

APPENDIX B

TCDSB External Research Applications Report Back

CAT5 Field Test Study

- **Purpose:** The *Canadian Achievement Test 5* (CAT5) is a web-based assessment for Language and Mathematics that is currently in development. The purpose of the field test study is to learn about the teacher and student experience when using this online assessment system, and to analyze the technical quality of the test questions.
- **Method:** Online teacher and principal questionnaires.
- **Summary:** The fifth edition of the Canadian Achievement Test (CAT5) was to be published in the fall of 2022; due to the pandemic this timeline has been delayed. CAT5 is web-based and will be aligned with current Ontario curricula for Language and Mathematics (Kindergarten to Grade 8). All subtests are administered online using tablets or computers; students respond on devices using fill-in-the-blank and/or a multiple-choice format; subtests are scored automatically by an on-line system. The study was a field test of questions to be included on the CAT5 and participating schools received feedback regarding the performance of their students. Both teachers and students rated the interfaces as friendly; students expressed a preference for web-based assessments to paper-and-pencil assessments; teachers identified the fast turnaround of reports as a strength. The need for improvements in the following areas were noted: login procedures, the quality of the technology especially in the younger grades, overall improvements to support seamless access (i.e., servers, browser, bandwidth).
- **Results and Application:** The pandemic disrupted plans for the development of the CAT5. Feedback from the field test will inform improvements in the assessment; the next phase of development will be a norming study. The report will be shared with the central superintendents of the Teaching and Learning Collaborative for their information and consideration.
- The original request for research was submitted in 2017-18.

Health Behaviour in School-aged Children Study

- **Purpose:** Using a detailed questionnaire for school-aged children, the study aims to increase understanding of youth health and well-being. It will also inform education and health policy and health promotion programs; both nationally and internationally.
- **Method:** A questionnaire for students in Grades 6 to 10.
- **Summary:** The research is a cross-national health study conducted in collaboration with public health agencies and the World Health Organization. It enables researchers to increase understanding of the social context of the health behaviours and attitudes of young people and associated social determinants of health. The study is conducted every four years, and results are used to monitor the health trends of young Canadians. Participants are students from randomly selected schools across Canada. A wide range of topics are covered including relationships (e.g., home, friendships, school, community); health (e.g., physical, mental, spiritual); bullying; screen time, etc. Results indicated that: mental health and relationships of Grade 9 and 10 girls are of concern; positive relationships in homes and families matter; the majority of participants reported positive relationships; profiles of risk taking are changing; social media use is a growing issue among young people.
- **Results and Application:** Results will inform professional learning. The report will be shared with central superintendents of the Teaching and Learning Collaborative and the Mental Health Lead for their information and consideration.
- The original request for research was submitted in 2017-18.

Promoting Student Engagement: A Student-led collaborative inquiry

- **Purpose:** A student-led collaborative inquiry was designed to identify factors that are perceived by students as enablers and challenges to participation and engagement, to encourage all students to become student leaders and change makers in their communities, and to identify methods that promote student voice.
- **Method:** Focus groups with students in three schools across the city.
- **Summary:** The collaborative inquiry was conducted by student trustees, with guidance and support of senior staff. Findings include recommendations in the areas of capital affairs, human capital and staffing, student voice at the local school level, student success inside and outside the classroom, student wellbeing, student engagement. Plans were made to establish a student leadership work group to review the proposed recommendations and actions.

- **Results and Application:** The findings were presented in a report to the Board of Trustees in June 2019. In that report it was recommended that the findings of this student-led collaborative inquiry be reviewed by appropriate staff and be considered to inform professional development and strategic planning to further promote student engagement within the board.
- The original request for research was submitted in 2017-18.

I'm A Great Little Kid! Evaluation of a Primary Prevention Program for School-aged Children.

- **Purpose:** *I'm A Great Little Kid* is a primary prevention program aimed to increase children's knowledge and skills in reducing their risk for abuse and violence. The program is delivered in the classroom over the course of 6 weeks using storybooks and follow-up activities to enhance children's competency across six domain areas (i.e., self-esteem, communication, making choices, friendship, touch, and getting help). The research is an evaluation of the impact of the implementation of this program in collaboration with the TCDSB Social Work Department.
- **Method:** Mixed methods including interviews with Grade 2 and 3 students; teacher feedback questionnaire; prevention educator focus group; program fidelity check list.
- **Summary:** Findings show that the program is effective and helps children learn key preventative skills and messages. Children who completed the program were more likely to: understand and correctly define the concept of self-esteem; non-verbal communication; not excluding friends; tell a teacher about teasing and inappropriate behaviour; asking a trusted adult for help. Teachers who had implemented the program in their classroom found the program to be effective at teaching children key preventative skills and messages.
- **Results and Application:** Results inform the implementation of the program as a primary intervention in reducing children's risk for abuse and violence. The report will be shared with the Superintendent of Special Services, Chief Social Worker, Chief of Mental Health for their information and consideration.
- The original request for research was submitted in 2017-18.

Impact Study of the Learning Partnership Coding Quest Program

- **Purpose:** The *Coding Quest* program is designed to help students in Grades 4 to 6 develop coding skills, creativity, critical thinking, and computation thinking which are essential 21st Century competencies. The research evaluated the impact of this initiative in collaboration with the TCDSB 21st Century and Learning and ICT department.

- **Method:** Teacher and student online surveys; review of samples of student work
- **Summary:** Key findings show an increase over time in students who reported improved facility with “learning to code” and an increased use of various “approaches to learning”. Disaggregated responses show large improvements in male participants and show the program is noticeably more challenging for Grade 4 students, than Grade 5 and 6 students.
- **Results and Application:** Results indicate improvements in student’s understanding of coding. The report will be shared with the Superintendent of Curriculum Leadership and Innovation.
- The original request for research was submitted in 2017-18.

Impact Study of the Learning Partnership's Investigate! Invent! Innovate! (I-cubed) program

- **Purpose:** The *I-cubed* program is designed to help students in Grades 7 and 8 develop innovation competencies, critical thinking and creative thinking skills which are essential 21st Century competencies. The research evaluated the impact of this initiative in collaboration with the TCDSB 21st Century and Learning and ICT department.
- **Method:** Teacher and student online surveys; teacher interviews.
- **Summary:** Key findings show an increase over time in students who reported improved facility with *innovation competencies in inquiry-based learning*. Teacher perceptions concurred with the student reports. Additionally, students also reported improved facility with *inter and intra-personal skills*, in *communication measures*, such as *confidence presenting* and *communication using different media*. Additionally, students reported that they found Science more challenging over the course of the program.
- **Results and Application:** Results indicate improvements in student innovation competencies, critical thinking and creative thinking skills. The report will be shared with the Superintendent of Curriculum Leadership and Innovation.
- The original request for research was submitted in 2017-18.

Impact Study of the Learning Partnership's Turning Points Program

- **Purpose:** *Turning Points* program is designed to help build character awareness and literacy, and provide students in Grades 6 to 12 an opportunity to read, write, and think about fundamental values. The research evaluated the impact of this initiative in collaboration with the TCDSB 21st Century and Learning and ICT department.
- **Method:** Teacher and student online surveys; teacher interviews; review of samples of student work.

- **Summary:** The program facilitates a process of self-reflection and discussion with teachers and peers and supports writing a narrative essay about a significant event (a turning point) in which students organize and express their thoughts about the principles that guide them. Key findings indicate that although essay writing is challenging, this can be overcome. Over 80% of essays were about how students' outlook on life changed after a significant event, aligning with the stated program goal of *Turning Points*: e.g., illness, injury, or disease of a friend or family member, struggle with a physical or mental affliction. Most essays were submitted by females.
- **Results and Application:** Results inform improvements in students reading, writing and reflection skills. The report will be shared with the Superintendent of Curriculum Leadership and Innovation.
- The original request for research was submitted in 2017-18.

Impact Study of the Learning Partnership's Real Talk

- **Purpose:** *Real Talk* is a web application that uses crowd-sourcing technology to connect students with industry leaders and businesses to help young people learn about the different career options post-graduation. The purpose of this evaluation study was to determine if the mobile web application, Real Talk was useful for students and teachers.
- **Method:** Teacher and student online surveys.
- **Summary:** There were 39 educators who participated in the survey to provide their perceptions of the app during their GLC20 or career preparation classes for students. In addition, the student survey measured engagement and usage. The majority of educators who used the app stated that they found it useful with helping students explore career options and planning. The results of this study indicate that half of the teachers who used the app, found it useful and impactful. Students bookmarked, 'liked' and engaged with a variety of career options through the app that may not have been available otherwise
- **Results and Application:** The results of this study highlight positive aspects of the Real Talk web application. The report will be shared with the central superintendents of the Teaching and Learning Collaborative for their information and consideration.
- The original request for research was submitted in 2017-18.

Impact Study of the Learning Partnership's Entrepreneurial Adventure Program

- **Purpose:** This Pan-Canadian Evaluation study evaluated the *Entrepreneurial Adventure* (EA) program efficacy for students, teachers, and business partners. The program is designed to teach students about

starting or operating a business while partnering students with local businesses to mentor and inform student learning.

- **Method:** Multi-method pre/post surveys and interviews with students, teachers, program managers and business operators.
- **Summary:** Statistical data analysis revealed that students were more likely to consider thinking about starting a business and indicated understanding of what skills would be needed to operate a business after exposure to the Entrepreneurial Adventure program. The findings from this study indicated that both students and teachers reported increased competency and efficacy with 21st Century skills such as entrepreneurial thinking, creativity, and project design as a function of access and experience with the EA program.
- **Results and Application:** The results of this study highlight the benefits of the Entrepreneurial Adventure Program. The report will be shared with the central superintendents of the Teaching and Learning Collaborative for their information and consideration.
- The original request for research was submitted in 2017-18.

Feasibility study of the STRONG program for refugee children and youth experiencing trauma symptoms

- **Purpose:** This was a pilot feasibility study supported by the School Mental Health ASSIST (now School Mental Health Ontario/SMHO) provincially funded program that was intended to provide support for Syrian newcomer families. The project aims were to provide social and emotional supports, increase resilience, a sense of belonging, provide access to resources, increase positive choices, and reduce distress for newcomer families within school settings.
- **Method:** Mixed methods; surveys, focus groups, observations and interviews for students, clinicians and school Mental Health Leaders.
- **Summary:** The pilot program revealed that clinicians reported a significant positive impact for students: i.e., lowering distress, increasing resilience, providing students with more social supports among the group participants, access to school-based resources and participation in school activities/clubs and events. Students reported increased comfort at school and approaching teachers for guidance. The program was found to have been delivered with fidelity and high impact for newcomers; however, the intensive nature of the training and program delivery if continued would require a high degree of supports from both the School Mental Health ASSIST program, increased interpreter resources and support, as well as deep support from the schools to ensure sustained efficacy.

- **Results and Application:** The results of this study will inform improvements in implementation of the *STRONG* program. The report will be shared with the Superintendent of Special Services and the Chief of Mental Health for their information and consideration.
- The original request for research was submitted in 2017-18.

Program Evaluation for the School Travel Planning Program

- **Purpose:** This study evaluated the increase in rates of walking to school for students who live within walking distance, as well as increasing ridership for those who had access to buses. The increases in walking/busing was intended to reduce traffic safety concerns and congestion.
- **Method:** Audits and surveys.
- **Summary:** In 54 TCDSB schools, various audits of walkability/transportation evaluation studies took place. This research resulted in recommendations to the TCDSB with respect to safety; additional resources were provided to support various transportation partnerships. Of those who were surveyed or attended meetings to discuss school travel, 85% of respondents reported satisfaction with the program. The program provided recommendations for the development of an action plan to address school travel plans (e.g., communities, school zone safety improvements, neighbourhood assessments).
- **Results and Application:** The findings from this study will inform recommendations to address travel plans and will be shared with the Planning Department for their information and consideration.

Licensed to Learn (L2L) Program Evaluation

- **Purpose:** *Licensed to Learn* Inc. (L2L) aims to assess the impact of a peer-tutoring and mentorship program (L2L Program) on the academic readiness and performance of the tutors and peers who participate each year.
- **Method:** Students in the program (tutors and peers) complete a series of surveys (available both online, and on paper).
- **Summary:** The L2L program evaluations are designed to help assess how effectively the program is in supporting students who participate both as tutors and peers. In 2017-18, L2L supported over 3,780 students in almost 100 schools in five of GTA's major school boards, either as tutors or peers (approximately half each). Tutors received training and certification; they reported the following: 91% developed as leaders; 94% learned responsibility, 70% recognized improvements in their own academics. Peers, who received support, reported: 76% felt the tutoring improved their grades, 82% enjoyed the tutoring experience, 85% liked getting to know their tutor. In TCDSB, the program grew by 10% in 2017-18.
- **Results and Application:** Results inform opportunities for peer mentorship and tutoring. The report will be shared with the central superintendents of the Teaching and Learning Collaborative for their information and consideration.

Gathering of Nations Summer Camp for Indigenous Students

- **Purpose:** The Gathering of Nations Summer Camp (GONSC) is a land-based delivery of a credit course for Grade 9 and 10 students; the program was located at a summer camp in rural Ontario. The research is an evaluation of Year 2, of a proposed four-year initiative. This pilot project was designed to help First Nation, Métis and Inuit students and those students who are *at risk* to gain secondary academic credits in an environment that supports traditional learning and leadership development.
- **Method:** Mixed methods of repeated measures: pre-camp interview with caregivers, weekly course feedback forms (student completion), and a talking circle at the last session.
- **Summary:** The initiative was based on the Medicine Wheel, where Year 2 focused on the “South” direction. This three-week program included the course *Aboriginal Peoples in Canada* taught by a TCDSB teacher for half of each day; the other half was taught by two First Nation Elders; with a focus on Indigenous thoughts, philosophies, and aesthetics. Fourteen self-identified Indigenous students from three boards started the program; 11 remained for the duration. Creating supportive educational environments for Indigenous youth continues to be of critical importance. This program instilled a sense of safety and support for the students; they expressed a better learning experience. Recommendations included: ensure students are part of the decision to attend; schedule more free time intermittently throughout the day; relocate to an environment that is not shared with other non-Indigenous programming.
- **Results and Application:** Results provide an example of non-colonial applications of Indigenous courses and provides an opportunity for First Nation, Métis, and Inuit students to learn in a land-based environment. The results will be shared with the Superintendent of Equity, Diversity, Indigenous Education, and Community Relations.

Impact of Early French Immersion on Language and Cognitive Development in a Diverse Population

- **Purpose:** This study examines the influence of linguistic and socioeconomic diversity on developmental and academic progress in French Immersion programs.
- **Method:** A 3-year longitudinal study in French Immersion schools; repeated measures (nonverbal and verbal individually administered tasks) on students from Grade 1 to Grade 3.

- **Summary:** Since the first French Immersion program in 1965, a large body of research has demonstrated positive effects of immersion education on children's language development and academic achievement. However, since the original research was conducted, two changes have occurred: (i) an increase in the diversity of children in terms of linguistic, socioeconomic, and cultural background in these programs and (ii) an accumulation of evidence showing positive effects of bilingualism on cognitive development. Participating schools spanned many neighbourhoods in the Toronto Area with a highly diverse group of students; there were 42 languages in addition to English and French that were understood by children in the sample. There were four sub-groups; monolingual, bilingual, divided by SES. In Year 1, 70 students participated in this study; these results from will be used to establish a baseline to track the student's progress over the next two years. Future analysis will examine learning trajectories and cognitive skills in terms of background profiles.
- **Results and Application:** Results will inform French Immersion programming, in a multilingual city such as Toronto. The report will be shared with the Superintendent of Curriculum Leadership and Innovation.