



Measurement Report: Learning Objective Report 17-085 (part one)

COMMITTEE OF THE WHOLE (PUBLIC)

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- 1.0** The OCDSB promotes “a culture which develops creative, confident and engaged learners who model the Characteristics and Skills expressed in our Exit Outcomes for graduates”. The learning objective states: “By 2019, the District will improve the achievement of students in all educational pathways”. Strategies to support this objective are:
- Promote and encourage the personalization of learning and enhance instructional practice to meet the individual needs of learners;
 - Improve and increase access to the educational pathways for every student; and
 - Optimize School Learning Plans to develop strategies to support achievement in targeted areas (e.g. numeracy and literacy).

The evidence presented in this report is organized according strategy, with key work under each strategy highlighting how the District has made progress on the learning objective. In the context of the data in the Annual Student Achievement Report and goals/strategies identified in the Board Improvement Plan, this report aims to drive discussion around where we are in terms of progress, now that we are in the third year of our four-year strategic plan.

2.0 Strategy: Promote and encourage the personalization of learning and enhance instructional practice to meet the individual needs of learners.

The personalization of learning involves providing individualized opportunities and supports for students, to ensure that they see themselves reflected in their learning. This requires strong instructional practice, which is reinforced through the resources and supports provided to educators. Work on this strategy has aimed to improve staff understanding of the individual needs of learners and build capacity to meet those needs.

A key aspect of our work in this area is recognizing that we have groups of learners with unique needs. As a system, we are working toward improving our supports for these students through the development of system wide resources (e.g., classrooms resources for Indigenous students; Gender Identity Guidelines in support of LGBTTTQ+ students; LD math network to support students with Learning Disabilities). This work extends beyond improving our capacity to support specific groups of learners, and improves our capacity to support *all* learners.

Some key evidence of progress using this strategy includes work related to:

- Supports to enhance instructional practice in targeted areas (mathematics and Early Years);

- Focus on Exit Outcomes skills and characteristics;
- Collaborative inquiry to support students with Learning Disabilities in mathematics;
- Supports for students with special education needs and English Language Learners; and
- Supports for Indigenous students.

2.1 Supports to enhance instructional practice in targeted areas (mathematics and Early Years);

The OCDSB is fortunate to have talented educators in all schools, who are committed to high quality instruction and professional growth. At the District level, our responsibility is to provide resources to support instruction; opportunities for professional development and collaboration; and strategies to address needs in targeted areas. Over the last year, considerable work has been done to support instructional practice in mathematics K-12 and to support instruction in the Early Years.

Our work in mathematics has been guided by the Renewed Math Strategy. As part of our district wide focus, we have:

- Established Math Leads in every school (up to 3 per site; 1 per division);
- Required a focus on math in School Learning Plans; and
- Supported a balanced math framework (300 minutes of math per week).

This has been supported by a number of professional development sessions; participation in networks and inquiries; and the provision of resources to support instruction (see Appendix A for a detailed list). At the core of the Renewed Math Strategy is the recognition of the need to demystify math for students, staff, and parents; to build capacity for math instruction; and to make connections to math in all curricular areas. This is evidenced in the range of math networks and inquiries which address not only primary/junior math instruction, but also math instruction for students with learning disabilities, math and art, and ethno-cultural math.

In the Early Years, 2016-2017 was the first year of the Bilingual 50/50 Kindergarten Program. This change required additional resources and supports including:

- All kindergarten educators were provided with the Kindergarten Program 2016 and then addendum to Growing Success (Communication of Learning);
- Each kindergarten classroom was provided with a French classroom library;
- French Second Language Cultural Funds were allocated to each school to support kindergarten and grade 1 class involvement in cultural activities or events; and
- Schools were provided with examples of activities and learning opportunities directly tied to curriculum expectations and supportive of the Common European Framework of Reference for French Language curriculum.

To support the personalization of learning, a number of additional supports were made available through Learning Support Services (LSS):

- Early Learning Intervention Program (ELIP; a class-wide service to foster oral language and cognitive skill development in kindergarten);
- Kindergarten Speech Language Intervention Program (K-SLIP; support for educators and parents of kindergarten students with severe oral language difficulties);
- The Early Learning Resource Team (ELRT; a team of 5 Educational Assistants who provide supports for the classroom as a whole through observations and consultation for the learning space, use of visuals, and class-wide behaviour management strategies);
- Kindergarten Itinerant Educational Assistants (K-IEAs; develop behaviour programs, coach and support staff in the implementation of behaviour strategies and provide recommendations for promoting resilience, fostering self-regulation and enhancing pro-social behaviours); and
- Additional LSS Supports (with curriculum coaches, LSS staff co-developed and presented professional learning sessions for kindergarten teachers).

2.2 Focus on Exit Outcomes skills and characteristics;

The OCDSB Exit Outcomes describe the characteristics and skills that we want to instill in all of our learners. This work aims to enhance instructional practice by supporting educators as they embed the Exit Outcomes into their daily work. The incorporation of the Exit Outcomes into the curriculum is designed to begin in kindergarten and continue through grade 12.



Figure 1. OCDSB Exit Outcomes.

One of the ways that the OCDSB supports educators in teaching these skills and characteristics is through New Pedagogies for Deep Learning (NPDL). NPDL is a global initiative designed to enhance instructional practice, by identifying new pedagogies that support the development of six core competencies. The six competencies are:

- Character;
- Citizenship;
- Collaboration;
- Communication;
- Creativity; and
- Critical thinking.

Given the close alignment with our Exit Outcomes, the OCDSB is a proud partner in this initiative. NPDL focuses on four key areas: Pedagogical Practices, Learning Partnerships, Learning Environments, and Leveraging Digital. Through NDLP, educators design experiences that build on learner strengths and needs, create new knowledge using real-life problem solving, and help all students identify their strengths, purpose, and passion. This work can be integrated with work led by Curriculum Services, Learning Support Services, and Business & Learning Technologies. It also supports the life skills that will be tracked in student report cards beginning next school year.

Since the fall of 2014, six OCDSB schools have been participating in NPDL. They have been provided with support through professional development, in-school release time to work on collaborative inquiries, support from a technology coach, funding for mobile technology, as well as participation in an online Google Community. Feedback from Ministry of Education has been positive with regards to the OCDSB's efforts to provide professional learning development centered on the creation of rich tasks, as per NPDL. Benefits of NPDL have also been noted by Learning Support Services, particularly for students with special education needs. Additionally, the Curriculum Services department is noting alignment with planning, differentiation, and assessment. Given the signs of success of this work, and the connection to the Exit Outcomes, the OCDSB is expanding the initiative to accommodate an additional six participating schools, bringing the total number of schools to 12.

2.3 Collaborative inquiry to support students with Learning Disabilities (LD) in mathematics;

Last year, a collaborative inquiry was undertaken to support schools in using evidence-based instructional strategies that promote personalized learning for students with Learning Disabilities (LD) in the primary grades. With collaboration from Curriculum Services, Learning Support Services, and Business Learning Technology, the inquiry involved six school teams. Participants attended two centrally coordinated sessions to help build common understanding and promote collaboration. Following the opportunity for in-school implementation and monitoring, all of the participating schools noted changes in student learning and professional practice, and reported increased confidence and engagement.

In spring 2017, one of the participating schools had select staff engage in three additional full-day learning sessions to build system leadership knowledge and support the broader work at the school level. The sessions provided an opportunity to go deeper into the following areas:

- Build mathematical knowledge for teaching/leading;
- Analyze data as part of the ongoing monitoring process; and
- Understand cognitive domains and processes (i.e., understand LD learner profiles and strategic implementation of accommodations that directly support).

Post-session reflections demonstrate the rich learning that took place, as outlined in the themes that emerged based on responses to the questions below:

- What did you learn today with regards to understanding students with learning disabilities?
 - Themes: LD student profiles have a strength in either verbal comprehension or perceptual reasoning; differences across students with LD; value in understanding students' strengths and needs; importance of student-teacher relationships and getting to know the student; how to find/interpret info in the LD report.
- What did you learn today with regards to understanding students' mathematical thinking?
 - Themes: importance of multiple opportunities to demonstrate learning; differences in learning progressions; use of accommodations/ manipulatives; need to connect with LD strengths; students need independent time to process; time to discuss benefits many students with LD; there are many ways to look at a question.
- In your role, how will you use this learning moving forward as you support students with learning disabilities in mathematics?
 - Themes: optimize strategies over time in consultation with teachers; spread learning among staff; replicate our learning and process in other schools across the District; continue to learn as much about students as possible; create comprehensive profiles of all learners (not just LD students).

2.4 Supports for students with special education needs and English Language Learners;

An important tool to support the personalization of learning is optimizing the special accommodations and provisions for students with special education needs and English Language Learners. These supports, such as periodic breaks, use of assistive devices, providing additional time for tasks, allowing for preferential seating, etc. are good strategies for use in the everyday classroom as well as for supporting performance on EQAO assessments. EQAO data provides a record whether or not these supports were in place for the assessment, which can be used as an indicator of the frequency in which these supports are being utilized.

As presented in the Annual Student Achievement Report (ASAR), students with special education needs (excluding gifted) make up 19% of our grade 3 learners and 23% of grade 6 (based on 2016-2017 EQAO data). As a whole, the OCDSB has made strong progress in narrowing the achievement for these students. EQAO data reveals that the majority of elementary students with a special education need (excluding gifted) received an accommodation (see Figure 2). This finding is encouraging, as it suggests that students are receiving the supports they need to be successful, which is reflected in their increased EQAO performance.

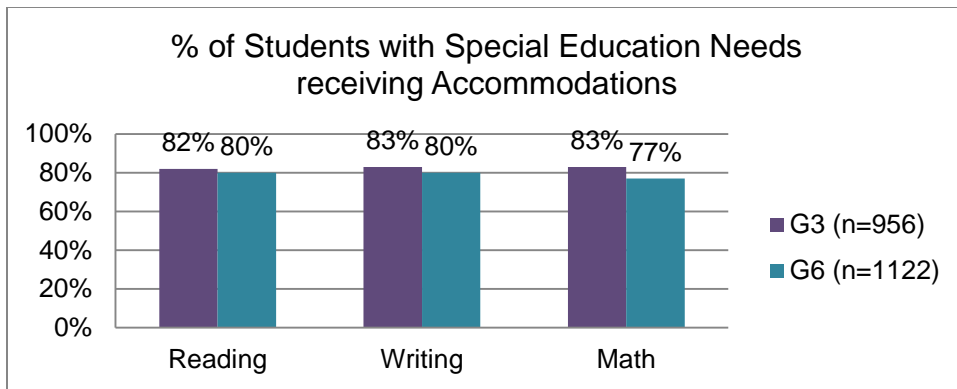


Figure 2. Proportion of students with special education needs receiving accommodations on grade 3 and grade 6 EQAO assessments.

The OCDSB has been less successful in narrowing the achievement gap for English Language Learners. Across the District, 18% of grade 3 students and 22% of grade 6 students are English Language Learners. Compared to the supports provided for students with special education needs, relatively few of these students received special provisions during their EQAO assessments in elementary (see Figure 3). In the context of EQAO performance scores, this data suggests that additional supports for ELLs is an area for future work.

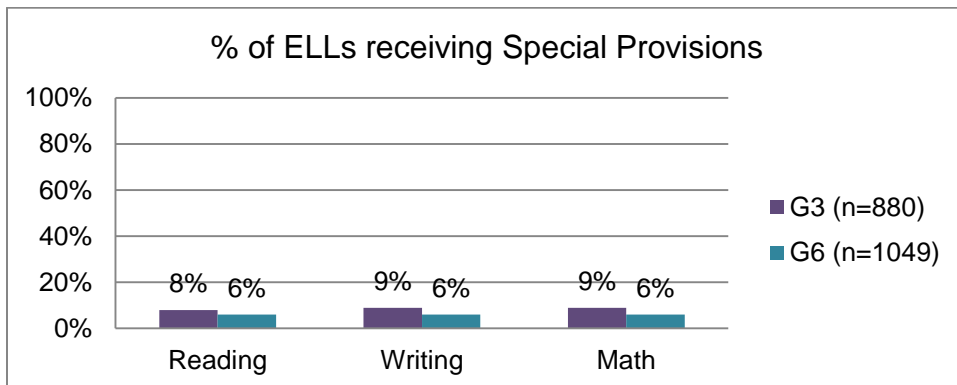


Figure 3. Proportion English Language Learners receiving special provisions on grade 3 and grade 6 EQAO assessments.

2.5 Supports for Indigenous students;

The OCDSB is committed supporting the individual needs of our Indigenous learners. This includes ensuring that all Indigenous students have opportunities and resources to achieve success. In addition, it is our goal to improve educational outcomes for all of our students by ensuring that they leave secondary school with a complete and authentic understanding of First Nation, Métis, and Inuit histories, traditions, and contemporary realities. Progress has been made through educator professional development sessions; workshops for educators; improved communication tools (e.g., website and voluntary self-identification postcards); and partnerships with community agencies. Programs for students last year included:

- Indigenous voices in schools program (Indigenous elders help to create deeper relationships and understanding);
- Student Leadership Program (content and perspective for FNMI students);
- Dare to Dream Program (teaches about legal system, careers, and builds relationships); and
- Indigenous STEM program (provide a STEM program for Indigenous students with a mentoring aspect).

Students also took part in planned events, in support of Indigenous learners. In June 2017, students took part in Summer Solstice Education days (i.e., bussed to Pow Wow to enjoy richness of First Nations culture) and the Indigenous Youth Symposium (grades 9-12). From 19 schools, 74 students attended the Indigenous Youth Symposium. Indigenous youth were invited to bring a friend and share their voices around Indigenous Education in the District. The sharing of ideas and perspective provided an incredible learning opportunity for the District, and valuable insight that is informing the work of the Indigenous Education team.

3.0 Strategy: Improve and increase access to the educational pathways for every student.

The OCDSB has a strong history of providing a full range of programs and services, to ensure that all students have access to different learning pathways. This is a demonstration of the Board's commitment to both learning and equity. Policy and program changes have been transformational in increasing access to educational pathways and opportunities for students, with key work relating to:

- Elementary and Secondary School Program Frameworks;
- Bilingual 50/50 Kindergarten Program;
- Specialist High Skills Major (SHSM);
- Virtual Learning Environment (VLE); and
- International Certificate Program.

3.1 *Elementary and Secondary School Program Frameworks;*

Over the past two years, the OCDSB has adopted both an Elementary School Program Framework and a Secondary School Program Framework. These are critical policy decisions and provide a structural model for both elementary and secondary programming. These frameworks include guiding principles about the delivery of public education and school configuration models, and guide decision-making on issues related to program offerings and placement.

The approval of the program frameworks is the foundation for realizing the Board's strategy to improve and increase access to the educational pathways for every student. The Secondary School Program Framework provides every OCDSB student with access to the courses, programs, and program pathways that lead to graduation with an Ontario Secondary School Diploma, an Ontario Secondary School Certificate, or a Certificate of Accomplishment. Each secondary school offers core program courses

and optional program courses based on student interest and enrolment, staff expertise, and facilities.

The program frameworks support the use of the geographic model for the delivery of special education programs. This is essential to improving access to pathways for every student by ensuring that specialized program classes are distributed across the district and that students with the highest learning needs are ensured stability in the location of programs and classes. The relocation of specialized classes undertaken in 2016-2017 through the accommodation reviews was heavily influenced by the geographic model. The reviews were carried out to address the needs of the system and, by aligning the relocation of specialized classes with the reviews, staff was able to minimize future transitions for students. This was accomplished for 8 specialized class locations across the Western and Eastern Secondary areas.

3.2 **Bilingual 50/50 Kindergarten Program;**

As of September 2016, the Kindergarten Program at the OCDSB consists of two years with 50% English and 50% French instruction. This is a shift from the previous model, as shown in Table 1 below.

Minutes of French Instruction in Kindergarten			
	Previous Model		New Model
	<i>English/Core French</i>	<i>French Immersion</i>	<i>Applies to all students</i>
Year 1	20 mins/day	20 mins/day	150 mins/day
Year 2	20 mins/day	150 mins/day	150 mins/day

Table 1. Minutes of French Instruction in Kindergarten, by Delivery Model and Program.

Importantly, this shift resulted in a change to the entry point to the Early French Immersion program (from the end to year 1 to the end of year 2) until after students have had the opportunity to experience learning in both official languages. To support the program change, resources, professional learning, and Learning Support Services (LSS) programs and resources have been provided. Throughout implementation, enrolment has remained stable (see Table 2).

Kindergarten Enrolment	
October 2015	8933
October 2016	9034
Projected 2017 (as of March 24)	8936

Table 2. Kindergarten Enrolment.

In spring 2019, the first cohort of students enrolled in the 50/50 Kindergarten Program will be in grade 1. At the same, staff will be able to analyze enrolment trends with respect to program choice (i.e., Early French Immersion vs. English with Core French). By 2022, results will be available for the grade 3 EQAO assessments in reading, writing, and mathematics for this cohort. This data will be useful for measuring the impact on student learning.

3.3 Specialist High Skills Major (SHSM);

The SHSM program was launched in 2006, with Ministry approval, to support student learning and the development of skills, interests, and talents that align with their desired career path. Students take part in rich experiential learning through work experiences, job shadowing, and reach ahead opportunities, while earning their Ontario Secondary School Diploma. Over the years, there has been growth in both the number of programs and number of students enrolled. In 2014-2015, just prior to the start of the strategic plan, the OCDSB offered 23 SHSM programs and had 520 students enrolled. This year, 2017-2018, there are 35 programs with a projected enrolment of 780 students. The expected increase this year was based on combination of factors, including six new programs and strategic support from the instructional coach. Last year, it was noted that many students were approaching completion of the components of a SHSM out of interest, without formal SHSM registration. Through the instructional coach, these students have been identified to receive targeted supports and information on the SHSM program to determine if it is the right fit for them. Trends over time, showing an increase over the years, are presented in Figure 4. Although there has been great progress in growing the program, completion rates continue to be an area for future work for both the OCDSB (48% in 2016-17) and the province (53%).

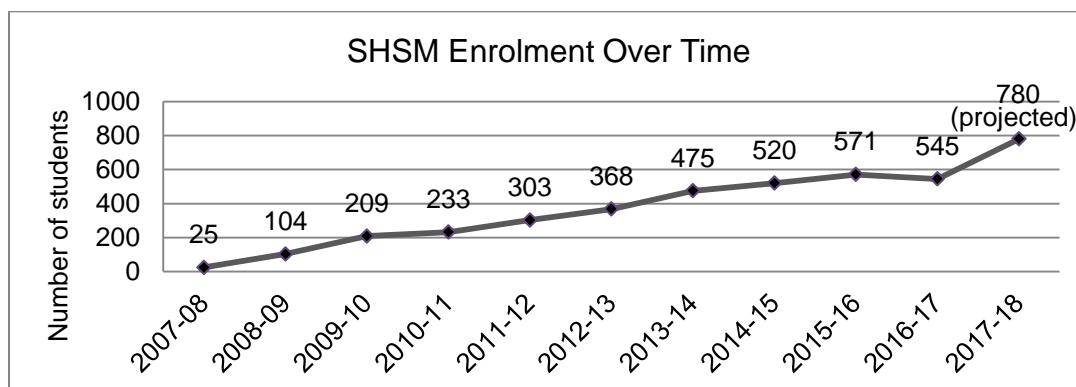


Figure 4. SHSM Enrolment Over Time.

Note. Between 2015-16 and 2016-17 student tracking in Trillium underwent improvements, leading to increased data accuracy. This is an important consideration when interpreting what appears to be a decline over that same time period.

3.4 Virtual Learning Environment (VLE);

The OCDSB's Virtual Learning Environment (VLE) provides a virtual space for blended learning (i.e., an integration of face-to-face and online learning) and online eLearning programs (i.e., online courses as part of the regular Day School program or Summer School Program). In these settings, students can actively engage in their own learning while building digital fluency and communication skills. There are opportunities for interaction and collaboration with classmates and the teacher through discussion boards, interactive content, and virtual collaboration tools. The OCDSB offers over 85 different eLearning courses through the VLE, improving access to all educational pathways, including courses needed for SHSM programs and courses related to personal areas of interest. Online course offerings through the VLE have been

increasing over the years, with 99 sections offered in 2016-2017. Figure 5 shows the continued growth in enrolment in day school and summer school eLearning courses.

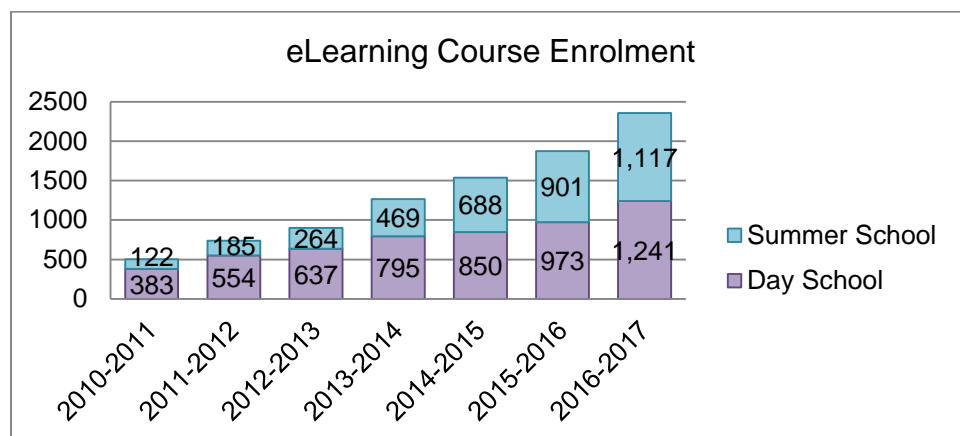


Figure 5. Enrolment in eLearning courses over time, stacked by summer and day school programs.

3.5 International Certificate Program;

Another way in which the OCDSB provides rich learning experiences to students on different learning pathways is through the International Certificate Program. This program is designed to recognize students who have gone above and beyond in the pursuit of global citizenship and intercultural awareness. The International Certificate Program gives high school students the opportunity to become informed, engaged, and active global citizens who learn about themselves by learning about the world. In the program, students study an international language, take internationally-focused classes, learn to understand global issues, and participate in an internationally-focused project. In 2017, 58 students successfully completed all components of the program (including a summative portfolio task), a number which has been steadily climbing over the years (see Figure 6).

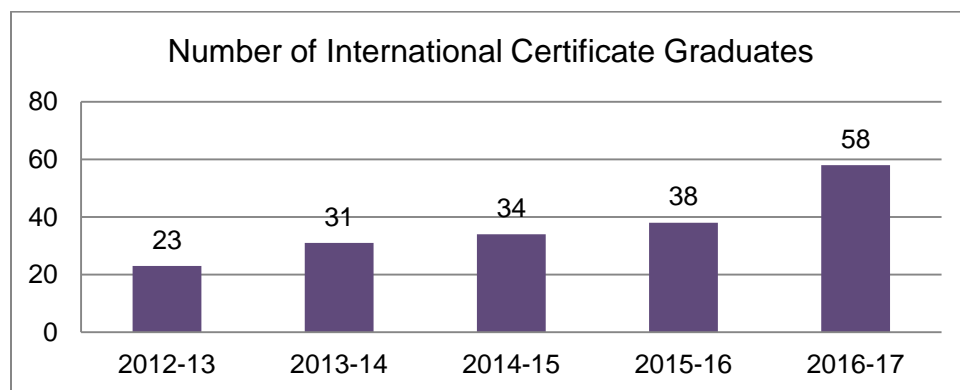


Figure 6. Number of graduates from the International Certificate Program over time.

4.0 Strategy: Optimize School Learning Plans to develop strategies to support achievement in targeted areas (e.g. numeracy and literacy).

School Learning Plans (SLPs) engage school teams to develop strategies for supporting student learning. School teams are also working to involve parents and

students in the process, to optimize the use of the plan. SLPs use the following professional learning cycle:

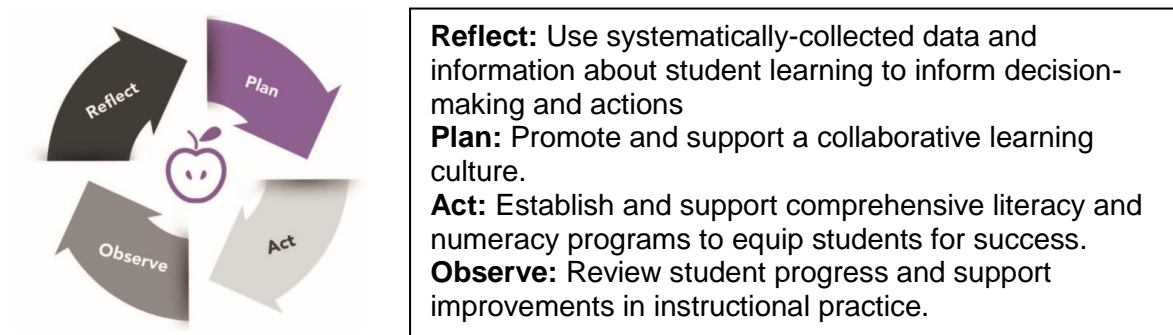


Figure 7. Professional Learning Cycle for School Learning Plans.

Near the start of every school year, school teams reflect on recent evidence of student learning at their school and plan for the year ahead. A professional development session is held with central staff, including members of the Research, Evaluation, and Analytics Division (READ), to building school teams' capacity to access, use, and interpret multiple sources of data. The goal of the session is to help school teams consider the evidence and make informed decisions to improve student learning, achievement, and well-being. This year's session involved a review of recent data to identify areas of need, with a focus on mathematics. Each superintendency has an established relationship with a staff member from READ who provides resources and support in understanding data.

Although the pairing of staff from READ with superintendencies is a relatively new practice at the OCDSB, it is having a notable impact on both the planning and observing phases of the SLP cycle. READ staff work with the school teams to support their understanding of what the school data is telling them and continue to support school teams throughout the year as they gather and analyze evidence through surveys, assessments, observations, pedagogical documentation, and other data sources. This partnership between central and school staff is an excellent example of how cross-departmental collaboration can be used to optimize SLPs and have a positive impact on student learning.

Another practice which has shaped the optimization of SLPs has been the identification of marker students. Marker students are identified at the start of the SLP and their individual progress is considered throughout the year as an indicator of the success of the strategies in place. The identification of marker students has helped improve the precision of goals, strategies, and monitoring in the SLP process.

In the spring of 2017, school teams reflected on the impact of their SLPs and shared what they learned throughout the cycle so that it may be used to help shape planning for 2017-2018. Schools teams reported positive outcomes of the SLPs, with the most common themes (in order of frequency) being a positive impact on student:

- Confidence;
- Engagement/participation;
- Learning related to mathematics;
- Communication;
- Flexible thinking;
- Risk-taking;
- Achievement; and
- Perseverance.

Teams also reported that the SLP had a positive impact on educator engagement (i.e., trying new things, gathering evidence, challenging students) and practice (enhanced use of manipulatives, self-directed learning, co-planning).

5.0 Next Steps

The key work outlined above, in conjunction with the data that follows in the ASAR, was used to inform next steps under each strategy.

5.1 ***Strategy: Promote and encourage the personalization of learning and enhance instructional practice to meet the individual needs of learners.***

Work undertaken last year highlights progress on the learning objective through professional learning opportunities. The supports and resources provided to enhance instructional practice have been abundant. The challenge, however, is the identification of which supports/resources are the most meaningful and useful for educators. Future work in this area will involve focusing supports for educators and being specific in terms of which resources which will best support the enhancement of instructional practice.

Another area for future work will be the creation of resources to support the development of the Exit Outcomes as a K-12 strategy. The expansion of the NPDL program is one way to support this, and as a District we must continue to help educators find ways to integrate the NPDL strategies into some of their learning tasks, rather than treating participation as additional work. The development of learning resources to support the Exit Outcomes will also facilitate the development of a self-assessment tool for students. Looking forward, the District will be participating in an international study on learning skills with OECD.

As mentioned above, key work last year involved a cross-departmental collaborative inquiry in support of students with Learning Disabilities. Moving forward, this inquiry will include a partnership with the Eastern Ontario Staff Development Network to continue to expand this learning. Additional work in this area will include a specific look at students with Learning Disabilities, with a focus on EQAO performance, in comparison to all students and all students with special education needs. Planning and preliminary steps for this analysis are already underway.

The review of supports for specific groups of students has also highlighted areas for future work. The evidence presented shows that the majority of elementary students with special education needs are received special accommodations; an interesting finding given the improved performance of these students on the EQAO assessments. The results for English Language Learners, however, tell a different story. EQAO data

suggests that less than 10% of English Language Learners received special provisions on standardized assessments in elementary last year. Given the room for improvement in assessment scores for this group of students (as presented in the ASAR), it is possible that special provisions are being under-utilized. Next steps for this year will involve increasing supports for English Language Learners through effective use of STEP assessments, improved tracking of where supports are needed/being used, and a closer look at the kinds of supports that might be beneficial for students who are English Language Learners.

5.2 Strategy: Improve and increase access to the educational pathways for every student.

The development and implementation of the Elementary and Secondary School Program Frameworks have created the foundation for this strategy. Now, the work is about applying the framework and using it to guide decisions from this point forward. Important to this work is allowing schools to have local flexibility while maintaining the integrity of the frameworks so that consistency is ensured across the District and for all students.

Future work in this area will include a closer look programs that support access to the educational pathways. One such program that will be given more in-depth consideration this year is the school-based Student Success program (grade 7-12). The program is designed to help students with a variety of needs that can range from challenges at home, learning disabilities, anxiety, etc. Typically, through the program, students that are falling behind step away from the regular classroom to receive tailored supports from a Student Success Teacher. Once those students have mastered the area in which they were struggling, the Student Success Teacher works to catch them up to where they can re-enter their regular class in a seamless fashion. At the secondary level, is achieved by supporting students *during* the learning (credit rescue/intervention) as opposed to after (credit recovery). In grade 7-8, however, the approach is less defined. This year, key work will involve the establishment of standards of practice for a coordinated 7-12 Student Success model. Next steps will involve meeting with grade 7 and 8 teachers to gain perspective on what guidelines for these grades could look like.

Continued monitoring is an important part of the work under this strategy. Many programs at the OCDSB have been undergoing significant change. Measuring the impact of program changes or rapid growth takes time, but is a critical piece of the work. Recent changes to the SHSM program (i.e., student transportation to SHSM school; the ability to stay at a SHSM school for grades 11 and 12) merit analysis this year. Staff will investigate the impact of recent changes, consider enrolment trends, and identify gaps/ areas for growth.

5.3 Strategy: Optimize School Learning Plans to develop strategies to support achievement in targeted areas (e.g. numeracy and literacy).

As discussed above, at the end of last year, school teams created reflective summaries of their School Learning Plans (SLPs). Within these summaries, teams also outlined next steps for supporting student learning. Themes for next steps focused on:

For students:

- Assessment;
- Classroom discourse;
- Regular and purposeful use of manipulatives; and
- Cross-curricular learning.

For educators:

- Curricular planning;
- Use of data;
- Lesson studies;
- Educator collaboration; and
- Cross-curricular planning.

These next steps are being used to guide the ongoing 2017-2018 SLPs. Key work this year will involve supporting all schools in identifying precise goals, strategies, and monitoring tools. There will also be supports for integration of the SLP into other work. Additional work in this area will involve engaging students and parents in the SLP process. An assessment tool for monitoring parent engagement in SLPs is currently under development and will be distributed later this year.

Another way in which the OCDSB is working to optimize SLPs will be through a public reporting template. The new school websites include a common template, which will ensure that all schools follow the same structure and placement on their website for their SLP. This will support schools in populating their plan with the information specific to them, while also being consistent across the District.

6.0 Guiding Questions

The following questions are provided to support the discussion of this item by the Committee:

- What does the evidence tell us about our progress?
- How does the information in this report and the Annual Student Achievement Report inform our work for this year?
- How will the goals and strategies of the BIPSAW support our progress?
- How will the identified next steps move us forward on this objective?
- What is the value of specific targets in the strategic plan?

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Appendix A – Supports for Mathematics

- Professional development sessions;
 - Primary Math Networks (3 half-day sessions);
 - Math Leads Sessions (half-day math leads and principals, on 3 occasions);
 - EQAO PD (all grade 3 and grade 6 teachers; including presenter from EQAO);
- Networks and inquiries;
 - Participation in Eastern Ontario Staff Development Network (EOSDN) Math Project (4 schools);
 - Learning Disability (LD) Inquiry (6 schools);
 - Participation in Virtual Renewed Math Strategy (RMS) sessions;
 - Participation in Face-to-Face RMS and Achieving Excellence in Applied Courses (AEAC) Ministry Sessions;
 - Cross-panel Math networks (14 schools);
 - Ethno-cultural math (1 school);
 - NumerArtcy;
 - Established 2 Google+ Community groups (primary math teachers and math leads);
 - Curriculum Services staff attended RMS fall and spring sessions;
 - Planning and Assessment networks for teachers of Grade 9 mathematics and Grade 11 college and university level math (approximately 40 teachers from across all secondary schools participated);
- Provision of resources;
 - Primary/junior math resources at each site;
 - Established Curriculum Services Numeracy News (providing resources and compilation of all PD for principals and math leads);
 - Provided resources for system-wide, cross-departmental PD day;
 - Provided resources and instructional coach support for RMS/AEAC professional learning teams with a focus on Grade 9 and 10 applied mathematics; and
 - Resources posted to OCDSB website.