



OTTAWA-CARLETON
DISTRICT SCHOOL BOARD

MEMORANDUM

Memo No. 22-022

TO: Special Education Advisory Committee (SEAC)

FROM: Camille Williams-Taylor, Director of Education and Secretary of the Board
Peter Symmonds, Superintendent, Learning Support Services
Nadia Towaij, Superintendent of Program and Learning
Shannon Smith, Superintendent of Instruction

DATE: 2 March 2022

RE: **Response to SEAC re: Provincial De-streaming of Grade 9 Mathematics**

This memo is in response to the Special Education Advisory Committee (SEAC) following the presentation of a position paper from the Learning Disabilities Association of Ottawa-Carleton (LDAO-OC) on 8 December 2021 regarding de-streaming grade 9 mathematics and the subsequent discussion at Committee.

Effective September 2021, the Ministry of Education provided a new curriculum for grade 9 mathematics that is neither Academic, Applied nor Locally Developed. “Research indicates that there are groups of students (for example, Indigenous students, Black students, students experiencing homelessness, students living in poverty, students with LGBTQ+ identities, and students with special education needs and disabilities) who continue to experience systemic barriers to accessing high-level instruction in and support with learning mathematics. Systemic barriers, such as racism, implicit bias, and other forms of discrimination, can result in inequitable academic and life outcomes, such as low confidence in one’s ability to learn mathematics, reduced rates of credit completion, and leaving the secondary school system prior to earning a diploma.”¹

This renewed approach to course selection and streaming is part of the overall need to address systemic barriers that have resulted in disproportionate outcomes for students.

QUESTIONS:

- 1. Following two years in the Learning Disability Specialized Intervention Program (LDSIP) program, OCDSB research showed that post-program math scores were not significantly different from pre-program math scores (16th percentile versus 13th percentile). If targeted programming in small classes (8 students with 1 teacher and an EA) did not work to improve students’ math skills, how will providing additional resources in the Academic-level classroom with likely 30+ students work to bring everyone up to speed?**

¹ [Ontario Mathematics Curriculum \(MTH1W\) digital format](#)

The de-streamed mathematics course is neither Academic nor Applied. The class cap for this course is 26 pupils. The de-streamed course is a new curriculum with multiple entry points and multiple ways for students to demonstrate their learning. As in all classes, some students will require additional support which may be provided by the classroom teacher, resource teacher, or other educators.

2. **What is being done to evaluate the impact of de-streaming of Grade 9 math on all students? What are the variables being used to define “success”? What resources are currently being used to track student progress?**

The District continues to monitor student progress in a variety of ways. Educators currently use ongoing assessments to inform their mid-term and final marks. The Research, Evaluation and Analytics Division (READ) supports the analysis of student achievement data (e.g., tracking of mid-term and final marks) and attitudes towards math (e.g., EQAO student questionnaire data, for example, “I am good at math.”). Through the data support model, a member of the research team is paired with a superintendency to provide support to the Superintendent of Instruction (SOI) and school administrators in how to access, interpret, and use this information to support monitoring and planning at the school and classroom level. Particular emphasis is placed on students who are performing below level 1 and at levels 1 and 2 (i.e., below the provincial standard) in order to promote their success in the course. Instructional coaches are involved in providing weekly coach sessions and ongoing professional learning opportunities in which educators engage in conversations centering on student work, interpretation and developing instructional strategies.

3. **How are students’ entry level math skills being evaluated as they start the Academic level course? By whom?**

De-streamed is not “academic only.” It is a new curriculum with a new approach to learning (with a W character code: MTH1W). Students are constantly assessed (using formative assessment practices) to determine where they are at in their learning and teachers plan accordingly to meet needs. Student voice is a significant attribute to the 1W course. A critical component to the de-streamed classroom is inclusion and ensuring that all students are supported.

Learning for All

“Formative assessment is conducted frequently and in an ongoing manner during learning and is intended to give teachers and students precise and timely information so that instruction can be adjusted in response to individual students’ strengths and needs, and students can adjust their learning strategies or set different goals. This use of assessment differs from assessment of learning in that the information gathered is used for the specific purpose of helping students improve while they are still gaining knowledge and practising skills. When assessment is viewed as integral to learning, students are engaged as collaborative partners in the learning process.”²

² [Learning for All: A Guide to Effective Assessment and Instruction for All Students, Kindergarten to Grade 12](#), p. 29

4. What evidence-based Tier 1 supports for difficulties in math are in place at the elementary/secondary levels?

Teachers use a range of strategies to support students experiencing difficulty in mathematics classes. Differentiated instruction occurs through adjustments to instruction, environment, and assessment. Using ongoing formative assessment, educators identify strengths and areas for growth. Classroom observations are also used in triangulation of assessment data to determine specific strategies to support specific students. Educators begin this work well in advance with elementary and secondary math teachers planning for transitions and instruction.

Strategies that build engagement (e.g., including student interests, designing assessments with built in “extra time”, posting anchor charts), support various representations (e.g., use of visual and concrete representations, encouraging students to present solutions in multiple ways and to make connections between solutions), and utilizing various instructional strategies such as spiralling, active learning, and leveraging technology are a few examples of supports provided by teachers.

5. Have Gr 9/10 math teachers received PD in differentiating the math program? Will a budget item be allocated to this?

In planning for the shift to a de-streamed mathematics curriculum, the District engaged teachers through writing teams to develop tasks that are anchored in Universal Design for Learning (UDL), Differentiated Instruction (DI) and Culturally Relevant and Responsive Pedagogy (CRRP). Full day professional learning sessions have been held throughout the year focused on meeting the needs of all students in a de-streamed grade 9 mathematics classroom focusing on Tier 1 supports.

In planning for de-streaming at grade 10 for 2022-2023, writing teams of classroom teachers with support from central departments are currently developing a range of tasks with multiple entry points and multiple ways for students to demonstrate their learning.

6. How will IEPs be adjusted to reflect the new reality of de-streaming?

Individual Education Plans (IEPs) are developed for students who are receiving accommodations beyond what is normally provided to all students in the classroom. Students’ needs may be met through accommodations, and/or an educational program that is modified above or below the age-appropriate grade level expectations for a particular subject or course.

In de-streamed courses, IEPs will be developed based on the unique learning needs of the individual student. In light of the range of tasks available to students and the pedagogical shift incorporated into the de-streamed courses (e.g., UDL, DI, CRRP), IEPs will be adjusted to build on student strengths. For example, approaches such as curriculum expectation banking and scheduling courses to allow for a full year of

instruction may be appropriate supports for some students. Professional learning communities have also been developed in which teachers are sharing successful practices as capacity builds across the system. Resource support continues to be an available option.

7. What will be done when a large proportion of students do not pass their Grade 9 math course? Will programs be in place to support them prior to failure? How many times will they be expected to repeat the course until they pass?

The course is designed for all students to experience success through differentiation, UDL and CRRP. If students are not experiencing success, there are Student Success Teacher (SST) initiatives such as credit intervention to support before the course ends. In some cases, this may look like lunchtime extra help with a qualified math teacher. Other schools run learning strategy courses in conjunction with math to support students who need more time to consolidate their learning. Using the assessment log, strategies such as credit recovery can be accomplished in different ways.

8. In concrete terms, what actual supports are in place for LD students and students with developmental challenges?

A range of support possibilities have been provided above. Given the broad range of needs for students with varying learning disabilities and developmental challenges, strategies are developed, adjusted, and reviewed based on the individual needs of students. Students who would have been supported through a locally developed course will still have that option. As students become more developmentally able to understand the consequences of their decision and have a clearer understanding of their interests related to post-secondary pathways, options for streamed courses become available.

Re-visioning approaches to support aligned with instructional strategies based on universal design for learning, differentiated instruction, and culturally relevant and responsive pedagogy, allow for broader implementation of strategies such as differentiated assessment, credit recovery and resource support.

In addition to the position paper presented by the representative from LDAO-OC, the following questions were noted during the discussion:

9. What are the OCDSB's plans to support students, elementary teachers and secondary teachers with de-streaming?

Several examples of support have been provided above. The District has provided ongoing instructional coach support sessions and drop-in sessions in the weekly coach calendar. Writing teams have been released to develop a range of tasks and support to instruction including professional development sessions provided by both the Ministry of Education initiatives and the District. Specific targeted support has been provided to priority high schools through the use of instructional coach support.

10. Is there a plan to address the current gaps in learning?

This is a shift in approach from a system focused on streaming students at the grade 9 level. Teachers regularly engage in determining where gaps in learning exist and work to address those gaps. In secondary, teachers use the student evidence record as a communication tool with students. The student evidence record is a communication tool that captures a student's progress at any given time. When students struggle to meet a curriculum expectation, additional support and opportunities are provided to all students.

11. Will there be more resources, educational coaches or secondary sections for preparatory courses to support students who have been on a modified program?

There is a wide range of modified programming which support students and student learning. Students with a modified grade 8 mathematics program and who would have been supported through an Applied course will be supported in the de-streamed mathematics course which is a different course than either the previous Academic or Applied courses. Students who are on a modified mathematics program in grade 8 and who would have been supported through a locally developed course will still have that option.

12. How can equity be assured? Simply removing a necessary pathway is not a solution.

The current high school program streams students at 14 years of age into applied or academic pathways. This has resulted in a disproportionate number of students (for example, Indigenous students, Black students, students experiencing homelessness, students living in poverty, students with LGBTQ+ identities, and students with special education needs and disabilities) being streamed into the applied pathway and has lasting impacts on educational outcomes for these students. This is an indicator of systemic racism and must be addressed. One way to address this disproportionality is to delay the choice of pathway until the student is more mature. It is believed that keeping pathways open for a longer period of time, will benefit all students, and keep pathways to a wider range of educational post-secondary options open to all students for a longer period of time.

13. What professional development will be provided to teachers at both the elementary and secondary levels? Teachers will need time and support to implement this change.

A wide variety of professional learning opportunities have been and continue to be offered to staff in support of de-streaming grade 9 mathematics. Teachers have access to a range of opportunities including learning sessions with our partner board, Toronto District School Board (TDSB) who have begun this work in a few high schools several years ago. In addition, the District has provided opportunities for professional sharing through choice boards and educator collaboration sessions. Math Heads and teachers of the MTH1W course have participated in 7 full day sessions including working opportunities with educational resources, Dr. Christine Suurtaamm and Dr.

Marion Small. Peter Liljedahl is sharing his work on Building Thinking Classrooms by offering four sessions at grades 6-8 and an additional session at secondary. Teacher writing teams have been established to develop a range of tasks that support learners at a variety of levels and allow personal choice in demonstrating their learning.

14. How will the OCDSB address the learning needs of students who are unable to be successful in the de-streamed and academic courses, and for whom locally developed is not appropriate, now that their pathway has disappeared at the 9th & 10th grades?

The pillars of the de-streamed classroom: UDL, differentiation, CRRP support all students in their learning. When students have struggled in academic, applied or locally developed courses in the past, additional support is always in place. The use of the student evidence record ensures that the teacher, student, and parent/guardian is aware of where they are in regard to learning and achievement throughout the course. Expectations are that when students are struggling, additional support and opportunity will be provided (e.g., credit recovery, learning strategies course, resource room support, etc.).

15. How will they access grades 11 and 12 if they cannot successfully pass grades 9 and 10?

Individual pathways have and will continue to exist for students who are unsuccessful on a credit pathway. The de-streamed mathematics course is designed to shift instruction and assessment by giving a range of tasks and opportunities for students to demonstrate their learning based on a foundation of universal design for learning, differentiated instruction and culturally responsive and relevant pedagogy. As can be appreciated, there are tremendous developmental differences between 14- and 16-year-old students. At 16 years of age, students are in a better position to understand their interests for post-secondary opportunities and the pathway they would like to choose to reach their goals.

16. Why are applied and locally developed being viewed as "lesser" or "failure"?

Neither applied nor locally developed courses are viewed in that manner. In fact, the system as originally envisioned was designed to ensure that doors remain open for students. However, provincial and our own District data show us that the existing system has resulted in a disproportionate number of identified groups of students being streamed into the applied and locally developed courses. The fact is that embarking on these pathways in grade 9 and 10 immediately closes off their ability to attend some post-secondary institutions or some post-secondary pathways. These systemic barriers have resulted in students not experiencing the choices they believed were available when they were first asked to choose a pathway. Delaying choice of the pathway will help keep more post-secondary options open to all students.

A key component to de-streaming is that students and their families/caregivers are the drivers of their learning destination. They choose the 'path' in which they want to pursue. De-streamed classes allow students to engage in inclusive, equitable and

collaborative learning environments. An important component for success is that they choose if they want to pursue the world of work, college, or university pathways in grade 11.

cc Senior Staff
 Manager of Board Services
 Corporate Records