



REPORT TO

**STUDENT ACHIEVEMENT AND WELL BEING, CATHOLIC EDUCATION AND HUMAN RESOURCES COMMITTEE**

**UPDATE REPORT ON THE PILOT PROJECT FOR JUMP MATHEMATICS 2016-2017**

*I can do everything through Him who gives me strength.  
Philippians 4:13*

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**INFORMATION REPORT**

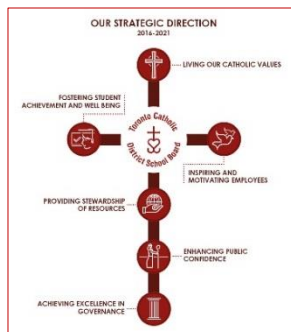
**Vision:**

*At Toronto Catholic we transform the world through witness, faith, innovation and action.*

**Mission:**

*The Toronto Catholic District School Board is an inclusive learning community uniting home, parish and school and rooted in the love of Christ.*

*We educate students to grow in grace and knowledge to lead lives of faith, hope and charity.*



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## **A. EXECUTIVE SUMMARY**

In January 2015, the JUMP Math Pilot was initiated within the TCDSB. Schools (14) were provided with JUMP teacher and student resources, as well as professional development to support implementation. This report summarizes the results of surveys of teachers, parents and students and EQAO data for participating schools, and outlines plans for the 2017-2018 school year.

## **B. PURPOSE**

An annual report on the JUMP Math Pilot initiative made available to schools through the Curriculum Leadership and Innovation Department to inform planning within the Toronto Catholic District School Board.

## **C. BACKGROUND**

The Toronto Catholic District School Board initiated a pilot of JUMP Math in January 2015 as described in the October report to Board of 2016.

Schools were provided with JUMP Math teaching and student resources. The schools were: Christ the King, D'Arcy McGee, St. Angela, St. Bede, St. Bernard, St. Brigid, St. Charles Garnier, St. Clare, St. James, St. John XXIII, St. Kevin, St. Leo, St. Paul, and St. Theresa Shrine.

Since the very beginning, ongoing professional development has been offered by the Math Team from the JUMP Math Office to support program implementation.

## **D. EVIDENCE/RESEARCH/ANALYSIS**

The focus of this report is on the assessment data for the 2016-2017 school year. Sources of evidence for this report highlight the following elements: (1) Achievement Data (2) Perceptual Data (3) Professional Development.

## 1. ACHIEVEMENT DATA: EQAO Mathematics

### Legend:

\ = Scores decreased

/ = Scores increased

\\_ = Scores decreased then stable

V = Scores decreased then increased

Λ = Scores increased then decreased

### EQAO Math across years: 2014 – 2017

Percent of student at Level 3 or 4	Grade 3 Math			Grade 6 Math			Trend	
	2014	2015	2017	2014	2015	2017	Gr 3	Gr 6
Province	67	EC	62	54	EC	50	\	\
TCDSB	66	64	63	53	52	48	\	\
St. Bernard	40	53	67	33	21	18	/	\
St. Angela	60	46	50	24	31	48	V	/
St. Charles Garnier	31	40	38	24	16	16	Λ	\_
St. Leo	70	64	42	43	30	64	\	V
Christ the King	91	76	69	55	70	74	\	/
D'Arcy McGee	28	51	24	34	49	31	Λ	Λ
St. Kevin	32	67	21	52	27	33	Λ	V
St. Clare	70	62	97	66	68	38	V	Λ
St. Paul	50	65	70	30	47	29	/	Λ
St. John XXIII	67	45	58	55	66	91	V	/
St. Bede	48	63	78	53	70	39	/	Λ
St. Theresa Shrine	58	54	45	32	61	55	\	Λ
St. James	38	58	41	27	14	32	Λ	V
St. Brigid	82	82	68	60	52	51	\	\

### Summary of EQAO results

- The EQAO results in math for the JUMP pilot schools are inconsistent. Analysis of cohort data were found to be similarly inconsistent.

Within the JUMP Pilot schools, there were schools that received support through the Renewed Math Strategy.

Any changes in achievement scores need to be interpreted in the context of each school. The results summarized above point to the need for continued tracking and monitoring to learn about effective practices and strategies.

## 2. PERCEPTUAL DATA

In the Spring of 2017, all 14 schools in the JUMP Pilot were invited to provide feedback through three surveys: Teacher Survey, Student Survey, and Parent Survey.

### Teachers (n = 100)

- Responses were received from 100 teachers in 13 schools, and teachers represented all divisions.

Survey Question Topic	Percentage of positive responses from teachers		
	> 80%	50-79%	< 50%
Supporting the curriculum		Ontario Curriculum Expectations 76%	
Meeting Ontario Curriculum Achievement Chart	Knowledge 82%	Application 62%; Thinking 57%	Communication 43%
Benefitting students		Confidence 72%; Participation 70% Achievement 66%; Perseverance 55%	
Student enjoyment		Program 76%	
Helpfulness of materials	Student assessment and practice book 81%	Teacher resources 69%	Professional development 45%
Frequency of use	Student assessment and practice book 93%	Lesson plans and teacher resources 65%	JUMP Math SMART Board lessons 29%
Quality of teacher resources		Content 70%; Organization 52%	Ease of use 41%
Quality of student assessment and practice books		Content 75%; Organization 71%; Ease of use 71%	
Quality of JUMP Math SMART board lesson			Content 37%; Organization 35%; Ease of use 29%

materials			
Helpfulness for students		Students at Level 2 in math 71%; Students at Level 1 in math 57%	Students at Level 3 or 4 in math 44%
Use of program	Program requires supplementation (e.g., Nelson Math, EQAO-type questions, practice problem solving sheets, online applications) 88%		Program does not require supplementation 12%
Continued use of JUMP math		With supplementation 71%	Exclusively 17%; Choose not to continue 11%

### Students (n = 431)

- There was representation from 8 of the schools; 212 students were in Grade 3 and 219 in Grade 6.

Survey question topic	Percentage of positive responses from students		
	> 80%	50-79%	< 50%
Attitudes regarding math		Reading math problems 60%; Liking math 56%; Good at math 50%;	Thinking about steps to use to solve problems 46%; Talking to parents about math 39%; Answering difficult questions 31%
Perceptions of success		Feel more successful this year 69%	No difference from other years 20%; Feel less successful this year 11%

### Parents (n = 48)

- All 14 schools in the JUMP Pilot were invited to provide feedback.
- There was representation from parents in 5 schools; 25 were parents of students in Grade 3 and 23 were parents of students in Grade 6.

- The majority of parents (73%) reported that their child likes math; 66% of parents indicated that their child is experiencing greater success this year; 30% reported “no change”.
- When asked to offer comments, in general, parents expressed satisfaction with the program and indicated that it helped to nurture enjoyment of mathematics, confidence, and independence. Parents also voiced the need for supplementing the program and offering greater challenge for those students who found the program easy.

### **Principals (n=14)**

- In September 2017, principals in the JUMP Pilot schools were asked to provide feedback regarding the JUMP program in their schools.
- The majority indicated that implementation levels were generally high (7 or above on a scale of 1 to 10) and would like to continue with implementation.
- While strengths were reported, especially at the Primary level, schools also identified the need for supplementing the program and improvements in the materials.
- Schools identified the need for ongoing dialogue and professional learning as key factors to deepening understanding, both of which will be a focus for 2017-2018.

### **3. PROFESSIONAL DEVELOPMENT**

During the 2016-2017 school year, the professional learning offered to schools built on the foundational professional development that was offered in 2015-2016 (as described in the Report to Board in October, 2016).

In a joint venture between JUMP Math and the pilot schools, principals’ study groups took place for the second year. Principals gathered three times in the JUMP Math Office for professional development (in October, January and April) for a consistent learning and training experience. Topics of focus and discussion included mental math, number sense, assessment, classroom management, JUMP Math lesson preparation and pacing, EQAO test preparation, and mathematics education in general.

Through the JUMP Math Office, a presentation by Dr. Tracy Solomon, Hospital for Sick Children, was also offered in October, 2016, on the topic of mathematics education.

Many teachers from the JUMP Math pilot schools received professional development support on behalf of JUMP Math. In 2016-2017, at least one professional development session took place in each of the pilot schools and these sessions were for the entire teaching staff.

## E. METRICS AND ACCOUNTABILITY AND NEXT STEPS

Metrics	Next Steps 2017-18
Math achievement <ul style="list-style-type: none"> <li>• Inconsistent Results</li> <li>• Overall no improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to monitor achievement outcomes</li> <li>• Continue implementation efforts with JUMP math by meeting with them to plan next steps for Professional Development</li> </ul>
Teacher survey <ul style="list-style-type: none"> <li>• Points to limitations to program and perceived strengths</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to provide all teachers with professional development focused on implementation of the JUMP program, stressing the importance of utilizing the resources as a package (not in isolation) : lesson plans; teacher resources and JUMP Math SMART board lessons</li> <li>• Provide in-depth professional learning to teachers new to JUMP math</li> <li>• Provide professional learning for Grade 3 and 6 teachers on the use of JUMP materials in relation to EQAO;</li> <li>• Offer in-school support for divisional meetings and grade-level planning needs</li> <li>• Share survey results with the JUMP Math Office to inform further improvement</li> </ul>
Parent survey <ul style="list-style-type: none"> <li>• Low response rate</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to survey parents</li> <li>• Increase communication regarding survey from schools to increase response rate</li> </ul>
Principal survey <ul style="list-style-type: none"> <li>• Continue implementation with supplementation of the JUMP math and professional learning</li> </ul>	<ul style="list-style-type: none"> <li>• Deepen implementation of JUMP Math in the 14 schools across all divisions through PD session with the JUMP Team</li> <li>• Invite John Mighton to offer Grade 3 and 6 demonstration lessons and debrief sessions Continue with principal study groups in collaboration with the JUMP Math Office on</li> </ul>

	<p>topics such as mental math, number sense, assessment, classroom management, JUMP Math lesson preparation, EQAO test preparation</p>
<p>Program</p> <ul style="list-style-type: none"> <li>• Supplementation of JUMP math is required</li> </ul>	<ul style="list-style-type: none"> <li>• TCDSB long range planning documents were renewed this last year to include specific reference to JUMP Math resources that align with each curriculum expectation</li> <li>• Resource teachers and math facilitators to work with JUMP Math schools with regard to expectations and areas where there is a need with supplementation</li> </ul>

**F. CONCLUDING STATEMENT**

This report is for the consideration of the Board.