Racing Readers Program Evaluation
July 2017

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Executive Summary

Program

Racing Readers is an after-school program that seeks to address the literacy, numeracy, physical activity, and social connectedness needs of elementary students whose families have recently immigrated to Canada. The program follows a tiered mentorship model that connects local high school student volunteers, Simon Fraser University (SFU) student volunteers, and program coordinators with 30 underprivileged elementary students once a week for a three-hour block where they engage in reading, writing, numeracy, and physical activity games and exercises. *Racing Readers* focuses on creating a safe and fun environment where teamwork and social connectedness is emphasized to promote a sense community engagement for all participants. The program is free of cost for students and aims to supplement their formal education through building literacy and numeracy confidence while reducing perceived barriers to higher education. The program began its pilot year at Newton Elementary School (Surrey, British Columbia) in 2014, where it has run annually from September to June. In 2016 *Racing Readers* expanded to include a second site, Betty Huff Elementary School (Surrey, British Columbia).

Purpose of Evaluation

- Determine the program's impact on those involved (student participants, parents, program volunteers, program coordinators, school administration staff, and teachers)
- Assess to what extent the program is meeting its goals and objectives
- Provide recommendations based on the results of the evaluation to improve the program and its outcomes

Methods

A mixed-methods, utilization-based approach was used. The evaluation was rooted in collaboration with stakeholders to assess the resources, inputs, and short term outcomes of the program in relation to its objectives and goals. The focus of the evaluation was to consider how people in the real world would apply the evaluation findings and experience the evaluation process. Baseline and program completion data was collected and compared. Quantitative methods included parent/guardian paper surveys, teacher paper surveys, and online program volunteer surveys. Qualitative data was collected from key informant interviews with program coordinators, administrators, and school principals. Student participant data was collected through an interactive self-drawing and reflection exercise. Data was analyzed for basic frequencies using Microsoft Excel and qualitative data was coded to identify themes and

commonalities. All participants signed informed consent forms and were made aware of confidentiality and data safety.

Findings

Racing Readers has met all but one of its short-term outcome objectives. Student participant physical activity, literacy, and social connectedness skill development objectives have been met and surpassed. The outcome objective for numeracy skill development has not been met. Student participants have experienced increases in skill acquisition and positive attitude towards physical activity, literacy, numeracy and social connectedness all of which have contributed to a decrease in perceived barriers to higher education. Stakeholders (parents/guardians, teachers, program volunteers, coordinators, administrators, and school principals) report nearly a 100% satisfaction rate with their experiences with the *Racing Readers* program. Overall, the Racing Readers program is on track to meet its medium-term objectives in support of its overarching goals. However, several program components and areas of program implementation have been identified as needing improvement. These program challenges have been addressed in the recommendations.

Recommendations

- Improve the **writing and numeracy components** of the program through: reworking journal activity to be more movement and play based, increase focus on numeracy content during volunteer training and adding a volunteer training refresher session, better stratify numeracy activities to engage different age groups and skill levels, and experiment with incorporating numeracy components in physical activity games.
- Improve **communication and collaboration** between sites and stakeholders through: identifying school champions for all sites and ensuring they accept the requirements of the role prior to the program start, create attendance plans that enable students not originally placed in the program opportunities to attend and replace students with poor attendance, and implement short meetings with program coordinators and teeachers prior to the program start to gain deeper understanding of student's learning styles or behavioral challenges.
- Strengthen the program's **tiered mentorship** model through the reintroduction of high school volunteers in the program.
- Increase **parent involvement and engagement** through: offering forms and information in Punjabi as well as English, and creating a parent engagement opportunity midway through the program.
- Increase capacity to **strengthen** future **partnerships** through developing a partnership guideline to be used when negotiating new partnerships.

- **Expand the program** through acquisition of greater human and financial resources through: developing partnerships with new funders as needed, providing training for current program volunteers who show interest in becoming program coordinators, and identify new target schools through consulations with Surrey Schools and Community Partners.
- Conduct **continual** and stakeholder-driven **evaluations** to assess if the program is meeting its goals and objectives and to identify areas for improvements and celebrate program strengths and accomplishements.

Acknowledgements

Definitions

Physical activity: Physical activity is any body movement that works your muscles and requires more energy than resting (NIH, 2016).

Literacy: The ability to understand, use and reflect on written texts to achieve one's goals, to develop one's knowledge and potential, and to participate effectively in society (OCED, 2003).

Numeracy: the ability to access, use, interpret and communicate mathematical information and ideas (OCED, 2012)

Stakeholder: Any person or group that has an interest in the program being evaluated or the results of the evaluation (Ontario Centre of Excellence for Child and Youth Mental Health, 2013)

Community engagement: Collaboration between partners and communities for the mutually beneficial exchange of knowledge and resources in a context of partnership and reciprocity (SFU, 2013).

Introduction

Children from immigrant families in Canada are more likely to start school at a disadvantage in terms of reading, writing, and numeracy skills when compared with their peers from Canadian-born families (Statistics Canada, 2008). Barriers disproportionately faced by children with foreign-born parents contribute to this disadvantage and include: linguistic challenges, parents with limited educational attainment and/or in low wage employment situations, racism, discrimination, social networks, and lack of parental and institutional support (Van Ngo & Schleifer, 2005). If inadequately addressed, these experiences can result in low educational attainment, a lack of feeling of belonging in school and community, and disinterest in school (Sibley & Dearing, 2014). Based on these challenges it is critical that supports be available to underprivileged students to ensure equitable educational and social outcomes.

While differential barriers exist for many children of immigrant parents in the Canadian school system, after-school programs are recommended to provide meaningful support and promote student success both in and outside of the classroom (Shields & Behrman, 2004). Programs that take a holistic approach to learning and include multiple aspects of education, such as literacy, numeracy, physical activity and social wellbeing show the greatest success in improving student's skills and attitudes towards school (DeAngelis, 2001). Availability and access to such programs is inconsistent across Canada, despite increases in the number of students from immigrant families who would benefit from such after-school support (PHEC, 2014).

Racing Readers is an after-school program that was developed to address the literacy, numeracy, physical activity, and social connectedness needs of grades 2-5 students whose families have recently immigrated to Canada. The program was created in partnership with Surrey School District and the Simon Fraser University (SFU) Toronto Dominion (TD) Community Engagement Centre (CEC). It currently runs in two elementary schools (Newton Elementary School & Betty Huff Elementary School) in the Surrey, a rapidly growing city in British Columbia with approximately 50% of residents identifying as first generation Canadians (Statistics Canada, 2011). *Racing Readers* follows a tiered mentorship model that connects local high school student volunteers, Simon Fraser University (SFU) student volunteers, and program coordinators with the elementary school students on a weekly basis where they engage in reading, writing, numeracy and physical activity exercises and games in a fun and safe environment. These connections and activities are meant to supplement the elementary students' formal education with the goal of improving skills and reducing barriers to higher education, while also providing meaningful community engagement and professional development opportunities for the student volunteers.

This mixed-methods evaluation was designed and conducted to determine the impact of *Racing Readers* on student participants, student volunteers and coordinators and school and community stakeholders, to (a) measure if the program is meeting its objectives, (b) identify

areas for improvement, and (c) provide evidence-based recommendations to improve the program.

Program Background & Context

Development

 Racing Readers was developed and piloted in 2014 at Newton Elementary School in Surrey, British Columbia. Since its inception, the program has run annually from September to June, with two separate intakes (September – January, and February- June). This double intake provides opportunities for more students to participate (~30 students per intake session) while also upholding student engagement throughout the program. *Racing Readers* occurs on-site once per week for a three-hour period following the last bell marking the end of the official school day. From 2:00pm-2:30pm, student volunteers and program coordinators go over the objectives and activities for the session (Appendix). At 2:30 the students arrive, check in and join their teams (team size varies, but averages 4-6 students with 2-3 volunteers). The volunteer to student ratio is approximately 1:3. Following the program and student dismissal, the volunteers and coordinators remain on site for another half hour to clean up and debrief on the session and discuss program activity improvements and student engagement and management strategies that can be implemented for the following week.

 In 2016, *Racing Readers* expanded in two senses. First, the program incorporated a second site in Surrey, Betty Huff Elementary School. Second, while originally the program focused on literacy and physical activity, this past year a numeracy component was added. At Newton Elementary, the numeracy component was delivered by a program partner, Big Brothers, an already established group within the school. At Betty Huff the numeracy component was delivered by the *Racing Readers* program coordinators. Two additional differences marked the program this year, compared to previous years. No official school site champions were designated for either site. As well, high school student volunteers were not involved in the program this year due to logistical challenges.

Location

 Racing Readers runs in the city of Surrey, British Columbia, the fastest growing city in Metro Vancouver, with a current population of 525,220, a number that is projected to increase by over 300,000 in the next three decades (City of Surrey, 2017). Approximately half of this population are first generation Canadians, people either born outside of Canada or Canadian immigrants (Statistics Canada, 2011). While Surrey's cultural diversity strengthens the city,

there remain acculturation challenges for children of foreign-born parents. In major urban school boards, like Surrey, approximately 20% - 50% of students speak English as a second language (ESL) (Van Ngo & Schleifer, 2005). This statistic can be attributed to students recently moving to Canada, or residing in households where family members do not speak English (Van Ngo & Schleifer, 2005). Approximately half of students attending school in Surrey School District live in a household where English is not spoken (Surrey Schools, 2017). These students and their families may also be experiencing economic stress and social isolation, issues compounded by language and educational barriers (Christensen & Stanat, 2007). These challenges may result in first generation Canadian students having dissimilar knowledge and/or expectations of higher education opportunities (Baum & Flores, 2007). Strong literacy skills are correlated with increased likelihood for students to seek higher education, which itself is correlated with positive physical, mental, emotional and social health outcomes (DeWalt et al., 2004). Thus, promoting understanding of and motivation to seek higher education opportunities is an important public health imperative in first generation immigrant student communities in Surrey.

Racing Readers, in partnership with Surrey School District's Community School Partnership Department, selected the program sites on a needs basis where cost-free, after-school programming was limited and on-site space and staff would accommodate the needs of the program. Both Newton Elementary and Betty Huff Elementary are considered inner-city schools within the Surrey School District and were identified as ideal locations for the program to pilot and expand to (M. Lally, Personal Communication, May 31, 2017). Approximately 66% of students at Newton Elementary School are ESL, slightly more than the 55% of students at Betty Huff who are ESL (Fraser Institute, 2016).

Goals

The Racing Readers program has two goals (listed below), which both fall under the SFU Surrey-TD CEC's broader mandate which is, "to inspire and positively influence new Canadians to pursue post-secondary education, while providing opportunities for SFU students, staff, and faculty to connect with and have an impact upon the community" (SFU, 2015).

- *Improve the physical, mental, emotional, and social well-being of students by supporting the development of physical, literacy, numeracy, and social skills among children in grades 2 to 5 at Newton Elementary School and Betty Huff Elementary School*

- *Build community and break down perceived barriers to higher education by implementing a tiered mentorship model composed of high school and university mentors who will foster support, companionship, discipline, positive connections and learning through play based activities in a fun and informal environment.*

Objectives

The short, medium, and long term objectives of the *Racing Readers* program support the goal of improving the physical, mental, emotional, and social well-being of students. These outcome objectives (listed below) aim to be specific, measurable, achievable, realistic and time bound.

- **Long Term Outcome Objective for <u>Physical Activity</u> Development Goal:** By December 2018, 90% of participating students from grade 2 to 5 at Newton Elementary School and Betty Huff Elementary School will have improved self-efficacy for physical health behaviours

Table 1.

Outcome Objective	Program Activities	Frequency
Short Term: By the end of the 12-week Racing Readers program (June 2017), 80% of student participants will report increasing their level of physical activity consistently	- Coordinators developed a schedule of physical activities for each session - Volunteers implemented physical activities for each session	Weekly
Medium Term: By the end of the 12-week Racing Readers program (June 2018), 80% of student participants will report gaining physical fitness awareness, knowledge, and/or skills		

- **Long Term Outcome Objective for <u>Literacy and Numeracy</u> Skill Development Goal:** By December 2018, 90% of participating students from grades 2 to 5 at Newton Elementary School and Betty Huff Elementary School will have improved interest and confidence in reading and writing, numeracy activities, and lower perceived barriers to higher education.

Table 2.

Outcome Objective	Program Activities	Frequency
Short Term: By the end of the 12-week Racing Readers program (June 2017), 80% of student participants will report increasing their level of development and/or positive attitude towards literacy and numeracy (i.e. reading, writing, and problem solving) and 80% of student participants will show an increased awareness and understanding of post-secondary education.	- Coordinators developed a schedule of literacy and numeracy activities for each session - Volunteers implemented literacy and numeracy activities for each session	Weekly
Medium Term: By the end of the 12-week Racing Readers program (June 2018), 80% of student		

participants will report gaining awareness, knowledge, and skills about literacy and numeracy concepts introduced through the program and 80% of student participants will show an increased interest in post-secondary education.		

- **Long Term Outcome Objective for <u>Social Skill</u> Development Goal:** By December 2018, 90% of participating students from grades 2 to 5 at Newton Elementary School and Betty Huff Elementary School will have improved levels of confidence, self- esteem, and social skills.

Table 3.

Outcome Objective	Program Activities	Frequency
Short Term: By the end of the 12-week Racing Readers program (June 2017), 80% of participants will report increased satisfaction with their social support network	• Register student participants • Develop 'Volunteer Training Package' and in-person training session • Recruit and train volunteers • Create and communicate a volunteer schedule	• Annually
Medium Term: By the end of the 12-week Racing Readers program (June 2018), 80% of participants will report an increased sense of community among their peers, parents/guardians, volunteers and school	• Coordinators maintain clear communication with volunteers • Volunteers support students in team environment during fitness, literacy and numeracy activities • Conduct debrief meetings after each session	• Weekly

- **Long Term Outcome Objective for <u>Partnerships</u> Goal:** By December 2018, 90% of partnership stakeholders will report that the Racing Readers program is working towards solving community fitness and literacy and numeracy development needs among participating students from grade 2 to 5 at Newton Elementary School and Betty Huff Elementary School

Table 4.

Outcome Objective	Program Activities	Frequency
Medium Term: By the end of the 12-week Racing Readers program (June 2018), 80% of participants will report increased satisfaction with aspects of the partnership (progress and process, decision making, structure, roles and responsibilities, communication)	• Develop Racing Readers Program Partnership Agreement and Details document • Inform stakeholders through face-to-face meetings and other methods of communication	• Annually

Racing Readers Program Logic Model
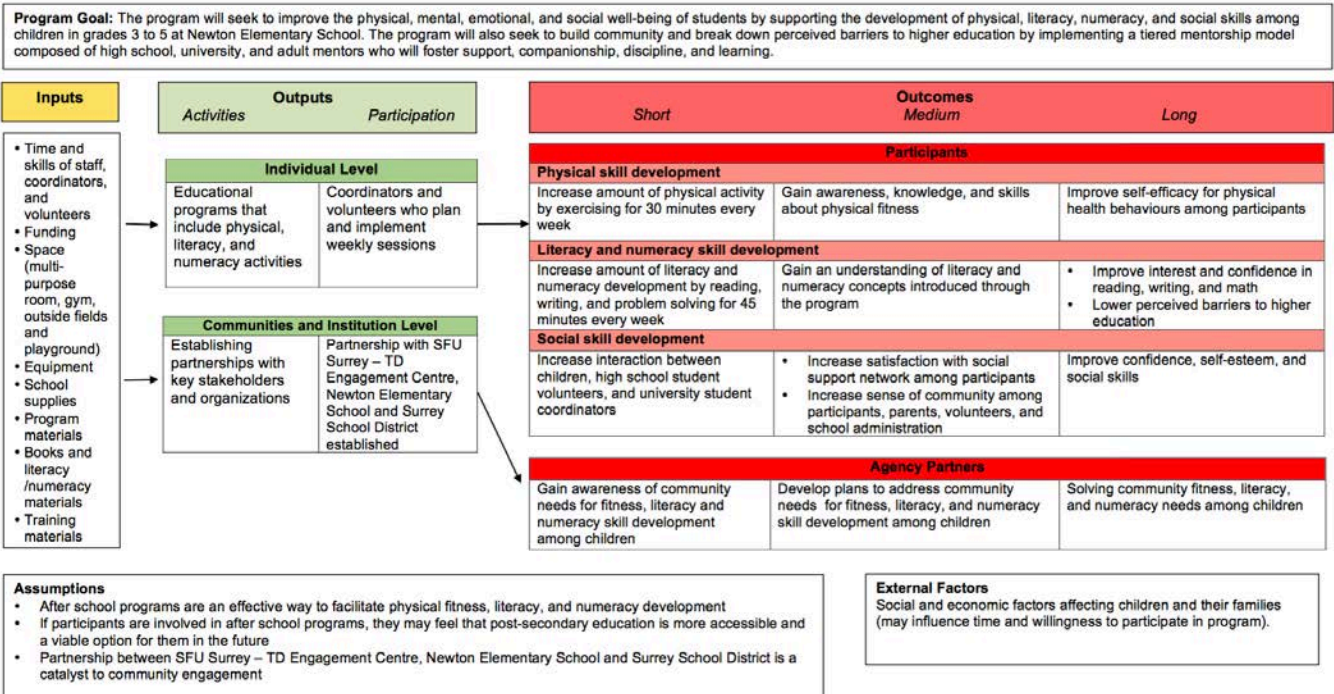
Evaluation Context

Rationale

Evaluation is a critical component to the continual evolution and success of after school programs (Huang & Dietel, 2011). Evaluation processes document the quality and impact of programs, aid in identifying program areas to be targeted for strengthening, can improve program outcomes and can assess if programs are meeting their goals and objectives (Scott-Little et al., 2002). Stakeholders, including program coordinators and funders are often interested in program evaluation to ensure resources are being used logically and that programs are being properly implemented and affecting desired change (Scott-Little et al., 2002).

The decision to undertake this evaluation of the *Racing Readers* program came from SFU Surrey-TD CEC. In line with its mission statement to provide opportunity and connect students with their community, two graduate students from SFU were hired to develop and conduct the program evaluation in partnership and collaboration with the program stakeholders. The evaluation plan development took place in 2016 and the evaluation process took place in 2016-2017, to cover the September-June *Racing Readers* sessions at Newton Elementary School and Betty Huff Elementary School.

Purpose

The purpose of this evaluation was to determine how the *Racing Readers* program is impacting its student participants, volunteers, program coordinators as well as parents, school administrators and SFU Surrey-TD CEC partners. Further, this evaluation aimed to assess the extent to which the program was implemented as planned, resource use, and the effectiveness of program activities in meeting the program goals and objectives. In addition to evaluating the impact and effectiveness of the program, this evaluation was also undertaken to provide evidence-based recommendations for program improvement and sustainability.

Evaluation Questions

The following evaluation questions (Table 5) shaped the entire evaluation process and were chosen based on their ability to provide understanding of critical components of the Racing Readers program implementation and on their ability to contribute to decision making regarding program improvement. To answer each evaluation question, indicators (Table 5) were chosen to objectively verify whether the intended results were achieved.

Table 5. Evaluation Plan Questions and Indicators

Question Type	Evaluation Question	Indicator(s)
Process Evaluation	A. What is the reach of the program?	• # of registered participants • # of total volunteers trained • # of students participating in physical activity, literacy and numeracy activities per week
	B. What human, financial, and material resources were provided and used?	• # of personnel hired • # volunteers including school champion • Salaries of program coordinators • Cost of program supplies and snacks • Space utilized • School district and staff time (coordination, registration, partnership, management)
Program Outcome Evaluation	C. What knowledge, attitude, skills and/or behaviour changes occurred in the students who participated in the program?	Knowledge Gained • % of participants reporting an increase in knowledge of physical fitness activities • % of participants reporting an increased understanding of literacy concepts introduced through the program • % of participants reporting an increased understanding of numeracy components introduced through the program Changes in Attitude • % of participants reporting increased interest in reading, writing, and numeracy • % of participants reporting increased confidence in reading, writing, and numeracy • % of participants reporting increased interest in physical activities Changes in Behaviour • % of participants reporting applying reading, writing, and numeracy techniques learned from the program • % of participants reporting an increase in reading activities at home • % of participants reporting physical fitness techniques learned from the program • % of participants reporting an increase in connectedness to their school Changes in Social Connectedness • % of participants reporting an increase in social support • % of participants reporting an increased connection to volunteers and coordinators
	D. How effective is the program at decreasing perceived barriers to higher education?	• % of participants reporting increased interest in school • % of participants reporting career aspirations requiring post-secondary education • % of participants reporting increased interest in attending post-secondary education
	E. What difference did the program make for student	• % of coordinator and volunteers reporting feeling more connected to their community • % of coordinators and volunteers reporting that participation in the program is valuable for their personal and professional development

		volunteers and coordinators?	
	F.	Are the program stakeholders satisfied?	• Participant satisfaction rate • Volunteer satisfaction rate • Parent/guardian satisfaction rate • Coordinator satisfaction rate • School and SFU administration satisfaction rate • % of participants, volunteers, parents/guardians, and teachers who recommend the program to other students in grades 2-5
	G.	What aspects of the program are working well? What aspects of the program could be improved?	• Participant rating on quality and quantity of programs • Participant, parent, coordinator and volunteer opinions on the successes and challenges of program implementation • Stakeholder suggestions for improvement • Feedback received through coordinators

Stakeholder Engagement

Stakeholder engagement was critical to the evaluation process for several reasons. Stakeholder involvement increased the level of oversight for the evaluation process, improved credibility, and ensured different parties had the opportunity to provide valuable input. This level of engagement will likely increase the reliability and usability of the evaluation results and program recommendations. An overview of the stakeholders engaged throughout the Racing Readers evaluation process can be found below (Table 6). Stakeholder knowledge, perspective and experience with the program was invaluable to informing the evaluation process and ensuring participant safety and comfort throughout evaluation activities. Effective communication with stakeholders occurred through face-to-face meetings, telephone meetings and email correspondence.

Table 6. Stakeholder Matrix

Stakeholder	Interest in the Evaluation	Involvement in Evaluation Process
Program Leadership • SFU Surrey – TD Community Engagement Centre • Rachel Nelson (Associate Director, Partnerships and Programs) Lead Partner • Community-Schools Partnership Department	• To determine whether funds and resources have been used appropriately and efficiently • To have documented benefits of the program • To ensure the program meets the community and partner needs • To understand whether the program can be replicated in other elementary	Involvement to Date • Actively participated and showed visible support for changes • Provided sufficient funding • Held the project team accountable for results • Established clear expectations and objectives for the evaluation • Served as a liaison between SD36, Newton Elementary, Betty Huff Elementary, program coordinators and SFU students

• Mike Lally (Surrey Schools Community Schools Partnership Coordinator)	schools and assist with securing additional funding • To have a means to identify program strengths and opportunities for improvement	• Provided feedback on data collection methods • Provided personal insight on their experience with the program Future Involvement • Ensure that the program is meeting its established goals and objectives • Ensure that any recommendations from this evaluation are viable and sustainable
Newton Elementary School Staff • Jodi Kennet (Principal)	• To understand the benefits of the program to their school and students • To understand areas for program improvement	Involvement to Date • Assisted the Program Evaluation Research Assistant with contacting participants, teachers, and parents/guardians • Provided feedback on the data collection process • Facilitated evaluation components involving student participants and teachers • Provided personal insight on their experience with the program Future Involvement • Ensure that the program is meeting its established goals and objectives • Ensure that any recommendations from this evaluation are viable and sustainable
Betty Huff Elementary School Staff • Kevin M'Lot (Principal)	• To understand the benefits of the program to their school and students • To understand areas for program improvement	Involvement to Date • Assisted the Program Evaluation Research Assistant with contacting participants, teachers, and parents/guardians • Provided feedback on the data collection process • Facilitated evaluation components involving student participants and teachers • Provided personal insight on their experience with the program Future Involvement • Ensure that the program is meeting its established goals and objectives • Ensure that any recommendations from this evaluation are viable and sustainable
Volunteer, Literacy, Numeracy, & Physical Activity Program Coordinators • Trisha Dulku (Program Coordinator) • Gagan Parhar (Physcial Activity Coordinator) • Tira Pati (Physcial Activity and Numeracy Coordinator – Betty Huff)	• To determine whether the planned activities met the established goals and objectives of the program • To determine how program activities can be improved upon to better meet the program objectives and goals • To aid in determining their future roles with the program • To understand and communicate the benefits	Involvement to Date • Served as a liaison between parents/guardians, student participants, student volunteers and teachers • Participated in the evaluation data collection activities and provided personal insight on their experience with the program Future Involvement • Monitor feedback and respond to changing needs

• Navkiran Brar (Numeracy Coordinator – Newton)	of the program and their contributions for the purposes of personal and professional development	
Program Volunteers • SFU students	• To determine the role they will play in the future of the program • To identify the benefits that participating in the program will have in the future • To understand and communicate the benefits of the program and their contributions for the purposes of personal and professional development	• Provided constructive input, feedback, and advice to identify any gaps • Participated in the evaluation data collections activities to provide personal insights on their experiences with the program
Program Participants (select grades 2 – 5 students) • Newton Elementary • Betty Huff Elementary	• To identify the benefits that participating in the program will have in the future	• Participated in the evaluation data collections activities to provide personal insights on their experiences with the program
Parents/Guardians of Program Participants • Newton Elementary • Betty Huff Elementary	• To understand whether the program is meeting their child(ren)'s physical activity, literacy, numeracy and social connectedness needs • To determine the role they will play in the future • To identify the benefits that participating in the program will have in the future	• Provided constructive input, feedback, and advice to identify any gaps • Participated in the evaluation data collections activities to provide personal insights on their experiences with the program
Teachers of Program Participants • Newton Elementary • Betty Huff Elementary	• To understand whether the program is meeting their student's physical activity, literacy, numeracy and social connectedness needs • To determine the role they will play in the future • To identify the benefits that participating in the program will have in the future	• Provided constructive input, feedback, and advice to identify any gaps • Participated in the evaluation data collections activities to provide personal insights on their experiences with the program

Methods

Evaluation Approach & Design

The evaluation of *Racing Readers* followed a mixed-methods, utilization-focused approach, and was rooted collaboration with stakeholders to assess the resources, inputs, and short term outcomes of the program in relation to its objectives and goals. The focus of the evaluation was to consider how people in the real world would apply the evaluation findings and experience the evaluation process. Thus, from the onset, the evaluation process aimed to be partnership-based, informed by stakeholders, and result in useful and useable recommendations to build on the strengths of the *Racing Readers* program while ensuring positive impacts on its participants. The evaluation recognized the varying levels of evaluation expertise among stakeholders and the importance of supporting equitable partnerships throughout the process so that perspectives of all stakeholders were recognized and valued.

As the *Racing Readers* remained relatively new at the onset of this evaluation, a rigorous experimental research design to test for program efficacy was neither logical or feasible. A comparison group was also not used due to foreseen challenges with receiving consent from parents/guardians of children not enrolled in the program. Instead, a time-series, single-sample design was developed and implemented to answer the evaluation questions. Data was collected from program coordinators and volunteers, parents/guardians and teachers in the form of surveys at baseline (Week 2 of the program) and at program completion (Week 12 of the program) during both the September-January and February-June sessions. Surveys were chosen as a major data source for this evaluation as they enable the collection of a relatively large amount of data in a short duration of time, are cost-effective, ease community-wide data collection efforts and are generally user friendly as they can be completed quickly at the participants' convenience (UMASS, 2001). Online surveys were administered for the program volunteers and were chosen as they were identified as being a practical, inexpensive, and anonymous way for responding to the information needs of this evaluation. Supplementing this paper and online survey data were, (1) a series of interviews with program coordinators, program partners, and school administrators and, (2) interactive evaluation sessions with student participants (Self-Drawing and Reflection exercise). This Self-Drawing and Reflection was adapted from Evans and Reilly (1996) and was chosen as not all student writing abilities varied and children's projection of ideas through drawing and writing help reveal their understanding, thoughts and feelings (Shaban & Al-Alwaldi, 2013). The pre/post intervention designed employed in this evaluation allowed for a comparison of baseline data to post program data with the assumption that the intervention resulted in data changes (Harris, 2010).

Informed Consent & Confidentiality

Informed consent was obtained from all participants prior to the evaluation process. An information letter was attached to the front of all paper survey packages (to parents/guardians and teachers) that outlined the purpose of the evaluation, ensured the confidentiality of results, iterated that participation in the evaluation process was voluntary and optional, that participants could withdraw at any time, and that involvement in the evaluation process would have no impact (positive or negative) on any of the students. Completed surveys were returned to the main offices at Newton Elementary and Betty Huff Elementary or handed in to a program coordinator. Once collected by the Evaluation Research Assistant, the surveys were kept in a secure cabinet in a locked room.

Online surveys to program administrators and volunteers were created on SFU *WebSurvey* and all participants had to click "I agree" after reading the Information and Consent Form to be able to take the survey. All survey responses were anonymous and accessible only by the Evaluation Research Assistant through a secure user name and password combination.

Parental/Guardian consent for their child to be involved (if they wished) in the participant self-drawing and reflection was obtained on a form sent home with students prior to the evaluation, which took place during the second last session. Once completed, the Evaluation Research Assistant collected the evaluation packages and they were stored in a secure cabinet in a locked room.

Interview participants were also sent consent forms prior to their scheduled interview and a copy of this form was signed by every participant at the beginning of their interview. Consent was also obtained for the audio recording of each interview. Interviews were recorded using the *Quicktime* application on the Evaluation Research Assistant's personal, password-locked computer. Interviews were then transcribed without the participants' names. All paper surveys, *WebSurvey* responses, participant self-drawing and reflection packages, and interview files and transcripts will be destroyed in 2019, two years after the completion of the evaluation.

Data Sources & Collection

To answer the evaluation questions both quantitative data (surveys, student participant self-drawing and reflection, and specific program data such as budget and attendance lists) and qualitative data (interviews, student participant self-drawing and reflection) was collected. These data sources are outlined below.

1. **Baseline Surveys to Parents/Guardians & Teachers**: These baseline surveys were short and consisted of 5 close-ended matrix questions aimed to gather information on the

student participants' baseline knowledge, attitude, skills and or behaviour towards literacy, numeracy, physical activity and social connectedness. Surveys to parents/guardians were distributed in person, initially by the Evaluation Research Assistant, and later with the help of Punjabi Speaking student volunteers, or were sent home with students to be given to their parents/guardians. Completed surveys were brought back to the school main offices or to one of the program coordinators, and were given to the Evaluation Research Assistant. The principals at Newton Elementary and Betty Huff Elementary facilitated the distribution of surveys to teachers who had students enrolled in the *Racing Readers* program. Similarly, the principals collected these teacher surveys and gave them to either the Evaluation Research Assistant or the program coordinators, who passed them on to the Evaluation Research Assistant.

2. **Baseline Survey to Student Volunteers & Coordinators**: Baseline surveys completed by the student volunteers were administered online with a link sent to their email addresses, as per their request. When consulted about the evaluation process, the volunteers suggested this method would be most effective and convenient for them. This survey consisted of 4 close-ended matrix questions aimed to gather information on both the student participants' baseline knowledge, attitude, skills and or behaviour towards literacy, numeracy, physical activity and social connectedness as well as their own baseline feelings of community connectedness and professional development goals.

3. **Program Completion Surveys to Parents/Guardians & Teachers**: These surveys were slightly longer than the baseline surveys and consisted of 6 close-ended matrix questions and three open-ended feedback questions for the parents/guardians. Teacher surveys did not include the last three open-ended feedback questions. The aim of these surveys was to gather information on how student participants' baseline knowledge, attitude, skills and or behaviour towards literacy, numeracy, physical activity and social connectedness had changed over the course of the program, and to determine overall parent/guardian and teacher satisfaction with their experience of the *Racing Readers* program.

4. **Program Completion Survey to Student Volunteers & Coordinators**: This final survey was also completed online in the same format as the baseline survey, but consisted of 5 close-ended matrix questions and 3 open-ended questions. The aim of these surveys was to gather information on how student participants' baseline knowledge, attitude, skills and or behaviour towards literacy, numeracy, physical activity and social connectedness had changed over the course of the program, if/how the volunteers themselves had experienced changes in their social connectedness, their satisfaction with their experience with the program and strengths and limitations of the program.

5. **Student Participant Self-Drawing and Reflection**: This portion of the evaluation focused on the student participants (grades 2-5) and was conducted on-site at both Newton Elementary and Betty Huff Elementary. Due to a scheduling error and a snow day

resulting in school closures, the student participant self-drawing and reflection at the end of the September-January session took place the week following the program completion. These evaluations were coordinated with the Principals of both schools and took place during lunch period. The students were invited to bring and eat their lunches and additional snacks were provided. The evaluation for the February-June session took place as planned, on-site and during the regular *Racing Readers* program. The Evaluation Research Assistant and Program Coordinator facilitated these sessions during which students were invited to talk about their experiences with the program and share 'feeling words' they felt described their experiences with *Racing Readers* (e.g. happy, sad, shy, fun, etc.). These words were brainstormed as a group and the Evaluation Research Assistant wrote them out on chart paper and hung them in a location students could see. Students were then provided with coloured markers, crayons and pencils and completed evaluation worksheets by answering questions with drawings or words to illustrate how they felt when participating in the program. During this time, the Evaluation Research Assistant took notes and helped the students by reading questions out loud when needed.

6. **Interviews with Program Coordinators, School Administrators and Program Partners**: The purpose of these interviews was to gain detailed perspectives from those key informants of the *Racing Readers* program. The interviews were relaxed and semi-structured, based on an interview guide which aimed to provide an opportunity to hear various perspectives on the program, determine satisfaction with the program, and identify attitude, feelings and behaviours related to the program and its impacts on students. These guides were sent out to participants prior to the interview. This allowed for a flexible, conversational atmosphere where the Evaluation Research Assistant could ask clarification questions and probe deeper while the interview participants could bring up topics or discussions not explicitly outlined in the interview guide. Interviews took place in quiet, neutral locations at the interviewees convenience and ranged in length from twenty minutes to an hour.

Data Analysis

As a time-series, single-sample design was employed for this evaluation, the data at baseline and program completion was compared to determine changes and trends. Process evaluation data including financial, human, and material resource inputs was summarized to demonstrate the reach of the program. Quantitative and qualitative results were cross-checked and triangulated to substantiate and increase the validity of the evaluation findings. Data was analyzed as follows to answer the evaluation questions to demonstrate participant satisfaction levels, strengths and challenges of the program, and whether *Racing Readers* is meeting participants' needs.

1. **Baseline and Program Completion Surveys (paper and online):** Survey data was manually input into multiple Microsoft Excel files by the Evaluation Research Assistant and using Excel, descriptive statistics were calculated. Open-ended survey questions were coded line by line to identify meaningful themes, commonalities and trends. Codes and themes were categorized through repetition of similar words, phrases, or contrasting ideas and recorded in the Excel file.

2. **Student Participant Self-Drawing and Reflection**: Data from the written portions of this evaluation was manually input into a Microsoft Excel file by the Evaluation Research Assistant. Using Excel, descriptive statistics were calculated and student response patterns were noted. The drawing components of this evaluation were analyzed and coded by the Evaluation Research Assistant and themes, commonalities and contrasting ideas were recorded in an Excel file.

3. **Interviews with Program Coordinators, School Administrators and Program Partners**: Interview transcripts were coded by the Evaluation Research Assistant through the identification and analysis of themes. Three levels of coding were undertaken. First, preliminary analytic codes and categories were identified based on word and theme repetition, and organized around specific questions outlined in the interview guide. Second, these original codes were organized to identify key concepts. Lastly, all coding data was revaluated to identify key themes and patterns across interview results.

Results

The results of this evaluation are organized by the guiding evaluation questions and their corresponding indicators (Table 5). Quantitative and qualitative data sources were used in tandem to best capture the perspectives of stakeholders and to provide more reliable and detailed results to highlight the findings.

A. **What is the reach of the program?**

- # registered student participants at Newton Elementary: 26-38 (this number varied throughout the year and between each intake period
- # registered student participants at Betty Huff Elementary: 35-40 (this number varied throughout the year and between each intake period
- # of total volunteers trained: 70
- # of volunteers per session between September and January: 16-18 at Newton Elementary, 12-15 at Betty Huff Elementary

- # of volunteers per session between February and June: 18-20 at Newton Elementary, 14-17 at Betty Huff Elementary
- On average, 1-3 students were absent per session

Fewer volunteers were noted for both intake sessions at Betty Huff Elementary compared to Newton Elementary. During their interview, one program coordinator attributed this discrepancy to SFU class scheduling. Volunteers had more classes on Tuesday nights and thus were more available to volunteer on Wednesday evenings at Newton.

Volunteer training was two hours long and mandatory for all volunteers to complete prior to the program start. Volunteers brought completed criminal record checks to the training sessions. Training involved a PowerPoint presentation, volunteer manual, icebreaker activities throughout the presentation, and scenario activities where the trainees had to use information they learned in the training to solve situations in small groups. Information in the manual and presentation included the following:
- What is the program/who is SFU TD CEC
- Important contact information
- How to get to the sites
- Schedule of the program and overview of program structure
- Fitness components
- Literacy components
- Numeracy components
- Volunteer code of conduct: behaviour with the students vs. expectations as a volunteer
- Logistics (what to wear, sign in/out, measuring success)
- Volunteer duties & weekly email
- Discipline ladder
- Communication with youth
- Tips and advice
- In case of emergency/procedures

Volunteers at Newton Elementary received additional training with Big Brothers in the form of a marked quiz. The quiz went through the following topics: information on Big Brothers, the attributes of a successful volunteer, healthy relationships, voices/choices, boundaries, types of abuse and disclosures/discoveries. As Big Brothers were not partnered with Betty Huff, volunteers at this location were not required to complete this training component.

B. What human, financial, and material resources were used and provided?

Table 7 displays the *Racing Readers* resource use and budget breakdown. Program coordination and administration was conducted primarily by two individuals with a total cost of

$3000.00. Three SFU students were hired as program coordinators to deliver the Racing Readers program at Betty Huff and Newton Elementary throughout the year. Two physical activity coordinators (one for Newton Elementary and one for Betty Huff Elementary) and one literacy and numeracy coordinator (both Betty Huff Elementary and Newton Elementary) were hired for the 2016-2017 Racing Readers Year. The cost for these employees was approximately $15,552.00 for the year. The two physical activity program coordinators were hired after having been SFU student volunteers with the program in previous years. The Literacy and Numeracy Coordinator has been involved in the program since the beginning and was instrumental in the development of the program curriculum. At the Newton Elementary site, the numeracy coordinator came from Big Brothers after the establishment of a partnership between *Racing Readers* and the organization which was already located on-site at the school. Two Evaluation Research Assistants were hired, the first to develop the evaluation plan and the second to implement the evaluation. The cost of these hires was approximately $4000.00 overall. The budget for the evaluation implementation for 2016-2017 is approximately $2000.00.

Material supplies included books to be used for the program's reading activities, journals and pens for each student for writing activities, backpacks and other school supplies for the student participants and snacks for each session. Newton Elementary students received two snacks per session as their partner, Big Brothers provided one snack and Surrey School District 36 (SD36) provided the other. At Betty Huff Elementary, only one snack was provided via SD36. These snacks varied each week but included items such as granola bars, fruits, and cheese and crackers. Cost for the *Racing Readers* program totalled $33852.00.

Unlike previous years, the 2016-2017 *Racing Readers* program did not include high school student volunteers or official site champions. In lieu of site champions, program coordinators had to take on some additional administration work when contacting the schools around student registration and attendance. At the Betty Huff site, the principal acted as an unofficial school champion and visited the program to check-in on a weekly basis. This did not occur at the Newton site; however, the program had already been established at this location for two years perhaps lessoning the perceived need for an official champion.

The programs took place on site at Newton Elementary and Betty Huff elementary. Surrey School District enabled use of the gymnasiums, outdoor space and multipurpose room at Newton Elementary and the library at Betty Huff Elementary. Material resources were stored on site or at the SFU Surrey – TD Community Engagement Centre office. Both schools enabled access and use of gymnasium equipment for physical activity, literacy and numeracy games as well as provided additional resources to be used on site including books and some numeracy resources (decks of cards).

Table 7. Racing Readers Program Budget and Resource Input 2016-2017

Item	Additive Cost SFU	In Kind Cost SFU	Additive Cost SD36	In Kind Cost SD36
Program Coordinator - Literacy & Numeracy (Newton)	$3,888.00			
Program Coordinator – Literacy & Numeracy (Betty Huff)	$3,888.00			
Program Coordinator – Physical Activity (Newton)	$3,888.00			
Program Coordinator – Physcial Activity (Betty Huff)	$3,888.00			
Program Evaluation	$2,000.00			
Program Supplies (books)				$500.00
Program Supplies (Journals and Pens)	$400.00			
Program Supplies (Backpacks and school supplies)				$200.00
Snacks			$1,000.00	
Program Supplies (other)	$200.00			
Space				$8,000.00
SFU/SD36 Coordination and Admin		$3,000.00		$3,000.00
Total	$18,152.00	$3,000.00	$1,000.00	$11,700.00
		Grand Total	**$33,852.00**	

C. What knowledge, attitude, skills and/or behavior changes occurred in the program participants?

i. Knowledge Gained

Physical Fitness

In terms of baseline student participant knowledge of physical fitness activities (Figure 1), the program volunteers (n=20) agreed that at the onset of the program students understood physical fitness activities (50% strongly agreed, 45% agreed, and 5% neither agreed or disagreed). Parent responses (n=13) to the same question showed somewhat similar trends (46% strongly agreed, 31% agreed, 15% neither agreed or disagreed, and 8% disagreed). Interestingly, no teachers (n=4) strongly agreed, but 50% agreed, 25% neither agreed or disagreed, and 25% disagreed.

At program completion, program volunteers (n=29), parents (n=11), and teachers (n=8) predominantly reported that the student participants showed an increased understanding of physical activities introduced through the program (Figure 2). Program volunteers, parents and teachers alike most commonly 'agreed' with the statement, but fewer agreed strongly. 45% of program volunteers strongly agreed with the statement, 52% agreed with the statement and

3% neither agreed or disagreed with the statement. 36% of parents strongly agreed with the statement and 64% agreed with the statement. 75% of teachers agreed with the statement and 25% felt the question was not applicable. Thus, while most program volunteers, teachers, and parents/guardians strongly agreed that at baseline student participants understood physical fitness activities, at program completion the majority only agreed that the students showed an increase in knowledge of physical activities gained from the program.

Figure 1.
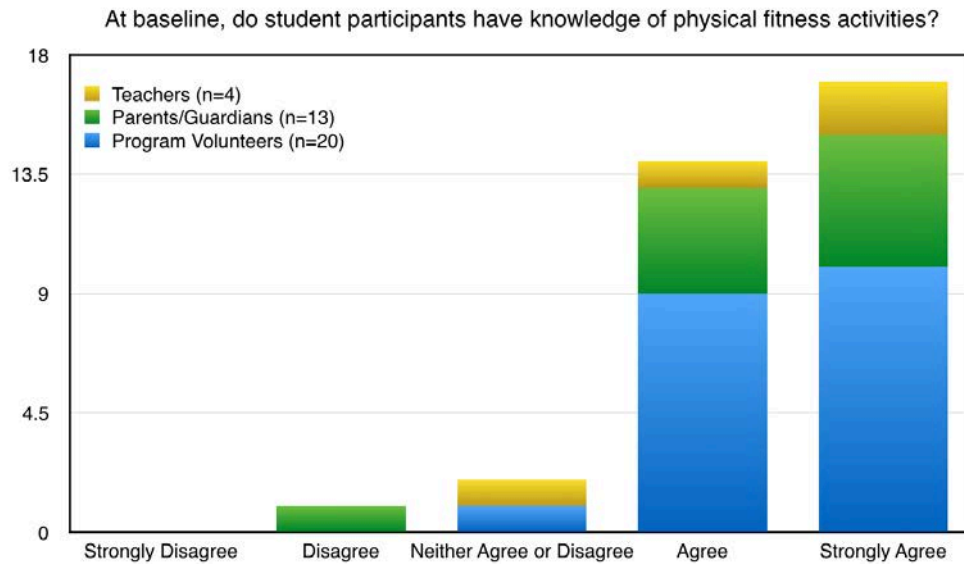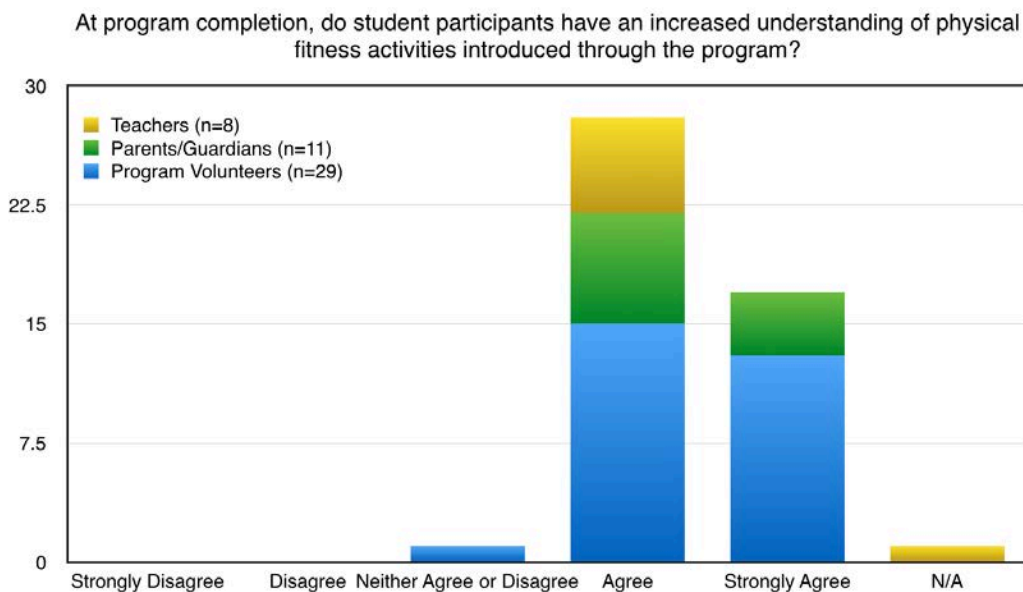

At baseline, do student participants have knowledge of physical fitness activities?

Figure 2.

At program completion, do student participants have an increased understanding of physical fitness activities introduced through the program?

Literacy

Compared with knowledge of physical fitness activities, student participants' baseline knowledge of reading and writing concepts was found to be similar overall (Figure 3). Student volunteers reported a wider range in responses to this question with 10% strongly agreeing, 70% agreeing, 10% neither agreeing or disagreeing, 5% disagreeing, and 5% strongly disagreeing. Interestingly, parents only reported that they strongly agreed (38%) or agreed (62%) that their children understood reading and writing concepts. Teachers responses were found to correspond more closely with the program volunteers with 50% agreeing to the statement, 25% neither agreeing or disagreeing with the statement, and 25% disagreeing with the statement.

At program completion (Figure 4), the majority of program volunteers agreed (62%) or strongly agreed (35%) that student participants had an increased understanding of reading and writing concepts introduced through the program while 3% neither agreed or disagreed. Parents/guardians responded similarly, with 27% strongly agreeing and 73% agreeing and that since participating in the program their child(ren) had an increased understanding of reading and writing concepts introduced through *Racing Readers*. 86% of teachers agreed with the statement and 14% neither agreed or disagreed with the statement. Figures 3 and 4 demonstrate these trends and show that following program completion, student participants showed an increased understanding of reading and writing concepts based on their experiences with the program.
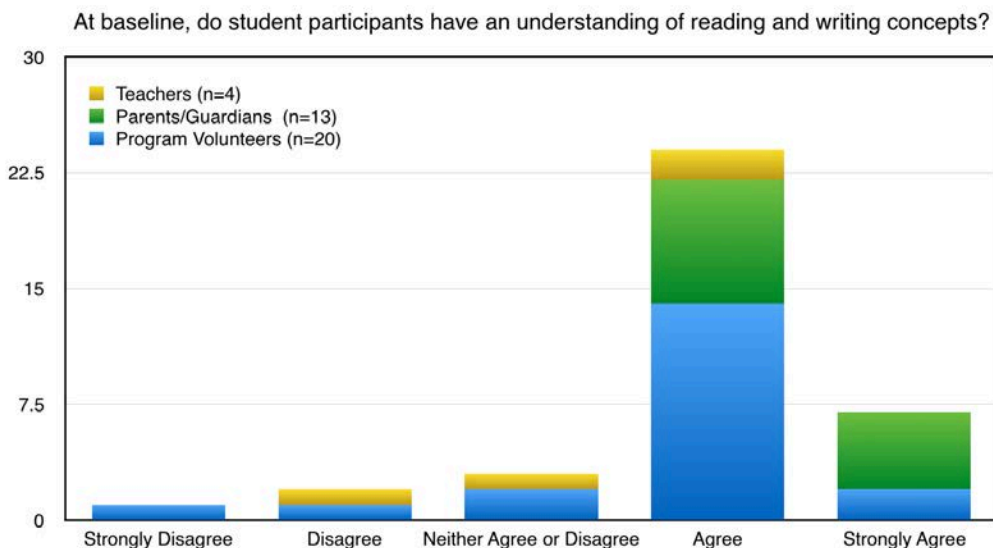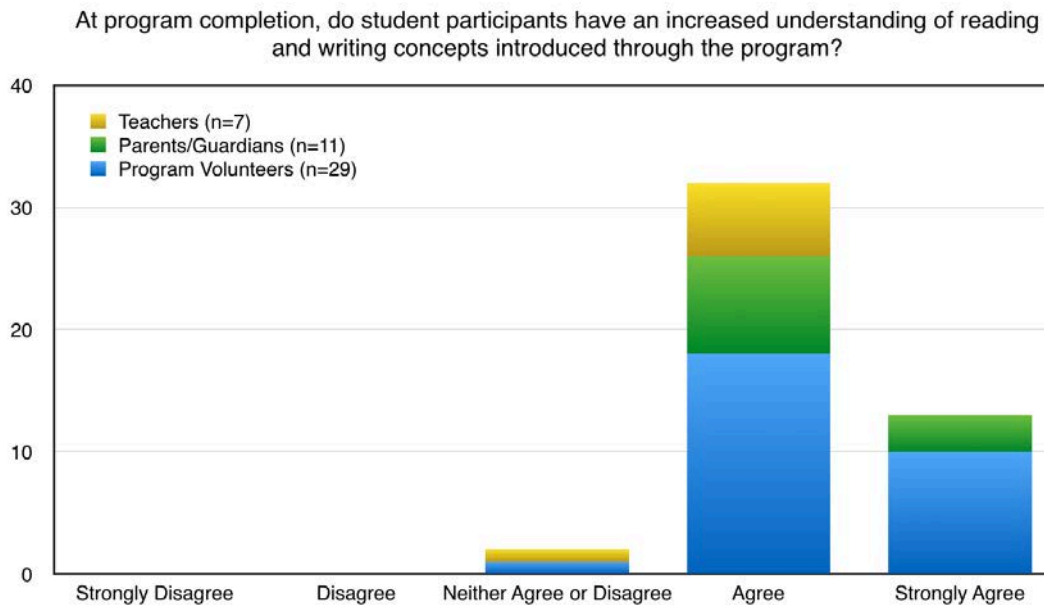
Figure 3.

At baseline, do student participants have an understanding of reading and writing concepts?

Figure 4.

At program completion, do student participants have an increased understanding of reading and writing concepts introduced through the program?

Legend:
- Teachers (n=7)
- Parents/Guardians (n=11)
- Program Volunteers (n=29)

Categories: Strongly Disagree, Disagree, Neither Agree or Disagree, Agree, Strongly Agree

Numeracy

At baseline, student participants' knowledge of numeracy concepts was found to be only slightly lower than their baseline physical fitness and literacy knowledge levels (Figure 5). The majority of program coordinators (60%) neither agreed or disagreed that their students had an understanding of numeracy concepts. 5% strongly disagreed with the statement while 25% agreed that the students understood numeracy concepts and 10% strongly agree this was the case. Like the baseline measures of literacy, 54% of parents/guardians agreed and 31% strongly agreed that their child(ren) understood numeracy concepts. In contrast, 7.5% of parents/guardians strongly disagreed with the statement and 7.5% neither agreed or disagreed. 75% of teachers agreed that their students understood numeracy concepts while 25% disagreed with the statement.

Following a similar trend with participant acquisition of literacy concept knowledge, student participants also gained numeracy concept knowledge introduced through the program Figure 6). While at baseline, most of the program volunteers, neither agreed nor disagreed that the students had an understanding of numeracy concepts, at program completion the majority (48%) of volunteers agreed and 34% strongly agreed that students gained an understanding of numeracy concepts introduced through the program. 14% of volunteers neither agreed or disagreed with the statement and unlike either physical activity or literacy concepts, 4% of volunteers disagreed that student participants showed an increased understanding of math concepts. 55% of parents/guardians agreed, and 45% strongly agreed that their child(ren) had

an increased understanding of numeracy concepts introduced in the program. 71% of teachers also agreed that their students showed an increase in understanding of numeracy following program completion while 29% neither agreed or disagreed that this was the case.

Figure 5.

At baseline, do student participants have an understanding of numeracy concepts?

Teachers (n=4)
Parents/Guardians (n=13)
Program Volunteers (n=20)

Strongly Disagree | Disagree | Neither Agree or Disagree | Agree | Strongly Agree

Figure 6.

At program completion, do student participants have an increased understanding of numeracy concepts introduced through the program?

Teachers (n=7)
Parents/Guardians (n=11)
Program Volunteers (n=29)

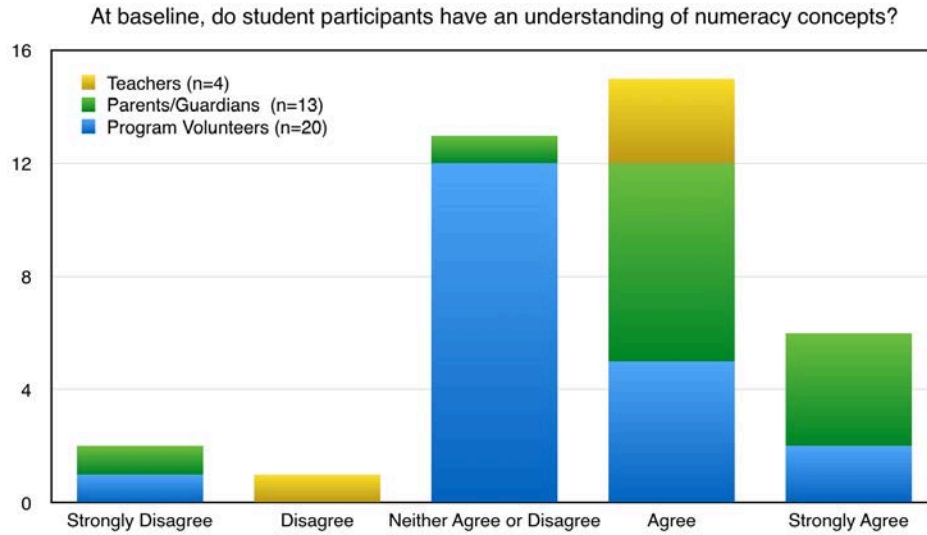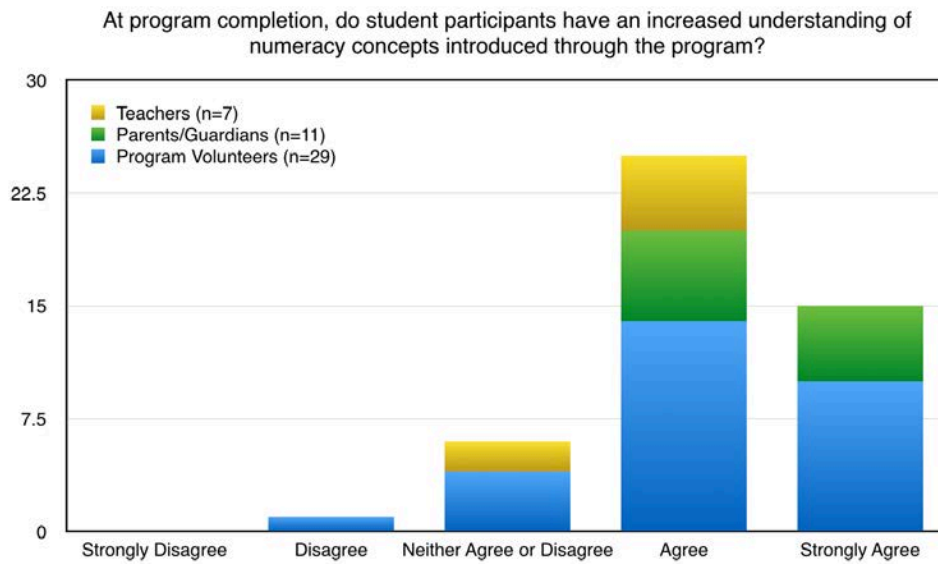Strongly Disagree | Disagree | Neither Agree or Disagree | Agree | Strongly Agree

ii. Change in Attitude

Physical Activity

Student participant baseline knowledge of physical activities was found to be high compared to literacy and numeracy. Coinciding with this, student participants showed a relatively high baseline interest in physical fitness and/or exercising. 60% of program volunteers strongly agreed and 40% agreed that students showed an interest in physical fitness and/or exercising. Parents/guardians ranked their child(ren)'s interest in physical activities as slightly lower than this with 46% strongly agreeing, 23% agreeing, 15.5% neither agreeing or disagreeing and 15.5% disagreeing. Teacher responses were more similar with parent/guardian responses with 50% agreeing and 50% neither agreeing or disagreeing that their students had an interest in physical fitness or exercising.

Program volunteers, parents/guardians, and teachers overwhelmingly agreed that following the program, student participants showed an increased interest in physical fitness activities and/or exercise. For program volunteers, 62% strongly agreed that participant interest had increased, 35% agreed with the statement and 3% neither agreed or disagreed. Parents/guardians showed a similar trend with 55% strongly agreeing and 45% agreeing that their child(ren)'s interest level had increased. For teachers, 12.5% strongly agreed, 75% agreed and 12.5% neither agreed or disagreed to the statement. These trends are depicted in Figure 8.

Supplementing this survey data, is interview data from the program coordinators, school principals and program administrators. A theme that came out of these interviews was that student participants became increasingly more engaged and willing to participate in physical exercise activities as the program progressed. Both school principals reported that student participants excitedly talk about the physical activities and games they get to play at Racing Readers, when they see the principals in the hallway.

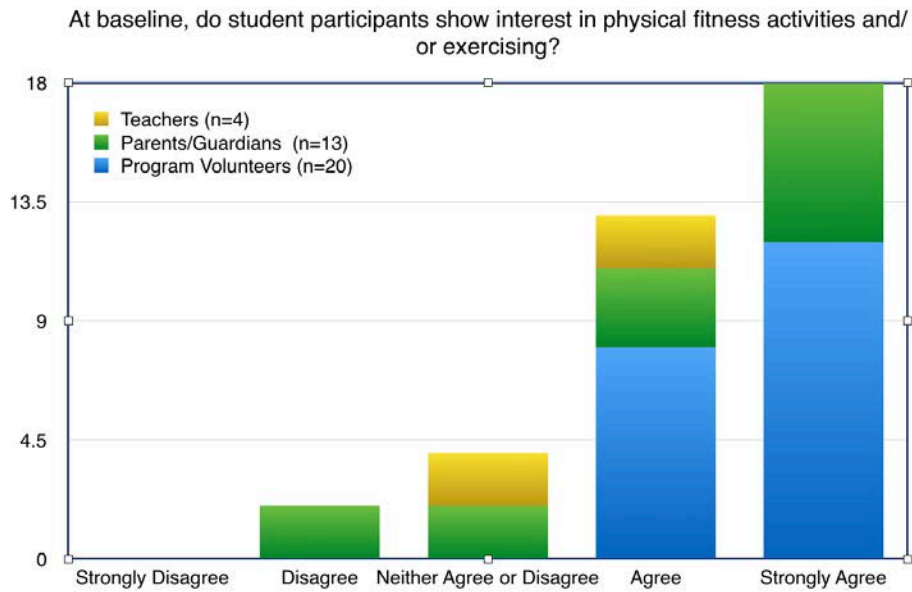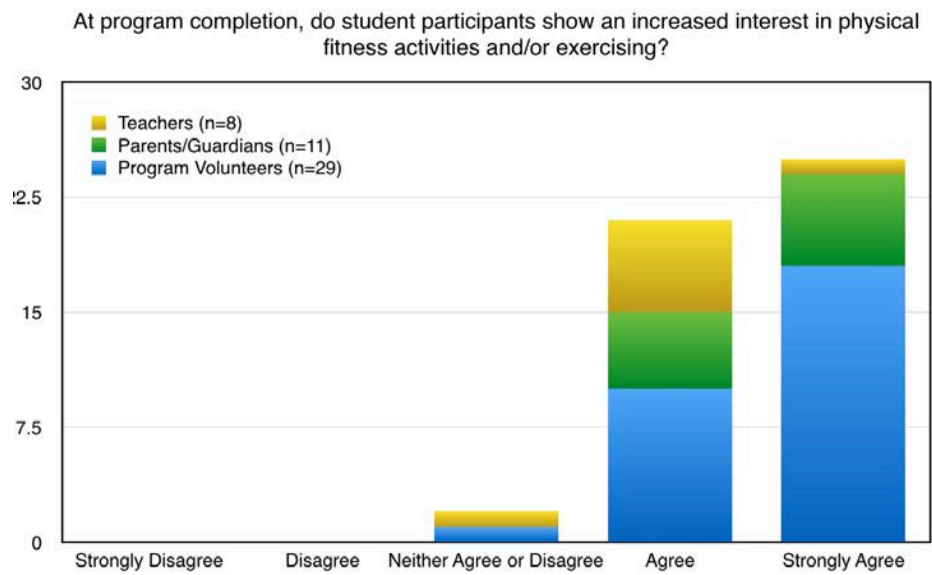Figure 7.

At baseline, do student participants show interest in physical fitness activities and/ or exercising?

Figure 8.

At program completion, do student participants show an increased interest in physical fitness activities and/or exercising?

Literacy

Student participant baseline interests in reading and writing were slightly lower than for interest in physical fitness activities and exercise (Tables 9 & 10). Interest in writing also ranked lower than for reading. Most program volunteers agreed (40%) that student participants showed interest in reading, while 25% strongly agreed, 30% neither agreed or disagreed and 5% strongly disagreed. Participant interest in writing was notably lower according to the program volunteers with only 15% strongly agreeing, 50% agreeing, 20% neither agreeing or disagreeing, 10% disagreeing, and 5% strongly disagreeing with the statement. For the most part, parents/guardians stated that their child(ren) showed interest in reading (38% strongly agreed, 62% agreed) and writing (54% strongly agreed, 38% agreed, and 8% strongly disagreed). Teacher responses showed similar trends with 50% agreeing and 50% neither agreeing or disagreeing that their students showed interest in reading and 25% agreeing and 75% neither agreeing or disagreeing that students showed interest in writing.

At program completion, 62% of program volunteers agreed that student participants had an increased interest in reading, with 21% strongly agreeing, 14% neither agreeing or disagreeing and 3% disagreeing. Participant interest in writing showed a similar trend with slightly lower percentages of student volunteers agreeing highly that participant interest in writing increased (45% agreed, 24% strongly agreed, 24% neither agreed or disagreed, and 7% disagreed). Following their child(ren)'s participation in the program, 45% of parents/guardians strongly agreed and 45% agreed that their child(ren) had an increased interest in reading. 10% of parents neither agreed or disagreed with this statement. As with the program volunteers, responses in terms of student's writing interests following the program were slightly lower (55% agreed, 27% strongly agreed, and 18% neither agreed or disagreed). Teachers responded with similar results for both increased reading and writing interest in their students. For reading, 88% of teachers agreed that their students had an increased interest and 12% strongly agreed with this statement. In terms of writing interest, 63% of teachers agreed that their students showed increased interest while 25% neither agreed or disagreed and 12% strongly agreed. These trends are displayed in Figures 11 & 12.

Interviewees reported even more noticeable changes in student participant attitudes towards literacy compared with physical activity. All program coordinators interviewed (n=4) indicated that at the start of the program, many students are shy or nervous to get involved with reading and writing activities. However, after this initial hesitation students became more comfortable with the program, volunteers, and routine, and showed noticeable increases in the focus and time they spend working during literacy activities. One program coordinator noted that as the program progresses, students accumulate an increasing amount of minutes reading which reflects this change in attitude and willingness to read. Program coordinators did also note that this change was more substantial for reading, and the journal writing activities, while focus increased over time, it was not as pronounced as with reading.
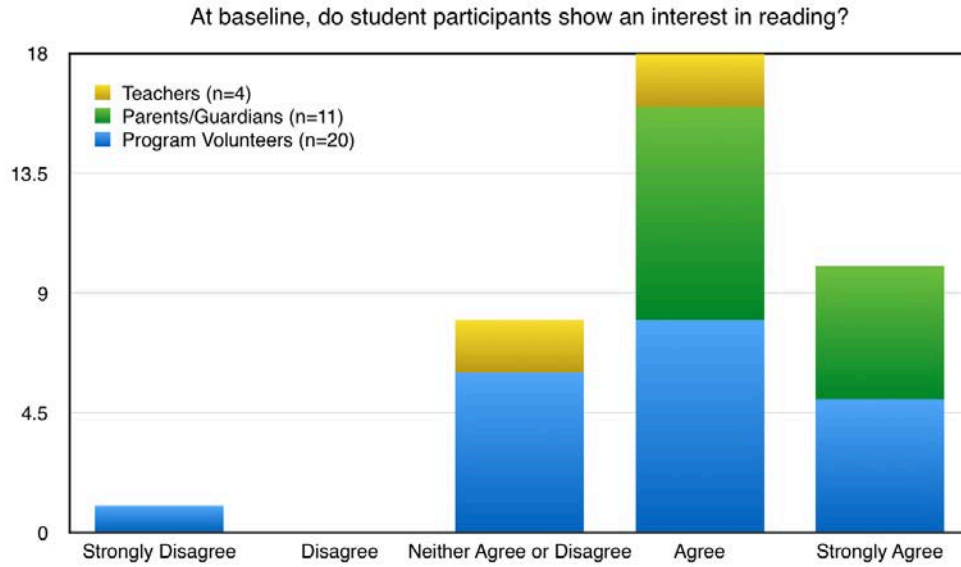
Figure 9.

At baseline, do student participants show an interest in reading?

Figure 10.

At baseline, do student participants show an interest in writing?

Figure 11.

At program completion, do student participants show an increased interest in reading?

Figure 12.

At program completion, do student participants show an increased interest in writing?
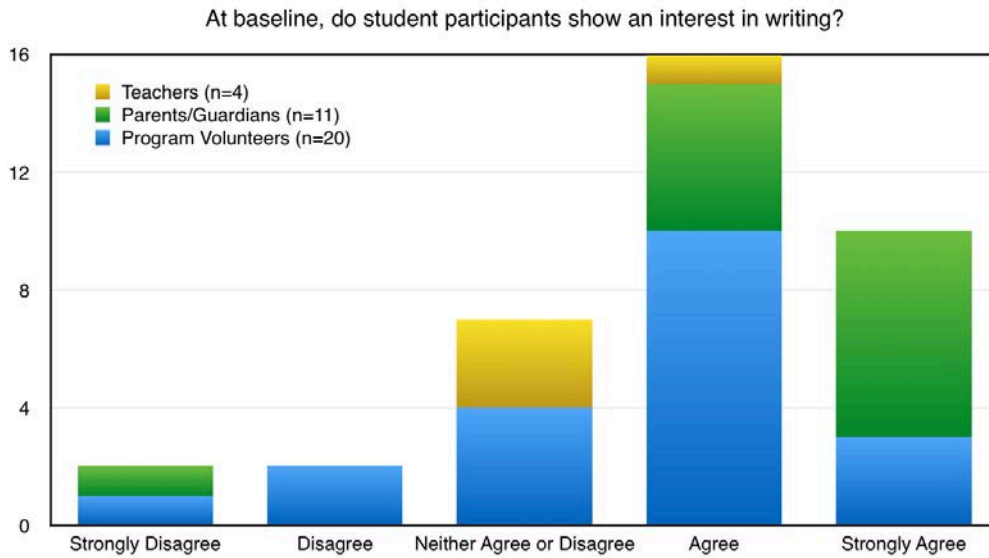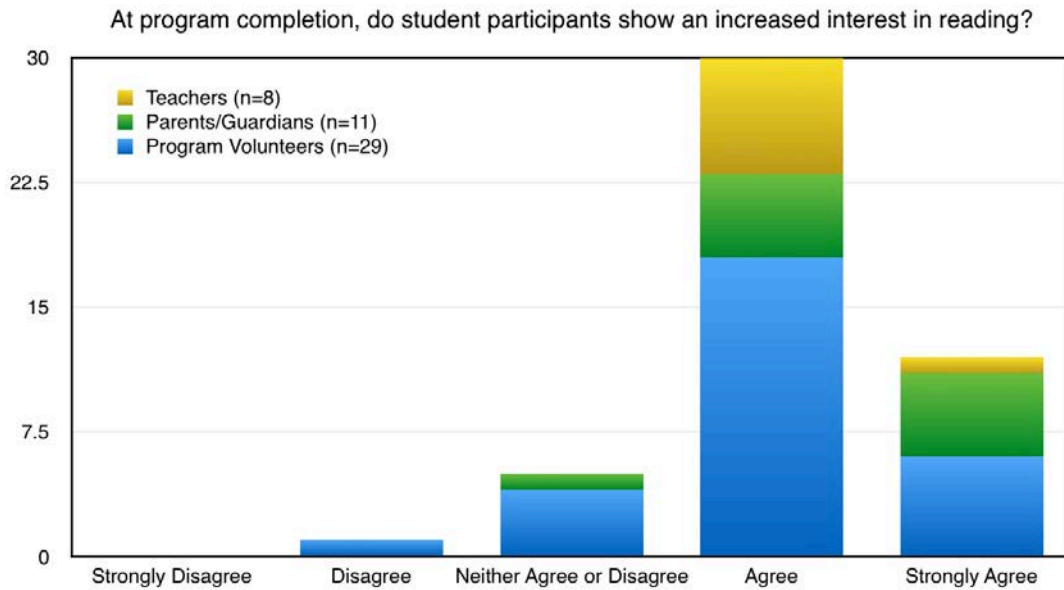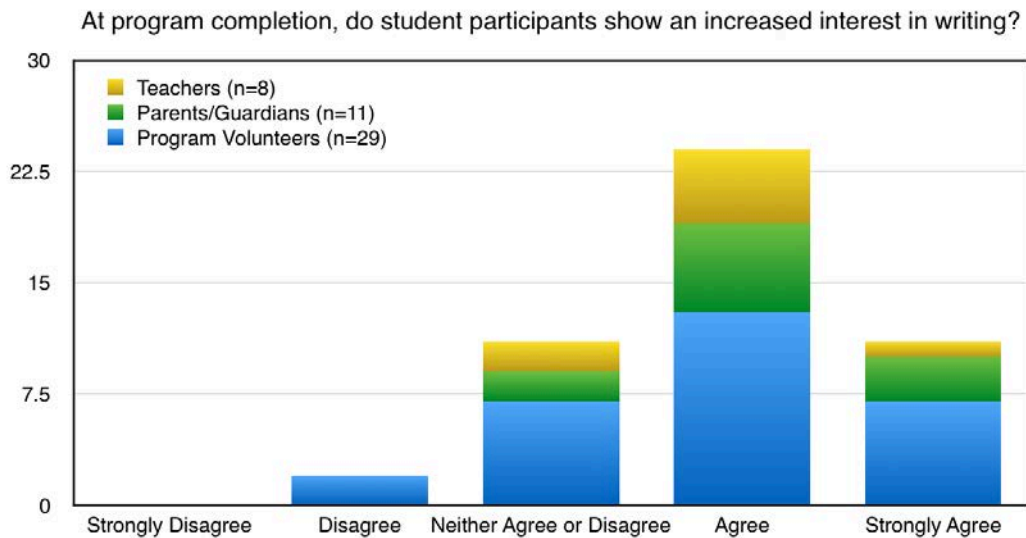
Numeracy

As with student participant baseline understanding of numeracy concepts, interest in numeracy was lower compared with physical fitness and literacy (Figure 13). The majority of program volunteers (75%) neither agreed or disagreed that students showed a baseline interest

in solving math problems. 15% of program volunteers agreed that students showed an interest, 5% strongly agreed and 5% strongly disagreed. As with literacy and physical activity, parents/guardians reported that their children showed higher interest in numeracy compared with the program volunteer responses. 54% of parents/guardians agree that their child had a baseline interest in math, 30% strongly agreed with this while only 8% neither agreed or disagreed and 8% strongly disagreed. Teacher responses aligned more closely with parent responses with 75% agreeing their students had an interest in math at baseline and 25% neither agreeing or disagreeing.

At program completion, program volunteers mostly agreed that student participants showed an increased interest in solving math problems (48% agreed, 24% strongly agreed, 21% neither agreed or disagreed, 3.5% disagreed, and 3.5% strongly disagreed). Parents/guardians showed a similar trend with 45% agreeing, 36% strongly agreeing, and 18% neither agreeing or disagreeing with the statement. Teachers further corroborated this trend with 63% agreeing and 27% neither agreeing or disagreeing that student participants had an increased interest in solving math problems since participating in the program. Figure 14 depicts these trends.

In terms of interview data, one program coordinator stated that over time, students became more excited about the math activities played at Racing Readers. However, all interviewees noted that student interest in numeracy was less pronounced than for physical activity or literacy. This was a major theme to come out of the interviews and will be further discussed in Section G of the results.
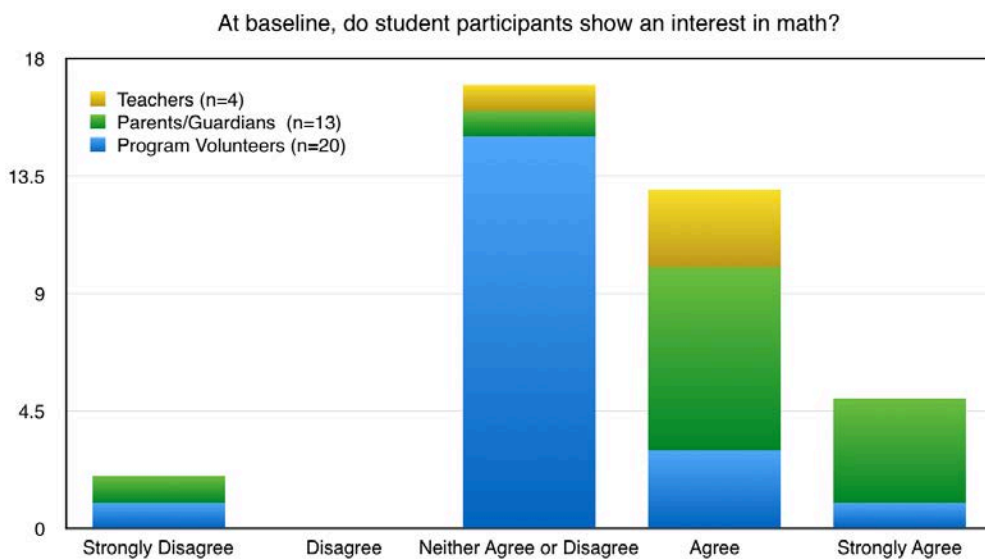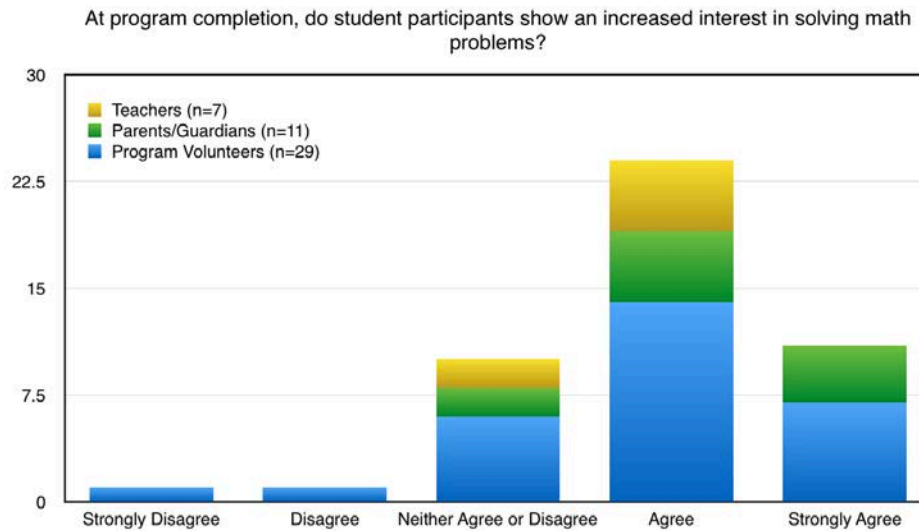
Figure 13.

At baseline, do student participants show an interest in math?

Teachers (n=4)
Parents/Guardians (n=13)
Program Volunteers (n=20)

Figure 14.

At program completion, do student participants show an increased interest in solving math problems?

iii. Changes in Behaviour

Behavioural changes in student participants was noted as significant when parent/guardian baseline and program completions data was compared (Figures 15 & 16). At baseline, when asked if student participants incorporated physical fitness or exercise activities at home, 53% of parents/guardians agreed, 23% disagreed, 8% strongly agreed, 8% neither agreed or disagreed and 8% strongly disagreed. Comparatively, at program completion, 55% of parents/guardians agreed and 45% strongly agreed that since participating in the program their child(ren) had used physical fitness or exercise activities at home. Similar increases were also found for participants using reading, writing and math techniques at home when doing their homework, following program completion. At baseline, 46% of parents/guardians agreed that their child incorporated reading techniques when doing their homework while 23% strongly agreed with this, 15% neither agreed or disagreed, 8% disagreed, and 8% strongly disagreed. Parents/guardians reported similar baseline participant incorporation of writing (61% agree, 23% strongly agree, 8% neither agree or disagree, 8% strongly disagree) and math (69% agree, 23% strongly agree, and 8% strongly disagree) techniques in their homework. As with responses for student participants using physical fitness activities at home following program completion, all parent responses for their child using reading, writing, and math techniques at home all fell under 'agree' or 'strongly agree' responses. For incorporation of reading techniques since participating in the program, 55% of parents/guardians agreed and 45% strongly agreed that their children did so. For writing, 82% of parents/guardians agreed while 18% strongly agreed, and for math 73% of parents/guardians agreed and 27% strongly agreed that their children incorporated these skills in their homework completion following their participation in the program.
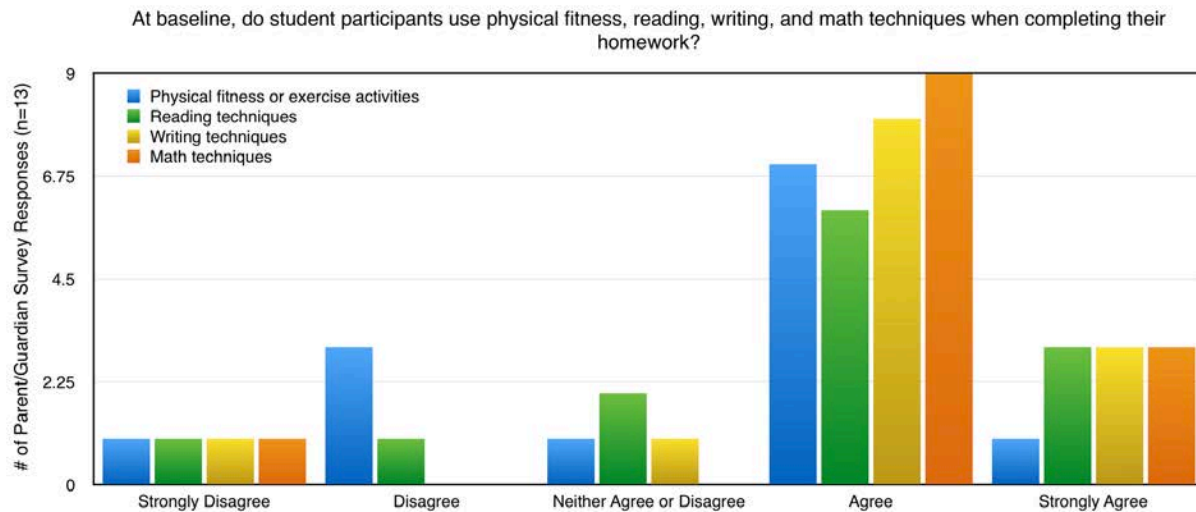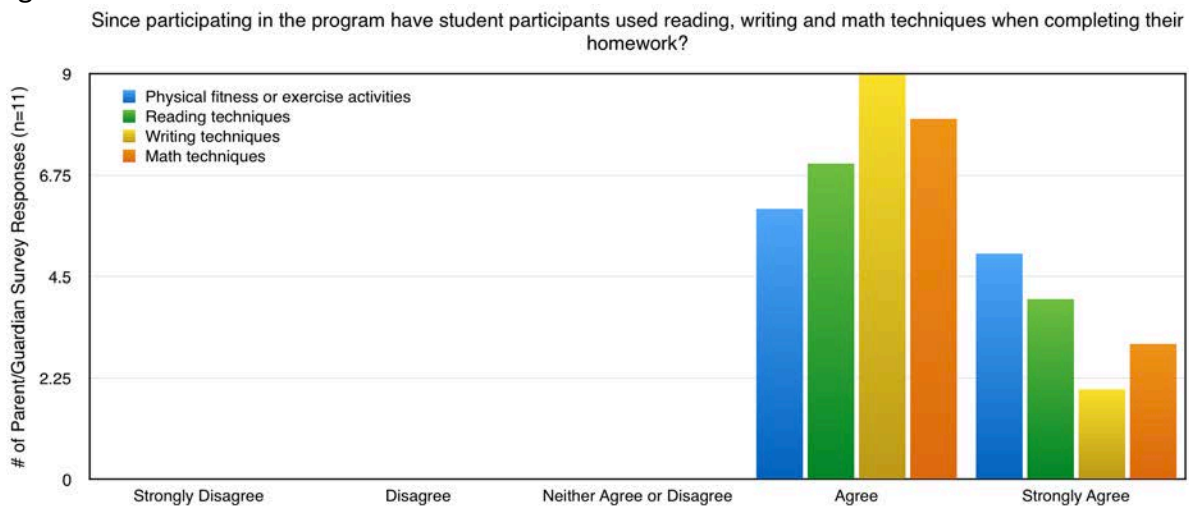
Figure 15.

At baseline, do student participants use physical fitness, reading, writing, and math techniques when completing their homework?

Figure 16.

Since participating in the program have student participants used reading, writing and math techniques when completing their homework?

Changes in behaviour were not only attributable to application and use of skills learned through the program, but student participants were also found to have experienced an increase in connecting to their school following their participation in the program. At baseline, parents/guardians (n=11) agreed that their children felt connected to their school with 42% agreeing and 58% strongly agreeing. 100% of teachers further agreed that their students felt connected to their school at baseline. Following their child(ren)/students' participation in the *Racing Readers* program, parent/guardian (64% agree, 36% strongly agree) and teacher (75% agree, 25% strongly agree) responses remained overwhelmingly positive that student participation in the program contributed to them feeling *more* connected to their school.

Interview data strongly correlated with survey data, indicating the program had positive

and widespread effects on increasing student self-confidence and connectedness with their school. The following interview quotes exemplify these findings.

"There are students who come to the program who are really shy and they kind of start at the program not really knowing anybody and then they just kind of blossom throughout it and get to know the other students and the volunteers and really get a lot out of the program." –
Program Coordinator

"I think the program really helps them connect to their school. As much as you think 'oh ya, they'll be connected because they're in the classroom and they go to the school', but I think being here after school and doing something extra actually makes them feel more connected in some ways to the school." - Principal

"And because they were a part of the program they became very comfortable just being at school. I can see a huge difference in one of them, she's in grade 4 and there's a huge difference in confidence. Before she was not really willing to speak and now she's putting her hand up to answer questions. And it's like wow, you know I never would have guessed you didn't speak English before." – Program Coordinator

iv. Changes in Social Connectedness

At baseline, both parent/guardian and teacher responses varied as to whether their children/students felt that they could make new friends and that they could connect to older students. Parents/guardians agreed for the most part that their children could make new friends (46% strongly agreed, 46% agreed, 8% disagreed), but responses were slightly more varied when asked if their children could connect to older students (46% agreed, 31% strongly agreed, 15% neither agreed or disagreed, and 8% disagreed). Teachers responded with similar patterns to parents/guardians with 100% agreeing their students could make new friends yet only 50% agreeing that they could connect to older students and 50% neither agreeing or disagreeing to this statement.

After participating in the program, parents/guardians reported an increase in their children's abilities to make new friends with 45% strongly agreeing, 36% agreeing and 18% neither agreeing or disagreeing. Parent/guardian responses were even more positive when asked if their children felt connected to the student volunteers and/or coordinators following their participation in the program (45% strongly agreed, 45% agreed, and 9% neither agreed or disagreed). Teacher responses showed a slightly lower, yet still high change in their student's social connectedness following program completion. 63% of teachers agreed that their students made new friends in the program while 25% strongly agreed and 12% neither agreed or disagreed. 75% of teachers agreed that their students connected to the program volunteers and/or coordinators while 12.5% strongly agreed and another 12.5% neither agreed or disagreed. These trends are shown in Figures 17 & 18.

Making social connections with new friends and with program volunteers and coordinators was theme that came out of every interview (n=8) with the program coordinators, administrators and school principals, most frequently in the context of this being a program strength. One principal highlighted that since the program has a high volunteer to participant ratio, they are successfully able to include a range of grades and have found that students are able to make connections with older children they may otherwise never would have connected with in the classroom or on the playground. The following quotes exemplify the importance of positive student connection with volunteers and coordinators in terms of their social development.

"Kids are connecting with adults and volunteers from other parts of the outside community, the outside world." - Principal

"There's someone there that they feel cares for them and wants to be there for them and wants to listen to them." – Program Administrator, discussing the positive connection students have with the volunteers
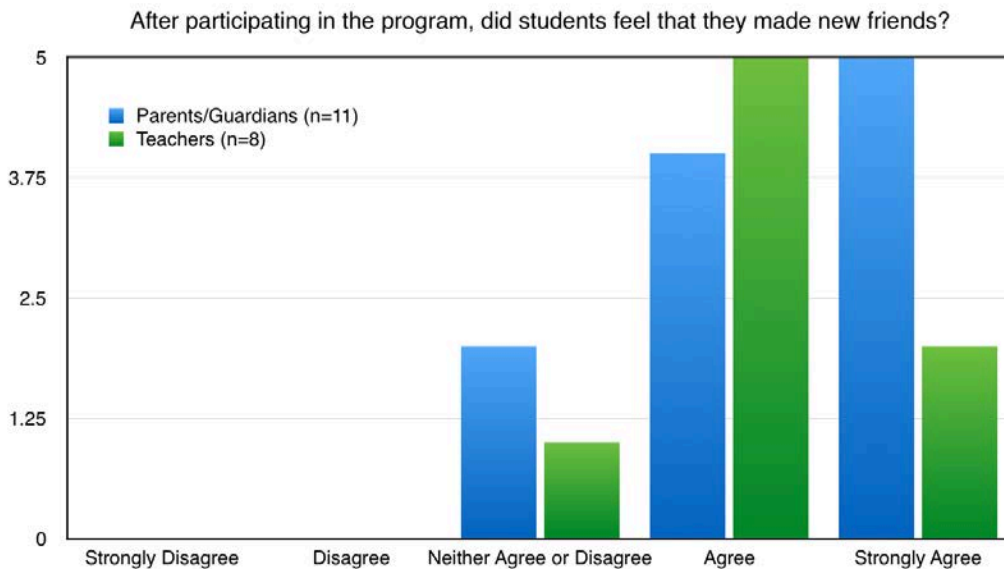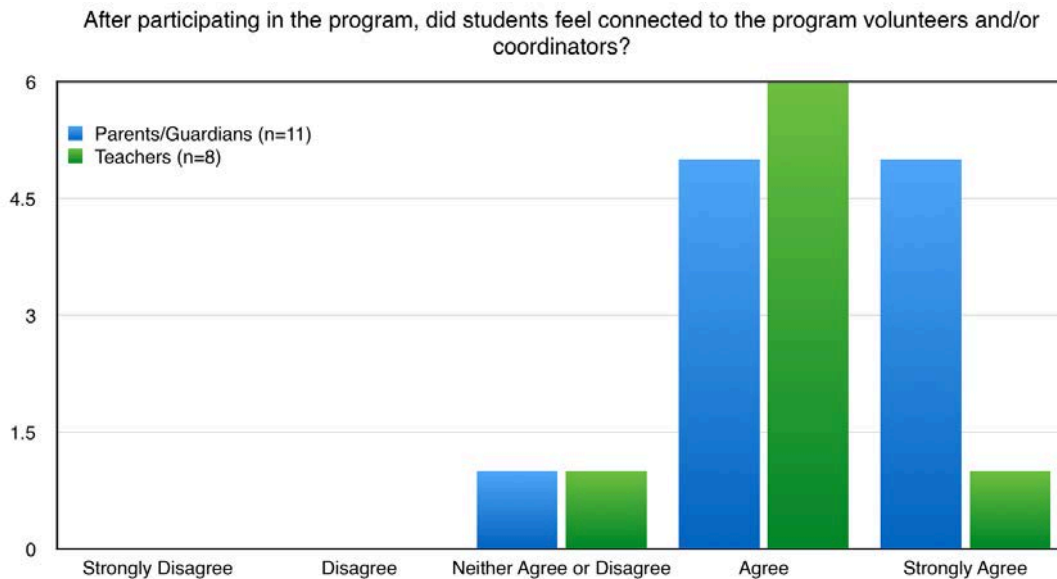
Figure 17.

After participating in the program, did students feel that they made new friends?

Figure 18.

After participating in the program, did students feel connected to the program volunteers and/or coordinators?

D. How effective is the program at decreasing perceived barriers to higher education?

At baseline, parents/guardians reported that their children were more interested (62% strongly agreed, 38% agreed) in going to school compared with program volunteer (40% agreed, 40% neither agreed or disagreed, 20% strongly agreed) and teacher (50% neither agreed or disagreed, 25% agreed, 25% strongly agreed) responses. Similarly, parents/guardians also reported more highly (62% strongly agreed, 38% agreed) than program volunteers (90% neither agreed or disagreed, 5% agreed, 5% strongly agreed) and teachers (75% agreed, 25% neither agreed or disagreed) that their children/students showed an interest in going to college or university. Again, when asked if their children/students demonstrated an interest in getting a job that required a college or university education parents/guardians more strongly agreed (54% strongly agreed, 46% agreed) than program volunteers (75% neither agreed or disagreed, 15% agreed, 5% strongly agreed, 5% disagreed) and teachers (75% agreed, 25% neither agreed or disagreed). These baseline trends are depicted below in Figures 19, 21 and 23.

At program completion, the majority of parents/guardians stated that since their child participated in *Racing Readers* that they demonstrated an increased interest in going to school every day (64% strongly agreed, 27% agreed, 9% neither agreed or disagreed), an increased interest in going to college or university in the future (55% strongly agreed, 36% agreed, 9% neither agreed or disagreed) and an increased interest in getting a future job requiring a college or university education (55% strongly agreed, 36% agreed, 9% neither agreed or disagreed).

Program completion results from program volunteers also indicated increases in student participants' interest in going to school (43% agreed, 25% strongly agreed, 32% neither agreed or disagreed) and increased interest in going to college or university in the future (46% agreed, 36% strongly agreed, 18% neither agreed or disagreed). Program volunteers reported less strongly that student participants demonstrated increased interest in getting a future job requiring college or university education (36% neither agreed or disagreed, 32% agreed, 32% strongly agreed). Following program completion, teachers felt most strongly that their students showed an increased interest in going to school every day (50% agreed, 37.5% strongly agreed, 12.5% neither agreed or disagreed). Teachers reported seeing less changes in student participants' interest in going to college or university in the future (50% agreed, 50% neither agreed or disagreed) or in getting a job requiring a college or university degree (50% agreed, 50% neither agreed or disagreed). These program completion trends are depicted in Figures 20, 22 and 24.

Student participants (n=68) also commented on the theme of post-secondary education during their self-reflection and drawing activity. When asked if they knew what college or university was, 56% selected "Yes", 23% selected "No", and 21% selected "I don't know". Interestingly, and despite these results almost all student participants (87%) selected that they planned to go to college or university, while 13% selected they did not know and 0% selected "no". All but 5 students who selected "I don't know" when asked if they knew what college or university was, stated that they planned on going to college or university in the future. Thirty-three student participants answered the question, "what do you think college or university is" and their responses were as follows:

- Place to learn about your job/what job you want to do (46%)
- School (21%)
- After high school/for older people (12%)
- Harder work (6%)
- SFU (6%)
- UBC (6%)
- Get a diploma/graduate (3%)

During this portion of the evaluation, student participants were also asked to either draw or write down what they wanted to be when they grew up. Responses were remarkably varied and creative. The most common answers were: police officer, doctor, teacher and I don't know, nurse, and dentist. Other notable answers included scientist, "I want to be SFU", "swag millionaire", palaeontologist, dodge ball player, architect, youtuber, and "someone who takes care of sea creatures". The most commonly answered jobs all require post-secondary education, indicating an interest in remaining in school.

Figure 19.

At baseline, do student participants show an interest in going to school everyday?

Figure 20.

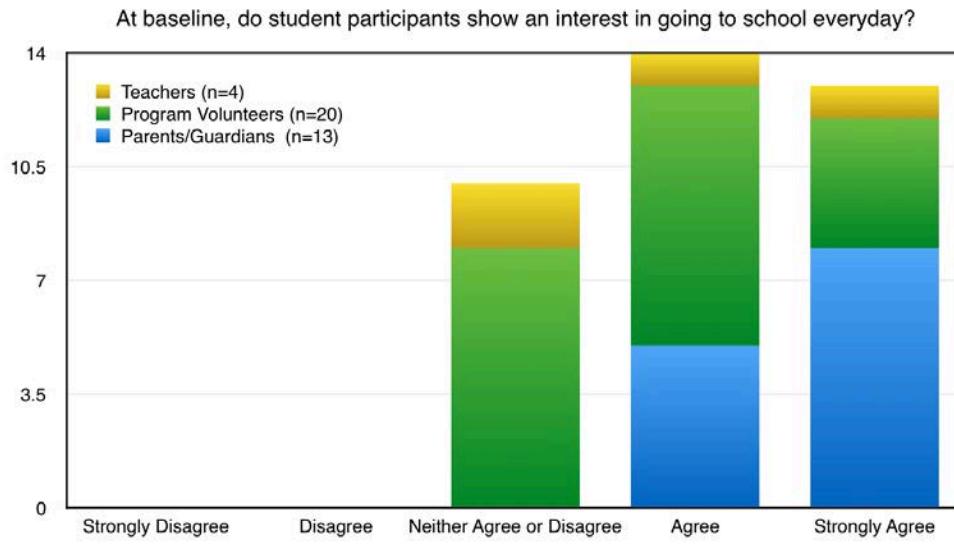Since participating in the program, do student participants show an increased interest in going to school everyday?
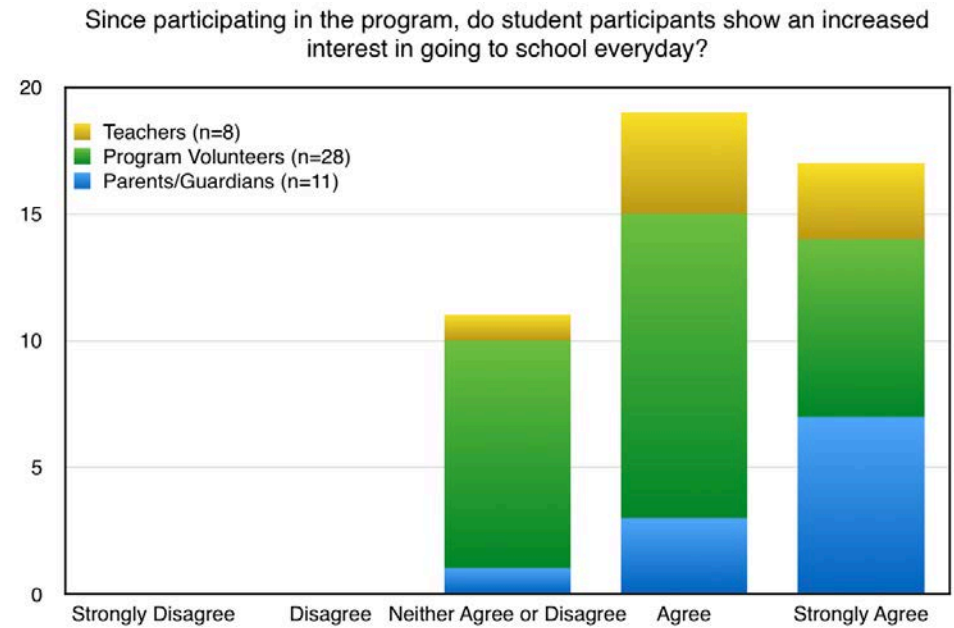
Figure 21.

At baseline, do student participants show an interest in going to college or university in the future?
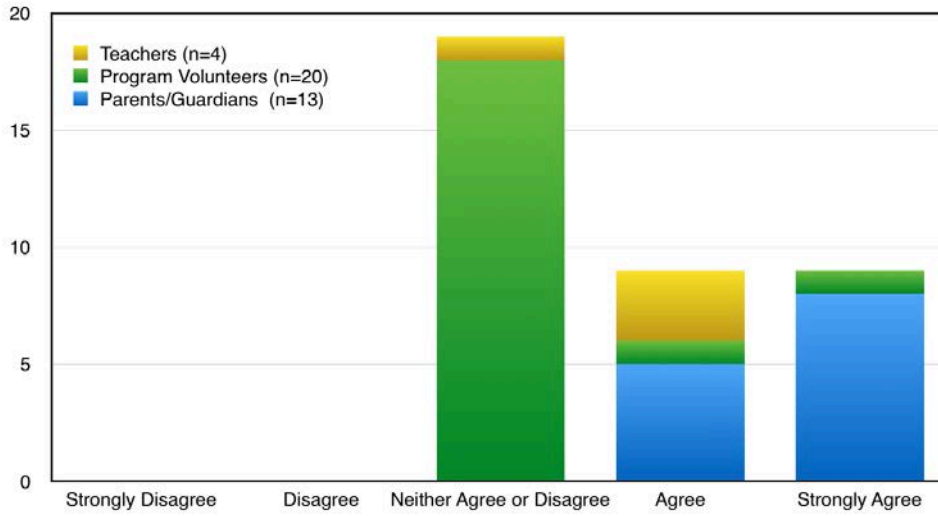
Figure 22.

Since participating in the program, do student participants show an increased interest in going to college or university in the future?

Figure 23.

At baseline, do student participants show an interest in getting a future job that requires a college or university education?

Legend:
- Teachers (n=4)
- Program Volunteers (n=20)
- Parents/Guardians (n=13)

Figure 24.

Since participating in the program, do student participants show an interest in getting a job that requires a college or university education?

Legend:
- Teachers (n=8)
- Program Volunteers (n=28)
- Parents/Guardians (n=11)

E. What difference did the program make for student coordinators and volunteers?

Comparing baseline and program completion surveys, program volunteers and coordinators reported increases in feelings of connectivity with their communities and that

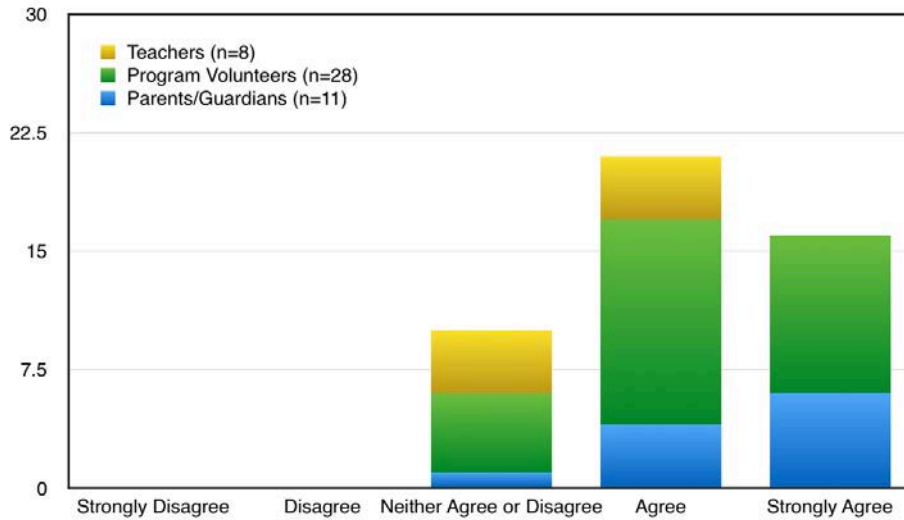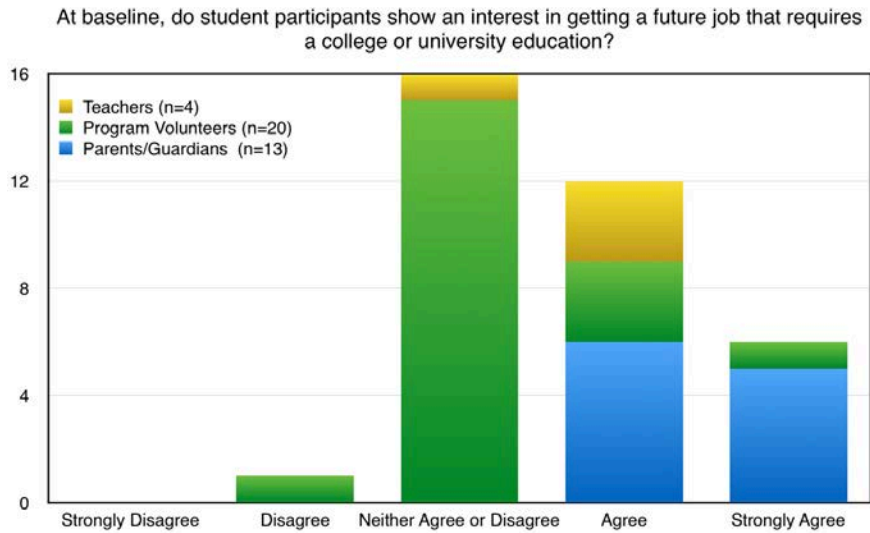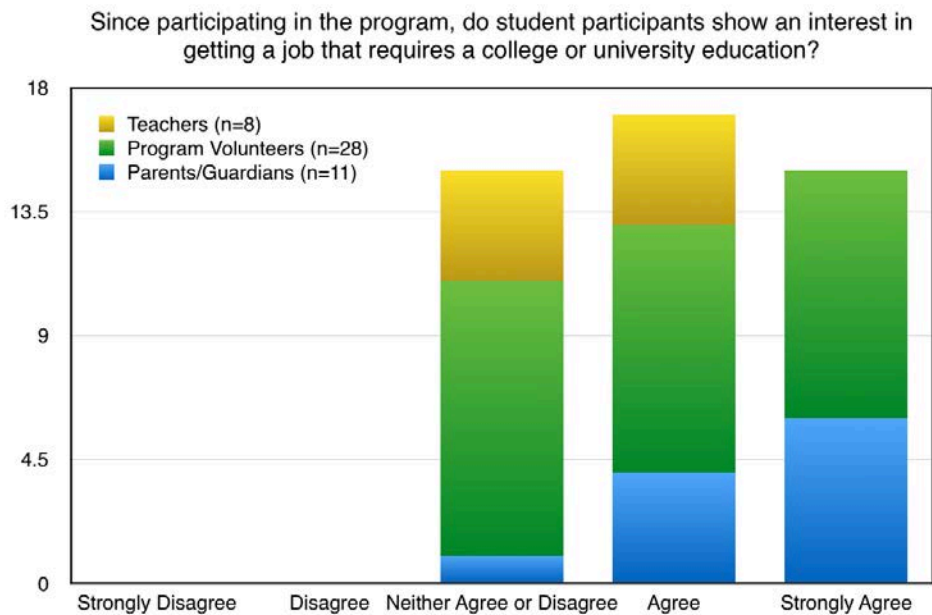their participation in the program was beneficial for their personal and professional development (Figures 25 and 26). After program completion volunteers felt more connected to the SFU community. 35% of program volunteers strongly agreed at baseline that they felt connected to the SFU community, a number which drastically increased to 62% at program completion. Similar trends were noted between baseline and program completion for volunteers strongly agreeing that they made new friends in the program (25% to 72%), that they connected to student participants (25% to 79%), and that their participation in the program was valuable for their personal (50% to 76%) and professional development (50% to 83%).
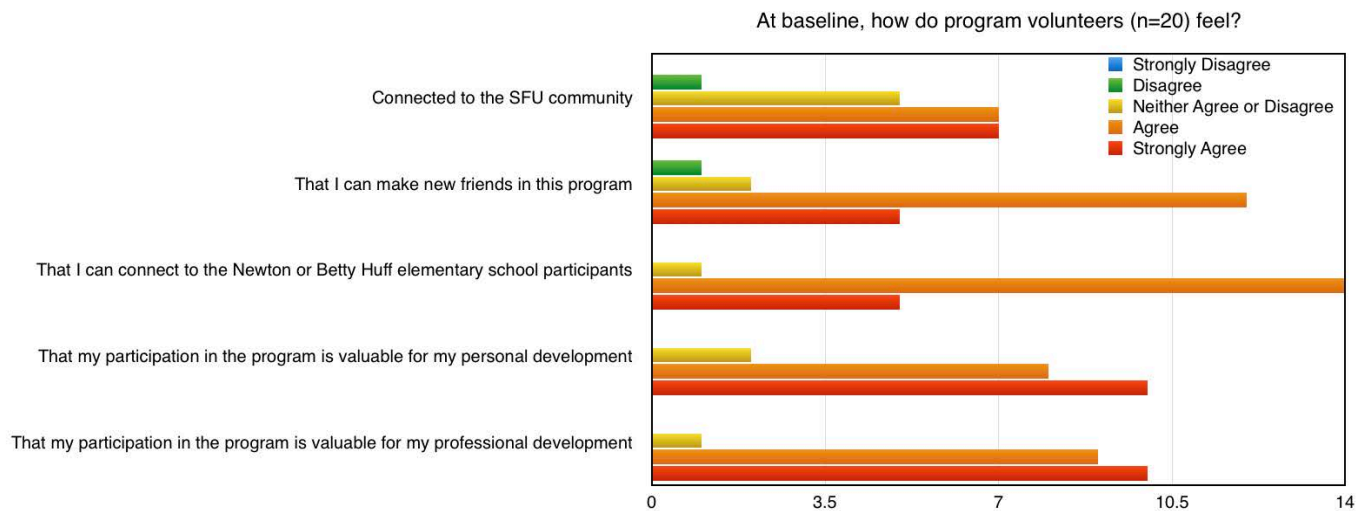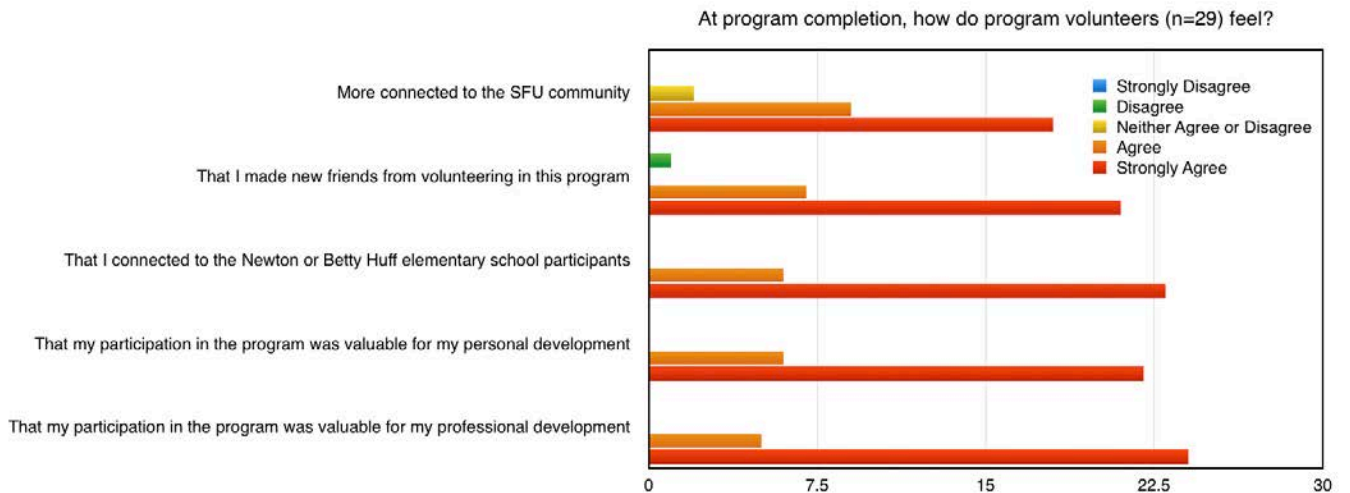
Figure 25.

Figure 26.

Interview data corresponded with survey data and showed that the program made differences for the volunteers and coordinators in terms of community connection, personal development and professional development. All coordinators felt more connected to their community (university and/or city) through their involvement with the program. Examples of this included seeing Racing Readers volunteers on campus and having a friendly chat, seeing and talking to program participants with their parents in local grocery stores, and having students remember their name and seeking them out in the hallway to talk. In terms of personal development, the most commonly discussed theme was around building friendships and support networks with other volunteers and coordinators. One program administrator further elaborated on this concept to explain that the bonding between SFU volunteers and coordinators creates an embedded rhythm that's always been a part of the program and has strengthened it. Many of the program volunteers and coordintors spend time together outside of *Racing Readers*, indicating new friendships. Two program coordinators moved into their current roles from program volunteers. This was brought up by four interviewees as being important for their professional development. One coordinator clarified that her involvement with the program had helped shape her career interests. The following quotes demonstrate these interview themes around the positive outcomes of Racing Readers involvement for program volunteers and coordinators.

"Racing Readers completely changed how much I participated with SFU." – Program Coordinator

"Not only do the students get to build relationships with their peers and older students in their school, but our volunteers also get to connect with each other who they might not normally interact with. So, I see friendships that have developed just through meeting at the program. I have friendships that you know I developed just from the program." – Program Coordinator

F. Are the program stakeholders satisfied?

Program satisfaction and recommendation rates were very high for program volunteers, parents/guardians and teachers.

- 82% of program volunteers strongly agreed and 18% agreed they were satisfied with the program
- 91% of parents/guardians strongly agreed and 9% agreed they were satisfied with the program
- 62.5% of teachers agreed and 37.5% strongly agreed they were satisfied with the program

- 79% of program volunteers strongly agreed and 21% agreed that Racing Readers made a positive contribution to their students' learning
- 91% of parents/guardians strongly agreed and 9% agreed that Racing Readers made a positive contribution to their child(ren)'s learning
- 50% of teachers strongly agreed and 50% agreed that Racing Readers made a positive contribution to their students' learning

- 86% of program volunteers strongly agreed and 14% agreed they would recommend the Racing Readers program to other students in grades 2 to 5
- 91% of parents/guardians strongly agreed they would recommend the program to other children in grades 2 to 5
- 50% of teachers strongly agreed and 50% agreed they would recommend the program to other students in grades 2 to 5

Program participants also reported high satisfaction with the program through the self-drawing and reflection activity. The most common written answer for the question "What is your least favourite part of Racing Readers?" was "Nothing". Corroborating these answers, when student participants were asked what their favourite part of the program was, many of them answered, "Everything" (fifth most common response).

Interview data further supported high satisfaction rates for the program coordinators, administrators, and school principals. Responses to, "How satisfied are you with the Racing Readers program?" are listed below and were overwhelmingly positive.

- *"Completely satisfied"* - Principal
- *"It's been an excellent partnership"* - Principal
- *"Extremely, like beyond satisfied. The positive impacts of the program have gone beyond what I ever thought and expected in my head."* – Program Administrator
- *"When I'm grading racing readers on a scale from one to ten I'll give it a 9. It's been pretty satisfying and that's pretty high marks for me. I mean there's definitely room to grow."* – Program Coordinator
- *"Super satisfied. It's the best part of my week"* - Program Coordinator
- *"Oh it's so great, I love Racing Readers!"* - Program Coordinator
- *"Completely satisfied with program content and relationships with the kids."* – Program Coordinator

G. What aspects of the program are working well? What can be improved?

i. Program Strengths

Parents/guardians and program volunteers all reported high satisfaction rates with the quality of program activities and the quantity of program activities provided in the 12-week time frame.

- 73% of parents/guardians strongly agreed and 27% agreed that they were satisfied with the quality of program activities
- 69% of program volunteers strongly agreed and 31% agreed that they were satisfied with quality of program activities
- 73% of parents/guardians strongly agreed and 27% agreed that they were satisfied with the number of program activities
- 71% strongly agreed, 25% agreed, and 4% neither agreed or disagreed that they were satisfied with the number of program activities

The main theme parents/guardians reported in the open-ended survey question regarding the successes of the program was improved skills and connections with other students. All parents/guardians that responded to this question (n=8) stated their child(ren) had improved either their math, reading, or writing skills, with 75% of respondents indicating improved reading skills or that their child(ren) read more frequently at home because of their participation in the program. Another parent/guardian felt that the program had increased their child's involvement in their school and improved their ability to connect with other students.

Student volunteers echoed this theme of skill building but overall focused more on the positive impacts the program had in terms of connection building for both student participants and themselves. Student engagement and enthusiasm was a second major theme identified from the open-ended student volunteer survey questions, with many of the volunteers remarking on students' continual engagement and excitement to be at the program. The following quotes were taken directly from the volunteer's statements and provide a deeper understanding of these themes.

"I really like how the volunteers and students connected in such a short amount of time, thanks to the great activities organized by the coordinators"

"Another success is that students make friends! There are many shy students that come out of the program more confident because they have friends to play with on the field at lunch."

"One of the successes of the Racing Readers program is the constant increase in school student enthusiasm in each session. During the beginning and end of the session, the students are always curious as to what is next for the program, and they constantly

engage with coordinators and student volunteers and make their day with their enthusiasm."

"Maintaining novelty within each session by periodically changing the structure [was a strength]. Also, getting feedback from the students and implementing it into the plan made the students feel valued/appreciated. I could tell early on into the program all the students loved coming to the sessions - so much that they would literally be racing to the door to join in!"

In addition to these main themes, student volunteers also mentioned the importance of student participants having the opportunity to attend an after-school program free of charge where they make positive connections with each other, and the volunteers and coordinators in a fun and comfortable environment. During the student participant self-drawing and reflection activity (n=68) these themes came out again. This is exemplified in one student's response where he/she wrote that their favourite part of the Racing Readers program was, *"I get to be myself at Racing Readers"*.

Student participants' top four favourite aspects of the program (identified through written and drawn responses) were:

1. Gym (25%): With additional comments including, "because I get to play with more people and learn fun new games", and "I feel happy"
2. Playing/having fun (22%): With additional comments including, "playing with friends and leaders"
3. Snack (22%): With additional comments including, "we get free snack"
4. Reading (10%)

Other responses ranged from "everything" (5%), to raffle, basketball, running, being in groups, math and silent ball.

Program coordinators, administrators, and school principals identified several program strengths, many of which overlapped with those identified by program volunteers. The main themes around program strengths that came out of the interviews were: student engagement and interest in the program, high levels of mentorship and ratio of volunteers to students, participant learning in an informal, fun environment, creating community, and providing enriching opportunities for underprivileged students (see below interview excerpts).

"For me, just hearing the kids talk about their experience and a few kids just really stands out you know, they come up and talk to me and they say, "oh you know I can't wait until next Tuesday because it's Racing Readers again." – Principal

"The students really value it and they come and ask and when the program is closed you know we say it's full and for weeks after we will have kids that will check back and say is there room now, is there room now?" - Principal

"[The school district] has brought people from their other programs to visit the program because there's a different dynamic in it and its obvious, its tangible when you see that many SFU students and supportive adults and the ratio of students to adults it makes such a huge difference in the program. And all the volunteers are so invested." - Program Administrator

"I appreciate the fun and games aspect of it and utilizing the gym and getting some exercise and social interaction too." – Principal

"It's a safe, informal, fun environment and it's engaging. No one is being judged whether you're a grade 1 or grade 5 and everyone just gets to be themselves" – Program Administrator

"And you use the word community and I think that really represents the program because we try our best to turn it into a community for everyone involved." – Program Coordinator

"Any opportunity we have as a school to introduce something and give our kids an enriching experience, were all about and quite often were looking for programs after school to keep our kids here. And uh you know have something that they can really look forward to even if it's for once a week, because what we find is that they don't get involved in a lot of after school activities or extracurricular things. There are a small percentage of our kids who do but often they just go home. And so that enrichment doesn't really happen at home or out in the community for most students." – Principal

       ii.   Program Challenges & Areas for Improvement

        While the Racing Readers program has many strengths as identified by all involved stakeholders, there remain areas for improvement. Parents/guardians open-ended responses to a survey question regarding challenges of the program were somewhat inconsistent. This may indicate a user language barrier or that the survey question was not worded effectively. Challenges that parents/guardians identified were reading fluently, having kids at different grade levels, running laps and trying to meet expectations. However, when asked for suggestions to improve the program, responses became more consistent. 67% of parents/guardians remarked that the program did not require improvements and 40% responded that all grades should be doing Racing Readers. Another answer stated that the program should run twice a week. The parent/guardian responses for this section speak better to their overall satisfaction with the program and desire for more opportunities for students to be involved in it.

        On the contrary, and perhaps due to their closer proximity with the program, program volunteers had more constructive criticism about the program and suggestions for improvement. The largest challenge that emerged from the survey results was the range in age

and literacy and numeracy levels of the student participants and the difficulty in catering to their needs within specific activities. This was most commonly noted for numeracy activities. Two program volunteers identified challenges with numeracy in relation to the partnership with Big Brothers and noted that these activities were not always well understood by the students or exciting for them. Program volunteers also noted difficulties in keeping students engaged during writing activities and journals. The following quotes were taken directly from the volunteers' statements and provide a deeper understanding of these program challenges.

> *"Finding a balance in the literacy and math activities so all the students can remain challenged and engaged, but the work isn't too hard for some of the struggling students."*

> *"A lot of students need more one on one support in terms of journal writing."*

> *"Some of the challenges of the Racing Readers program involve getting the children to be in a receptive mood when it comes to writing activities. The children are usually anxious to begin playing games and it can be difficult at times to get them to do some school related work first. After a while, the children become engaged in the activity more and this allows everything to run smoother."*

Other challenges noted by the program volunteers included: students not attending the program consistently, making it difficult to run certain activities and that these spots could be given to other students to increase opportunity to experience the program, travelling distance to the school sites being challenging, and saying goodbye to the students at the end of the program. One volunteer noted a slightly different challenge, *"When the program ends for the year, that's the biggest challenge for sure. I won't know what to do with my life for the summer."*

In terms of program improvement, the program volunteers provided a plethora of suggestions. As the most commonly identified challenge was the distribution of participant age and skill level, this was where many of the suggested improvements focused. One suggestion was to split the competitive physical activities into age groups so that students would be put with similar skill levels to create a more equal playing field. Having more explicit levels of difficulty in numeracy activities was also suggested so that younger or less advanced students could work to complete the task while older students remained challenged with something slightly different. Suggestions also included more variety around writing to have more exciting and engaging questions (3 responses) and physical activity exercises if time allowed (1 response). Two volunteers suggested that the program expand outside of Surrey and another three had no suggestions as they felt the program was effective as is.

When asked in the self-drawing and reflection evaluation what the student participants least favourite parts of the program were, the top four responses were:

1. Nothing (31%): 4% of whom responded with "going home"

2. Laps/Running (22%)
3. Reading (11%)
4. Writing/Journals (11%)

Other student responses to their least favourite aspects of the program included: sitting down, math, gym, riddles, twisting their ankle, walking, and not being in the same groups as their friends. 6% of students also commented on snack but their responses clarified that this was because they did not get enough snack, a big enough snack or that snack or that snack was not early enough for them.

Compared with other stakeholder responses to program challenges and areas for improvement, program coordinators, administrators and school principals identified both short term and long term challenges. All interviewees discussed the need to strengthen the numeracy component of the program. Both principals interviewed stated that students never spoke to them about the math activities, and instead would talk about physical activity and numeracy or the volunteers. This lead both principals to believe that the numeracy components were not strong and/or memorable for the students. Similarly, the program coordinators and administrators stated that numeracy needed work as it was more difficult to engage the students in numeracy activities. Suggestions to improve this included more rigorous volunteer training, the inclusion of numeracy in physical activity components, and better stratification of student participants for numeracy activities to ensure older students were challenges and younger students could grasp concepts and carry out the activities.

All four coordinators also spoke about tensions between Racing Readers and Big Brothers (responsible for delivering the numeracy component at Newton Elementary) and the challenges of this partnership. Some coordinators (3 of 4) felt that because of this tension, the numeracy component at Newton was weaker and less aligned with the program values and flow. The partnership tension between Big Brothers and Racing Readers also came up in an interview with a program administrator. It was clear that both the coordinators and administrator felt that the partnership had been too great of a burden on the program, and identified Big Brothers' intensive program volunteer screening process as not aligning with the Racing readers vision and resulting in volunteer dissatisfaction. One volunteer quit the program following their exposure to the screening process, describing it as invasive and unnecessary. The program coordinator from Big Brothers echoed these concerns but maintained that this screening process was integral to the organization's mission, which was a challenge as it did not align with the mission of Racing Readers.

Another main theme to come out of the interviews in terms of program challenges and areas for improvement was student attendance and parent engagement issues. Both a principal and two program coordinators identified student attendance dropping off and administrative communication around this as being challenging. Some students who are not engaging with the program, or who miss sessions for other reasons end up taking up a spot that another, more invested student could have. This is an issue as space in the program is limited and communication with school office staff and parents is sometimes weak. Two program

coordinators cited this issue as being exacerbated by the lack of school champions located on site perhaps resulting in difficulties communicating with school administration. One principal suggested improving the program attendance system by having a program coordinator meet an office administrator at the beginning of the program to track down missing students. The principal also suggested improving student attendance accountability by having students bring a signed note explaining any absences. Parent engagement issues were brought up by one of the program administrators as being a corresponding area to target for improvement. This presents challenges as many language barriers exist and parents may be working long hours, reducing the amount of time they can engage with the program. This past year, the program was granted extra funding and ran an end of the year celebration, where parents/guardians attended a 'graduation' ceremony. The program administrator noted this as a success and suggested something similar occur midway through the program to improve engagement.

A third main area for improvement was this past year's lack of involvement of high school volunteers. Unlike previous years where these students had been an important part of the tiered mentorship model, due to logistical challenges it was unable to occur during 2016/2017. Program coordinators and administrators alike cited this a missing and important link as it helps student participants clearly see a positive school trajectory for their lives. Other short term program challenges that came out of the interviews echoed volunteer sentiments around journals being ineffective and dealing with student apathy around journals, challenges with the age range in terms of activity planning, ensuring program volunteers remain mentors not friends with the participants.

Unlike the other stakeholders, program coordinators, administrators and principals all identified long-term challenges of the Racing Readers program. These were program sustainability and expansion. All partied stated that funding and resources are limited yet necessary for the long-term continuation of the program. Similarly, limited resources (financial and human) inhibits the expansion of the program to more schools. All interviewees identified this as being a challenge despite the pressing need for programs like Racing Readers, that create opportunities for underprivileged students in many Surrey schools.

Discussion

The overall purpose of this evaluation was to determine the program's impact on those involved (student participants, parents, program volunteers, program coordinators, school administration staff, and teachers) and to assess to what extent the program is meeting its objectives and goals. The evaluation employed a mixed-methods, collaborative approach and used outcome measures, and specific evaluation questions and indicators to assess the program's impact, reach, strengths, challenges, and opportunities for improvement.

Outcome Objective 1: Student Participant Physical Skill Development

- Short-term objective = met
- Medium-term objective = on track to be met
- Long-term objective = on track to be met

This evaluation has found that the short-term objective of 80% of participants demonstrating an increase in levels of physical activity has been met based on analysis of related indicators. Survey data supported this with 97% of program volunteers, 100% of parents/guardians, and 75% of teachers agreeing or strongly agreeing that since participating in the program students showed an increased understanding of physical fitness activities introduced through the program. Further, 97% of program volunteers, 100% of parents/guardians, and 87.5% of teachers agreed or strongly agreed that since participating in the program student participants showed increased interests in physical fitness activities and/or exercising. Comparing baseline and program completion data, parents/guardians saw a positive change in their children's use of physical fitness and/or exercise at home. (61% agreed or strongly agreed at baseline, which increased to 100% agreeance at program completion). Program participants corroborated these results and indicated that overall, their favourite aspect of the Racing Readers program was gym time and games.

Interview data found that the physical activity component of the program was greatly enjoyed by participants and coordinators noted that increases in physical skills were noted in students as the program progressed. All attending students participated in physical activities each session indicating high levels of engagement and consistent skill practice. Interview data also suggested that acquisition of physical fitness skills improved for student participants during the program.

Outcome Objective 2a: Student Participant Literacy Skill Development

- Short-term objective = met
- Medium-term objective = on track to be met for reading and writing

- Long-term objective = undetermined (reading), not on track (writing)

This evaluation has found that the short-term objective of 80% of student participants demonstrating an increase in levels of reading and writing skills has been met based on analysis of related indicators. Survey data supported this finding with 97% of program volunteers, 100% of parents/guardians, and 86% of teachers agreeing or strongly agreeing that since participating in the program that student participants had an increased understanding of reading and writing concepts introduced in the program. Similarly, 83% of program volunteers, 90% of parents/guardians, and 100% of teachers agreed or strongly agreed.

Lower numbers were found for increased interest in writing compared with reading. Only 69% of program volunteers agreed or strongly agreed that student participants showed an increased interest in writing following the program. Parent/guardian and teacher responses were similarly lower compared with reading with 82% of parents/guardians and 75% of teachers agreeing or strongly agreeing. However, despite lower rates of writing compared with reading, 100% of program volunteers, parents/guardians, and teachers agreed or strongly agreed that since participating in the program, students have used reading and writing techniques when completing their homework. These strong rankings increased from substantially lower ones at baseline, indicating widespread incorporation of reading and writing skills from the program into homework and classroom work.

Survey, interview and participant self-drawing and reflection data substantiated these results for reading and showed program participants demonstrated increased enthusiasm and focus for reading activities during the program. Despite this success, journal activities were reported by some program volunteers, coordinators, and student participants as being ineffective and unengaging. This is an area that should be targeted for improvement.

Outcome Objective 2b: Student Participant Numeracy Skill Development

- Short-term objective = not met
- Medium-term objective = not currently on track to be met
- Long-term objective = undetermined

This evaluation has found that the short-term objective of 80% of participants demonstrating an increase in numeracy problem solving skills has not been fully met based on analysis of related indicators. Survey data indicated that while 82% of program volunteers and 100% of parents/guardians agreed or strongly agreed that at program completion, student participants showed an increased in understanding of numeracy concepts introduced through the program, only 71% of teachers agreed with this. The percentages of program volunteers, parents/guardians, and teachers who agreed or strongly agreed that following program completion, their students/children showed an increased interest in solving math problems were similarly lower than for physical activity and literacy. 72% of program volunteers, 81% or parents/guardians, and 63% of teachers agreed or strongly agreed that student participants

showed an increased interest in solving math problems following their participation in the program. However, and in contrast to these findings, 100% of parents/guardians indicated that following their participation in the program, their children increased their use of math techniques when completing their homework. This may reflect differences between home and school life that program volunteers and teachers do not witness, that parents/guardians are less likely to comment poorly on their children's math interest and skills, or may indicate that the survey question was poorly worded.

Interview and survey data corroborated that this objective has yet to be met as numeracy was the most frequently identified weakness of the program and most commonly identified area to target for improvement. This is to be expected as this past year was the first year numeracy was added to the program, but there is a need to improve this component of the program in order for Racing Readers to meet their short-term numeracy objective and be on track to meet medium and long term numeracy objectives.

Outcome Objective 2c: Student Participant Decrease in Perceived Barriers to Higher Education

- Long-term objective = on track to be met

This long-term program objective is that by December 2018, 90% of participating students from Newton Elementary and Betty Huff Elementary will have lower perceived barriers to higher education. Program completion data showed that 87% of student participants planned on going to college or university, while 13% remained unsure and 0% said they did not plan on going. Student participants who answered what they thought university or college was were all aware of at least one correct aspect (that is is school, it's after high school) or identified college/university as being SFU or University of British Columbia (UBC). While only 33% of students answered this latter question, results indicate they are aware of higher education and what it likely entails. Further, interview results showed that the tiered mentorship model helped student participants see for themselves what the pursuit of post-secondary education looks like as they were aware that their program volunteers were SFU students. It was also stated by numerous interviewees that the reintroduction of high school volunteers in the program would further emphasize the steps to higher education for both student participants and volunteers. It is likely that this long-term objective will be met, particularly if high school volunteers are brought back into the tiered mentorship program model.

Outcome Objective 3: Student Participant Social Skill Development

- Short-term objective = met
- Medium-term objective = met

- Long-term objective = undetermined

Responses from parents/guardians and teachers overwhelmingly supported that this short-term outcome objective of 80% of participants showing increased satisfaction with their social support network based on the analysis of related indicators. Further, the medium-term objective of 80% of participants showing an increased sense of community has also been met based on indicator results. 81% of parents/guardians and 88% of teachers agreed or strongly agreed that their children/students' abilities to make new friends increased following their participation in the program.

Interview and survey data further supported this successful aspect of the program with program volunteers, coordinators, administrators, and principals identified the social skill acquisition component of the program as critical to its success, and something the made Racing Readers unique from other after school programs. Program volunteers, coordinators and administrators also noted a high satisfaction with their sense of community and increases in their social support networks from their experiences with the program. These stakeholders identified making new friends, building connections with the students and with their university and city communities as being contributing factors to this positive change.

Outcome Objective 4: Stakeholder Partnerships

- Medium-term objective = met
- Long-term objective = on track to be met

The medium-term objective of 80% of participants reporting increased satisfaction with aspects of the program partnership by December 2018 has been met. All stakeholders reported high satisfaction rates with virtually all aspects of the program and deemed the program a success. However, partnership challenges remain, and were noted for Racing Readers' relationship with Big Brothers, which was described as at-times, tense. However, at the writing of this evaluation, that partnership has been dissolved and moving forward, the numeracy component at Newton Elementary will be delivered by the Racing Readers program coordinators rather than an external partner.

All other partners indicated great success and collaboration with Racing Readers as being an aspect of the program that aided in it running smoothly and effectively. There is room for improvement in terms of communication between the program and sites, as identified through the key informant interviews. However, if the recommendations outlined in the following section are taken up, it is likely that this long-term outcome objective will be met.

Recommendations

The following recommendations came organically out of the evaluation process and are meant to build on program strengths while addressing program challenges to improve outcomes for student participants and stakeholders. The application of the results of this evaluation are meant to be applied to continually improve the program, while also providing an opportunity for program administrators, coordinators and stakeholders to reflect on the strengths and challenges of *Racing Readers*.

i. *Short-term*

- Improve the **writing and numeracy components** of the program:
  - Rework 'journal activity' to be more engaging for student participants using movement and play. An example of this could be reducing the number of mandatory journal questions and adding more interactive/movement based questions (could be bonus questions) that involve the students finding a volunteer and be given a riddle or other activity (this suggestion was made by a coordinator during their key informant interview).
  - Expand volunteer training opportunities through increased focus on numeracy content during volunteer initial training, and incorporate a second 'refresher' training opportunity half-way through the program if needed. This will also help meet volunteer professional development needs, an important program objective.
  - Assess numeracy manipulative resources (dice, cards, foam numbers, etc.) located on sites and/or invest in more manipulatives to be used during numeracy activities
  - Improve stratification of numeracy activities to better engage different age groups and problem solving skill levels
  - Experiment with incorporating more numeracy components into physical activity exercise or vice versa to determine if this method fits with the program vision and is enjoyed by student participants
  - Identify program volunteers during initial training who prefer working with either younger or older students and use this information when creating initial student teams

- Improve **communication and collaboration** between sites and stakeholders
  - Identify dedicated school champions for all sites moving forward. Create a school champion contract outlining the requirements of the position to ensure the person taking on the role is aware of, and able to commit to their duties and responsibilities.

- Create an attendance plan that enables students not originally placed in the program to attend in replacement of students with poor attendance to increase individual opportunity within schools
- The initiation of short meetings between program coordinators and teachers of participating students may offer unique perspectives on learning styles or behavioural challenges that could be planned for in advance of programming (e.g. placing students with specific volunteers if their needs and skillset match well). Further, these meetings could be useful in identifying reading, writing, and numeracy areas to target during program hours.

- Strengthen **tiered mentorship** model
  - Identify and communicate with partners and chosen high schools to reintegrate the inclusion of high school volunteers in the program

- Increase **parent involvement and engagement**
  - Offer Racing Readers forms and information in Punjabi as well as English to increase likelihood of parent understanding
  - Offer a parent engagement opportunity midway through the program. Ideas for this include an open house session (or half open house session) where parents/guardians are invited to participate in the program activities.

ii.   Long-term

- Strengthen future **partnerships** to promote sustainability and collaborative success
  - Develop a partnership guideline to be used when negotiating new partnerships. In doing so meet with current Racing Readers team and stakeholders to identify non-negotiable aspects of new partnerships to improve future relationships

- **Program expansion** through acquisition of greater human and financial resources
  - Develop appropriate partnerships with new funders as needed (e.g. Surrey Schools)
  - Provide training for current, exemplary program volunteers who show interest in becoming program coordinators
  - Through consultation with Surrey Schools and Community Partners identify target schools

- Conduct **evaluations** to continually assess if the program is meeting its goals and objectives and to identify areas for improvements and celebrate program strengths and accomplishments

Evaluation Limitations

There were a several limitations to this evaluation in terms of methods, data collection and analysis. First, there were low response rates for the paper surveys. Most notably, the teacher surveys that were handed out in the first term of Racing Readers and the parent/guardian paper surveys handed out both terms. In terms of teacher survey response rate, this may have been result of busy schedules combined with a lack of feeling of connection with the program. In future, the Evaluation Research Assistant should meet with the teachers of the student participants (facilitated by the school principals) to promote stronger engagement and accountability to the evaluation process. Parent/guardian surveys showed the greatest response rate success when completed on site while waiting to pick up their children. The Evaluation Research Assistant was on site for these occasions but it was not until the introduction of a Punjabi-speaking volunteer that parents/guardians became more receptive to complete the surveys while waiting. In future, a Punjabi speaker should facilitate contact with parents/guardians and surveys should be available in multiple languages to best accommodate stakeholders who speak English as a second language. Data entry was completed by the Research Assistant and survey results were manually entered in to an Excel file. While this process was carefully completed and double checked, human error may have occurred resulting in the slight skewing of some results.

Appendix

Sample Daily Schedule for Racing Readers Program:

2:40pm – students arrive, attendance taken, students organized into groups

3:00pm – circuit training/warm-up

3:15pm – relay race games

3:30pm – running

3:45pm – games

4:00pm - snack, word of the day discussion and writing in journals

4:20pm – reading or numeracy activities

4:55pm – clean up

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