

Researchers urge early screening for math struggles

Assessing kindergartners on counting skills could help address challenges before they mount, expert says

DAVE MCGINN
EDUCATION REPORTER

Anna Stokke, a math podcaster and professor at the University of Winnipeg, likes to say that math is “relentlessly hierarchical.”

Students who want to pursue jobs in finance, technology and economics must know algebra. To know algebra they must first know how to add, subtract, multiply and divide fractions. To know fractions they must first know how to add, subtract, multiply and divide whole numbers.

It is a chain of skills that stretches all the way back to the earliest grades, and every link in it can determine not only a student’s success in the classroom but much as well about their future.

Given the relentlessly hierarchical nature of math and the consequences for young learners who don’t have a strong grasp of numbers, a group of researchers at Carleton University in Ottawa is calling on the Ontario government to adopt early numeracy screening similar to the literacy screening already mandated in the province.

Early numeracy screening would help solve many of the math challenges that so many students are clearly struggling with, said Jo-Anne LeFevre, director of the Math Lab at Carleton.

“It’s so hard to catch up,” she said of students who are struggling. “Kids come in to kindergarten with a huge range of skills. If they’re low and nobody does anything about it, then



Jo-Anne LeFevre, director of the Math Lab at Carleton University, says early numeracy screening would help solve many of the math challenges many students struggle with. KEITO NEWMAN/THE GLOBE AND MAIL

they’re just going to stay behind.”

Numeracy screening beginning in kindergarten, a formal assessment that involves such things as seeing how high children can count and testing their understanding of how numbers relate to each other – for example, is 8 more than 6? – can identify students with lower skills, and targeted interventions can get them up to speed so that they do not fall behind, Prof. LeFevre said.

The very basic math skills students may or may not have in Grades 1 and 2 are not insignificant – research has shown that children 4½ years old who have low numerical competency are less likely to take advanced math classes in high school and are less likely to enroll in postsecondary education.

How well children understand numbers in the early grades has also been linked to their chances

of developing math anxiety, and studies have also shown kindergartners with lower counting skills are more likely to do poorly in math when they reach Grade 7.

Ontario has implemented several measures to try to improve students’ math performance in recent years, including a new “back to basics” curriculum, requiring new teachers to pass a math test and investing more than \$70-million over the past three years through its Math Achievement Action plan to support students through access to digital math tools and one-on-one tutoring, among other things.

But many students are still struggling. In English-language schools, half of students in Grade 6 and 42 per cent in Grade 9 did not meet the provincial standard for math in the 2024-25 school year, according to the latest stan-

dardized test results, released last December.

A spokesperson for Ontario Education Minister Paul Calandra would not say whether the province will consider implementing numeracy screening.

“Minister Calandra has been clear that Ontario’s math results are showing insufficient progress and that school boards need to focus on student achievement,” Emma Testani, the minister’s press secretary, said in a statement. “That is why he is appointing an expert advisory body to lead a comprehensive review of student outcomes and assessment across the province to understand what additional measures are needed to support students and help them succeed.”

Alberta mandates numeracy screening twice a year for students in Grades 1 to 3, with a third screening for students who require additional support.

“It’s massive,” Mike McMann, superintendent of the Fort Vermilion School Division, said of the effect screening has had.

When his school division began doing numeracy screening in 2018, only 23 per cent in Grade 1 passed the test. Now, by the time they reach Grade 9, 78.8 per cent pass, Mr. McMann said.

“We’re seeing massive impact in terms of our math results,” he said.

Students who fail the screening are paired with interventionists who help them develop the skills needed to catch up, Mr. McMann said.

Just as students have a “right to read,” said Heather Douglas from Carleton’s Math Lab, referring to the Right to Read inquiry report from the Ontario Human Rights Commission which led to the province adopting literacy screening, so too do they have a “right to calculate.”

Ashley Kozak, the math curriculum lead at the Upper Grand District School Board, in Guelph, Ont., has worked with the Math Lab to do early numeracy screening of Grade 1 students since 2024.

Ms. Kozak has no doubt that it should be implemented across the province.

“I absolutely think that Ontario should mandate the screener and put money and time into that for the province,” she said.

But doing it properly will require investments to support teachers, she said.

Screening requires effective intervention to improve students’ performance, Prof. Stokke said. That requires investments of time and other resources. But those investments are needed for students to excel in math, she said.

“You’ve got to identify who’s having trouble, and you’ve got to fix it. We don’t have to have this math crisis, but we continue doing the same thing over and over.”

SEDAKA, SINGER-SONGWRITER BEHIND HITS IN 1960S AND 1970S, DIES AT 86

NEW YORK Neil Sedaka, the hit-making singer-songwriter whose boyish soprano and bright melodies made him a top act in the early years of rock ‘n’ roll and led to a second run of success in the 1970s, has died.

Mr. Sedaka, whose hits included *Breaking Up Is Hard to Do* and *Laughter in the Rain*, died Friday at age 86.

“Our family is devastated by the sudden passing of our beloved husband, father and grandfather, Neil Sedaka,” his family said in a statement. “A true rock

and roll legend, an inspiration to millions, but most importantly, at least to those of us who were lucky enough to know him, an incredible human being who will be deeply missed.”

No other details of his death were immediately available.

A key member of the Brill Building songwriting factory, Mr. Sedaka teamed with lyricist and boyhood neighbour Howard Greenfield on songs that reflected the teen innocence of the post-Elvis/pre-Beatles era of the late 1950s to early 1960s, in-

cluding *Happy Birthday Sweet Sixteen*, *Calendar Girl* and *Oh! Carol*, a lament for his high school sweetheart, Carole King.

After a long dry spell, he re-emerged with such smashes as *Laughter in the Rain* and *Bad Blood*. Captain & Tennille’s cover of his *Love Will Keep Us Together* was a chart-topper in 1975.

Short and dark-haired, with a big smile and high-pitched voice, he was a Juilliard-trained, Brooklyn-born son of a Jewish taxi driver who began performing as a teen and kept at it for decades.

Mr. Sedaka still played dozens of concerts a year well into his 80s. He retained the enthusiasm and broad vocal range of his youth and never tired of the standards he had sung hundreds of times.

Mr. Sedaka grew up in Brooklyn’s Brighton Beach neighbourhood, pampered by his grandparents, aunts and mother in a two-bedroom apartment he shared with 11 relatives. He has a street there named in his honour, Neil Sedaka Way.

But his music compensated

for his unpopularity as a kid, he once recalled. His talent was recognized by a second-grade teacher who urged his home-maker mother, Eleanor, to buy him a piano.

Mr. Sedaka loved songwriting and never quit, but he craved performing.

“Once a performer, always a performer. It’s that adrenalin rush. It’s like a natural high when you’re in front of an audience, and if you get that standing ovation, it’s infectious,” he told the AP. ASSOCIATED PRESS

TORONTO FORECAST AND ALMANAC As observed at Toronto Pearson International Airport

<p>TODAY H: 2 L: -9 Mix, sun and clouds. P.O.P.: 30% Wind: W, 29km/h</p>	<p>TEMPERATURE TREND Today is about AVERAGE. Today [Av°C] Current [4p EST] Difference: 2 2 0</p>	<p>PRECIPITATION February NORMAL, MONTH [mm]: 50.2 CURRENT: 46.2 DIFFERENCE: -4.0 PERCENT OF NORMAL: 92%</p>	<p>Sunrise: 6:56am Sunset: 6:04pm Sunlight Hours: 5 Moonrise: 3:01pm Moonset: 5:48am</p>
<p>TOMORROW H: -6 L: -16 Mainly sunny. P.O.P.: 20% Wind: NW, 23km/h</p>	<p>MONDAY H: -6 L: -8 Mix, sun and clouds. P.O.P.: 20% Wind: E, 8km/h</p>	<p>TUESDAY H: 2 L: -4 Cloudy, sunny breaks. P.O.P.: 30% Wind: SW, 11km/h</p>	<p>WEDNESDAY H: 2 L: -2 Mainly sunny. P.O.P.: 20% Wind: E, 17km/h</p>
<p>THURSDAY H: 6 L: 1 Rain. P.O.P.: 70% Wind: E, 18km/h</p>	<p>FRIDAY H: 5 L: 3 Light rain. P.O.P.: 60% Wind: E, 21km/h</p>		

NATIONAL FORECAST

	TODAY	TOMORROW	MONDAY
BANFF	-1/16 S	2/9 S	4/8 PC
BRANDON	-16/26 PC	-10/15 PC	-1/15 PC
CALGARY	-10/16 PC	1/6 S	2/7 PC
CHARLOTTETOWN	1/5 S	-5/17 C	-14/17 S
CHURCHILL	-26/31 PC	-25/32 S	-24/32 SN
CORNER BROOK	-2/4 SN	1/12 SN	-12/13 SN
EDMONTON	-7/18 S	-2/11 S	-6/11 PC
FORT McMURRAY	-13/23 S	-8/24 SF	-17/20 PC
HALIFAX	-3/1 S	3/15 SN	-9/15 S
INUVIK	-23/30 SN	-22/26 SN	-26/35 C
IAILLIT	-23/27 S	-18/25 C	-24/29 PC
JASPER	-2/15 PC	2/6 S	4/2 PC
KINGSTON	3/12 SH	9/18 PC	8/11 S
LETHBRIDGE	-5/11 SN	3/0 S	5/2 S
LONDON	0/9 PC	-7/12 PC	4/8 S
MONCTON	4/5 S	4/21 SN	-10/18 S
MONTRÉAL	4/13 SH	-11/23 PC	-12/19 S

LEGEND Daytime high, overnight low, and conditions

C CLOUDY	FR FREEZING RAIN	NA NOT AVAILABLE	R RAIN	S SUN	SF SNOW FLURRIES	T THUNDERSTORMS
FG FOG	HZ HAZE	PC PARTLY CLOUDY	RS RAIN/SNOW	SN SNOW	SH SHOWERS	W WINDY

REGIONAL FORECAST

	TODAY	TOMORROW	MONDAY
BARRE	-2/15 PC	-12/23 S	-8/12 S
BELLEVILLE	3/11 SH	-7/22 PC	-8/12 S
BRACEBRIDGE	4/18 PC	-11/27 S	-8/14 S
COBOURG	-3/10 PC	-8/15 S	-7/8 S
COLLINGWOOD	2/14 PC	-12/18 PC	-7/10 S
GODERICH	-2/10 PC	-8/12 PC	-2/6 S
HAMILTON	4/9 PC	-5/12 S	4/6 S
HUNTSVILLE	-4/19 PC	-12/27 S	-7/14 S
KITCHENER	0/12 PC	2/9 PC	2/9 PC
LONDON	1/9 PC	5/11 S	2/6 S
MISSISSAUGA	5/7 PC	-5/11 PC	-3/5 S
NIAGARA FALLS	2/10 PC	-8/16 S	-7/8 S
OSHAWA	-3/14 PC	-12/20 PC	-6/10 S
OWEN SOUND	-5/18 PC	-12/23 S	-7/12 S
PARRY SOUND	5/6 PC	-6/10 PC	-3/4 S
ST CATHARINES	2/10 PC	-7/17 S	-6/8 S

UV READINGS
LOW: 0-2, MODERATE: 3-5, HIGH: 6-7, VERY HIGH: 8-10, EXTREME: 11+

	TODAY	TOMORROW	MONDAY
BARRE	2	MISSISSAUGA	2
HAMILTON	2	ST CATHARINES	2
KINGSTON	2	TORONTO	2
LONDON	2	WINDSOR	2

AIR QUALITY HEALTH INDEX
LOW RISK: 0-3, MOD. RISK: 4-6, HIGH RISK: 7-10, VERY HIGH RISK: 10+

	TODAY	TOMORROW	MONDAY
BARRE	3	MISSISSAUGA	3
HAMILTON	3	ST CATHARINES	3
KINGSTON	3	TORONTO	3
LONDON	3	WINDSOR	3

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351 KING STREET EAST, SUITE 1600
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