

Chapter 20

Chinook School Division No. 211—Supporting Grade 2 Students in Achieving Grade Level in Math

1.0 MAIN POINTS

This chapter reports our audit results of Chinook School Division No. 211's processes to support Grade 2 students in achieving grade level in math to meet the provincial Education Sector Strategic Plan (ESSP) goal that by June 2020, 80% of students will be at or above grade level in math.^{1,2}

At December 2018, Chinook had effective processes to support Grade 2 students in achieving grade level in math to meet the ESSP goal of 80% by 2020.

Chinook's results, at June 2018, show it achieved its goal.

2.0 INTRODUCTION

2.1 Background

Chinook School Division No. 211 is responsible for 63 schools in 30 communities within a geographic area of approximately 43,000 square kilometres located in southwestern Saskatchewan from Frontier, Leader, and Hodgeville to Maple Creek.^{3,4}

Each year, Chinook educates about 6,000 students, including approximately 450 students in Grade 2 located in 29 schools.⁵ It employs a staff of nearly 890 full-time equivalent positions comprised of 379 classroom teachers, and 229 other educational staff.⁶

In 2018–19, Chinook expected to have revenues of about \$82 million (2017–18: \$83 million) and expenses of \$86 million (2017–18: \$87 million).^{7,8}

Chinook's mission is to provide an engaging environment that meets the holistic needs of children while achieving curricular expectations.⁹

¹ In 2013, the Ministry of Education and school divisions formed a Provincial Leadership Team to establish a sector-wide strategic plan called the Education Sector Strategic Plan (ESSP). The ESSP is a multi-year strategic plan focused on specific outcomes and achieving goals set out in the *Saskatchewan Plan for Growth: Vision 2020 and Beyond*.

² *Ministry of Education Plan for 2018–19*, p. 8.

³ *The Education Act, 1995* sets out the duties of a Board of Education. These duties include approving and providing educational courses to students residing in the school division (Act, s. 85(1) (j) and (l)), including courses that teach students to comprehend math. The Ministry of Education sets out the curriculum pertaining to courses of study with respect to Kindergarten and Grades 1–12 (Act, s. 3(2) (c)).

⁴ Chinook School Division No. 211, *Annual Report 2017–18*, p. 7.

⁵ *Ibid.*, p. 30.

⁶ *Ibid.*, p. 31.

⁷ Chinook School Division 2018–19 Final Operating Budget.

⁸ Chinook School Division No. 211, *Annual Report 2017–18*, p. 52.

⁹ *Ibid.*, p. 8.



2.2 Math Momentum

From 2011 to 2015, Chinook focused specifically on improving math results for elementary grades; it referred to this initiative as ‘Math Momentum’. Through Math Momentum, Chinook used focused strategies to improve math results, gathered baseline data on math results for Grades 3, 6, and 9, and actively monitored progress.

During these years, Chinook required each of its schools to develop formal school-level goals for math results. It gave teachers additional training in teaching math; provided schools with additional resources specific to supporting math instruction and assisting students in learning math (such as intervention kits); and hired math coaches dedicated to supporting and coaching teachers in teaching math.

In 2011, it adopted the use of the Vancouver IslandNet (VIN) assessment tool to collect baseline data, and evaluate students against grade level in math. It required teachers to assess students in Grades 3, 6, and 9 in the fall and spring using the VIN assessment, and gave them the option of using the VIN assessment to assess students in other grades.

The VIN assessment uses a four-point scale (needs support, progressing toward expectations, meeting expectations, exceeding expectations). Chinook trained its staff on the use of this tool.

From 2011 to 2015, VIN assessment results showed students’ math results in Grades 3, 6, and 9 improved significantly. For example, on a combined basis, results increased from 46.7% of students at grade level in math in 2011 to 75.3% in 2015.¹⁰ For Grade 3 students, math results increased from 72.5% in 2011 to 90% in 2015—exceeding Chinook’s target of 85% by 2017.

Given this, in 2016, Chinook shifted its focus (and resources) from math to improving student writing and increasing high school engagement, which are other ESSP goals. It reduced the number of dedicated math coaches from five to one full-time equivalent position, and reduced professional development specific to teaching math. Chinook kept using the VIN assessment to evaluate students’ math results in Grades 3, 6, and 9 twice a year.

Learning math skills early (such as in elementary grades) can help students achieve future academic success.¹¹ Students also use math skills in everyday life (e.g., purchasing goods, following a recipe). It is almost impossible to live independently without possessing basic math skills.¹² If students do not receive supports to learn math skills early, they may struggle with math in later grades, and in life.

¹⁰ For Grade 6 students, math results increased from 51.8% in 2011 to 76.9% in 2015. For Grade 9 students, math results increased from 20.1% in 2011 to 60.4% in 2015.

¹¹ Samuels, C. (2018). Supporting Math Learning by Helping Early Educators. *Education Week Spotlight*, pp. 7–8.

¹² Wile, E. (June 2017). *Why is Math So Important for Kids to Learn?* www.livestrong.com/article/560817-activities-for-kids-about-attitude (21 March 2018).

3.0 AUDIT CONCLUSION

We concluded that for the 13-month period ended December 31, 2018, the Chinook School Division No. 211 had effective processes to support Grade 2 students in achieving grade level in math to meet the Education Sector Strategic Plan goal of 80% by 2020.

Chinook's results, at June 2018, show it achieved its goal.

Figure 1—Audit Objective, Criteria, and Approach

Audit Objective: The objective of this audit is to assess the effectiveness of the Chinook School Division No. 211's processes used in a 13-month period ending December 31, 2018, to support Grade 2 students in achieving grade level in math to meet the Education Sector Strategic Plan goal of 80% by 2020.

Audit Criteria:

Processes to:

1. Identify actions to support Grade 2 students in achieving grade level in math
 - 1.1 Set expectations (e.g., action plans, incremental targets, alignment with sector plan)
 - 1.2 Establish relationships with key stakeholders (e.g., parents, communities, First Nations)
 - 1.3 Communicate grade level in math expectations (to teachers, students, parents, communities, First Nations)
2. Support implementation of actions
 - 2.1 Allocate resources for math (e.g., staff, funding, tools, supports)
 - 2.2 Provide training to support actions (by teachers, support staff)
 - 2.3 Manage risks to timely completion of actions
3. Monitor effectiveness of actions
 - 3.1 Measure progress towards supporting Grade 2 students in math
 - 3.2 Adjust actions as required
 - 3.3 Report on progress towards supporting Grade 2 students in math

Audit Approach:

To conduct this audit, we followed the standards for assurance engagements published in the *CPA Canada Handbook—Assurance* (CSAE 3001). To evaluate Chinook's processes, we used the above criteria based on our related work and reviews of literature including reports of other auditors. Chinook's management agreed with the above criteria.

We examined Chinook's policies and procedures relating to supporting Grade 2 students in achieving grade level in math. We interviewed staff within Chinook, including Division and school staff. We analyzed students' math assessment results. We tested key aspects of Chinook's processes, including math coaching schedules and instruction time. We also examined resources and coaching available to teachers. Because Chinook did not maintain support for its scoring of student assessments, we did not assess the validity of the individual student results.

4.0 KEY FINDINGS

4.1 Action Plans Clearly Outline Expectations for Math

Chinook uses action plans to clearly outline specific targets and actions to support reading, writing, and/or math outcomes following a standard template.

Each year Chinook, at the Division-level and each school, must prepare an action plan following the Ministry's standard template. The template outlines specific actions (e.g., use of interventions) to achieve reading, writing, and/or math outcomes; deliverables; name of



lead; start and completion dates; high-level, required human and financial resources; high-level risk or mitigation strategies; and metrics.

Our review of the Division-level action plans for the last two years (2017–19 and 2018–19) found them completed as expected. In addition, each included specific math-related outcomes, deliverables, strategies, resources, and metrics.

Figure 2—Division-Level Math Targets by Action Plan

2017–19 Action Plan	2018–19 Action Plan
By June 2017, 85% of students will be meeting or exceeding expectations on Chinook math assessments in Grades 3, 6, and 9 (using VIN assessment)	By June 2018, 75% of students in Grades 2, 5, and 8 will be at grade level in math by June 2019 (using the provincial math rubric)
By June 2020, 90% of students will be meeting or exceeding Chinook expectations in reading, writing and math (using VIN assessment)	By June 2020, 80% of Grades 2, 5, and 8 students will be at grade level in math (using the provincial math rubric)

Source: Chinook School Division No. 211 Action Plans.

We found the content of its 2017–19 and 2018–19 plans consistent (e.g., similar strategies, similar resources) except the 2018–19 action plan had lower math target percentages and required using a provincial math rubric annually for a variety of grades, as shown in **Figure 2**.

We found:

- The plans' consistency showed that Chinook continued to maintain sufficient strategies for math to sustain its past progress in improving students' math results.
- The revised math targets, grades assessed, and use of a provincial math rubric starting in the 2018–19 Division-level plan aligned with the ESSP 2020 math goal and Ministry direction. (See **Figure 3** for a brief description of Ministry-directed math assessment requirements.) We found the revised targets consistent with Chinook's adoption of the provincial math rubric.¹³

Figure 3—Ministry Requirement for Using Provincial Math Rubric for Grades 2, 5, and 8

In the spring of 2018, the Ministry asked each school division (including Chinook) to submit math results for Grades 2, 5, and 8 each June, starting in June 2019. It requires all school divisions to report these student math results using a new common math rubric to allow for consistent student assessments across all provincial school divisions. This provincial rubric assesses student math level against grade level prescribed in the curriculum based on an assessment by the teacher of the student's work throughout the year.

The Ministry expects all schools to collect data at the end of the school year (in June) using the common math rubric.

The provincial rubric, similar to the VIN assessment, requires teachers to assess students on a four-point scale.

Source: Adapted from information provided by the Ministry of Education and Chinook School Division No. 211.

¹³ Chinook's June 2018 pilot use of the provincial math rubric found, while overall results for all grades assessed were similar to VIN assessment results, provincial rubric results for Grade 2 in Chinook were 12.44% lower than VIN assessment results.

In 2018–19, math-related resources included one full-time dedicated math coach, and nearly 18 student services teachers.¹⁴

In 2018–19, math-related strategies expected teachers to support students using Division-supported math interventions (see **Figure 4**), ‘Guided Math’, a standard method to assess student achievement, and professional development (such as coaching) to gain skills to deliver intervention.

Guided Math is a math teaching strategy Chinook requires teachers to use for either some, or all, lessons or certain units depending on their teaching style. It is geared to delivering math content to groups. It involves dividing students into groups based on their ability with math concepts. Students work in groups to move through different math-related activities tailored to their level.

Figure 4—Examples of Chinook-Supported Math Intervention Resources

- Tier 1 instruction uses the Guided Math strategy in the classroom, which may include tailored instruction for students at different levels.
- Tier 2 interventions are for students struggling to meet grade-level using Tier 1 instruction. Chinook provides each school with a Tier 2 intervention kit for each grade, which includes activities for students to learn math concepts either in small groups or individually.
- Tier 3 interventions are for students who need additional support. Chinook provides each school with a Tier 3 binder containing additional resources for teachers or student services teachers to use one-on-one with students.

Source: Adapted from information provided by Chinook School Division No. 211.

Our staff interviews at the Division office and at five schools we visited, as well as reviews of Division calendars found Chinook communicates its expectations for math to teachers through professional development days, and visits from Division staff to schools (such as superintendents, Division math coach, and curriculum coordinator). Also, during the school year, school administrators give staff a monthly Division-prepared document outlining key learning messages, including those related to math.

Since 2015, Chinook no longer required each school to include school-level goals for math in their action plans because of its focus on other ESSP goals. Rather, it allows schools to set either formal or informal school-level goals for math.

Our review of the 2018–19 action plans for five schools we visited found that only one included specific school-level goals for math. Our discussions with staff at each of these five schools found they were fully aware of the ESSP 2020 goal for math. They also described various school-level processes to set informal goals for improvement in math results, and school-level resources used to achieve math goals (e.g., use of interventions, Guided Math, and specific math events for students and/or parents).

Having clear and written expectations, and reinforcing them through regular communication with teachers, helps teachers not only to understand Chinook’s priorities, but also to achieve desired outcomes (targets).

¹⁴ Student services teachers provide academic interventions to students identified as needing extra help to reach grade level.



4.2 Communications Used Regularly to Engage Stakeholders

Chinook uses various ways to regularly communicate to and engage with parents and First Nations leaders in supporting improvement in Grade 2 students achieving grade level in math.

Chinook requires each school to have a School Community Council comprised of parents, school administrators, and teachers. It uses these Councils as a key way to garner input from parents and to keep them informed. It expects Councils to meet regularly and maintain minutes. In addition, it encourages each Council to develop (using a standard template) Engagement and Alignment Plans to help schools achieve their learning goals.

The Engagement and Alignment Plan's standard template sets out actions/activities, start and completion dates, community partnerships, parental involvement, and assessments/measures (activities/metrics).

Each of the five schools we visited had active School Community Councils. Our review of School Community Council meeting minutes and Engagement and Alignment Plans found schools view parents, students, teachers, other school/division staff, and the wider communities within the Division including First Nations Bands as Chinook's key stakeholders. Per discussion with school staff, schools used the Councils to reinforce their learning goals, and garner support from parents in various activities (such as parent math nights, amazing math race).¹⁵

In addition to the Councils, Chinook encourages schools and teachers to use other forms of communication to share math-related information with parents such as Parent-Teacher conferences/meetings, newsletters, emails, or social media.

Our interviews with staff at these five schools found Chinook encouraged teachers to make day-to-day contact with parents and students, and for parents to contact them. Each of the five schools we visited routinely sent newsletters to parents. Our review of classroom newsletters found they discussed events in the classroom and some included information on math units or school math events (e.g., parent math nights).

Using various ways to regularly communicate to and engage with stakeholders helps parents, and the community, to support students' improvement in achieving grade level in math.

4.3 Sufficient Support to Successfully Deliver Grade 2 Math

Chinook gives schools sufficient support to deliver Grade 2 math by giving them time to teach math, specific math-related resource materials, access to additional educational personnel upon request, and access to budgetary resources for additional spending on resource materials or training. In addition, as described in **Section 4.4**, it gives teachers appropriate access to math-related training.

Chinook staffs schools based on student ratios and enrolment. School staff includes classroom teachers, student services teachers, and administrative staff. Its policy outlines

¹⁵ O.M. Irwin School designed an amazing math race to raise students' financial literacy awareness.

staffing ratios for teachers, administrative staff, and student services teachers based on student population per school. For example, Chinook's policy for Grade 2 has a teacher-student ratio of 25 to 1.

The actual 2018–19 student enrolment ratio for Grade 2 classrooms at each of the five schools we visited was within policy guidelines (their actual student ratios ranged from 8:1 to 24:1).

When developing its school calendar, Chinook considers the Ministry-directed number of school days and minimum instruction time for core subjects (such as math).

For the five schools we visited, math time for Grade 2 students met the Ministry's requirement for a minimum of 210 minutes of math instruction per week.

In addition, Chinook makes educational assistants and student services teachers/interventionists available to schools.^{16,17} It staffs these positions based on student enrolment. For the 2018–19 school year, Chinook employed about 110 educational assistants and nearly 18 student services teachers assigned to its 25 elementary schools.¹⁸

At the five schools we visited, we interviewed staff who indicated schools can allocate and adjust the use of educational assistants and student services teachers based on their identified needs.

We found schools schedule the use of educational assistants' time, and attempt to maximize the number of students accessing an educational assistant (e.g., educational assistants would work with other students in different classes when their assigned students are in a physical education class).

Furthermore, Chinook makes one math coach available. This teacher's role is to coach all new math teachers in the Division and support, upon request, other classroom teachers in teaching math.¹⁹ New math teachers include teachers joining the Division who teach math, teachers already in Chinook's employment and teachers newly assigned to teach math. In 2018–19, it had 11 new math teachers in its elementary schools (2017–18: 15; 2016-17: 23).

Chinook makes some resource materials centrally available. It uses a central math budget to fund these. For example, the Division office maintains a library where schools can borrow additional supplies to support math (e.g., IT math games such as 'Mathletics'). In 2018–19, Chinook's central math budget was \$453,000 (2017–18: \$293,000).

Division office staff told us it allocates additional resources if the data (such as VIN assessment results) show a school is not meeting expectations in a certain area. Additional resources may include adjusting the availability of educational assistants, student services teachers, or resource materials to schools. It considers the teacher-coaching model as the most effective way to achieve outcomes.

¹⁶ An educational assistant supports students with intensive behavioural or academic needs.

¹⁷ An interventionist is a generic term describing a person responsible for the delivery of a math intervention.

¹⁸ Full-time equivalent positions.

¹⁹ When it was focusing on math (2011–2015), Chinook told us that the math coaches provided training and professional development to all math teachers.



From time to time, Chinook seeks feedback from school staff informally or through surveys. For example, in June 2018, it surveyed teachers participating in training and those piloting the newly adopted provincial math rubric (see **Figure 3**).

Chinook also provides each school with an array of resource materials specific to math. School resource materials include student workbooks and textbooks, teacher resource manuals, and math intervention kits. Intervention kits are designed to assist teachers in instructing students needing additional support in achieving grade level.

We found Chinook bought or developed most of the materials as part of its Math Momentum initiative. Since then, it updates resource materials either centrally, based on input from schools using the central math budget, or at an individual school level, based on teacher requests using the approved budgets made available to the school. Typically, each school has a discretionary academic budget and a school library budget.

All five schools we visited have discretionary academic budgets; their 2018–19 budgets ranged from \$1,000 to \$31,000 primarily varying because of student enrolment.

Staff at five schools we interviewed told us that Chinook gave each school a Tier 2 intervention kit and a Tier 3 intervention binder, which included useful information on interventions and math-teaching strategies (see **Figure 4**).

All five Grade 2 teachers interviewed supplemented the Division’s resources by purchasing additional materials, and/or by building activities or manipulatives.²⁰

Staff at the five schools we interviewed also confirmed funding for additional math resources (such as additional professional development courses, classroom materials, and academic supplies) is available through Chinook’s central math budget, the schools’ discretionary budgets, school library budgets, and funds raised by School Community Councils.

Interviewed teachers indicated that they communicate their resource needs with their schools through discussions with school administrators, Teachers-Assisting-Teachers meetings, and Professional Learning Community meetings.^{21,22}

The five school administrators we interviewed indicated that schools communicate resource needs to the Division through regular communication and meetings with the math coach and other Division staff.

By providing schools sufficient support to deliver Grade 2 math, Chinook enables its school staff to adequately support all students, particularly those assessed as needing more support.

²⁰ Manipulatives are tools used to help support math learning, including blocks, dice, coins, etc.

²¹ Teachers-Assisting-Teachers meetings are for administration, student services teachers, and select teachers to discuss students with difficult learning or behaviour issues to obtain extra support and new ideas.

²² Professional Learning Community is a group of teachers who discuss instruction in a particular subject area and grade level.

4.4 Teachers Suitably Equipped to Teach Math

Chinook suitably equipped its Grade 2 teachers to understand and teach the math curriculum through its math coach, and professional development days (which may include math content).

Chinook requires its math coach to give each of its new math teachers training on Guided Math, math resources, and math interventions, and it uses a written training plan for first and second year math teachers, which includes a training timeline and coaching blocks (specific planned activities).

Our review of the math coaching visit descriptions and tracking found Chinook's math coach provided math training/coaching to all new math teachers and teachers with a change in grade/subject from year to year. Training covered teacher expectations, Guided Math, available resources, interventions, and teacher and coach roles.

The five Grade 2 teachers we interviewed confirmed the availability of the math coach for additional coaching and training as requested.

Each year since June 2016, Chinook offered math professional development sessions for classroom teachers, administrators, student services teachers/interventionists, specialists (e.g., speech language pathologist), and others (e.g., student support coordinator).

We saw that Chinook sets its math training requirements (i.e., expectations and training days) for teachers in the Division calendar. Because math is not its current focus, we found it did not provide teachers with much professional development specifically related to math beyond math coaching.

Each of the five Grade 2 teachers we interviewed felt they received enough support through professional development and coaching to teach math effectively.

Suitably equipping teachers to teach math allows them to effectively teach math. Actively coaching teachers also reduces the risk of Chinook insufficiently supporting teachers in their roles.

4.5 Progress in Math Measured Consistently

Chinook consistently measures its progress toward supporting students in math.

The Division used ongoing teacher assessments and student course work reflected in student report cards. In addition, from 2010–11 to 2017–18, it used the VIN assessment tool to collect data (in the fall and spring of each year) on whether students were meeting grade level in math for Grades 3, 6, and 9. Consistent with Ministry-direction described in **Figure 3**, starting in 2018–19, Chinook required teachers to assess students only in June using the provincial math rubric for Grades 2, 5, and 8.

Staff at the five schools we visited identified ongoing assessments and student course work as key ways teachers measure progress at the student-level. The five Grade 2 teachers



we interviewed further noted that using Guided Math assists in monitoring student progress since students are working in small groups.

Consistent with Chinook's expectations, schools assessed the required grades using VIN assessments twice a year as expected, and entered each VIN student assessment results into the Division's IT system. In addition, staff used the same IT system to track students receiving interventions. Our review of 2018–19 and 2017–18 data noted tracking of intervention checkpoints in the IT system for all Grade 2 students receiving interventions.²³

Use of a standard assessment tool (such as VIN or the provincial math rubric) gives Chinook a clear and somewhat more objective basis of assessing a student's knowledge of math relative to grade level. Applying that basis periodically and systematically gives Chinook quality information to determine whether its math instruction and related activities give students sufficient support to learn math at grade level. It also gives Chinook quality information to determine where to focus its resources (e.g., which schools, and which students).

4.6 Progress of Students in Math Actively Monitored

Chinook actively evaluates student math progress at the school-level, and at the Division-level.

- Teachers at schools identify students at risk through professional judgment, classroom observations (including group instruction and work samples), and various screening assessments (including VIN and unit assessments).

Teachers and student services teachers at the five schools we visited confirmed they track progress through day-to-day assessments in the classroom.

Our discussion with staff from five schools we visited, and our review of related documents, found schools informally identify and manage risks at a school-level, as well as for individual students not achieving grade-level in math. They do this through teachers' knowledge of students and their families; communication with parents, other teachers, and school administrators; and discussions at monthly Teachers-Assisting-Teachers meetings and Professional Learning Community meetings.

Our review of Chinook's Grade 2 math results found schools use data captured in its IT system from the VIN assessments. We saw evidence that schools track interventions for early years' math in the IT system, and decide whether the interventions work by determining whether a student progresses as expected.

Our review of the 2017–18 VIN assessment results found schools provided interventions to Grade 2 students identified as not meeting math grade-level expectations (see **Figure 4**).

²³ An intervention checkpoint is an assessment determining if a student is able to do something specific or understand a learning concept.

The five teachers interviewed indicated they make their students aware of their curricular outcomes at the beginning of units, so students understand the expectations for learning.²⁴ For students requiring additional support, teachers use daily work with students to communicate expectations for math.

- School administrators periodically evaluate how well their school and students are doing using summarized results from the IT system (by school, classroom, and student levels). This enables them to identify problem areas for their school, and identify specific students needing and/or receiving additional support or interventions.

Schools can amend or request adjustments to certain math resources as required. For example, teachers can adjust use of interventions for individual students. Schools can also ask educational assistants and student services teachers to modify their schedules to help specific students or classrooms. In addition, schools can ask the math coach to provide a teacher with additional coaching.

We saw each of the five schools we visited prepared schedules for providing appropriate interventions to students identified in need of support.

Administrators at each of the five schools we interviewed discussed how they used information from the IT system to consider student performance in math, and sufficiency of supports or interventions provided to students. They provided us with examples of specific math-related requests for schedule adjustments of educational assistants or student services teachers. They indicated that they generally found their school-level budgets for math resources sufficient.

- Division superintendents meet with each school administrator twice a year (in fall and spring).

We confirmed superintendents used these meetings, in part, to discuss students receiving interventions at each school (i.e., for math, students scoring below grade-level on the VIN assessment).

Our review of executive team agendas found it considered requests for adjustments in math resources for a particular school, classroom, and/or student.²⁵ Division-level staff indicated it adjusted resources based on available funding in the Board-approved budget. When funding was not sufficient and the request warranted, the Division recommended the Board adjust the budget.

Staff at the five schools we visited indicated that they felt Chinook sufficiently responded to their requests for additional math resources.

We also found Chinook does not exceed its approved math budget. For example, it spent about two-thirds of its 2017–18 math budget of \$293,000. As of June 2019 (nine months into its fiscal year), it spent almost one-third of its 2018–19 math budget of \$453,000 because the Division typically purchases the majority of supplies for the next school year in the summer.

²⁴ Some teachers use “I Can” statements, which are age-appropriate statements explaining curricular outcomes to students.

²⁵ The executive team includes the director, deputy director, chief financial officer, and superintendents.



As shown in **Figure 5**, Chinook had about 97% of its Grade 2 students (assessed on an optional basis) and 88.7% of Grade 3 students (subject to mandatory assessment) meeting or exceeding grade level in math in spring 2018 based on the VIN assessment.

Figure 5—Students’ Spring Math Assessment Results (Using VIN)

Year	Percentage of Students Meeting or Exceeding Expectations	
	Grade 3 (assessments mandatory)	Grade 2 (assessments optional) ^A
2012	72.5	86.9
2013	76.8	88.8
2014	83.5	94.4
2015	90.0	92.7
2016	86.9	93.8
2017	87.0	91.1
2018	88.7	96.8

Source: Chinook School Division No. 211’s records.

Gray shaded rows reflect the years when Chinook focused on student performance in math through Math Momentum.

^A Percentage does not include all Grade 2 students as testing was optional; that is, Chinook did not require schools to assess Grade 2 students (e.g., for 2018, teachers in 75% of the schools assessed Grade 2 students).

By evaluating and monitoring students’ math progress, Chinook knows whether students struggle to meet grade-level and whether it needs to provide additional support to its schools.

4.7 Board and Public Kept Informed of Students’ Progress in Math

The Division gives its Board and the public sufficient information to enable them to assess students’ progress in math.

Each year, Chinook analyzed students’ year-over-year math results measured using VIN assessments for Grades 3, 6, and 9.

We saw the Division annually reported these results internally to its executive team. For example, for the 2017–18 school year, the executive team received this analysis in September 2018.

Each year, Chinook reports the results of its analysis to the Board. For example, the Board received the 2017–18 school year analysis in September 2018. This analysis included year-over-year data from the 2010–11 to 2017–18 school years. It provided data by grade (i.e., Grades 3, 6, and 9), and overall. The analysis clearly indicated Chinook’s math strategy succeeded in increasing its students’ Grades 3, 6, and 9 math scores over time (31.4% combined increase since 2011).

We found Chinook provided sufficient analysis to the Board based on the relative size of the changes in results. We also saw the Division provided the Board with updates on tools to support math education going forward. For example, in September 2018, the Board received information about the new provincial math rubric assessment and intervention tools.

To report on progress to the community, each time the Board meets, Chinook releases a newsletter summarizing information it provided to the Board, and posts this newsletter on its website.²⁶ We found the website included eight newsletters for the 2017–18 school year, and nine for the 2018–19 school year. We also noted the September 2018 newsletter contained information about the 2017–18 Grades 3, 6, and 9 VIN assessment results, and information about the new provincial math rubric assessment.

Chinook demonstrates transparency by providing its Board and the public sufficient information to enable them to assess students' progress in math. This also provides the opportunity to engage stakeholders in assisting students in achieving grade level in math.

5.0 GLOSSARY

Educational assistant – an employee who supports students with intensive behavioural or academic needs

Intervention – tool to provide instruction to students (e.g., math activities)

Interventionist – the person responsible for the delivery of a math intervention

Professional Learning Community – a group of teachers who discuss instruction in a particular subject area and grade level

Student services teacher – a teacher who provides academic interventions to students identified as needing extra help to reach grade level

Teachers-Assisting-Teachers meetings – meetings for administration, student services teachers, and select teachers to discuss students with difficult learning or behaviour issues, and to obtain extra support and new ideas

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²⁶ www.chinooksd.ca/Board/Pages/default.aspx (23 July 2019).

