

Nº21 / FALL 2017

# THiNK

THE  
LOLA  
STEIN  
INSTITUTE  
JOURNAL

Conversation about Education, Ethics, and Our Children

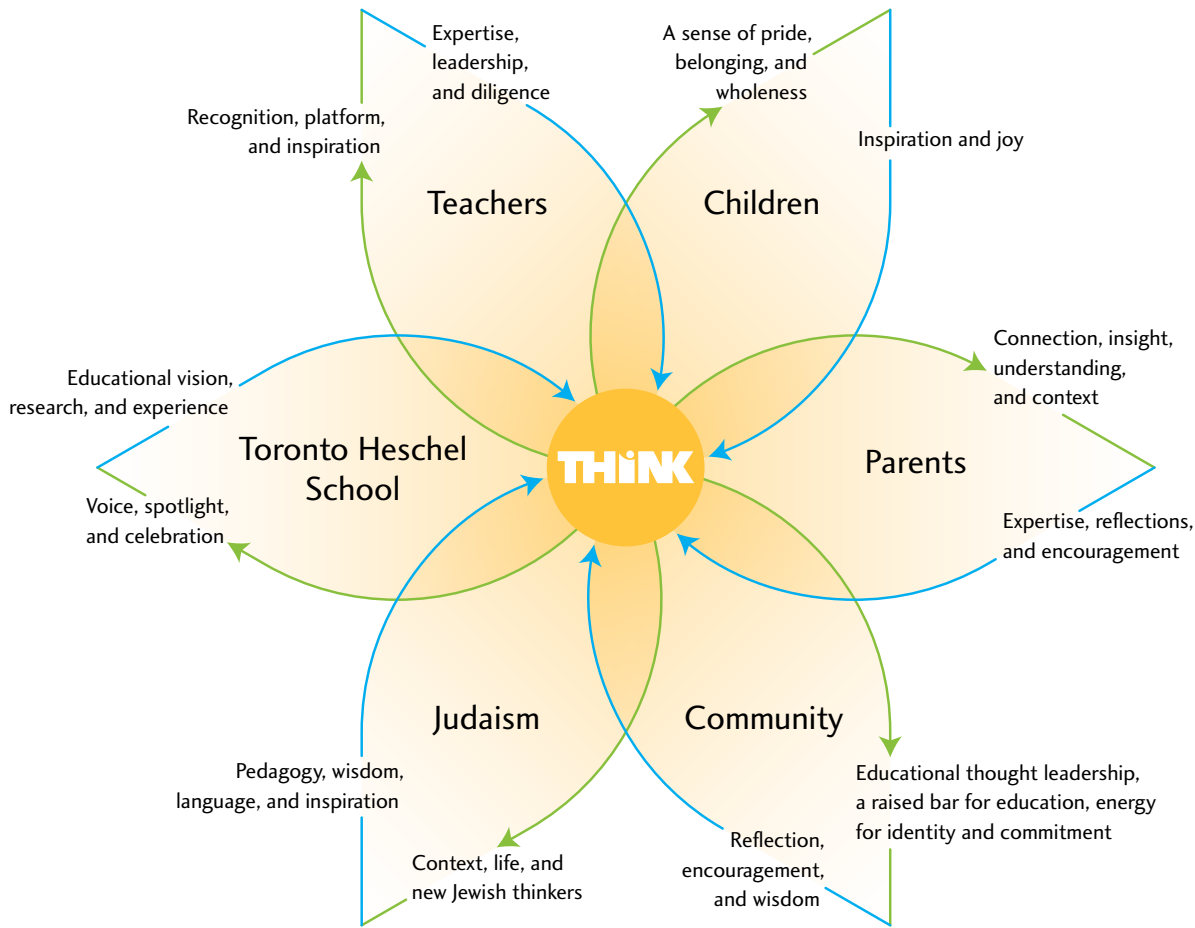
## Integrative Education: The Ecosystem of Learning

THE ECOSYSTEM OF A LEARNING ENVIRONMENT / MENTORING TEACHERS /  
MIRACLES AND SCIENCE IN GRADE 1 / FOOD FOR THOUGHT IN GRADE 5 /  
ROTMAN PROF. MIHNEA MOLDOVEANU ON EDUCATION AHEAD / DR. JASMINE ELIAV  
ON RENAISSANCE THINKING / RABBI MARC WOLFE ON PERSONAL STORY AND IDENTITY



# The **THiNK** Ecosystem

This flower names what **THiNK gives** to parents, the community, Judaism, The Toronto Heschel School, teachers, and children, and what **THiNK receives** from them in return.



**THiNK** THE LOLA STEIN INSTITUTE JOURNAL

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Integrated Jewish Studies espoused by The Lola Stein Institute are delivered at The Toronto Heschel School, a Jewish day school in Toronto, Canada.



Lola Stein z"l was an early female pharmacist in South Africa, but her special talent was in hospitality and friendship. She cared for family and friends, at home and abroad, individually, uniquely, and lovingly. We honour her memory in a way that also reaches out to many. We lovingly remember Mannie Stein z"l whose enthusiasm and support for our work with children is gratefully acknowledged.

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## COLUMNS

**4**  
EDITOR'S DESK  
Bring on Complexity

**6**  
AWE AND WONDER  
School of Salmon  
AN ECOSYSTEM FOR SUCCESSFUL LEARNING  
Greg Beiles

**8**  
Good Books  
Gail Baker

**10**  
SPOTLIGHT  
Living the Vision  
Lisa Richler

**12**  
THE LEARNING CENTRE  
Coaching the Integrative Teacher  
Dvora Goodman

## SPECIAL FEATURE: INTEGRATION

**16**  
Beyond the Buzz  
INTEGRATED LEARNING AT THE TORONTO HESCHEL SCHOOL  
Dvora Goodman & Pam Medjuck Stein

**20**  
The World Is My Teacher  
MATTER, METAMORPHOSIS, AND MIRACLES IN GRADE 1  
Pam Medjuck Stein

**22**  
Food for Thought  
SATISFACTION GUARANTEED  
Lisa Rendely & Marissa Unruh

## OUR SAGES TELL US

**26**  
Transcendental Learning  
RE-DESIGNING FORMATIVE EDUCATION ON THE EVE OF THE FOURTH INDUSTRIAL REVOLUTION  
Mihnea Moldoveanu

**28**  
Who Tells Your Story?  
Who Tells Ours?  
NARRATIVE AND IDENTITY  
Rabbi Marc Wolf

**30**  
Chaos and Order  
THE 21ST-CENTURY RENAISSANCE THINKER  
Jasmine Eliav



# Bring on Complexity!

**S**canning the panorama of the Information Age tells us where we are going. We have become acclimatized to new levels of complexity; we watch split-screen presentations, digest global feedback, and rely on easy information. For schoolchildren, comparison and combination are daily fare.

Students are getting used to interdisciplinary study. It widens focus—splits the screen—and reveals multiple fields of knowledge in tandem. But what does it mean? For example, 25 years ago, a new field called environmental studies combined natural sciences, ecology, and geopolitics. Today, studying disciplines in combination is not enough. Without inquiry to integrate the combinations comprehensively, too many stones remain unturned and students miss that peek into the wisdom beneath.

Integrative thinking yields topics that have never yet been identified and reframes traditional learning for intellectual combustion. For example, schools may examine multiculturalism through the lens of diversity, which, while fascinating, is but one aspect of a complex topic. Teaching that puzzle pieces have different attributes doesn't conjure up the spirit of Canadian pluralism. An integrative study might ask, "Who are we?" and answer through the civics of shared existence, the ethics of mutuality, the histories of our population, as well as the demographics on the ground.

Consider painting. Replacing the flat styling of early painting, single point perspective entered the Italian Renaissance in the 14th century and Leonardo da Vinci, Raphael, and others mastered a new realism. Today, the mesmerizing possibilities of the modern camera make exactitude a whole new art form. Anything can look, feel, even act, real.

Enter integrative thinking. British artist David Hockney rejects single point perspective and the single lens camera along with it. To paint the Grand Canyon, he took hundreds of photos while standing in one place, and was unhappy with the result. Realizing it was not the cliffs and valleys but the giant void in between that made the Canyon wondrous, Hockney made hundreds more sketches and photos from many angles until he could communicate the breathtaking

space that held meaning for him.<sup>1</sup> By interpreting from different angles, Hockney renders his truth more vividly than he could through Renaissance realism or high-tech cameras. Integrative learning takes learners beyond three dimensions to many more perspectives.

In this issue, THINK presents integrative thinking and integrative education. Our contributors look across this learning space from a healthy variety of vantage points. Greg Beiles, depicts the successful learning environment as an ecosystem. Also recognizing the symbiotic play, Rotman School of Management Vice-Dean Mihnea Moldoveanu and child psychologist Jasmine Eliav both envisage educational shifts. As traditional academics encounter machine learning, accessible data, and global networks, Moldoveanu foresees change in the nature of foundational learning. As communication and collaboration materialize as core skills, Eliav anticipates strategies that synchronize learning with self-development.

The story of integrative thinking begins in post-interdisciplinary times with academic silos already merged. The landscape is replete with new technologies, its culture reflects the collaborative ethos of our times, and the topography begs brand new skills. We meet Grade 5 students who consider the multi-dimensionality of gratification—nutritional, aesthetic, ethical, and spiritual—through an interaction of science, math, art, and Jewish text. We learn how three amazing Grade 1 teachers teach six-year-old children empiricism, mindset, and wonder through nature, science, and agency.

THINK considers the integration of words and deeds, commitments and results. Lisa Richler looks from the perspective of a school's vision and Rabbi Marc Wolf from the podium of the storyteller who can either strengthen or dis-integrate an audience.

We snap photos from many angles. Enjoy the view.

Pam

<sup>1</sup> Louisiana Channel, "David Hockney Interview: I Am a Space Freak," YouTube (March 16, 2016), retrieved July 19, 2017, <https://www.youtube.com/watch?v=rnDAidgLiZiE>

**"Everything should be made as simple as possible, but not simpler." Albert Einstein**



# School of Salmon

AN ECOSYSTEM FOR SUCCESSFUL LEARNING

BY GREG BEILES

Researchers have discovered that the quantity of salmon returning to spawn in coastal streams and rivers in British Columbia directly affects the flora and fauna of the old-growth forest surrounding the streams. The discovery suggests a new paradigm for understanding the relationship between species and the environments in which they live. Old models tended to focus on how certain animals would thrive in particular habitats without looking at how the environment responded to hosting those particular species. The new recognition is that some animals—in this case, salmon—have a reciprocal affect on the place where they live. As *The Globe and Mail* reported on this research,

When bears, wolves and other animals drag salmon carcasses from spawning streams they cause an intricate chain reaction that changes the nature of the surrounding forest, according to new research from Simon Fraser University.

Plant species that efficiently take up nitrogen from the decomposing bodies of salmon flourish—and soon there are more song birds, drawn by the dense growths of wild berry bushes and prolific insect hatches.<sup>1</sup>

In this habitat, not only did an increase of salmon improve conditions for other plants and animals, they also enhanced conditions for their own survival. Salmon require

cool streams in which to lay their eggs. Old-growth forest, with dense foliage and tall trees, blocks out the sun and keeps the streams cool; the salmon create the forest that enables them to thrive.

As a result of this research, the “Salmon Forest” became an exemplar of dynamic interactions among diverse living and non-living elements—plants, animals, streams, minerals—within an ecosystem. Human activity was also identified as an element within this web of interactions.

When I was Director of Curriculum at The Toronto Heschel School, I centred our Grade 3 Habitats Study around the “Salmon Forest Ecosystem.” We wanted our students to see how plants, animals, and people affect one another in vital sustainable relationships. Our school has an ardent interest in ecological stewardship, and we like to draw models for sustainability from the natural world.

To show the intimate connection between the needs of individuals and their communities and contexts, we also integrated the Jewish adage: אם אין אני לי מי לי? כשאני לעצמי מה אני? —“If I am not for myself, who will be for me? If I am only for myself, what am I?” The Salmon Forest became our paradigm, not only for understanding physical habitat, but also for seeing the Grade 3 class community as an interdependent ecosystem of individuals.

Now, as Head of School, I see that the Salmon Forest has

אם אין אני לי מי לי? כשאני לעצמי מה אני?

“If I am not for myself, who will be for me? If I am only for myself, what am I?”

much to teach about our school as a whole. Using “ecosystems” as a way to analyze organizations and businesses is not new, but the remarkable web of mutual reinforcements in the Salmon Forest Ecosystem offers a particularly appropriate model for the intensively integrated elements of our school.

The Toronto Heschel School is founded on a vision of multi-level integration: the school presents an integrated curriculum, in which different academic disciplines—math, history, science, Chumash, French, Talmud, English, and Hebrew—are taught in a way that mutually reinforces concepts of each discipline. The school is intentionally pluralistic, advocating creative interplay between the different streams of Jewish practice. The school sees the child as a whole person, whose social, physical, intellectual, and spiritual development is understood as an interconnected adaptive process.

However, as all successful organizations know, it is one thing to have a vision, quite another to bring the vision to reality and sustain it over time. We understood that vision, practice, and maintenance must be mutually supportive, and we embedded this educational philosophy into the by-laws of the school. What contributes to The Toronto Heschel School’s *thriving ecosystem* is how the vision inspires the organizational systems and cultural norms that, in turn, sustain the unique vision. The interplay of vision, systems, norms, and culture embody the complexity for which the Salmon Forest is an apt analogy.

Teaching a curriculum that integrates academic disciplines requires an intense level of collaborative planning by senior educator leaders and classroom teachers. In turn, organized collaborative planning necessitates logistical preparation for designated opportunities when teaching teams can meet to develop, document, and refine the collective product. Our teachers have planning time built into their weekly schedules; time for team work and time when they are mentored in efficient, effective, educational strategies. Because the teachers are simultaneously learners and participants in a progressive and evolving curriculum, they are attuned to the spirit and rationale behind it; they feel ownership of the educational artistry and are passionate about teaching it in class. With the right organizational “habitat,” the talent and skill that each teacher brings to the table coalesce to produce results that inspire the teacher to want to do more and to do it better, enhancing the educational

“habitat.” Inventive curriculum inspires engaged learners, and engaged learners inspire our teachers to innovate further.

A creatively integrated curriculum, infused with the arts, social action, and meaningful Jewish content, inspires children, teachers, and families alike. The Heschel School’s learning environment successfully attracts engaged, committed families from across the spectrum of Jewish practice. The resulting mix of enthusiastic young families, in turn, enhances the school’s vision of pluralism and the feeling that all Jews are welcome. Families who come to the school are looking beyond traditional categories of Jewish identity; there is an appreciation of a school’s role in the development of a child’s identity. Beyond academics and physical fitness, young families are now attentive to social, emotional, intellectual, and spiritual learning. They are receptive to new modes of learning. The presence of these families in the school challenges the teachers’ leadership further to ensure the highest standards. The reciprocity between school and family is another key part of what makes the school’s habitat flourish.

Academics is only one piece of a school’s thriving ecosystem. To ensure that all students learn well, there must be a positive school culture that includes respect and mutual concern among teachers, students, and parents. A child, who feels left out, bullied, or unsafe cannot learn well, so the concept *Derech Eretz Kadma L’Tora*—respectful behaviour precedes learning—is paramount. At the Heschel School we place a premium on developing pro-social behaviour using *middot* (ethical practices) drawn from Torah as our models. Each week, schoolwide, we practise a particular middah, such as “encourage others to have confidence” and “offer some of what you have to others.” At the end of the week, students reflect on their practice of the *middah* and describe seeing others perform it too.

Visitors continually comment on how respectful the students are—that they hold doors open for one another and for guests; that they are friendly and caring towards one another. Our students learn frameworks and implement protocols for class conversations to ensure all voices are heard. In Junior High, students participate in a weekly civics class using a democratic process to deliberate, gradually select, and then implement a *tzedakah* project.

A culture of mutual respect and care among children requires adults to role model the behaviour. When children watch their parents demonstrate care and respect for each

continued on page 9

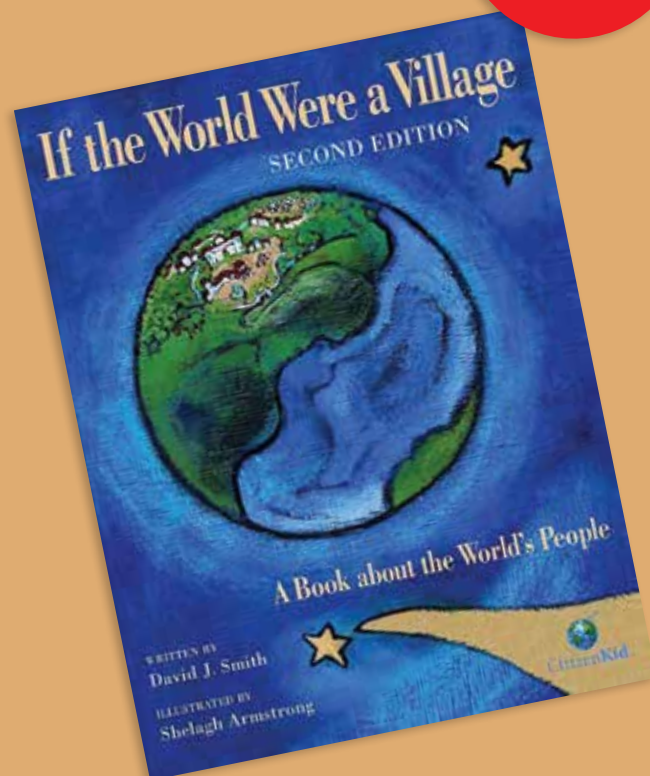


# Good Books by Gail Baker

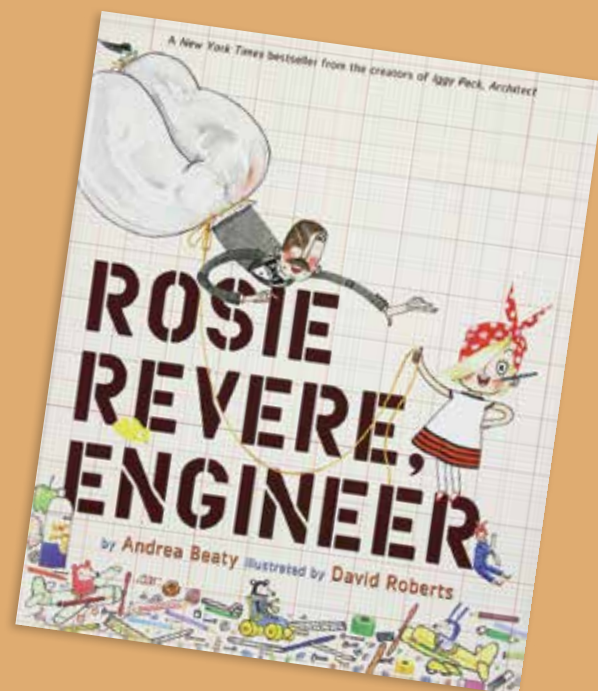
RECOMMENDATIONS FOR CHILDREN  
AND THE PEOPLE WHO LOVE THEM

**Gail Baker** is a much-loved Toronto educator, mother, and grandmother. She co-founded The Toronto Heschel School in 1996, became Head of School in 2001, and retired in 2014.

AGES  
4–10



***If the World Were a Village: A Book about the World's People*** by David J. Smith, illustrated by Shelagh Armstrong (Kids Can Press, 2011) This fascinating book challenges young readers to think about what we have in common with others around the world and to reconsider the struggles facing many far-away communities. Smith's method of fractions and percentages is meaningful to children; he provides new understanding of and a fresh connection to the Global Village as a shared home and a shared responsibility.



***Rosie Revere, Engineer*** by Andrea Beaty, illustrated by David Roberts (Abrams Books for Young Readers, 2013) Rosie dreamed of being an engineer. She searched and found gizmos and gadgets and built imaginative machines. Rosie was teased for her inventions, especially her unusual combination of materials. Meeting with failure, she would hide under her bed until, one day, she was encouraged to see a failure as a new beginning, something positive. Then, nothing stopped her.



***Anne of Green Gables*** by Lucy Maude Montgomery (Puffin Books, 2017)

"It's delightful when your imaginations come true, isn't it?" In this celebrated classic, great reading for all ages, Anne is an 11-year-old orphan. She lands in the home of two middle-aged siblings, the Cuthberts, who had wanted a boy, strong and sensible, to help around the farm. Using her imagination to answer all kinds of situations, Anne wins them over. With ideas flowing from many directions, her solutions to various problems are fascinating! Given the gender restrictions of the early 19th century, Anne's creativity lands her in all kinds of trouble.

AGES  
10–13



***The Boy Who Harnessed the Wind: Creating Currents of Electricity and Hope*** by William Kamkwamba and Bryan Mealer, illustrated by Anna Hymas (Puffin Books, 2016)

This story is based on a young teenager named William, who wanted to solve troubles caused by drought and famine in his country of Malawi. Forced to leave school because he had no money for the fees, William found science books in the local library and taught himself how to build a windmill. His idea was to generate electricity so his family could pump water to farm their land. Too poor to purchase the materials he needed, William found scraps of metal and bicycle parts in junk yards and garbage cans. With these, he crafted a rudimentary windmill that led him to other ideas and, eventually, he improved the lives of his family and his community. William became a local hero and an inspiration to others around the world.

continued from page 7

The mutual reinforcements in the  
Salmon Forest Ecosystem offer  
a model for our school.

other, and for teachers, they internalize these norms and, in turn, treat their friends well. The Heschel School has a Chevra Committee made up of dedicated parents who organize parent social events, deliver Shabbat welcome packages to new families, arrange shiva meals, and run an annual teacher appreciation week.

A prominent facet of the Heschel School ecosystem is the deeply embedded culture of social inclusion, rooted in the vision of pluralism. Families are encouraged both by school leaders and by veteran school families to uphold a practice of inclusion for parties, play-dates, and life-cycle celebrations. It is a school tradition for the entire class to be invited to *b'nai mitzvah* celebrations, and we have seen the power of this practice in the sense of the community it builds among the students. We encourage parents of children to speak to one another when social dilemmas involving their children arise. Families work collaboratively with teachers to resolve social-emotional and learning concerns. Experience has taught us that when parents communicate and problem-solve with each other and with the school, the class culture is healthier and students are more focused on their learning.

In a healthy school ecosystem, the learning supports the culture and the culture supports the learning. Curriculum committed to invention nurtures inspired teaching; teaching becomes inspired when it is nurtured by systems for professional collaboration and continued learning that are well conceived and reliable. Respectful, committed families inspire respectful, committed teaching, and vice versa.

A famous dictum of the Talmud teaches that we can learn modesty from the cat, honest labour from the ant, and good manners from the rooster (*Eruvin* 100b). Watching salmon we learn to create a flourishing learning community. Like the Salmon Forest of British Columbia, with interdependent synergistic relationships among salmon, bears, trees, berries, and rivers, The Toronto Heschel School is a thriving, diverse, unique, complex ecosystem; the dynamic interplay of the parts creates the beauty of the whole.

<sup>1</sup> Mark Hume, "Health of Salmon Run Affects Ecosystem of Forest," *The Globe and Mail* (Vancouver), March 24, 2011, <https://www.theglobeandmail.com/news/british-columbia/health-of-salmon-run-affects-ecosystem-of-forest/article597181/>

**Greg Beiles** is the Head of The Toronto Heschel School and the Director of The Lola Stein Institute.



# Living the Vision

BY LISA RICHLER

At The Toronto Heschel School's most recent graduation ceremony, a guest commented on how remarkable it was to see a class of students so obviously connected to one another and to their teachers—and, more so, how unusual to see a group of *parents* who were so close. Graduation took place on a Thursday in June. The following night, every graduate gathered with his/her parents and siblings for Shabbat dinner. Initiated, organized, and hosted by parents, the dinner exemplifies how a diverse school community can create meaningful bonds between families from a wide range of affiliations, levels of observance, traditions, and family structures.

What unites these families is a shared commitment to raising kind, thoughtful, well-rounded *mensches*. The shared

aspiration is never more evident than at the school's annual Chanukah Festival of the Arts, which ends—every year—with the singing of Debbie Friedman's "Oh Hear My Prayer." The Heschel rendition opens with one or two student soloists, then gradually builds as all students, staff, parents, grandparents, and alumni take turns singing the lyrics:

*Oh hear my prayer, I sing to You.  
Be gracious to the ones I love.  
And bless them with goodness, and mercy and peace.  
Oh hear my prayer to You.*

By the time the entire community is singing together, there are very few dry eyes in the room. As a Heschel parent

and staff member, I find the singing of "Oh Hear My Prayer" to be so powerful, because it demonstrates that there are many of us working together to bring out the best in our kids. We are connected to one another in vision, values, and spirit.

How do you build a tight-knit school community? The foundation is that these families and staff are attracted to the school because of its particular brand of Jewish education, which is rooted in the teachings of Rabbi Abraham Joshua Heschel. It builds from there.

Rabbi Heschel believed that participation as a citizen of the world is a prerequisite to being a good Jew. Toronto Heschel students learn that doing good deeds begins with small acts of kindness, such as opening doors for each other, wishing friends who are not feeling well a *refuah shlemah*, being inclusive and caring. There is a "Heschel-ian" way of behaving that begins with the school's administration and staff and is reciprocated by students and their families.

It is no accident that last year's graduating families made the effort to celebrate the final Shabbat of the school year together. Inclusivity is key to the school mission; it reflects Rabbi Heschel's concern for the spiritual quality of human relations and the unity of the Jewish people. The philosophy hinges on religious pluralism and mutual respect and the school carries this forward in all ways. It makes it a priority to welcome new families warmly—not just the new students, but their parents and siblings too. At a welcome dinner in late August, new families meet future teachers, classmates, and parents. Parent ambassadors connect quickly with new families through initiatives that include personal letters and hand-delivered Shabbat packages.

The warm welcome extends through the months that follow. The Chevra Committee is open to all; it is a large group of parents who organize and run school events—from Breakfast in the School Sukkah in the fall, to Havdallah on Ice in winter, to Mitzvah Day in the spring. The programs are spirited, festive, and very popular; they create wonderful opportunities for families to come together and share Jewish traditions and rituals.

The spirit of inclusion extends broadly and serves everyone. Volunteers help with everything from hot lunches to project displays to field trips. Parents with particular skills sets (e.g., landscaping, photography, cooking) find "niche"

ways to contribute. The Adult Education program invites parents, grandparents, alumni, and staff to expand their own Jewish learning. Each grade organizes an adult-only class party that is just as well attended by long-time parents as by new parents; it's a chance to schmooze, catch up with old friends, and get to know new ones. Good news (e.g., births, *b'nei mitzvah*) and bad news (e.g., death in a family) are shared across the school community, as are mutual support, celebrations, shiva meals, and baby gifts.

Another pivotal practice is that Heschel parents come into the building every day—at drop-off in the morning and at pick-up in the afternoon. Bringing parents physically into the building melds them into the life of the school: they gain an easy window into what their children are learning, as student work is always on display, whether finished or in progress. It also lets parents and teachers speak together regularly and grow to know one another over the school year.

Rabbi Heschel famously said, "In Selma, I prayed with my feet." He walked with Martin Luther King Jr. because he believed that Jewish actions have to reflect our beliefs. Each week the school chooses a particular ethical theme from the week's Torah portion: a *Middah Hashavua*. Teachers discuss the *Middah* with students and post it in every room. The theme is communicated to parents and grandparents in the weekly bulletin, with explanations about how it shows up in daily life. Teachers also deliver weekly messages to parents telling them about the *Middah Hashavua* discussed in class, adding questions to help guide more conversation at home. We foster continual dialogue about ethics and their practice.

Toronto Heschel parents were surveyed this year to discover what they valued most about the school. The two most frequent responses cited the school's integrated curriculum and its tight-knit community. This twinning is not happenstance. The school has been developed with vision and purpose. Its unique educational philosophy permeates every aspect, from classroom set-up to integrated study units to the inclusive, energetic community culture. It runs through the learning and through the lived relationships of staff, students, and families. At Heschel, we live the vision.

**Lisa Richler** is the parent of three Toronto Heschel School students. Formerly a teacher and writer, she is now the school's Director of Communications and Admissions.

There are many of us working together to bring out the best in our kids.  
We connect to one another in vision, values, and spirit.





# Coaching the Integrative Teacher

BY DVORA GOODMAN

Heidi Friedman mentors her team to bridge ideas and opportunities that would otherwise remain separate.

The Learning Centre is where senior educators at The Toronto Heschel School mentor their colleagues to continually refine their craft; a school program is only as good as its teachers.

Integrative teaching is one advanced technique that is honed and polished. It offers students new and complex understandings through a purposeful curation of diverse elements; it is a specialized skill at the crux of The Toronto Heschel School's approach to education.<sup>1</sup> As an adjective, "integrative" implies unifying separate things, and as the verb "to integrate," it refers to combining one thing with another so they become a unified whole.

While its components—including interdisciplinary study, big ideas, learning through the arts, whole child approach, blending Jewish and universal studies—are each talked about enthusiastically in university faculties and at professional conferences, they have not been taught in combination as an integrated pedagogy. Therefore, most Toronto Heschel teachers receive coaching specifically in integrative skills, such as big-picture and lateral thinking, the management of exploration and experimentation, the facility to exploit language skills strategically, and peer-to-peer and classroom collaboration.

Heidi Friedman, the school's Director of Early Years and Child Study, mentors teachers in integrative teaching. Her technique of choice is to model an iterative process, working through lesson plans to be sure of three things:

1. Topics must connect across disciplines artfully and synergistically,
2. Students' social and emotional learning must remain in focus, and
3. There is symbiosis between curriculum and child study.

For instance, one Senior Kindergarten theme that is used to coordinate and integrate the children's lesson is set as "Communication happens in many ways; if we listen and watch carefully, we learn about relationships and interactions." The children learn the phenomenon of communication by studying it in different contexts:

- a. In their science class, communication appears as reciprocal relationships in nature, as when a plant's lack of water causes it to wilt or a tree's thirst draws up the

water it requires. There is an interaction of physical ask and answer.

- b. In their Chumash class, communication occurs in desert dialogues between God and the Israelites (B'nei Yisrael) and Moshe; again, there are asks and answers.
- c. In their language arts class, students articulate their thoughts in a Writers' Workshop; they write, then reconsider and reconfigure their words until a reader comprehends their ideas with accuracy.

One anecdote she provided helped me see what Friedman meant by the integration of curriculum with child study. A very young student repeatedly said "no!" whenever teachers or classmates invited him to play, work, or share. It was causing the obvious obstructions and upsets to the young student himself as well as to the class as a whole. Friedman explained to her team that the preferred response was to engage this social and emotional challenge through the language of communication that the class was learning in other contexts. In a group discussion the teacher could ask the class, "What do you think Jon was really communicating when he said 'no, no, no' to Jill's request? What did he mean? How else could he have said what he was feeling?" Pairing the children's learning about communication with a hurdle to peace in the class was enlightening to all. Friedman and her teacher group carefully discussed how to manage this kind of conversation among very young children, which itself would require a very thoughtful conversation in class. As a mentor, Friedman was folding many considerations into the mix.

Friedman also coaches for "performances of understanding." These are opportunities for the children to physically demonstrate what they have learned. It helps students internalize their learning by requiring it to be expressed. For example, in the Jewish tradition the first of the Hebrew month Adar is a day of fun and silliness, with hints of Purim to come. In many Jewish schools children dress up, parade, and sing about Adar and happiness. Friedman asked the Early Years team to seize on the First of Adar as a possible moment for "performance of understanding" of the thematic learning underway in each class. The following emerged:

1. The Junior Kindergarten children were studying feelings; so the students dressed up as silly joyful

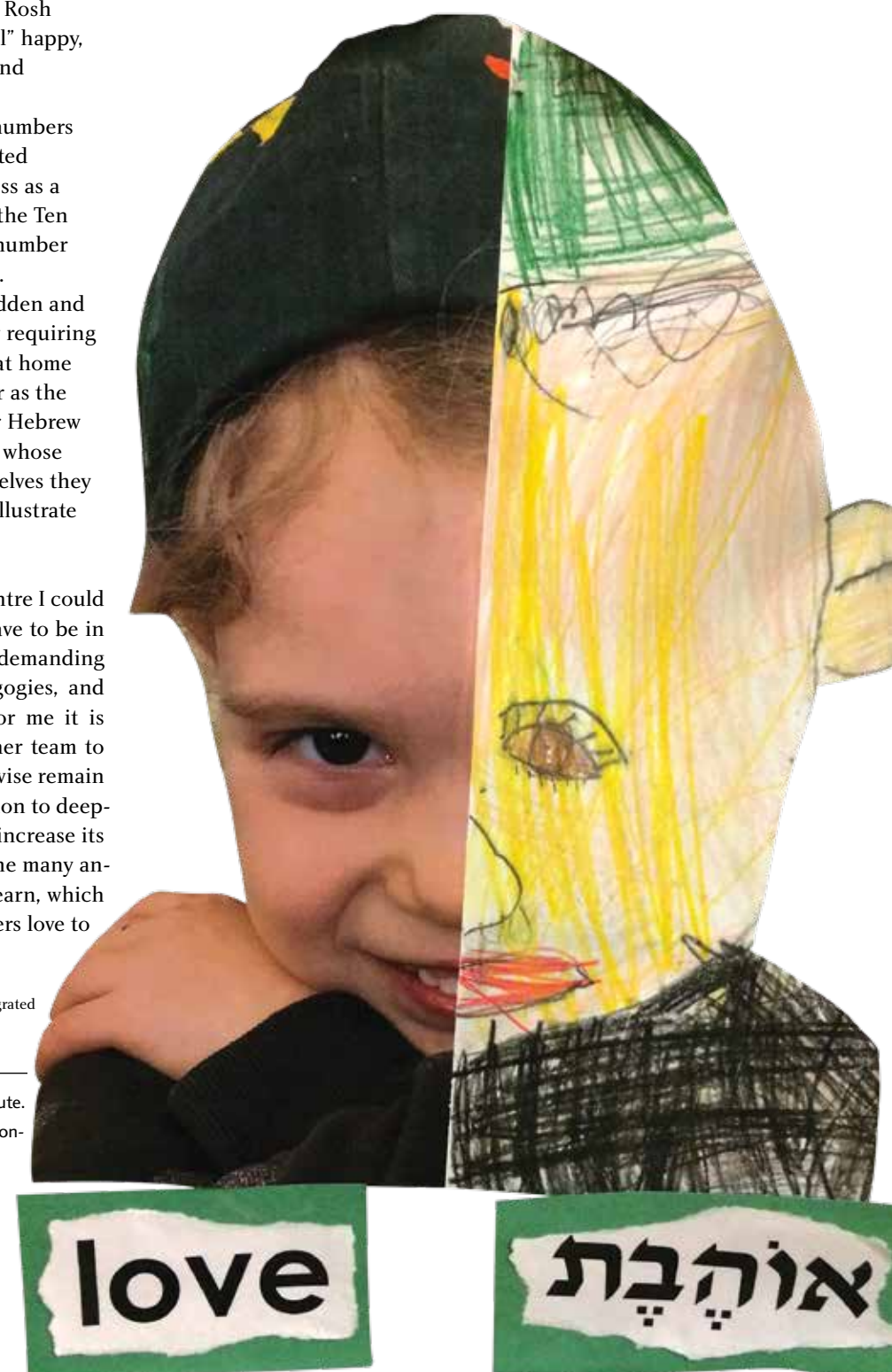
clowns and painted their faces. Learning that Rosh Chodesh Adar is a time to make everyone "feel" happy, they put this into action, dancing as clowns and spreading joy around the school.

2. The Senior Kindergarten class was exploring numbers and their Rosh Chodesh Adar costumes reflected either a number or quantity. A child could dress as a basket of eight apples or as the two tablets of the Ten Commandments. Another could wear a giant number three or pin tiny numerals all over her clothes.
3. Grade 1 was engaged with the theme "The Hidden and the Revealed," which included a science study requiring the students to track the phases of the moon at home each night. The children could dress up either as the phase of the moon that would appear on their Hebrew birthday, or they could make and wear a mask whose outside face would depict how much of themselves they revealed to the world, while the inside would illustrate the unseen aspects of their persona.

Through my conversations in the Learning Centre I could see how detailed and intentional the teachers have to be in the way they approach integrative learning. It is demanding work, more complicated than traditional pedagogies, and requires thoughtful cultivation and practise. For me it is beyond impressive to see Friedman mentoring her team to bridge ideas and opportunities that would otherwise remain separate. What becomes clear is the group's passion to deepen learning for their very young students and to increase its meaning in these early lives. I could also see in the many anecdotes and examples that the children love to learn, which makes sense, as it is so apparent that their teachers love to teach them.

<sup>1</sup> See Dvora Goodman and Pam Medjuck Stein, "Beyond the Buzz: Integrated Learning at The Toronto Heschel School" in this issue.

**Dvora Goodman** is the Coordinator of The Lola Stein Institute. She has worked for over 20 years in a variety of Jewish educational settings and is a Toronto Heschel School parent.





# Integration

Through Jewish text, we understand journeys from slavery to freedom; tension and openness also appear in the knots and loops of macramé.





# Beyond the Buzz

INTEGRATED LEARNING AT  
THE TORONTO HESCHEL SCHOOL

BY DVORA GOODMAN AND PAM MEDJUCK STEIN

The words “integrated” and “integration” bounce around schools these days. Let’s be clear; their usage is very unclear. Schools do not use these terms in the same way. Their meaning originates in “*bringing together* parts of a *whole*” from early French, and in “*renewal*” from late Latin.

Picture yourself baking a cake: you select and measure flour, salt, baking powder, sugar, eggs, oil, and so on. You *bring together* and mix the ingredients in a bowl, pour the mixture into a cake pan, place it in the oven, and bake; what comes out is a *whole new* delicious creation. There are many recipes for cakes. The challenge is to select and handle ingredients that turn out a beautiful scrumptious product. At Toronto Heschel, carefully identified ingredients converge in thoughtfully planned units of study where four kinds of interaction transpire. Each of these is an essential ingredient without which integration—Toronto Heschel School style—cannot take place: they are teaching the whole child, learning through arts, thinking in academic disciplines, and connecting academic disciplines through thematic study.

## 1. Body, Mind, Spirit

Integrative education nurtures the whole child all day, premised on the interaction and interdependence of mind, body, and spirit. An acceptance of learning for complexity is essential on all levels; each child is a composite of many attributes, sensibilities, and circumstances. More than academics happens for the child at school. The day embraces social and emotional development, mobilizing individual expression through music, literature, dance, and visual arts, while pinpointing and supporting attributes which aid or complicate each child’s progress. The Jewish Canadian child owns a double identity—Jewish and Canadian—and integrative education welcomes the combination, neither dividing the day in half to distance the characteristics one from another nor separating universal study from Jewish study to filter each artificially.

An example of teaching the whole child is the Grade 7 unit “Experience Is a Sign for Me to Shine!” In this unit, 12 year-olds reflect on peer influence and engagement. The pre-teens examine social pressure as a historical phenomenon while studying ancient civilizations and Jewish responses to Hellenism in Judea at the time of the Maccabees. They observe how circumstances provide opportunity to strengthen values and let identity shine. Making the dilemmas of ancient history personal, students craft and design a Chanukiah to symbolize how they manifest their own Jewish identity in a secular, pluralistic world. They are growing young adults, a perfect age to be introduced to the practice of contextualizing Jewish identity among different influences in their lives.



## 2. Expression

Learning is the expression of understanding. Integration through the arts uses music, literature, dance, and visual arts as catalysts to finding expression beyond the constraints of words and numbers. Judith Leitner, Director of Integrated Arts, writes,

We see how the process of creating vivid imagery, sound, language, and movement engages a multiplicity of senses and makes visible a learner’s unique voice...the arts stretch our minds, enabling inventiveness and expressivity as open-ended illuminations of points of view or mindsets crafted as questions, uncertainties, deliberate contradictions, provocations or as a bold deconstructions of form, space or time... Most importantly, we recognize that arts have the capacity to cultivate our most essential life tool: the art of self-esteem.

In Grade 4, students read a novel in small groups, analyze components of plot and character, and collaboratively write an original play that sees them perform their understanding of the novel. Drama, music, and visual arts become their tools as they digest and convey the novel in new ways. “The Beautiful Triangle” is a Grade 7 multi-disciplinary study that integrates geometry, aesthetics, language, the history of ideas, and visual arts. Students learn how the ancient Greeks used geometry as an analytical device, such as Thales’s use of similar triangles to measure the heights of pyramids. They meet the visual art of Wassily Kandinsky, and they engage with geometry and the properties of triangles to express their thoughts and ideas.





### 3. Disciplined Thinking

Academic disciplines may be the building blocks for everything that children learn. Mastering a discipline involves proficiency in the way of thinking that is specific to that field of study; a mathematician may approach numbers differently than a geographer handles topography. When coursework is structured for students to think as the respective academic disciplinarian would think, they learn the subject matter with enhanced internalization. In each discipline there are three lines of inquiry. For example:

- What does science teach? How do scientists think? How do we inquire as scientists?
- What does history tell us? How do historians think? How do we research the past as historians would do it?
- What does the Talmud say? How did rabbis of the Talmud think and argue? How do we engage with text in the Talmudic fashion?

An important integrative interaction happens through the disciplinary approach. While each field of study offers content and sharpens specific cognitive abilities (logical, evaluative, inductive), student engagement with such variety of distinctive ways of thinking strengthens flexibility in habits of mind, which is as valuable a life skill as an academic one. The metacognitive aspect is also significant;

students become more aware of their own actions and thoughts: “This is how I’m thinking; this is what I’m doing.” Self-awareness and self-regulation of strategy and performance are critical in the development of independent thought and other life skills.

For example, the discipline of science involves inquiry arising from curiosity about the physical world. Scientists observe, hypothesize, experiment, and reach provisional conclusions that lead to more questions. The children begin learning how to observe in Junior Kindergarten and, by Grade 1, they are primed for the Scientific Method. They observe nature and learn about metamorphosis; they watch matter—for example, water—change between solid, liquid, and gas. Consciously, using the thought process and language of scientists, they ask, “How does matter change between solid, liquid, and gas?” Step by step, they develop a hypothesis, experiment, observe results, and draw conclusions. The scientific approach becomes theirs.<sup>1</sup>

Grade 4 students learn the equally specialized skills of social scientists, exploring Canadian culture, natural resources, and geography through authentic artifacts and folk habits. Examining domestic utensils, old maps, songs, visual art, photography, and stories, students uncover the spirit of each Canadian province through the expressions of the people who live there.

### 4. Complex Thinking

Interdisciplinary approach is another ingredient. It sees synchronized topics weave skills and ethics together. The result is a more advanced learning of both. Coursework in different academic disciplines is coordinated by a single framework that centres around an overarching “big idea” with an ethical premise. Students keep the big idea in mind while learning skills that fulfill (or exceed) the academic demands of their grade.

The big idea in one Grade 3 integrated unit is to bring students to appreciate the important relationship between self-awareness and self-regulation, on the one hand, and social responsibility and action, on the other. The unit is called “Be responsible for myself, think of others, and act now!” Coursework weaves in the Jewish ethic, “If I am not for myself, who will be for me? If I am only for myself, what am I?” (Ethics of the Fathers/Pirkei Avot 1:14).

In language arts, the children take on the role of poets and share personal reflections about themselves. In math, they study place values and see how numbers depend on each other for their value. Perhaps as with people, unique face value is important, but interaction with others has consequences: digits such as “3” or “4” have an individual “face” value, but they change total value according to their “place” within a larger number, 234 or 43. Studying ecosystems, in science class, the children observe a single organism’s unique role, yet each organism impacts all others. First raising, then releasing salmon, they watch the living things meet their own needs while supporting the well-being of all. In Chumash class, students consider how, like Abraham in the Torah, every name can be a blessing: כל שם יכול להיות ברכה. They learn that a “good name” is acquired on assuming responsibility for ourselves and others through deeds (*mitzvot*) and the Ethical Path (*Derech Eretz*).

Returning to the cake: what is produced by the four processes above does not resemble any one part of the ingredients. The cake is the personal awareness that each child feels when making sense of the learning. Recently, in a joint presentation, two Toronto Heschel graduates said,

In every class...there are hundreds of dots that are being connected. All of our classes share a common thread, a generative topic that can link to Talmudic studies, art classes, music, poetry, dance and so much more. Not only do you learn to dance, to sing, and to write but also you learn how to integrate diverse ideas and concepts.

Another much older graduate described integrative thinking at Toronto Heschel as “an operating system that just runs inside.” Well accustomed to integrative thinking, graduates continue to amaze and inspire us as learners, thinkers, Jews, and human beings.

<sup>1</sup> See Pam Medjuck Stein, “The World Is My Teacher: Matter, Metamorphosis, and Miracles in Grade 1” in this issue.



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For your miracles, that each day are  
with us, and for your wonders and  
goodness, that are at every moment,  
evening, morning, and midday.

When a six year-old says, “I am going to look beyond the obvious,” he/she is thinking at a higher level of consciousness than is generally expected in Grade 1. Nonetheless, Rachely Tal says it’s the upshot of “Matter, Metamorphosis, and Miracles.”

The premise of “Matter, Metamorphosis, and Miracles” is twofold: an appreciation of miracles transforms how we think about the world, and we behave better for it. I discussed this integrative program—and its empirical, spiritual, and meta-cognitive mix—with Tal, Galit Babitsky, and Elissa Wolf, first grade teachers at The Toronto Heschel School. They use the wonder of miracles to demonstrate that the world can always teach, that change is the true constant, and that attention to detail delivers great learning.

We don’t proclaim miracles, explains Babitsky, we notice something extra-special and seize a learning moment. Perhaps we notice because it seems unusual; perhaps because it doesn’t. We can see everything as a miracle, something that God makes happen to call our attention to it. Rabbi Abraham Joshua Heschel writes,

The great quality of a miracle is not it being an unexpected, unbelievable event in which the presence of the holy bursts forth, but in its happening to human beings, who are profoundly astonished by such an outburst.<sup>1</sup>

The teachers present miracles as evidence of tangible natural change, not magic. How does that tiny bud blossom into something so beautiful? Why do those ants know where to go? Wolf says the enthusiasm for learning that materializes as the children find miracles is itself very inspiring.

Their explanation of miracles begins with “Moses’ Miraculous Method,” a term coined by Greg Beiles, and now part of school lore. In the hot desert, many bushes burn in the heat and many shepherds walk by the smoking twigs. One shepherd, Moses, stopped to look closely, ask questions, and deliberate on the significance (Exodus 3); the result was an encounter that changed his life.

The children become Miracle Detectives, in training to take the time to notice that miracles happen all around

# The World Is My Teacher

MATTER, METAMORPHOSIS, AND MIRACLES IN GRADE 1

BY PAM MEDJUCK STEIN

them. They practise close observation. They leave the classroom, step outside, stop, and look around carefully. Tasked to be aware, both in the moment and day by day, they search the school’s field and garden for changes transpiring naturally. In booklets, they note descriptions of miracles they find: plants sprouting, new twigs, weeds.

Their questions become self-aware and self-reflective: What am I seeing here? Is this a constant or does it change? How is this happening? And why is it happening to me? Was it because I was looking at nature? Because I was paying attention? Engagement with attention puts the children personally in the miracle, and they like it: What do I notice? What can I learn from this? What might God want me to learn from this? They are seeking miracles in a non-traditional way, neither as an indecipherable mystery nor as something to accept passively. They notice the reciprocity.

The children contemplate the elements that make them notice: looking carefully and mindfully, using all their senses to find as many details as possible, asking questions, looking again—they learn that their thoughtful attention reveals miracles, which is probably what God wants.

“Matter, Metamorphosis, and Miracles” weaves through several Grade 1 classes. Tal shares that singing the learning makes it second nature. Going about their work, students sing the steps to seeing a miracle, in Hebrew, “I was walking by, I noticed, I stopped, I looked closely, I asked a question, I had a deeper understanding, I was amazed by the miracle.” Tal includes Hebrew vocabulary for snow, rain, thunder—one constant change in Canada is our weather.

In their Language Arts Writers’ Workshop, students write personal narratives expanding a precious moment through descriptive words and details. The method corresponds to the sequence for miracle sleuthing: Pause, observe, and identify details; then learn, reflect, and write. The process is profound on its own, and very Jewish.

In science, the children study three states of matter in nature—solid, liquid, and gas—and change agents that affect them. Moses’ Miraculous Method compares to the Scientific Method—observe, question, hypothesize. Students see how the agency of temperature changes water from ice to liquid

to vapour. They undertake a proof exercise; shaking cream, sugar, and milk in a bag surrounded by ice to produce ice cream. God provides nature; our interventions deliver delicious results.

The teachers explain that, for young children to grasp the full meaning of agency, reflections on responsibility are needed. For example, Chanukah commemorates the miracle of oil lasting eight nights, against all expectations. The *hal-akhah* (rule) requires a Chanukah light to last one hour, and so, to fulfill the tradition responsibly, the children investigate which oil—soy, paraffin, beeswax, or olive—works best. Testing a range of considerations, paraffin is found most efficient, but least ecologically sound. Olive oil wins.

In math, students meet the miraculous utility of numbers. They absorb the importance of the unit of 10 in our counting system—10 fingers, 10 toes, 10 for *minyan*, 10 Commandments, Yom Kippur on the 10th of Tishrei. They then find Miraculous Matches which are pairs of numbers between 0 and 10 that will always add up to 10, such as 2 + 8, 4 + 6, or 9 + 1. Miraculous Matches also help with subtraction between 0 and 10 because if 9 + 1 = 10 then you can know that 10 – 1 = 9. This early competency in Miraculous Matches gives young children a strong facility to add and subtract, first at lower levels, then higher. Based on visualization and a sensibility for the missing matching number, they can use it to estimate mathematically.

“Matter, Metamorphosis, and Miracles” levers foundational learning discoveries one to another. As a *modus operandi*—an M.O.—“Observe, notice, articulate” helps children develop consciousness and concretize thoughts. Science studies introduce the nature of matter and the notion of agency, along with discussion on God’s role and our responsibilities. Miraculous Matches empower the utility of numbers as students accustom themselves to manipulate the numerical symbols our world relies on and solve problems that circumstances present. When six year-olds recognize the world as their teacher, they own the wonder of miracles personally and forever. It’s a very strong start.

<sup>1</sup> Abraham Joshua Heschel, *Israel: An Echo of Eternity* (New York: Farrar, Straus and Giroux, 1969), p. 6.



When students consider the interrelationship of body, food, environment, ethics, and Judaism, the experience of eating has more meaning.

## Food for Thought

SATISFACTION GUARANTEED

BY LISA RENDELY AND MARISSA UNRUH

Good morning! You are sitting down with your family to a breakfast of free-range eggs, locally baked whole-grain toast, Ontario berries, free-trade coffee, and organic milk. You feel satisfied knowing that you are refuelling your body with nutrition and energy. You feel grateful for having access to ethically sourced products, pleased to see your meal in beautiful vessels, and thankful to Hashem for the earth which provides these resources and opportunities.

John Dewey, the American philosopher and educational theorist, believed in the positive potential of holistic education. Coincidentally, he once used nutrition as a metaphor to make his case. He wrote,

There is no such thing as educational value in the abstract. The notion that some subjects and methods, and acquaintance with certain facts and truths, possess educational value in and of themselves is the reason why traditional education reduced the material of education so largely to a diet of predigested materials.<sup>1</sup> To take the analogy further, we acknowledge that pre-digested food is suboptimal on two fronts: it delivers less nutrition and it requires less agency from the body in the digestion process. Likewise, to raise children who become healthy, well-rounded

human beings, Dewey advocated they ingest an education of thoughtfully integrated learning experiences that demand full attention and engagement.

As Grade 5 educators, when we teach about the connection between the environment, food, and the human body, we mirror the natural way in which children encounter food and nutrition. We engage all their senses, and a variety of learning modalities. The breakfast above offers a holistic approach to a morning meal, interrelating body, mind, environment, history/culture, religion, ethics, economics, and aesthetics. Digested together, they provide much food for thought.

The class examines the Jewish grace after meals, *Birkat Hamazon*, which includes the Hebrew phrase, “*V’Achalta V’Sava’ata u’Verachata*,” meaning you shall eat, you shall be satisfied, and you shall bless God (Deuteronomy 8:10). The words have wide-ranging implications and offer a multi-lens focus on what satisfaction means. They enable a deep and wide understanding of why and how we consume food for satisfaction. Are we more satisfied and ready to meet the day when gratified as much by our breakfast’s nutritional properties as we are by its ethics and beauty?

Our students analyze the meaning of satisfaction (*Sava’ata*) holistically. Studying the *Birkat Hamazon*, they find that Moses first spoke these words when he addressed the Israelites in the desert; the archetypal Jewish prayer, *Shema*, comes from the same speech. Moses explains that humans cannot be satisfied by bread alone (Deuteronomy 8:3), but require the kind of physical satiation achieved when food is consumed in conjunction with the spiritual, metaphysical, and emotional gratification found in words of Torah. The included prayer, *Nodeh Lecha*, adds thanks for freedom from slavery, for the Land of Israel, the covenant, the Torah, life, grace, and compassion, and, finally, for the food that we eat. We cannot thank God, nor appreciate our food, one in isolation from the other. Our Grade 5 students begin to make the connections.

Together we brainstorm to identify what satisfies us: eating good food and feeling full, making an effort and feeling pleased, accomplishing goals, enjoying aesthetic experiences (music, art, theatre), appreciating nature, refuelling our bodies through rest, and interacting with others. This exploration broadens perspective on what satisfaction means, and primes the topic for diverse applications.

In social and environmental sciences class, the students engage in a blind taste-test of organic and non-organic produce to compare the differences in taste and texture before they see the physical differences between the two vegetables. They learn about genetic and environmental modifications that food may undergo before reaching our plates, and the impact those modifications could have on our bodies. They investigate other ethical issues, such as fair trade, and discover that fair trade values align with Jewish values; this makes us responsible to attend to where our food comes from, how it grows, and whether those producing it are treated fairly.

The students research nutrients in foods and their effects on the major systems of the human body: the respiratory, circulatory, digestive, skeletal, and nervous systems. A correlating mathematics study of fractions, decimals, and percentages extends the inquiry into nutritional values and the implications of nutrition labels on packaging.

The students pursue independent research in language arts class, selecting a fruit, vegetable, grain, seed, or nut to study in depth. They generate questions about the food’s source, growth patterns, nutritional value, cultural significance, ethical implications, and any Jewish connection. Dewey would be pleased to see the students engaging in authentic, holistic learning—independently they consume original sources and they produce a well-digested understanding of their food.

They carry their selected food into art class and work through a design process to create a ceramic vessel that will enhance satisfaction when it is used to serve their food. The students engage artistically with the food’s shape, scale, texture, and function. They experiment and “play with their food,” stamping it into the clay to produce designs and



depths of texture. Ultimately, they carry home a material representation of their integrated learning.

Daily eating—like other habitual activities—can easily be taken for granted. When students consider the interrelationship of body, food, environment, ethics, and Judaism, the experience of eating becomes complex and has more meaning. Breakfast becomes a time for reflection, appreciation, and satisfaction, not simply a mindless routine. Selecting, preparing, serving, and eating food mindfully and holistically sees us nourish our bodies, minds, and hearts.

1 John Dewey, *Experience and Education* (1938; reprint, New York: Touchstone, 1997), p. 46.

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# Our Sages Tell Us

Geometry captures Van  
Gogh through the pencil  
of a Grade 7 student.





# Transcendental Learning

RE-DESIGNING FORMATIVE EDUCATION ON  
THE EVE OF THE FOURTH INDUSTRIAL REVOLUTION

BY MIHNEA MOLDOVEANU

## A Great Disruption Is Afoot...

A fundamental shift is underway in how we add value to the world. It has broad implications for the significance of useful, meaningful human work. Three forces are acting in synergy to change how we think about intelligence, ability, skill, and talent—and how we assess the educational experiences we rely on to cultivate them:

- The automatization of work through machine learning and the evolution of the Internet of Things renders obsolete our customary assessments of “skill,” “intelligence,” and “knowledge” and challenges current approaches to education in ways we have never experienced as a civilization.
- The socialization of work places unprecedented importance on a new set of skills: dialogue, emotional intelligence, relationship, and perception sit at the new apex of desired capability; 80% of human work is now done in groups, compared to 30% just 20 years ago. Our educational system is woefully unprepared to address this.
- The globalization of work makes subcontracting to human groups and machines anywhere in the world easy and transparent; the widening range of options for comparative advantage renders the speed of our educational shift especially important.

## ...and the \$5Trn Global Educational Machine Is Not Equipped to Handle It

The educational machine is segregated, specialized, and institutionalized for patterns of teaching and learning that are unchanged since the 1200s. Primary, secondary, and tertiary education remain characterized by:

- The cultivation of *specialized skills and knowledge* in discrete disciplines and professions.
- An emphasis on skills that are *increasingly off-loadable to machines* that are powered by easily accessible knowledge and data bases and self-refining algorithms.
- A self-referencing emphasis on the *perpetuation of existing educational structures and practices* that is *unlikely to adapt* either to new ways or to the shorter time frames in

which conceptual, technical, and social novelty emerge; this reluctance to change encompasses institutions, disciplines, professions, ways of teaching and learning, and language systems.

- An emphasis on *imprinting, recall, and the reproduction of knowledge* at the core of its evaluation, selection, and promotion systems of both students and instructors; this long-term dependence strongly resists updated modes of appraisal and validation.

One must be careful to only invoke the “desperate times call for desperate measures” rationale when matters become close to desperate.

We are close. Here is why:

- Despite decades of fair warning, education today does not strive to anticipate the demand for new skills for valuable work that is now with us. The job or profession your favourite learner is being prepared for will very likely be performed by a machine. Simulations of automation-driven job loss range between 35% and 50% for developed economies like those of Canada, the U.S., Britain and Japan;<sup>1</sup> and McKinsey & Company studies place figures closer to 60%.
- The procrastination-justifying claims that algorithmic work replaces only mechanical, menial, and automatic tasks is invalid and misleading. High-end, high-value-added work is now within the domain of next-gen machine-learning agents. For example, efforts for machines to construct legal memos and briefs, accurately diagnose certain skin lesions, and create financial models and business plans are outperforming expectations.
- Progress in algorithmic agents’ ability to replicate human performance is rapid and nonlinear; current estimates of machine-driven shifts in labour markets are likely very conservative. The simulations and studies above are based on technology estimates from 2013 to 2016.

*Quo vadis?* Where does this leave a primary and secondary education system that is meticulously optimized to ensure

learners succeed on standardized instruments of measurement and that still earnestly promotes the belief that these tests enhance admission to a tertiary education system which, itself, currently seems on a path to nowhere?

## Transcendental Learning Is Key to Human Capability Development in the New Skills Landscape

The word “transcendental” has several meanings. Its meaning here is based on the word’s secular use in philosophy and refers to “surpassing” and, more particularly, to something “beyond the contingent or accidental in human experience, but not beyond all human capacity.”

A thoughtfully redesigned formative learning experience will be transcendental because:

- It will emphasize the development of skills that are quintessentially human—non-algorithmic—and thus *transcend* implementation on server clouds powered by Azure, TensorFlow, Watson, and CaffeAI.<sup>2</sup>
- It will emphasize the development of skills that reach beyond patterns of thinking and interacting that serve only single academic fields or cultures, and thus *transcend* disciplinary and professional reasoning patterns and language systems.
- It will emphasize the development of ways of being and learning that will become a lifestyle beyond the years and environments of school and university, and thus *transcend* the current temporal, geographic, social, and institutional circumstances of each learner.
- It will emphasize the development of skills for dialogue, relationality, and collaboration that will enable learners to adapt continuously across changes in industry, technology, and knowledge base, and thus transcends the boundaries of current organizations and institutions which, for the first time ever, die off more quickly than do individuals.

To deliver on the promise of transcendental learning, “teachers,” “instructors,” and “professors” must *immediately* transform; they must become *learning experience designers* who bring learners together in collective experiences that develop the human skills that algorithms cannot (yet) replicate. These designers will require the vision of curators, the insight of phenomenologists, and the semantic probity of masters of dialogue. Their teaching method will be dialectical, supporting learners to inquire and discover for themselves inside environments that can nevertheless track progress.

## The Core Elements of Transcendental Learning

To make transcendental learning real, learning experiences must incorporate three essential aspects.

- Transcendental learning is social: it leverages groups of learners, working together to make clear to one another concepts, models, methods, and ways of being and thinking. Dialogue and collaboration prepare learners for an intellectually, culturally, and affectively diverse workplace.
- Transcendental learning is purposive and relentlessly integrative: the problems we need to solve as individuals, organizations, institutions, and societies do not come parsed and chiselled into neat textbook puzzles, the current fodder of teaching and research everywhere. These problems transcend the boundaries of knowledge fields; so should our learning.
- Transcendental learning is multi-modal: while letters and numbers have been privileged, since the invention of the printing press, as the *lingua franca* of teaching and learning, Facebook, Snapchat, Instagram, WeChat, YouTube, and Twitter have changed all that in social and professional spaces; learning should follow suit.

Let me end with a puzzle in the form of a thought experiment, which may be relevant to the discontinuity we are running into somewhat obliviously. Suppose you are told that on July 10, 2018, *inductive* inference—the pattern of thinking by which we make (often but not always correct) predictions of future behaviour on the basis of observations of past behaviour—will cease to work. All bets will be off in predicting sunrises, the response of your car to a bump in the road, or the behaviour of your surgeon, beekeeper, accountant, or psychoanalyst. You have less than one year to figure it out, not much more than 200 days. What will you do tomorrow—the day after which you will be left with one day less?

1 K.B. Frey and M. Osborne, “The Future of Employment: How Susceptible Are Jobs to Computerisation?” (working paper, Oxford University, School of Engineering Science, 2013).

2 Note to parents and educators: If “Azure,” “TensorFlow,” “Watson,” and “CaffeAI” do not sound as familiar as Word, Excel, and PowerPoint, they should: they will provide an ecosystem of machine agents that can soon replace all the skills that the current educational system offers your favourite learner...and so we ask: What are we preparing our learners to do—and, why?

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Are we sensitive to how we tell our communal stories and to who might not feel included in the narrative?

# Who Tells Your Story? Who Tells Ours?

NARRATIVE AND IDENTITY

BY RABBI MARC WOLF

How do you tell your story? Can you tell it in under five sentences? Take a few moments and jot it down.

What did you include? What salient moments punctuated your narrative? Which of your core values did you highlight? Did your story integrate the moments of your life into one synchronic narrative? When did it begin? Does your story have its roots in the generations before you?

How we tell our own story connects the dots to make one big picture; it helps us to make sense of our lives. The picture reveals our beliefs, aspirations, our roles in family, community, and society and, as such, is an expression of our personal identity. Through our stories, our identities are revealed.

In “Personal Narratives and the Life Story,” Dan P. McAdams writes that our personal stories “entertain, educate, inspire, motivate, conceal and reveal, organize and disrupt...[and] often bring together into an understandable frame disparate ideas, characters, happenings, and other elements of life that were previously set apart.”<sup>1</sup> We follow the same process in telling the story of the Jewish people:

A wandering Aramean was my father. And he went down to Egypt and sojourned there, few in number, and there

he became a nation, great, mighty, and populous. And the Egyptians treated us harshly and humiliated us and laid on us hard labour. Then we cried to the Lord, the God of our ancestors, and the Lord heard our voice and saw our affliction, our toil, and our oppression. And the Lord brought us out of Egypt with a mighty hand and an outstretched arm, with great deeds of terror, with signs and wonders. And God brought us into this place and gave us this land, a land flowing with milk and honey. (Deuteronomy 26:5–10)

This short passage, recited at the ritual of the first fruits, is the Tanach’s version of our five-sentence narrative for the Jewish people. Consider what details are included. What is left out of the story? How are the disparate dots of a number of moments of history connected into an integrated narrative? What is this story trying to tell us about who we are, what we’ve been through, and the role we are to play in the world?

Articulating the narrative of the Jewish people is different from telling the personal story of an individual Jew. A personal story is just that—personal. The national story gets complicated when it has to incorporate those who are now part of the collective “we” but, who, earlier, were “other.”

We must always be sensitive to whether listeners or readers do, or do not, feel part of the stories we tell. We must embrace, not avoid, the challenges that these texts raise and ask ourselves what they teach and how we should relate to those who join us or reside with us but have not crossed the boundary of membership?

The effect on the convert of the collective Jewish narrative—the Torah and the Mishna—is a perfect teaching model for many situations; tension and sensitivity thread through rabbinic discourse with respect to whether a convert feels part of the Jewish narrative. For instance, the succinct Jewish five liner is recounted at the Passover Seder and, in Bikkurim, the Mishna says, “The convert brings (the first fruit), but does not recite, for he cannot say ‘that the Lord of our God swore to our ancestors to assign to us’” (1:4). A convert cannot claim lineage back to Abraham and Sarah, to whom the Land of Israel was promised, and so the Mishna lets a convert participate but not recite what is not factual. However, the voice of Rabbi Yehuda takes an opposite view and becomes the accepted legal decision; he broadens Jewish history to encompass the lineage of the convert. He says, “A convert himself brings the first fruits and recites the passage. What is the basis? ‘For I make you the father of a multitude of nations’ (Genesis 17:5). Previously you were the father of Aram, and from now on you are a father of all nations” (Talmud Yerushalmi Bikkurim 1:4).

Maimonides is also responsive to feelings of marginalization. His impulse is to welcome and embrace, while recognizing how hard it is for someone to step wholly into the narrative. In his Responsa #293, he presents a model for how to relate to those who feel marginalized. He says,

... you should say “our God and the God of our fathers,” for Abraham, may he rest in peace, is your father...but “that you delivered us from Egypt,” or “that you have done miracles for our ancestors”—if you wanted to change and to say “that you delivered Israel from Egypt,” and “that you have done miracles for Israel,” you can say. But if you did not change, you have lost nothing, for, since you have entered under the wings of the Presence and you joined God, there is no difference here between us and you.

Maimonides reminds us of triggers that heighten and choices that assuage feelings of marginalization; the resonance of a sweeping narrative of the Jewish people is different from the contained retelling of specific historical events. Sometimes one is important, sometimes the other is.

This inclination—to differentiate between the particular moments of history and the overarching narrative—was well developed by Rabbinic Judaism. David Roskies, in his article “Memory” in *Contemporary Religious Jewish Thought*, relates that as Rabbinic Judaism developed, “what was remembered and recorded was not the factual data, but the meaning [of events]. This meaning was shaped and expressed

by analogies with earlier archetypes—such as *Kiddush ha-Shem*...the *Akeidah*, and the Temple sacrifice.”<sup>2</sup>

By developing an archetypal retelling of Jewish history, we tell our story with a broader brush while identifying and relating core values of our communities. Examples appear throughout rabbinic literature—even in the Tanach—and the motivation is the same: relate a history of the Jewish people that beckons listeners into the narrative, while conveying lessons and moral principles essential to Jewish life.

As usual, we are left with questions to consider—and much to think about. How do we relate to those who join our communities? As Jewish communal leaders and educators, we play an essential role when we are sensitive to how people do, or do not, feel part of the stories we tell. Even when we genuinely seek to be inclusive and embracing, are we sensitive to how we tell our stories and to who might not feel included in the narrative? Who tells our story—or more importantly—how do you tell our story?

1 Dan McAdams, “Personal Narratives and the Life Story,” in O. John, R. Robins, and L.A. Pervin, eds., *Handbook of Personality: Theory and Research* (New York: Guilford Press, 2008), p. 244. Available at <http://www.sesp.northwestern.edu/docs/publications/1698511162490a0d856d825.pdf>

2 David Roskies, “Memory,” in A.A. Cohen and P. Mendes-Flohr, eds., *Contemporary Religious Jewish Thought* (New York: Charles Scribner’s Sons, 1987), n.p.

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# Chaos and Order

THE 21ST-CENTURY RENAISSANCE THINKER

BY JASMINE ELIAV

“Breathtaking brilliance” describes the sweep of achievements attributed to Renaissance thinkers; consider Galileo and Leonardo da Vinci. From the 13th to the 17th centuries, it seemed that humans had limitless capacity for intellectual, artistic, social, and physical development. Empirical and iconoclastic experimentation ignited an explosion of discovery as seekers foraged beyond the knowledge boundaries imposed by various traditions. Renaissance thinkers pulled meaning and order from the chaos of their own ignorance.

Reflecting on the history of knowledge, it seems to me that the world of information continually presents itself as chaotic, and human beings, at some level or another, endeavour to organize and master it. Ideas, that are first new and then routine, become recognized and differentiated into categories and relationships. The groupings frame how we perceive thoughts and information, and, as such, school systems teach children through the discrete academic disciplines of history, language, math, science, and so on.

Learning methods respect this need for order and organization; like farmers storing grain in silos for later use, the academic disciplines are walled-in stockpiles. For example, mathematics does not pertain to language, nor science to art. What then occurs is that as children grow up and widen their scope of learning, their education becomes increasingly defined and specialized; from high school to university to

graduate school or the professions, the higher the learning, the narrower the focus.

We have to ask what risk this gravitation to order may pose? The answer is that classification and definition are methodically constraining our cognitive abilities. The systemization of knowledge, with its tight frames of reference and fragmentation of perspective is so fixed that it is likely impeding freedom of thought. And, furthermore, we have acclimatized to receive information as finite truth rather than intellectual construction.

Thankfully, buzz words in education research today hint at breaking this down; the new language includes “dynamic thinking,” “integration,” and “complex problem solving.” There is a nascent awareness of how entrenched current ways of looking at the world have become. For parents, who are accustomed to traditional academics, a significant related shift has to happen; given that the old ways have been found to inhibit free thought, parents must get comfortable with this challenge to established ways of learning. They need to encourage children to think about thinking!

In the footsteps of the Renaissance, many companies are reinventing how they ask employees to work; they free them from sitting at desks for a set number of hours and go to great lengths to inspire free thought, designing playful office atmospheres, collaboration retreats, and community support systems. The thought is that silo-based work systems

likely suppress development and profit. Interdisciplinary brainstorming—strategic and tactical—are a priority in successful businesses.

We want our children, like Renaissance thinkers, to engage freely with complex subject matter and to chart new waters. Schools need to engage with integrative learning. This involves three psychological shifts, the interplay of which will build cognitive, social, and emotional flexibility:

1. A Renaissance-type shift that involves intellectual iconoclasm.
2. A teacher-training shift that requires customized learning relationships.
3. A child-focus shift that embraces child development in all respects.

We want children to construct their identity as learners in a way that frees them from whatever limitations they may have and supports them to play or engage with learning. They need to learn to make sense of information for themselves, and this requires a broad-spectrum educational awakening that will attend to a child’s development across all domains. These psychological shifts are detailed a bit further here.

## Flexibility First

First, when we look to see how to promote cognitive flexibility, we note that researchers find that the minds of young children are the most pliable. The spirit of the young child retains a flexible “frame of mind” when he/she is taught across disciplines; the child’s conceptualization of information remains fluid. In his seminal book, *Frames of Mind: The Theory of Multiple Intelligences*, world-renowned developmental psychologist Howard Gardner challenged us to broaden our conception of intelligence from the singular to the multi-faceted across several domains.<sup>1</sup>

## Focus on Teachers

Second, we must attend to how the child’s intelligence is affected by its environment. Celebrated Israeli psychologist Reuven Feuerstein looked at the modifiability of intelligence and underscored the significant influence on a child’s intelligence that teachers can have by mediating information in a positive and meaningful way. This means that the way teachers present information, and the connection they make with their student, critically influences the quality of the child’s learning.

We must evaluate how we present ideas and information to children; how they internalize understanding and make it their own. What communication channels serve them best? Beyond words and numbers, can they reflect freely through art, music, theatre? What about group learning and mentorship? Do they derive meaning from what they learn? Can they draw parallels between their home life and lives far away?

## The Whole School Experience

Third, it is time to acknowledge that there is more than just academics happening at school. We have to fuse our attention to curriculum and teacher training with an equal dedication to the child’s intrapersonal and interpersonal growth. While many schools incorporate social emotional strategies to manage children who are struggling, we should replace this reactive process with proactive skill development.

Social and emotional learning (SEL) programs enhance students’ self awareness, self-management, social awareness, relationship skills, and responsible decision making.<sup>2</sup> A meta-analysis of school-based SEL programs was done in 2011 involving 213 schools and 270,034 children. Results showed that developing a student to be an empathic, reflective, and thoughtful learner also makes the learner more effective meta-cognitively; children who participated in the SEL program reflected an academic performance of an 11-percentile-point gain in achievement, as well as significant improvement in social and emotional skills, classroom behaviour, and attitudes.<sup>3</sup>

From a psychological point of view, to foster freedom of thought, a child’s learning experience should include development of:

- The capacity for self-reflection and contemplation
- A positive sense of self
- An ability to interact in a kind and effective way with others
- An understanding of how he/she learns
- An ability to regulate feelings
- Skills to express emotions and thoughts in a meaningful way

If interwoven early in a school curriculum, these three psychological shifts shape a child’s brain from a young age and lay a foundation for the Renaissance learners we hope to cultivate. Recently, Rabbi Jonathan Sacks spoke in a D’var Torah about the tension that humans feel between order and chaos. In the spirit of his wisdom, one could extend the thought to school systems; we want schools that inspire our children to have the freedom of thought that honours order, and the sense of order that honours freedom of thought.

1 H. Gardner, *Frames of Mind: The Theory of Multiple Intelligences* (New York: Basic Books, 1983).

2 Collaboration for Academic, Social, and Emotional Learning, *Safe and Sound: An Educational Leader’s Guide to Evidence-Based Social and Emotional Learning Programs* (Chicago, IL: CASEL, 2005).

3 J. Durlak, R. Weissberg, A. Dymnicki, R. Taylor, and K. Schellinger, “The Impact of Enhancing Students’ Social and Emotional Learning: A Meta-Analysis of School-Based Universal Interventions,” *Child Development*, Vol. 82, No. 1 (2011), pp. 405–432.

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