

## APPENDIX B

### TCDSB External Research Applications: Approved 2013 – 2014 Studies Completed

#### 1. *Status of Daily Physical Activity (DPA) in Ontario Elementary Schools*

- **Purpose:** To study the implementation of Daily Physical Activity.
- **Method:** On-line surveys for administrators and teachers of randomly selected elementary schools across Ontario.
- **Summary:** The goal was to measure implementation fidelity of DPA policy and questions were asked related to each of the six requirements of the policy: duration (minimum of 20 minutes); frequency (each school day); scheduling (during instructional time); intensity (moderate to vigorous physical activity); continuity (sustained physical activity); inclusivity (including children with special needs). The research showed that respondents are aware of most of these requirements but least aware of the requirements for intensity and continuity. Also, the findings showed schools and classrooms that had scheduling or monitoring activities were more likely to meet DPA policy requirements. The majority of respondents believed the DPA policy had positive impacts on students, including their physical and emotional wellbeing and the development of physical activity habits. Barriers to implementing DPA that were identified included curriculum priorities, time, school readiness and lack of space.
- **Results and Application:** Results highlight the role of understanding the DPA policy and all of its requirements, its importance as a component of the curriculum, and the need for ongoing monitoring to improve implementation. These results will be shared with the Health/Physical Education Resource Teachers and Superintendent of Curriculum, Leadership and Innovation and will be used to inform in-servicing that is being delivered this school year.

#### 2. *Determinants of Breast Tissue Composition in Young Women*

- **Purpose:** To examine factors in early life that influence later risk of breast cancer and to educate students regarding factors (e.g., lifestyle, diet, genes) that affect breast cancer risk later in life.
- **Method:** Educational component in secondary school followed by recruitment for participation in a scientific study and questionnaires in hospital or home.
- **Summary:** The composition of breast tissue is linked to the risk of developing breast cancer. Women with the highest breast tissue density have greater risk of developing breast cancer than women with little to no density.

The study points to an association between in utero and early life risk factors with variations in breast tissue composition in 15- to 18-year-old girls. In participating schools, the researchers provided a 30 minute in-class cancer education program to explore how factors, in particular lifestyle choices, affect breast cancer risk later in life. Student were provided with a handout entitled ‘Understanding Cancer: Research and Education’ to use throughout the school year.

- **Results and Application:** Results suggest that nutrition in utero and in early life influences the tissue composition of the breast in adolescence and that nutritional intervention in early life may be an approach to breast cancer prevention, a finding that will inform the continued work of the Ontario Cancer Institute.

### ***3. School Based Action Research for Developing an Empirical Framework for Diversity and Multicultural Education in Catholic Schools in the Greater Toronto Area***

- **Purpose:** To explore the challenges and opportunities of implementing the Ontario Ministry of Education policy document on diversity and equity education in two secondary schools.
- **Method:** Interviews, focus groups and participation in social justice initiatives.
- **Summary:** This research examines the challenges and opportunities of implementing diversity and multicultural education in faith-based Catholic high schools in Ontario which meets the requirements of both the Equity and Inclusive Education (EIE) policy and the Catholic Equity and Inclusive Education (CEIE) policy. The data for this research were generated through interviews and focus group discussions with stakeholders (students, parents, teachers, educational assistants, and administrators). School culture was identified as the most decisive component in realizing the strategy for inclusion and safe schools required both by the EIE and the CEIE. The research also highlights the importance of understanding differences and challenges in the interpretation and application of equity and inclusion among different stakeholders. It is proposed that this reality may serve as an opportunity for Catholic schools to create an identity which places greater accent on the cultural, personal, and social status of students.
- **Results and Application:** Results will be shared with the Superintendent of Nurturing Our Catholic Community, Superintendent of Safe Schools, and the Superintendent of Equity, Diversity and Indigenous Education. The research underscores the importance of an inclusive school culture as the key component of fostering equitable school communities and affirms many of

our current undertakings in creating equitable environments to support the cultural, personal, and social status of our students. Several of the recommendations from this research are also reflected in the Ontario Equity Action Plan and are acted upon (e.g., professional learning focused on understanding internal bias and how it informs our decisions; intentionally engaging system leaders in dialogue on the removal of systemic bias; differentiated allocation of resources to meet community needs).

#### **4. *Towards a Formative Leadership Curriculum in a Catholic School***

- **Purpose:** To study exemplary religious and leadership attitudes among students in one secondary school.
- **Method:** Student survey, staff interviews, documentation review.
- **Summary:** Catholic schools in Ontario face the challenges of being rendered unnecessary to the public interest and unsustainable as autonomous and distinctive educational institutions in the absence of the religious orders. Using a mixed-method approach, this study took place in the context of a Catholic secondary school and a founding religious order. The findings suggested to the researcher that in the absence of religious orders in the Catholic schools and the challenges of diminishing influence of the Catholic Church and maintaining one distinct identity, there needs to be continued strong and youthful voices who are adequately faith-formed.
- **Results and Application:** Results from this study will be shared with the Superintendent of Nurturing Our Catholic Community, Superintendent of Student Success, Superintendent of Equity, Diversity, and Indigenous Education, and the Religion Department. The research reinforces our commitment to educate students in living our Catholic values and understanding and applying Catholic teachings in all that we do.

#### **5. *Impact of Integrating Technology in the Classroom: A Canada-Wide Study of Students, Parents, Teachers, and Principals***

- **Purpose:** To identify key factors that contribute to understanding the integration of technology in schools as a means to enhance teaching and learning in the classroom.
- **Method:** On-line surveys (students, teachers, principals, parents) in one elementary school.
- **Summary:** Forty elementary and secondary schools from across Canada participated in the project, including one from the TCDSB. Schools received a technology grant, which included tablets, laptops, a camera and interactive whiteboards. Funds were also provided to ensure that all teachers received training on the new technologies in the classroom. Surveys were completed by school leaders, teachers, students and parents/guardians before and after

using the technology. The researchers detailed four major findings: (1) The education community in Canada is ready to embrace technology in the classroom: most school leaders, teachers, and students reported that they are ready to embrace more technologies – most teachers believe that technologies enhance teaching, learning, engagement, and achievement; (2) Integrating technology positively impacts the learning experience: most participants reported that using technology improved skills development; (3) Educators are utilizing the technology in innovative ways: teachers comfortable with technology used it in creative ways, beyond substituting for traditional teaching tools; (4) Integrating technology in the classroom poses three key challenges: teachers who were less technologically fluent were more likely to resist technology because of (i) lack of effective training or support, (ii) IT infrastructure challenges, and (iii) lack of time to learn and adopt new methods.

- **Results and Application:** Researchers provided the following recommendations: (a) provide ongoing and timely professional development for teachers; (b) enhance educator comfort, confidence and competency with technology; (c) ensure reliable infrastructure, ecosystem and IT support; and (d) ensure a shared understanding and collaboration among stakeholders. These results will be shared with the Superintendent of Curriculum, Leadership and Innovation, Superintendent of Student Success, and staff implementing IT initiatives as guidelines for implementation.

#### **6. *Kids, Families and Places – A Study on Child Development***

- **Purpose:** To study the relation between children’s individual and social factors and their learning and well-being.
- **Method:** Teacher questionnaires (to supplement larger data collection process outside the Board).
- **Summary:** A sample of TCDSB students participated in this large international study. Findings suggest an interaction between parenting style and child outcomes (i.e., that children with parents demonstrating more cognitive sensitivity and parental warmth tend to have better developmental outcomes). The research suggests several factors that may impact on parental cognitive sensitivity or parenting warmth (e.g., adverse childhood experiences, maternal abuse history, and family dynamics). Researchers also explore the mitigating impact of personal factors, parental and family factors, and home/community factors on differential child outcomes. In many cases, negative contextual factors (e.g., low education levels, depression, history of abuse, lone-parent families, household-chaos, poor neighbourhood quality, lack of personal safety) increased the link between negative parenting and

negative child outcomes. Numerous peer-reviewed articles have been published and researchers have offered to speak to board staff regarding these findings, including school readiness and language development.

- **Results and Application:** Results from this research have implications for student achievement and well-being and will be shared with the Superintendent of Special Services and the Department of Psychology. Where appropriate, they will be incorporated in professional learning offered to staff to support their ongoing work with students and their families.

#### **7. *Math for Young Children Project***

- **Purpose:** To collaborate with teacher teams to study how young children learn and can best be instructed in mathematics in one elementary school.
- **Method:** Interviews for Kindergarten and Grade 1 students, teacher questionnaire, collection of pedagogical documentation.
- **Summary:** Researchers worked with an individual school team, including four kindergarten teachers, a Grade one teacher, the principal, a numeracy resource teacher and a Student Achievement officer. The research took place over a 5-month period and included a total of 7 days of professional learning. The study integrated effective features of both design research and Japanese Lesson study to support teacher development of content knowledge and learning of new approaches for teaching geometry and spatial reasoning. Three key findings are outlined as follows: (i) Changed perception of children's capacities (i.e., the teachers observed that the PD process influenced their perceptions of student abilities and even young children could engage in and enjoy challenging tasks); (ii) Rethinking pedagogy (i.e., the teachers, who were initially skeptical of inquiry based mathematics learning, developed an appreciation of an open-ended inquiry-based approach to mathematics learning); (iii) New perspectives on Geometry (i.e., teachers who previously presented very limited aspects of geometry in class, became more comfortable teaching a broader range of spatial concepts on a regular basis).
- **Results and Application:** All elementary math resource teachers were involved in this project, on an ongoing basis culminating in the development of a professional learning resource. This resource is currently being used in all TCDSB Renewed Math Strategy Intensive Support Schools.

#### **8. *Schools, Safety and the Urban Neighbourhood***

- **Purpose:** To examine young people's (Grades 9 – 12) transitions between various systems and their experiences of safety.
- **Method:** Student, teacher, administrator and school personnel focus groups and interviews.

- **Summary:** Across Toronto communities, and in both the TDSB and TCDSB, interviews took place with youth who lived, worked and/or attended school in municipally designated vulnerable neighbourhoods or “Neighbourhood Improvement Areas” (NIAs). Focus groups were held with professionals who worked with youth. In the interviews, there were young people who described being falsely accused, misunderstood, and/or misrepresented. In most cases, they did not deny having broken the law; but they rejected the official versions of their actions that the criminal legal system produced in the process of laying a charge (e.g., they said they were framed for the offence). The research suggests how seemingly objective institutional processes can produce experiences of exclusion among racialized young people living in low-income neighbourhoods (e.g., as black youth being stopped by police for reasons that are not crime related such as “suspicious activity” or “fits the description”; principal use of the ambiguous “code of conduct violation” to justify suspensions).
- **Results and Application:** Results of this research will be shared with the Superintendent of Safe Schools and Superintendent of Equity, Diversity and Indigenous Education. They will be reviewed and where applicable, integrated into the ongoing work in creating safe and inclusive Catholic schools. Where appropriate they will supplement the information in the annual Safe School Report.

### 9. *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 (Grade 9 -12), and for an administrator in all secondary schools.
- **Summary:** At the end of each year, the Toronto Police Service distributes surveys to high schools of the TDSB and TCDSB for samples of students in Grades 9 through 12. The survey addresses issues related to school safety, crime and disorder, bullying and cyber-safety, witnessing and/or being a victim of crime. Comparing results over the past ten years, increasingly students have felt safe in their schools and have not felt that their schools or school grounds are violent places. Fewer students say that they have been the victim of/or witness to a crime on school grounds. While fewer students say they reported to police that they were victimized or witness to a crime, more students say they *would* report to police if they ever did become a victim or witnessed a crime. More students feel that the relationship between police and students at their school is good to excellent; more students believe that there is a tendency for police to target members of

minority or ethnic groups for enforcement. Regarding approaching police, fewer students reported that they talked to a police officer in or around their school during the school year, but more reported that they would feel comfortable talking to an officer about problems around their schools.

- **Results and Application:** The results will be 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. They will be discussed and considered in the context of our work in creating safe and caring communities. TCDSB will continue to monitor student attitudes and behaviour regarding school safety and nurture a responsive, welcoming and inclusive climate in all of our schools.