

APPENDIX B

TCDSB External Research Applications: Approved 2016 – 2017 Studies Completed

1. *ezclasstest Beta Testing – Grades 3 and 6 Ontario Mathematics*

- **Purpose:** To learn about the principal, teacher, and student experience when using this online assessment system, and to analyze the technical quality of the Grade 3 and Grade 6 mathematics test questions.
- **Method:** Online teacher and principal questionnaires.
- **Summary:** *ezclasstest* is a new online curriculum-based diagnostic mathematics assessment for students in Grades 3 and 6. Teachers can access the online system using any computer or tablet and create tests specific to the curriculum topics they are teaching at the time. They have the option of administering it to groups of students as needed. Tests are scored automatically and reports sent to the teacher. Feedback from seven participating principals and 12 participating teachers helped to inform the researchers regarding technical issues of online implementation, and test content. The development of *ezclasstest* is an ongoing process and, as it becomes more widely used, and additional feedback is received from teachers, the assessments and system will be enhanced to provide teachers with the assessments they will need to help improve student learning.
- **Results and Application:** Results will inform the development of the *ezclasstest* and will be shared with the Superintendent of Curriculum Leadership and Innovation, and the Superintendent of Student Success for their information and consideration.

2. *Addressing the Numeracy Gap: A Solution to Increase Student Engagement and Achievement in Mathematics*

- **Purpose:** To determine if usage of the Ontario Colleges Math Test (OCMT) tools would have a positive impact on student achievement in mathematics at the high school level.
- **Method:** Pre- and post-surveys completed online by participating Grade 9 students; Grade 9 mathematics achievement scores.
- **Summary:** Based on scores of students on the Grade 9 Applied Mathematics EQAO assessments, the numeracy achievement of students in Ontario has been identified as an area that requires focus. The OCMT online tools were designed to identify strengths and weaknesses for students using diagnostic and summative assessments including remedial models for nine topic areas: whole numbers, arithmetic, integers, decimals, fractions, ratios and proportions, percents, algebra and measurements. It allows students and teachers to receive feedback to address topics in a targeted way. The OCMT

was implemented in Grade 9 Applied classes and Summer Transition Programs over two years. Diagnostic results indicated that students struggled most with percents, algebra and fractions. Completing the remedial modules and summative assessments showed improvements in seven of the nine areas, providing evidence for the effectiveness of the OCMT. Surveys showed that using the tools both in-school and outside of schools benefitted student performance. There was evidence for a correlation between engagement, usage, and student reported confidence.

- **Results and Application:** Results will inform continued improvements in the OCMT tools. The report will be shared with the Superintendent of Curriculum Leadership and Innovation, and the Superintendent of Student Success for their information and consideration.

3. *The 2017 Ontario Student Drug Use and Health Survey (OSDUHS)*

- **Purpose:** To provide a knowledge base and share updated information for health promotion, education, and policy efforts at all levels of government with the ultimate goal of improving the well-being for Ontario youth.
- **Method:** Survey of students in Grades 7 to 12, within a stratified sample, representative of Ontario (repeated, cross-sectional, anonymous survey).
- **Summary:** The OSDUHS is the longest running Canadian survey that shows trends in student substance use and mental and physical health; it began in 1977. It monitors drug use, mental health, physical health, gambling, bullying and risk behaviours among Ontario students in Grades 7 to 12, every two years. The repeated design allows researchers to track change over time. A total of 11,435 students (Grades 7-12) from 764 classes in 214 Ontario schools participated in the 2017 study; 52 boards were involved. Topics explored included: drug use and related harm indicators, family and school life, drug perceptions, substance use and injury, mental and physical health indicators, antisocial behaviours, violence at school, bullying (including cyberbullying), gambling and video gaming problems. New indicators for the report based on the 2017 implementation includes parental support, experiencing a concussion, experiencing a traumatic life event, cyberbullying others, gambling on video games and problematic technology use. All data are based on anonymous student self-reports; 2017 data and changes over time are reported. (Most mental health and physical health measures were introduced in the early 1990s). Some key findings relate to mental health help seeking: the percentage of students reporting seeing a mental health professional about a problem is currently higher than a decade ago; however, one third reported, that in the past year, there was a time they

wanted to talk to someone about a mental health problem, but did not know where to turn. Overall, psychological distress has shown an increase in the past few years; one positive trend is the decrease in bullying (victimization and perpetration) in the past decade.

- **Results and Application:** The summary report will be shared with the Superintendent of Curriculum Leadership and Innovation, the Superintendent of Student Success, the Superintendent of Safe Schools, the Superintendent of Special Services and the Chief of Mental Health and Well-Being Strategy.

4. An Evaluation of the Policy/Protocol Memorandum No.158 to Require Concussion Education in Ontario Schools

- **Purpose:** To evaluate the effectiveness of this PPM by analyzing the concussion prevention policies across the different school boards in Ontario, and to conduct a pre- and post-policy implementation analysis of Ontario School Board Insurance Exchange incident data.
- **Method:** Questionnaires for one staff member regarding the concussion policy and a small sample of teachers from each Board.
- **Summary:** Recent evidence suggests that concussions are becoming more common, especially among school-aged children. In March 2014, the Ministry of Education of Ontario issued a Policy/Program Memorandum No.158 (PPM 158) that requires school boards to create a concussion education and prevention policy. This research was summarized in a 2018 dissertation; the overall research contained three components: 1) qualitative analysis of concussion programs through a questionnaire to school boards; 2) pre-post analysis of the Canadian Hospitals Injury Reporting and Prevention Program (CHIRPP); survey of high school physical education teachers, coaches and/or trainers. The study confirms that all 72 provincially funded school boards in Ontario had a concussion protocol on their board website by June 2016. CHIRPP data indicated that the number of diagnosed concussions increased significantly subsequent to the introduction of PPM 158, while the number of suspected concussions decreased. The final component summarizes the teacher survey (12 teachers across the province participated) on their board's concussion policy. Findings included: all were aware of the policy, 83% had received training, 75% had a trained individual at every game/practice, 83% noticed a difference in parental involvement and 100% reported change in the way return-to-play (RTP) and return-to-learn (RTL) protocols were implemented; additionally, the majority (93%) thought there was a need for a government-mandated concussion law. It appears that the introduction of

this PPM had a profound effect in the implementation of policy within all Ontario publically funded school boards.

- **Results and Application:** These findings will be shared with the Superintendent of Curriculum Leadership and Innovation and the Superintendent of Student Success for their information.

5. Third Progress Report on the implementation of the First Nations, Métis and Inuit Education Policy Framework

- **Purpose:** To learn more about the unique and diverse needs of Indigenous students to support more responsive and effective education policy, and to inform the Third Progress Report.
- **Method:** Online survey for members of school communities; focus groups with Indigenous and non-Indigenous students, and with staff.
- **Summary:** In 2007, the Ministry of Education released the Ontario First Nation, Métis and Inuit Education Policy Framework. The Framework was the foundation for delivering quality education to all First Nation, Métis, and Inuit students attending provincially funded schools in Ontario. The ministry committed to releasing a progress report on the implementation of the Framework every three years. *Strengthening Our Learning Journey*, the third progress report, was released in 2018; TCDSB students (20) and staff (5) were involved in this provincial study. This was the third in a series of progress reports on the implementation of the *Ontario First Nation, Métis and Inuit Education Policy Framework* and the 2014 *Framework Implementation Plan*. The report highlights progress made since 2013, relative to the ten performance measures set out in the Framework. Perspectives and shared experiences of Indigenous and non-Indigenous students, parents, communities and education partners (quantitative and qualitative data) were summarized in the report. The report also includes recommendations to further the work of Ontario's Indigenous Education Strategy in provincially funded schools. Indigenous partners have suggested that four- and five-year graduation rates do not take into account unique social, historical and cultural contexts of Indigenous students; it is recommended that six- and seven-year graduation rates may be more appropriate for this population. The report concludes that although achievements have been significant over the 2007-2017 timeframe, there is still much more to be done to ensure success for First Nation, Métis and Indigenous students.
- **Results and Application:** These findings may inform the work of the Indigenous education portfolio at TCDSB and will be shared with

Superintendent of Equity, Diversity and Indigenous Education for information and review.

6. *Suspension and Expulsion Program Evaluation*

- **Purpose:** To evaluate suspension and expulsion programs in Ontario.
- **Method:** Surveys and interviews with professionals in the field, and document analysis.
- **Summary:** A number of initiatives are in place in Ontario to support the achievement of all students; one such initiative is the provincial suspension and expulsion program. The final report includes three parts: i) an overview of suspension and expulsion policy, an evaluation of program implementation, and an assessment of program effectiveness in Ontario's public schools; ii) a summary of enablers and challenges to program delivery and implementation; iii) a review of the funding allocations provided to school boards through the Safe and Accepting Schools Supplement, with a focus on the Safe and Accepting Schools Allocation. The report concludes that all school boards have suspension and expulsion programming available, and most school principals consider mitigating factors and alternatives appropriately, but addressing the needs of students with severe behavioural and mental health issues remains a challenge. Overall, the effectiveness of suspension and expulsion programming and different prevention, suspension, and expulsion initiatives varies with different students and different circumstances.
- **Results and Application:** This research highlights the importance of reviewing reasons for suspensions and expulsions by principals and understanding the youth culture. The research will be shared with the Superintendent of Safe Schools, the Superintendent of Equity, Diversity and Indigenous Education, and the Superintendent of Special Services for information and review.

7. *High School Student Surveys and Administrator Surveys*

- **Purpose:** To learn how students feel about their interaction with the Toronto Police Service.
- **Method:** Survey for all students in a randomly selected grade (Grades 9 - 12), and for an administrator in all secondary schools.
- **Summary:** At the end of the year, the Toronto Police Service distributed surveys to high schools of the Toronto District and Toronto Catholic District School Boards for samples of students in Grades 9 through 12. The survey addresses issues related to police presence around schools; feelings of safety in and around the school; police service and professionalism; reporting of crimes; and relationship with the police. Comparing results

over the past ten years, the trends supported a request for slightly increased police presence; while the perceptions of safety remain positive, there was a small increase in perceived incidences of violence; with regard to communicating with the police, students said they feel most comfortable speaking to an officer in person rather than by phone or email. These surveys have been conducted since 2001.

- **Results and Application:** Results are used to inform the ongoing work of the Toronto Police Service and will be shared with the Superintendent of Safe Schools and Superintendent of Equity, Diversity and Indigenous Education for their information and review.

8. Child Friendly Toronto: Engaging Children and Youth in the 'Comprehensive to the Core' Downtown Planning Project

- **Purpose:** To gather child and youth input for the city's downtown planning initiative, the *TOcore* project (City of Toronto, 1998-2015).
- **Method:** Participatory study engaging students from four neighbourhoods in Toronto's downtown core.
- **Summary:** Children's significant places of interest in their community during all seasons were parks and playgrounds at or near their school and home. During the winter, coffee shops and, to some degree, retail (i.e., shopping malls) replaced parks for youth. Levels of active transport (e.g., walking, biking) were generally high for all groups during the summer, and transit or car use increased for most groups over the winter months. Public transit was identified as an area in need of major investments.
- **Results and Application:** These findings may inform future outdoor education programming and will be shared with the Superintendent of Curriculum Leadership and Innovation.

9. Understanding Emotional Competencies from an Integrated Multi-Method Perspective Among Children and Adolescents

- **Purpose:** To enhance understanding of emotional intelligence for well-being.
- **Method:** Questionnaires and performance-based measures; completed with students (Grades 4-8) and their caregivers.
- **Summary:** This research describes the importance of emotional competence in education with reference to three distinct yet related constructs: (1) Ability Emotional Intelligence (AEI), which focuses on emotional skills and knowledge; (2) Trait Emotional Intelligence (TEI), which emphasises how individuals typically engage with emotional stimuli/information in their everyday life; and (3) A person's Emotional Self-Efficacy beliefs (ESE) surrounding their abilities to recognize,

appraise, and manage emotions. The literature suggests that collectively, emotional competence is an important contributor to the academic success of young people, not just in terms of distal markers of achievement (e.g., exam success), but also through the support of competencies and qualities that are conducive to a successful learning experience (e.g., coping under pressure, social skills, self-motivation, and mental health). While evaluation work is ongoing, there is evidence that emotional competency training for both students and educators can have positive effects on students' educational attainment.

- **Results and Application:** The report will be shared with the Superintendent of Curriculum Leadership and Innovation, the Superintendent of Student Success, and the Superintendent of Special Services for their review and consideration.

10. *Canadian Student Tobacco, Alcohol and Drugs Survey (CSTADS). [Formerly Youth Smoking Survey]*

- **Purpose:** To understand Canadian trends in tobacco, alcohol and drug use and judge the effectiveness of programs aimed at reducing substance use and regulating tobacco products, alcohol and illicit drugs.
- **Method:** Surveys of representative samples of students from Grades 7 to 12 across Canada.
- **Summary:** Understanding Canadian trends in tobacco, alcohol and drug use is vital to the effective development, implementation and evaluation of strategies, policies and programs aimed at addressing substance use and abuse. It is important to regularly monitor health behaviour to judge the effectiveness of programs aimed at reducing substance use and regulating tobacco products, alcohol and illicit drugs. The Canadian Student Tobacco and Drugs Survey is conducted every second year (since 2004). This survey includes questions related to tobacco use, purchasing behaviour, and tobacco marketing and drug and alcohol use, in addition to questions about bullying, school connectedness and mental wellness. In Ontario, 10,195 students from 62 randomly selected schools participated in this pan-Canadian survey. The final report shares findings in the areas of mental wellness, bullying, tobacco use, alcohol use and cannabis use; also included was health risk behaviour in cars. The 2016 Ontario results for all areas are compared against the 2014 Ontario results and the 2016 Canadian results. The report also includes tips for schools. This study cited that students with an attachment to their school and who find their teachers to be supportive (caring adults) are less likely to engage in unhealthy or risky behaviour; Ontario students in this study rated school connectedness variables to be

positive (in the 79% - 88% range). There is a concerning trend in the use of tobacco and nicotine products other than cigarettes; there appears to be a common misconception that these products are safe.

- **Results and Application:** These findings will be shared with the Superintendent of Curriculum Leadership and Innovation, the Superintendent of Student Success, the Superintendent of Safe Schools, Superintendent of Special Services and the Chief of Mental Health and Well-Being Strategy.