whom the Talmud quotes as teaching children from age six and "stuffing them with Torah like an ox." Very few "stuffed oxen" launch start-ups.

Indeed, the Talmud itself is almost entirely filled, in its more than 2,000 pages,

with questions and fierce debates. Some believe this tradition of questioning is the reason so many Jews win Nobel Prizes.

*It is the mark of an educated mind to be able to entertain a thought without accepting it.* – Aristotle

*Did you ask good questions in school today?* – Nobel Laureate Isidor Isaac Rabi's mother

I know parents whose children want to quit school and study outside the system because their teachers scorn their questions and humiliate them. How many teachers actively encourage their pupils to confront them?

In *The Jerusalem Report* (July 28, 2014), I wrote about the boom in online Internet courses. Listening to my own advice, and with superb Technion helpers, I created an online course on creativity, now available for free at Coursera, with 6,400 students enrolled.

Part of my course involves chat forums. Here is what one student, Lizzie, wrote in response to my ranting about creativity destruction by teachers. "My seventh grade teacher's response to many a question was, 'Don't show your ignorance by asking that,' which didn't reduce my ignorance but did get me to stop asking questions and start hating school instead of loving it." Another student responded, "Oh, yes, I have suffered high-school phobia because of it. Constant bullying by teachers was unbearable."

Isidor Isaac Rabi was a Jewish physicist

born in Galicia, Poland, and brought to New York's Lower East Side as a baby. He won a Nobel Prize in physics for discovering nuclear magnetic resonance. Devices based on Rabi's discovery now save lives with their sharp images of our internal organs.

Rabi credits his mother with much of his success as a scientist. But perhaps his teachers, willing to suffer his questions, share the credit. In contrast, Einstein had the opposite experience. His college instructors were so annoyed by his chutzpa and prickly questions that they refused to recommend him for a teaching position. As a result, all he could get was a clerk's job in the Swiss Patent Office. Luckily, he used much of his idle time there to write landmark papers, published in 1905, which won him the Nobel Prize in 1921.

*The roots of education are bitter, but the fruit is sweet.* – Aristotle

Reader, hand on your heart – did you love school? Did you mourn when you stayed home sick? Or was school bitter for you? Is it really possible to make school a place kids love to go to, leaping out of bed in the morning just to get there quickly, because learning is interesting, stimulating, relevant, useful and, yes, the "f" word, fun?

The answer to the last question is "yes." I've visited such schools. They are rare, but they provide what scientists call "proof of concept." The fruit of educa-

tion is indeed sweet, but so are its roots, if educators make this their goal.

Last September, my wife and I visited Touchstone Community School, in rural Grafton, Massachusetts, an hour from Boston. Teachers at Touchstone love working there and never leave. Children love learning there, because they learn through challenging team-based projects, guided by teachers.

The key point is, if children love learning, teachers probably will love teaching them. Love of learning is far more important than the learning itself because these days it is necessary for each of us to continue to learn and relearn for our entire lives. If you learn to hate school, you will never learn how to learn.

Knowledge is changing and expanding so quickly it is impossible to learn enough in school to last even a quarter of a lifetime. This means, the main role of school has now become to teach children how to learn, not what to learn. How many schools really do this well?

*Intelligence plus character – that is the goal of true education. – Martin Luther King*

Teachers in Israel’s school system consistently deny that teaching values is part of their mandate. That’s the job of parents, they say.

My four decades of teaching and working with entrepreneurs taught me, if nothing else, that intelligence without character (e.g. perseverance, resilience, ethics) leads to eventual disaster.

Why can’t building character be as much a part of schooling as algebra and history? How many careers (including those of a recent prime minister and president) have ended in ignominy, because their character and ethics failed to match their intelligence?

*Education is not preparation for life; education is life itself. – John Dewey*

*Nothing that is worth knowing can be taught. – Oscar Wilde*

For many children and youth, their real life begins after they get home from school. School is an imposed boring tax they pay so that later they can hook up with friends on Facebook, Twitter, Facetime, Couch Surfing, Flixster, Fotolog and other social networks that I, a dinosaur, don’t know about yet.

Let’s give every student a tablet, educators say. That’s fine. But, then, how

do you get teachers to integrate the enormous power of the Internet into how and what they teach, sending their pupils off on the Web to discover knowledge themselves rather than trying to stuff their heads with it, “like an ox.”

How can you make what happens in the classroom vitally relevant for each child, offering them crucial life skills that will help them get and keep jobs, and retrain themselves a dozen times as the world spins and changes under their feet? How can we get teachers to make education life itself?

## MOST EDUCATION MINISTRY EMPLOYEES ARE DINOSAURS, OCCUPIED WITH PRESERVING THE STATUS QUO AND THEIR OWN SURVIVAL

After decades of teaching entrepreneurship, it finally occurred to me that it cannot be done. I cannot make my students into entrepreneurs, if they lack the fire in their belly. All I can do is give them tools to help them succeed better and faster, if they do choose to launch a start-up one day.

Not much of value can be taught in school. But a great deal of value can be learned in school, by pupils motivated and driven to learn it and given the tools to do so.

*An investment in knowledge pays the best interest. – Benjamin Franklin*

Each new education minister demands more government money. Bennett is no exception. As part of Prime Minister Benjamin Netanyahu’s coalition fire sale, Bennett demanded (and got) an extra 830 million shekels (\$213 million), bringing the likely Education Ministry budget for 2015 to NIS 48 billion (\$12.3 billion).

There are more than two million students enrolled in the education system, from pre-primary through high school, and about 140,000 full-time teaching positions. Israel allocates more than 8 percent of its Gross Domestic Product to education, including both public and private spending. This is higher than the OECD (wealthy na-

tions) average. However, because Israelis have more children than European nations, education spending per child is only about two-thirds the OECD average. Only about two percent of the budget goes to building schools.

But the problem is not resources. It is pedagogy. An international comparison of problem-solving among 15-year-olds ranked Israel 34th out of 43 advanced countries. Arab-Israeli students scored 28 percent below Hebrew-speaking students, averaging 350 points compared with 483 for the Hebrew speakers.

This brings me to my main gripe. Netanyahu blows hot, cold and lukewarm on a two-state solution and demands that Palestinian Authority President Mahmoud Abbas recognize Israel as a Jewish state. I wish the Prime Minister and his new Education Minister would tackle making Israel a Jewish state in how it educates.

It is true that eight Israelis (Arieh Warshel, Michael Levitt, Dan Shechtman, Ada Yonath, Robert Aumann, Aaron Ciechanover, Avram Hershko and Daniel Kahneman) won Nobels for science and economics, but they all went to school before the Jewish state’s schools went into steep decline.

Since 1901, worldwide, 24 percent of the 850 Nobel laureates were Jewish, far above the 0.16 percent Jews comprise of the world’s population. From 2000-2013, 32 percent of Nobel laureates were Jewish.

You cannot become a scientist and win a Nobel, if you do not study science in high school. Fewer and fewer Israeli children choose to study high-level math and physics. Israel’s rank in test scores in science is abysmal. There is a massive shortage of capable math teachers. If Jewish scientists continue to dominate the Nobels, can Israel, with its failing science and math education, truly call itself a Jewish state, even if Abbas ever does?

*Education is the ability to listen to almost anything without losing your temper or your self-confidence. – Robert Frost*

*The philosophy of the school room in one generation will be the philosophy of government in the next. – Abraham Lincoln*

Even though my wife and I have lived in Israel for almost 50 years and love our country passionately, we find at least one aspect of life here troubling. In conversations, Israelis do not listen to one another. They begin to talk before their counter-



Twenty-first century education at the WIZO school in Rishon LeZion

parts have finished speaking. This ruins dialogue and is an insidious form of verbal violence that ruins true communication.

If you speak before your counterpart finishes, it shows you are not truly listening to what they are saying. Instead of listening, you are framing your own response. That means conversation is simply two monologues, not a dialogue. Daily, on television, we see travesties of such ruined dialogues.

Is it too much to ask that our schools teach children to listen and wait for the person talking to them to finish what they have to say before responding? If they do, will we have politicians who truly know how to listen, converse, engage and communicate, rather than vilify and abuse?

*Education is learning what you didn't even know you didn't know. – Malcolm Forbes*

I recently spoke with an unusual teacher who teaches creativity in the schools. I told her that according to proven research, very young children are exceptionally creative, but rapidly lose their creative spark in school, and by adolescence most of it is gone. Schools are largely responsible.

What can we do, I asked, to preserve and enhance this highly valuable resource, creativity, rather than destroy it?

Fire a whole lot of teachers, she said.

I know that of the 140,000 teachers em-

ployed by the Education Ministry, a great many are superb, dedicated educators who are overworked, underpaid and, above all, underappreciated. But there are still far too many who believe their mission is to teach algebra or history, rather than help young people discover what they don't know, as the founder of Forbes Magazine notes, and learn on their own how rewarding it is to plug the gaps.

## THE MAIN ROLE OF SCHOOL HAS NOW BECOME TO TEACH CHILDREN HOW TO LEARN, NOT WHAT TO LEARN

Bennett, head of the Bayit Hayehudi party, wanted to be defense minister or foreign minister. The Education Ministry was, for him, a poor consolation prize, offered and accepted at the last minute. This is not an ideal beginning for leading a key ministry whose budget is second only to that of defense.

Bennett does not lack credentials. As Prime Minister Netanyahu's chief of staff

in 2006-8, Bennett led the development of an education reform program called New Horizon. As Israel's 22nd Education Minister, Bennett will try to fill the shoes of such giants as visionary educator Zevulun Hammer (National Religious Party, the predecessor of Bayit Hayehudi), who was education minister in five different governments, serving in the post for more than a decade in all.

In his open letter to Bennett in the daily Haaretz, Sami Shalom Chetrit, a social activist and a founder of the Mizrahi Democratic Rainbow Coalition, counsels, "It's tough to bring revolution to the Education Ministry. Most of the employees are dinosaurs, occupied with preserving the status quo and their own survival. It's hard to oppose them and demand change. Most education ministers simply give up and go with the flow."

Will Bennett take on the bureaucracy? Or will he mainly focus on defense and security issues as he did in the Economics Ministry?

I'd be delighted if Bennett could implement two or three of the above ideas. In fact, I'd settle for even one. ■

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