She Plays: Designing Sport Experiences for Girls through a Participant-Centred Approach

Executive Summary

She Plays was designed to test ways to engage girls aged 11 to 14 around the critical issue of retention in sport. This project sought to provide a better understanding of this age group and contribute to ongoing efforts to encourage lifelong sport participation for girls and women. Sport organizations delivering programming to this age group in British Columbia and Nova Scotia were invited to participate. Four organizations from each province were selected to receive up to \$7,000 to deliver programming that could enhance the experience specifically for girls.

Successful organizations worked with a human-centred design specialist to focus on the needs and requirements of the girls participating. Organizations worked with participants, coaches, and administrators to uncover environmental factors that negatively affect girls' participation in their sport. Organizations then went on to implement initiatives within their sport setting to address those issues.

A critical component of this work was ongoing monitoring and evaluation. Participants were provided with access to surveys through a smart phone app. This ongoing data collection process asked participants questions related to their experience, knowledge and skill acquisition, and questions related to their intended retention in their sport. This process served to provide critical insight into their experience within the workshops design and within their sport program.

The findings of this project most clearly point towards the need to continually assess whether programming is meeting not only participant needs, but community needs. Building strategies for localized implementation need to attend to a unique understanding of the communities in which they operate. By putting girls and women at the centre of programming design, this project has demonstrated that asking girls what they need to feel supported, and included is critical to retention and participation.

Background

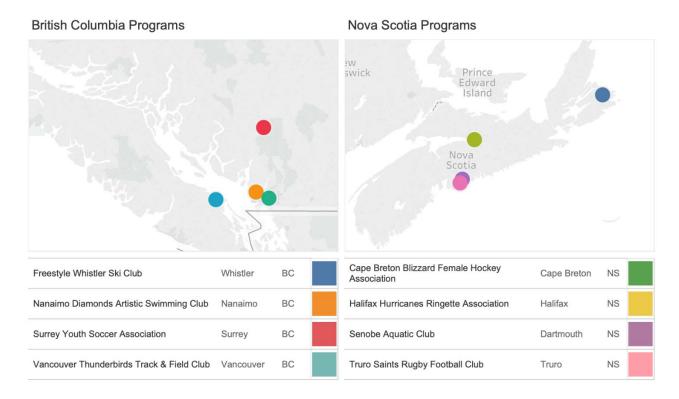
A focus of this project was the retention rates of girls in sport between the ages of 11 and 14. According to recent research, girls drop out of sport at a significantly higher rate; by the age of 14, girls drop out of sport at twice the rate of boys. Girls are also considerably less likely to take part in team sports if they have not already done so by age 14. British Columbia's databases on sport participation identify a similar trend: participation for both boys and girls peaks at age 11 when considering all sports, but by the age of 19 boys' participation falls by 78.6% while girls' participation drops by 82.7%.

The vast majority of sport programs have been created with little regard for sex and gender.⁴ Empowering participants to design their own sport experiences will address outcome 5.3 of the FPTSC Working Group Report, which states: "Women and girls need to be a part of the design, delivery and evaluation of sport programming, signifying a market shift towards consultation, needs-based program design." ⁵

This project was based on that idea that involving girls in the design and development of their programming will ensure that needs-based consultation is achieved. By doing so, participants will experience higher rates of satisfaction in the sport environment and improve the retention of participants.

Four pilots were established in British Columbia and 4 in Nova Scotia following a targeted selection process. In order to be eligible, participants must have already been engaged within the sport system through a local sport organization (LSO) or club affiliated with an accredited Provincial Sport Organization (PSO) or Disability Sport Organization (DSO). Participants already engaged in age groups or provincial teams from accredited PSOs and DSOs were also be eligible. Participants were also selected to represent a diverse array of the sport landscape in that selection hoped to capture groups from both team and individual sports and those that were traditionally male dominated and those that were traditionally female dominated.

Figure 1. Selected Organizations



All human centred design consultations were hosted virtually with the organizations between July-December 2020. Enhanced programming took place starting in December 2020 and continuing through to June 2021.

About the Pilot Design

The pilot was delivered by viaSport, with the support of Sport Nova Scotia and coordination from project consultants, Tacit Design Strategies and Bingo Impact Management Consulting. Tacit Design Strategies led and delivered a series of human-centred design activities to support the development of enhanced programming. Bingo

Impact Management Consulting led the measurement and evaluation processes with each of the 8 selected organizations.

The pilot was designed to integrate the theoretical approach put forward through the Ecological-Intersectional Model of physical activity and the principles of human-centred design,

Human-Centred Design Approach

After organizations were chosen through a targeted selection process and invited to participate, each organization was invited to a series of human-centred design sessions, led by Tacit Design Strategies.

Human-centred design encompasses a range of techniques designed to probe for the tacit knowledge of stakeholders and empower those same stakeholders to play a role in developing their own solutions. This leverages their individual knowledge into practical strategies that will fit their particular context. In this project, co-creation and co-design were used.

Co-creation activity 1: athlete notebooks

Participants were given access to their own anonymized page where a series of activities probed for their individual experiences. Activities included: identifying their sport; exploring their reasons for playing; asking them to consider why they keep playing, what motivates them; looking at the reasons why girls might drop out; and identifying their values.

Co-creation activity 2: Journey Maps

Participants were asked to meet with the facilitator in stakeholder groups, collaborating on an activity that used the metaphor of a map to visually represent the various stages the girls might go through; from their start in sports to where they might be heading. They were asked to discuss and add notes about coaching, social issues, gender differences in access to opportunities, pain points along the way, and to reflect on their experience.

Co-design activity: Design Sprints

A design team of 4-6 people was put together for each community, drawing representatives from each of the three stakeholder groups (athletes, parents and administrators/coaches). Drawing from both traditional ideas around brainstorming sessions as well as newer ideas around design thinking, two separate 2-hour sessions were developed. In all exercises, a mix of individual and collaborative activities were created to ensure participation of both introverts and extroverts.

Before the sessions, participants were invited to review the results of the first co-creative stage, ensuring they had the benefit of the understanding generated there. Then, in the first session, participants followed a scripted set of exercises designed to elicit a large

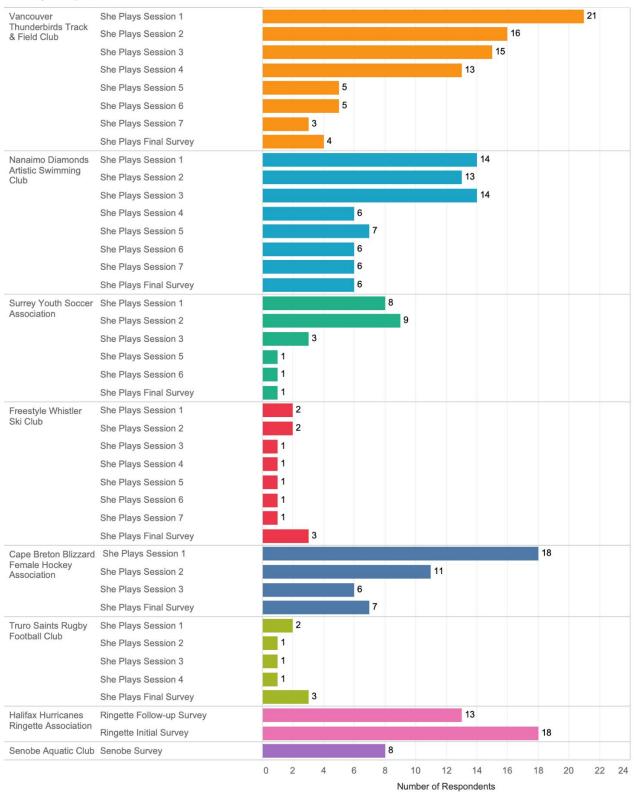
number of ideas that would encourage girls to stay in sports. The first exercise asked them to reconsider the problem itself, creating as many "how might we..." statements as they could think of, essentially identifying a wide range of opportunities. The group then voted on three opportunities to explore further and ideated freely, coming up with many possible solutions. In a second session (usually held a week after the first) the team then focussed on three solutions that they felt had the best potential for success, and refined them into specific, concrete strategies for implementation into their own program.

Co-creation encompasses various methods for developing empathy for a specific group. Participants in the process are given open-ended creative activities that help us understand their emotions, values and attitudes around a specific issue. It differs substantially from surveys or interviews in that it is not necessarily question and answer driven. In that form of research, one can only learn the answers to questions that researchers know enough to ask. Instead, co-creation creates opportunities where participants can talk and create freely around a theme, exploring ambiguous questions and complex problem spaces. This allows for a deeper understanding of a given problem space, often generating new insights.

In a similar fashion, co-design brings a group into the design phase itself. Here, participants are given creative tools and processes that let them imagine their own ideas and solutions. This is usually hosted by a trained designer, who brings their knowledge of a creative process, but works here as a facilitator, not a designer, guiding a group through a series of steps that follow a "design thinking" process. The group is encouraged to generate multiple possibilities and refine them into practical outcomes.

Figure 2. Survey Responses by Program

Survey Responses



Observations from the Human-Centred Design Process

One of the most pressing issues identified throughout this research points to the need to build strategies based on the local context. Building strategies for localized implementation in this project points to a need to attend to a unique understanding of the communities in which they operate. Through the co-creation and co-design phases, activities and discussions were sometimes adjusted to respond to specific community needs. This makes it more difficult to extrapolate results and make generalizations. However, it may be useful to consider some issues that arose across several groups.

Team Support and Friendship

The importance to the girls of being part of a team as well as building individual friendships can not be overstated. This was by far the strongest motivating factor to the athletes in staying engaged with their sport. They repeatedly discussed finding a sense of belonging in their team, feeling supported, and loving to share the feeling of working towards a common goal. This value was almost universally shared by athletes, parents and coaches.

Quotes:

- I love my team! They've always been my best friends, I can trust them with anything and hanging with them is so much fun! We always build each other up and make each other laugh. They're the sisters I never had! [athlete]
- So much fun to be a part of a team because you can make so many friends and learn so much from each other. [athlete]

Coaching

As the coaches are the athletes' primary connection with their sport, it was expected that this would be represented as a factor in their experience, and it did come up across all communities. Generally, the athletes and parents were happy with coaching—coaches were seen to be passionate about their sport and care very keenly for their athletes. But in many groups, the coaches were seen to be better suited to coaching the boys than the girls (most coaches were men). Where boys were reported to respond well in a tough and competitive environment, girls were understood to be better motivated by inclusion and positive encouragement. Parents and coaches both shared that girls needed a different focus than the boys did, with a stronger emphasis on the coaches' "soft skills" in managing team dynamics and encouraging the girls to improve in different ways than the boys. This is not a regular part of their training, and several groups built strategies that would involve training coaches to better develop these skills.

As well, in groups that offered their sport to both boys and girls, a need for more female coaches was often identified. This reflects a wider social issue where male sports

dominate media attention, and the trickle-down effect of this results in fewer female role models and coaches in sport. Some groups sought to adjust this by offering their older female athletes more opportunities to stay in the sport and move towards mentoring/coaching roles.

Quotes:

- I think generally the progression process for girls is different than boys and male coaches don't typically understand. [parent]
- I have had excellent coaches who have helped me and given me the tools I need to succeed. Personally, I do think we need more female coaches. I believe it would be beneficial for young female athletes, as it might be easier for them to connect with a female coach.[athlete]

Time and external pressures

Community sport itself is situated within a wider social context. For girls 11-14, this age marks an increased reliance on friendships. Where girls were able to form effective friendships within their sport, they were more often motivated to stay involved. When friends dropped out, or where sports got in the way of developing other friendships, girls often drifted away from their sport.

Particularly at the upper end of this age range, school takes on a greater importance and the demands of an increased homework load often stretches the ability of some girls to manage. When practices happen daily, usually in evenings, girls report working late to catch up, often sacrificing sleep.

Quotes:

- I find school is the hardest thing to manage with due dates and tests that have to be moved to accommodate training times. I'm in grade 11.[athlete]
- Managing time can get very difficult sometimes. [My sport] takes up a lot of time in a day and I also have a lot of schoolwork I have to do on a daily basis and it is really hard to fit everything in. Most of the time I have to stay up really late finishing homework and that gets me really tired for the next day. We hardly ever get time for friends or family functions which gets kind of annoying.[athlete]
- Scheduling can be difficult, as well as transportation, especially with more than one child. [parent]

Mental and physical health

Perhaps surprisingly at this age, sport was seen by many girls to be an important way to stay fit and healthy and they valued this quite strongly. As well, the activity was also seen

by many to be a good way to manage anxiety and stress. Sports generally, and skill development particularly, was seen by the girls themselves to be an important tool in helping them boost self-confidence. This also had the potential of the opposite effect—where girls felt slow to develop skills and ability in comparison to their teammates, they would feel they were letting their team down. This sometimes resulted in them leaving the sport entirely.

Quotes:

- [Sport] keeps me calm and oddly enough helps me stay on track with school and life.[athlete]
- I feel really good after a workout. It makes me feel good about myself.[athlete]

Parents, families, and culture

Parents clearly have a huge impact on their children's participation in sports. Certainly they are the most likely reason their child got involved initially—usually enrolling them at a young age. Often entire families become involved in sports and this creates a burden in transportation for the parents, certainly affecting home life. Some girls and parents reported situations where parents struggled to make dinner, then transport multiple children to different practices at different times. This resulted in stress on the whole family. In some cases, parents can also be a source of stress for the girls, particularly when the parents themselves are highly competitive and performance oriented.

Two interesting phenomena were indicated, though not widely. In cases where children were living in two households (usually through divorce) or in blended families, parents might have differing attitudes towards sports engagement, resulting in sometimes sporadic attendance. As well, in clubs that served multiple cultures, there were sometimes differences in how those cultures valued sport and volunteerism (in clubs where parents were often called out to help).

Quotes:

- Sometimes the parents put a lot of pressure on us by screaming and then I feel like it's competitive. [athlete]
- I think it would be beneficial to inform parents on the importance of playing sports and it would be helpful to conduct these seminars in different languages. We need more encouraging, supportive parents. Some of these parents, through no fault of their own, lack the understanding of why sport is important; from physical and mental health, developing life skills, networking and friendships, to scholarships. Girls who play sports and continue to play sports are at such an advantage. [parent]

Other issues

An interesting issue came up several times around how the nature of organized sports precluded an opportunity for girls to try out several different sports to find a good "fit". In some sports, practices occurred several times a week, with games on weekends. This commitment meant little time left to try other sports. As well, if a girl switched sports entirely, they would start the new sport with a skills deficit. This led to either being part of a team with younger athletes, or struggling to master skills that their own age group learned years earlier. In both cases this affected their confidence.

Quote:

I wish that I had gotten more time to try other disciplines. [athlete]

Competitive Aspects of Sport

Two general approaches to sport participation were observed: competition and a desire to advance to the highest competitive level possible; and a more relaxed approach where the girls simply want to play and perhaps build some skills with no intent to take it too seriously. This has created some challenges for sports leagues where there are not sufficient participants to create multiple teams. The result was some frustration on the part of the more competitive girls and a sense from the more casual girls that the sport is becoming too serious. This is exacerbated at many clubs with a filtering mechanism where athletes are selected by ability to proceed to upper league levels of play. Often there are not sufficient opportunities for the girls who may be enjoying the sport, but haven't built excellent skills or who really don't want to commit to the more extreme time demands of a higher level of play. And on the flip side, if there is no filtering mechanism, the competitive athletes get frustrated and feel dragged down by those taking a more casual approach. Clubs struggle with this dichotomy, particularly when there are not sufficient numbers to warrant multiple teams playing at different competitive levels.

Quotes:

- The competition and competitiveness always makes me excited for the next game. [athlete]
- I wish I wasn't forced to do competitions. They give me a lot of anxiety. [athlete]
- Make it fun, and not just competitive. [athlete]
- I wish that there was just as many girls playing [sports] as boys so that we would have multiple teams in our area. [athlete]

Fun

The issue of "fun" or a "lack of fun" was repeatedly indicated by the girls as a motivating factor in their decision to continue sports. While this would mean different things to

different athletes, the simple enjoyment of the game and playing with their friends is of paramount importance to the girls.

Quotes:

• I stayed because it was fun and all my friends were in [my sport] so I just decided to keep going. [athlete]

Key Aspects of Designing Sport Experiences for Girls

Several themes emerged from the co-design phase that point towards the importance of centring participants' expertise at the center of program design. While the importance of localized implementation and the role of the context cannot be understated, several themes emerged across the groups.

Mentorship and Leadership

Of the eight groups, five proposed and developed ideas around mentorship and leadership as one of their top three selections. In general, stakeholders felt that there were currently insufficient role models for young female athletes. Many groups identified an issue where there were few girls involved in sports in their late teens, which led in turn to even fewer younger girls being motivated to continue, leading to an ongoing drop in participation rates. Proposed solutions ranged from funding motivational visits by national level athletes, to setting up a clear path for athletes to proceed from younger levels to senior levels as well as towards coaching. Other ideas looked at directly connecting older and younger female athletes in a mentorship program, where the older athlete might offer advice and guidance of managing some of the issues they might have encountered in sport.

Team Cohesion

A second common theme the emerged by virtually all the community groups was that for most girls, the sense of belonging, of being part of a supportive environment, was at least as important as the physical activity itself. While COVID certainly highlighted this importance (many groups had severely curtailed activities), it was seen as central to building an experience for the girls that would motivate them to continue. In fact one of the primary reasons identified for girls dropping out was social pressures. This was understood to be the case by parents and coaches, but most importantly, by the girls themselves. In a number of activities, they indicated a huge need for a supportive team, and a strong desire to build and maintain friendships.

In the design sprints, groups often proposed team building activities as they were seen to be of key importance in building that sense of belonging. In some cases this took the form of special workshops, taking place over a weekend, perhaps in another town, to develop skills and foster social situations outside of practices and games. Other groups looked at specifically social events, outside of sports entirely, such as pizza or movie nights. Still others proposed year-long training programs to offer the athletes a way to stay fit but also socially connected outside of the sport's usual season.

Coaching and mentorship

Unsurprisingly, coaching was understood to be of paramount importance in creating a positive experience for the athletes. Generally clubs were highly positive about the enthusiasm, skills, and dedication of their coaching staff. But some interesting insights did emerge. Most groups indicated a desire for more female coaches. The co-ed sports groups also openly discussed some of the subtle differences in coaching boys versus girls. While some of these differences would certainly be explained by the natural gender biases of the participants, there was quite strong consensus that while boys often thrived on a skills-focussed, competitive atmosphere, the girls were more likely to be turned off by this approach. Instead they saw a need for focussing on building a supportive team environment, ensuring all the girls felt included—that they belonged. This focus was seen to rely more on "soft skills" management, not usually part of a coach's education. Five of the eight groups developed strategies to educate coaches to better manage the unique needs of young female athletes.

A lack of mentorship was also mentioned by most groups and three of the eight chose to develop strategies to build this. Some clubs acknowledged the drop-out rate of the target group, and considered that mentorship strategies would offer encouragement to the younger girls as well as opportunities for the older girls. In some cases this was imagined as a type of "big sister" program, pairing older and younger athletes. This was seen to be for individually focussed training, but also for help with time management, social issues, and to help the girls understand many of the ways forward in sports that might be open to them. Additionally, these strategies were seen to offer additional opportunities for the older girls to stay involved, and other strategies were built to provide an on-ramp for the girls to become assistant coaches.

Growing the Game

Some of the co-ed groups discussed the challenges of maintaining a "critical mass" of girls in their sport. At younger levels, girls and boys might play together. But by the target age of this project (11-14) girls typically played on female-only teams. Most groups struggled to find and keep sufficient numbers of girls to provide the same level of competitive opportunities as the boys. One reason suggested by a few groups was public perception—society generally still shows a preference for male team sports. Three groups developed ideas for social media campaigns that might contribute to building awareness of girls in their sport as well as providing platforms where the girls could see

inspiring images of their peers in sports as well as posting their own images. This was seen to be important in creating broader social support for young female athletes.

Table 1. Enhanced Programming Strategies

Recipient	Sport	Strategies developed			
Program		Individual	Interpersonal	Environmental	Societal
Truro Saints RFC	Rugby	A winter training program focussed on the athlete as a "whole person". This would create an opportunity to keep the teams active throughout the year as well as offering them more than rugby skills training.	Building a mentorship program to provide a path for older girls to stay connected to the sport as well as benefitting the younger girls with support.		Using social media to build the visibility of the sport and to correct some common misperceptions. This was seen to be a way to attract more girls to the group.
Halifax Hurricanes	Ringette		Team Building Weekend. This was developed as an overnight session where the girls could build relationships and work on skill development.	Building support for coaches in two ways: helping parent coaches understand the game, and helping teenaged girls develop specific coaching skills.	Building the visibility and profile of ringette in the community through a social media campaign.
Cape Breton Blizzards	Hockey		Spring hockey team building. The intent is to create a shared and intense experience for the girls that would contribute to team bonding.	Mentorship program	Getting feedback from the athletes, especially the girls leaving the sport.
Senobe Aquatic Club	Paddling	Empowering athletes with a number of different initiatives. Educate/encour age girls in overall fitness by hosting weight room classes just for the girls.		Building coaching capacity	

Recipient Program	Sport	Strategies developed				
		Individual	Interpersonal	Environmental	Societal	
Nanaimo Diamonds Artistic Swimming Club	Artistic Swimming		Focus on team bonding through opportunities outside of practices	Training coaches by learning different perspectives/ techniques	Build the club by publicizing its activities through special events	
Freestyle Whistler	Freestyle skiing	Video Edits. While the boys were natural show-offs and enthusiastically built a social media presence, the girls were less like to document their successes. "Video edits" are a common way athlete skiers build a reputation and this initiative was meant to jump start that for the girls.		A private "features park" for the girls. In the existing park, for a variety of reasons, the boys often dominate. By having a separate section for the girls with dedicated coaching, it was felt this would help them build skills out of the public eye. Connecting alumni athletes with current coaches. In this case past (female) athletes would come back to share what they felt their learning lacked and how coaches might do it differently.		
Vancouver Thunderbirds	Track and Field	Creating social time outside practices specifically. Events to build social cohesion, feeling of belonging.		Mentorship program. Building Leadership Opportunities. Athlete recognition (both in creating ways that the coach can more easily remember names, as well as showcasing/rewarding athletes more generally).		
Surrey FC	Soccer		Coaches could lead a dialogue around cliques within their team addressing the problem openly and directly, rather than ignoring it Encourage parents to give their positive	Encourage coaches to focus on the specific needs of girls rather than simply training them in a similar way to the boys.		

Recipient Program	Sport	Strategies developed			
		Individual	Interpersonal	Environmental	Societal
			support and respect to all players.		

Once enhanced program design was completed, organizations were asked to submit a brief description of their program enhancements. The logos and program descriptions were displayed within the app to share with participants and their parents during the monitoring and evaluation process. Six out of 8 selected organizations used the Bingo Impact app for the data collection process. Based on COVID-related timing issues related to Nova Scotia's lockdown, two programs (Senobe Aquatic and Halifax Ringette) used online surveys only because of the shortened time interval. Some organizations chose to frame their description within the context of the She Plays programming enhancements, while others opted to keep a simple explanation.

Table 2. Program Descriptions

Recipient Program	Description		
Freestyle Whistler Ski Club	Training freestyle skiing skills in moguls, park, pipe and big air.		
Nanaimo Diamonds Artistic Swimming Club	The Nanaimo Diamonds Artistic Swimming Club fosters a positive environment where swimmers of all abilities have the opportunity to reach their potential. Our goals are: • To have FUN! • To develop artistic swimming skills through instruction, practice, and participation in competitions. • Individual growth, focusing on: self-esteem, responsibility, leadership, and physical fitness. • To foster an environment in which swimmers, coaches, and parents can actively participate in team and club activities. • To encourage the promotion and enjoyment of the sport of artistic swimming both as an individual and team member.		
Surrey Youth Soccer Association	Surrey Football Club is focused on providing the best programming for Females. We need your help to understanding what is working well and where we can be better. This survey is a very important tool to allow us to get data in building our future programs. Thank you for making your club better!		
Vancouver Thunderbirds Track & Field Club	The aim of this program is that every member of our club feels empowered to play an important role in the collective and individual growth of their teammates. We believe that the purpose of sport is to make us strain and strive together to become our best selves. We can all realize more success and fulfillment individually if we collectively focus on fostering an atmosphere that makes us want to come to practice, work hard and try our best.		

Recipient Program	Description
Cape Breton Blizzard Female Hockey Association	As part of the She Plays: Girls' Retention in Sport Program, the Cape Breton Blizzard is engaging in mixed team skills sessions.
Truro Saints Rugby Football Club	The She Plays Winter training program presented by the Truro Saints Rugby Club and Rugby Nova Scotia will include leadership workshops, mentorship, creating safe spaces sessions, and of course flag rugby! It is for girls ages 11-14. The program will run for 8-10 weeks in the Truro Cougar Dome.

Limiting Factors

COVID Impacts

The awarding of this grant coincided roughly with the onset of the COVID-19 pandemic. The resulting requirements for social distancing affected the project in two distinct ways:

- planned in-person co-creation methodologies were not possible
- sports organizations were immediately and radically affected by pandemic measures.

The initial plan for co-creation and co-design sessions included traditional in-person group meetings working collaboratively on creative activities. Bringing people together for human-centred design is such an obvious methodology that it has long formed the core of such research. When people from a similar background meet to discuss and share issues, as well as ideate strategies, there is a natural synergistic effect where the group effort is usually more than the sum of individual inputs. Ideas bounce from person to person; reactions provoke thought and responses. In fact, listening to unplanned conversations in such an environment is sometimes as fruitful as the results of the activities themselves.

For this project, two platforms were selected: *Zoom* and *Miro*. With COVID, Zoom quickly became generally established almost universally as the default workplace collaborative tool. People who had never previously used video conferencing quickly became experts as many workplaces pivoted to meeting each other online. We decided to leverage this familiarity with the tool for this project.

Miro is an online collaborative whiteboard, where an almost unlimited number of people can work together creatively in the same space. It allows the designer/facilitator a huge amount of flexibility in setting up activities, and provides for many different collaborative actions from participants (sticky notes, uploading links or photographs, voting, etc.). It was applied in this project as described previously, with ethnographic probes framed as

individual "notebook" activities for individual athletes as well as collaborative journey maps and co-design activities for groups.

The results for the individual activities were certainly at least as good as they would likely have been with traditional ethnographic probes (diaries, photo journals, etc.). Participation rates ranged with different community groups (from 28% - 89%), but averaged at 57%. The athletes were largely diligent about completing the activities and the responses were quite thoughtful. Few athletes indicated any issues with the platform itself.

This program was designed to run over a two-year period, so that organizations would be able to learn from those who returned to sport in year 2 as well as those who did not. Based on the delay in receiving funds in 2019, program delivery was limited to one year, although design, measurement, and evaluation were able to be conducted as intended. COVID also greatly impacted the ability to implement enhanced programming following the design period. The intent for participating organizations was to host sessions over several months. However, COVID shut downs and the inability to plan ahead forced some organizations to run their programs over shorter durations. Some organizations elected to condense programming into one-week camps run more intensely than had they been deployed over a typical schedule spread out over several months. The number of content of surveys was adjusted based on the time each program was engaged.

Monitoring and Evaluation Results

The monitoring and evaluation processes used in this project focused on the likelihood of girls' continuing in sport in the future (retention) and their perceptions on the success of the co-created intervention developed through the human-centred design process (satisfaction).

Retention

- The percent of participants indicating they intend to return next year
- The percent of participants indicating they are likely to engage in sport in some form in the next year

Satisfaction

- The percent of participants who feel their input was valued
- The percent of participants who feel their participation led to change in the way their sport was delivered

Figure 3. Retention

Retention

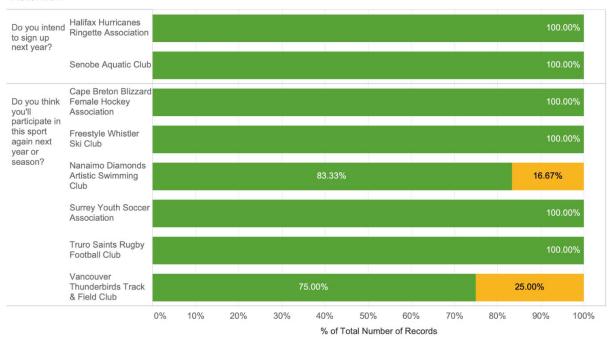


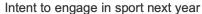


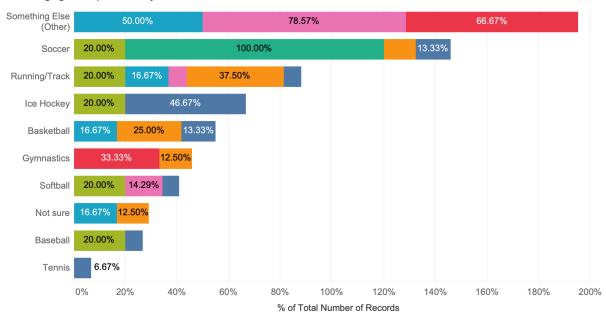
Figure 4. Retention – Explanation

Retention - Explanation

Why do you plan to continue?	Halifax Hurricanes Ringette	Because I have lots of good friends on my team and other teams. It also keeps me healthy and it's good to have competition once in a while.
continue:	Association	Because I like it and I like being on a team
		Because I love ringette and I really like the people that play and I also really like the coaches. I also think it is a great way to stay fit and learn new skills.
		Because I really like playing Ringette and being with my friends.
		Because it is something that I enjoy doing and it is a way I can meet other people and make more friends
		Because its really fun to cooperate with my team, to make more friends and to learn new things with my coaches
		Because ringette is a great skill-building sport, for more reasons than just staying healthy.
		I like ringette because it gets me out of the house and the games are fun
		It keeps me active, and I enjoy making friends on the team
	Senobe Aquatic Club	Because I love the friends I've made and the fun memories I have.
		Because I've made some of my best friends here and want to keep them.
		Because it is fun to do and it is something to do in the summer.
		Gives me a sense of accomplishment and freedom. I have lots of friends at the club and just really love to paddle
		I like the competition. I like going out in the boats. I have fun playing at the club with my friends.
		I've been paddling for a while and it's just something i enjoy doing
		I've made a lot of friends here I would like to keep training and getting more fit
		It's fun and such a great community

Figure 5. Intent to engage in sport next year







Satisfaction was asked relative to two programming aspects, feedback on the program and feedback on the human-centred design workshop process. The following questions were asked on participants relative to this area:

Table 3. Feedback Questions

Questionnaire	Category	Question
		As part of this program, you were asked to participate in a workshop to help design a new aspect of your program. What impact did this have on your experience in this program?
	Satisfaction - Workshop Feedback	What do you think might change as a result of this program design?
		What do you think about the program designed as part of the workshop process?
She Plays Evaluation		What do you think changed as a result of this experience?
		As part of this program, you were asked to participate in a workshop to help design a new aspect of your program. What was this experience like for you?
	Satisfaction - Program	How would you rate today's session overall?
		What was the most important part of today's session for you?
	Feedback	How would you rank your experience with the Training Session overall?

Figure 6. Satisfaction - Human-Centred Design Workshop Feedback

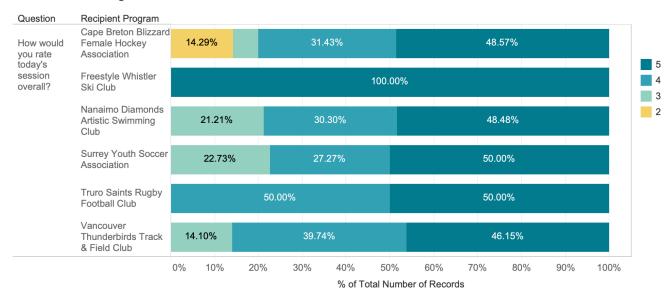
Program Feedback What do you think about the program designed as part of the workshop process?

Recipient Program	Response	
Vancouver Thunderbirds Track	I am looking forward to it because of how much fun I had on Sunday. I think it will encourage more people to try sports because it teaches about sports.	
& Field Club	I honestly wish this came sooner! As a mentor, I am so amazed with how vulnerable my mentee is being with me and how she gives me the space with an open heart to open up as well. This program is already making me reflect and assess my motivation which is needed. It also is creating a stronger Sense of community which is very important to me!	
	I am really looking forward to the sessions that are to come, and now, I can look for the 10 warning signs that show if I'm enjoying the training and practises, or just doing it for the sake of doing it.	
	I think that the program designed as part of the workshop process is a great idea because it allows you to learn new things in a different way.	
	I'm looking forward to making changing in the structure with peoples suggestions to see if it improves the effectiveness of the program. And I feel like the big messages, openness, and self-reflecting nature of this program will help with how I mentally approach sports and school etc.	
Nanaimo Diamonds Artistic Swimming Club	I think it's really cool we did this!! It will probably bring lots of new swimmers to try this sport!	
5.02	I'm hoping that the final video helps recruit new athletes to my sport and I hope we feel proud of showing our video online	
	The she plays has made this year more exciting and made the sport have an opportunity to get more attention.	
	I think it will help promote our program and get new swimmers	
Freestyle Whistler Ski Club	I think it will get more girls participating in the sport	
	The rail was a great addition for our female athletes.	
	The workshop was fun to do. I like the interest on girls in sport	
Cape Breton Blizzard Female Hockey Association	Great skills. But just too much of the same thing every week. A little variety would have been nice	
	The mixed blend of the AAA girls and the AA	
Surrey Youth Soccer Association	I am looking forward to it. I think I will become a better soccer player.	
	It will make my stamina better	
Truro Saints Rugby Football Club	My daughter loved the program . She was excited to learn about the sport of Rugby and loves the all female environment . The coaches were fantastic and she is excited to continue to play rugby	
	The whole experience was incredible.	
	Yes I am looking forward to more sessions	
Halifax Hurricanes Ringette Association	I think it was very fun and a great learning experience to become a better ringette player and team member	
	I think it's great how they are trying to keep girls into sports.	
	It was really fun. I learned a lot from that day.	

Overall, participants viewed their programs and experiences positively, as shown in the figure below, based on a scale of 1-5:

Figure 7. Satisfaction - Program Feedback - Overall Session Rating

Satisfaction - Program Feedback



The following graphic shows a question that was asked in each survey posted to the Bingo Impact app. Participants were asked: What was the most important part of the session for you? These responses varied greatly by program, which reinforces findings from the human-centred design process. Participants' rationale and motivation can change overtime and show significant variation. Program developers should be aware of these motivations as a means of designing programs with the participants' experiences in mind.

Figure 8. Satisfaction - Program Feedback - Most important part of session

Satisfaction - Program Feedback

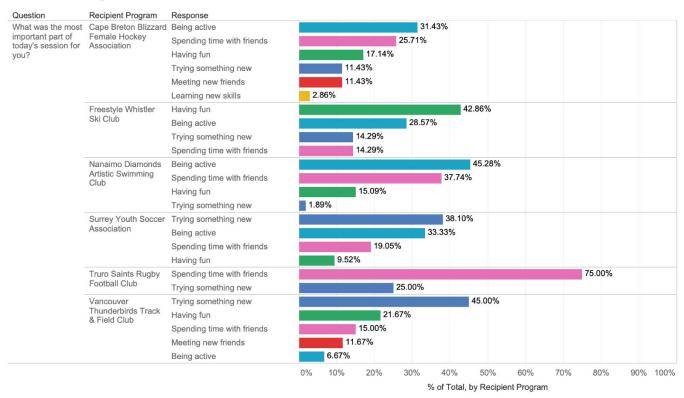
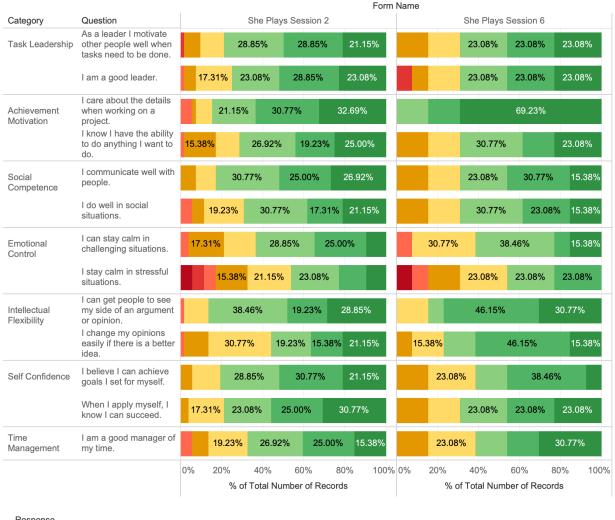


Figure 9. LEQ Response Analysis

Leadership evaluation questions were useful for monitoring purposes as several programs involved leadership and self-confidence as issues raised during the human-centred design workshops.

Leadership



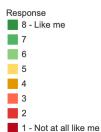
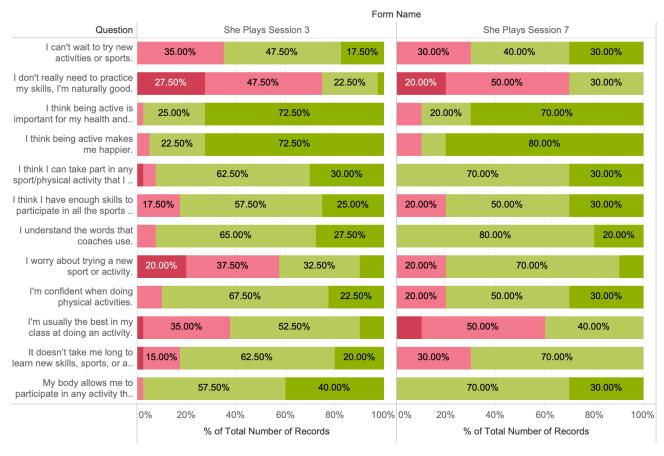


Figure 10. PLAY Response Analysis

PLAY evaluation responses were also useful from a monitoring perspective. While physical literacy itself was not raised through workshops, the PLAYself questionnaire speaks to the ways in which participants exhibit confidence while participating.

The PLAY questionnaire was repeated in session 3 and session 7 to observe change over time. The dark pink and light pink shading indicates the percentage of respondents who found this statement to be 'not true at all' or 'not usually true.' Light and dark green indicates responses of 'true' and 'very true.' In session 3, 35% of participants selected 'not usually true' of the statement: I can't wait to try new activities or sports. This figure decreased to 30% in session 7.

Physical Literacy





Conclusions

Elevating the impact of local knowledge on community-based participation

The role of the local context and sport setting cannot be understated. Designing programming with the local and sport context is critically important to driving program success. The results of the co-creation and co-design activities in the project supported the premise that community sports groups needed custom strategies to fit their own needs. This was immediately apparent in two ways:

- · communities have different issues
- sports have different needs/opportunities/challenges

First, the sports groups reflected the communities in which they were situated. Hockey players in the relatively rural community of Cape Breton, for example, faced uniquely different challenges than soccer players in the urban community of Surrey. Whistler skiers often lived in the affluent neighborhood of West Vancouver where some groups in Nova Scotia offered bursaries to families that couldn't afford their relatively modest club fees. However, the findings didn't reveal any clear demarcation between Nova Scotia and British Columbia. The individual differences between clubs far outstripped any geographically based differences. Of the eight groups, for example, only one identified any real issue with bullying and some social dysfunction within teams. This group proposed educating coaches specifically to be able to address such issues head-on. proactively preventing issues from building. Other communities expressed having strong existing team support, yet still discussed the importance of further strengthening their team-building efforts as a motivating force in keeping the girls engaged in sport. Each group expressed this differently and proposed quite different strategies. Some focussed on creating events outside of their sport entirely, others proposed weekend competitions or skill development workshops. Still others looked at building connections between older and younger players through mentorship.

Second, the sports themselves had unique issues. Synchronized swimming is different on so many levels than ringette, track and field from hockey. While team sports dominated this project (with the exception of track and field and skiing, and to some extent paddling) the issues faced varied significantly. Some groups struggled with overall participation rates—low rates meant grouping girls across ages and skill levels, creating sometimes unbalanced teams. These groups proposed ideas around building community awareness through various publicity strategies. Other groups offered sports that were season specific, leading to a natural attrition between seasons as the girls found other sports. These groups looked at ways to keep the girls engaged throughout the year, with a combination of non-sport activities as well as regular skill-building workshops. Body image was mentioned by some athletes, but was only indicated as a serious issue in

artistic swimming. The other groups felt that overall confidence levels were more important and some groups developed initiatives to support this.

These few examples clearly show the need for an individualized approach to supporting community sports groups. Each group is as unique as each athlete, and to be successful in boosting the retention rates of girls in sports, these communities need customized and self-generated short and long-term strategies.

Girls as the experts

This engagement showed that there is no one more knowledgeable on the experience of girls in sport than girls themselves. The reasons for girls' participation in sports varies widely; some are keenly competitive and look to sports to build skills and compete at the highest level possible. Others are less interested in sport, but more likely to be motivated by simply having fun and being with friends. In some groups this has created some tensions among teammates where the more competitive girls may feel held back by those with a more casual attitude. Some groups manage this with different levels of competition, but this requires sufficient participation numbers to allow for multiple leagues, and this is not common among female sports groups that struggle with participation rates.

Most groups offered activities to both boys and girls—sometimes in separate leagues and at some age levels, in co-ed teams. Again, groups differed as did the girls' attitudes. In some cases, boys were perceived to have access to better opportunities and receive preferential treatment by coaches. In other groups, it was seen less as favoritism and more about how lower participation rates for girls prevented a club from achieving a "critical mass" that would allow the group to build the same opportunities for girls as boys.

What ties both these issues together is that the generally lower numbers of girls in sports means that community groups may not able to provide as wide-ranging opportunities as they do for boys. Where the boys may have multiple teams and different levels of play, the girls may struggle to form one team. In the co-design phase, groups posed different ways to address this issue. Some looked at team-building exercises to keep motivation up and participation levels high. Others proposed social media campaigns to try to raise the visibility of the girls in their sport, hoping this would increase the number of participants.

Citations

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¹ Women's Sports Foundation, "Factors Influencing Girls' Participation in Sports," Women's Sports Foundation, 2016, https://www.womenssportsfoundation.org/support-us/do-you-know-the-factors-influencing-girls-participation-in-sports/.

² Sport England, "Women and Girls in Sportivate: Are Women and Girls More Likely to Be Sustainaed in Team Sports or Individual Sports and Activities within the Sportivate Programme?," accessed April 5, 2019, https://www.sportengland.org/media/4595/case-study-female-team-v-individual-sports.pdf.

³ viaSport uses the B.C. Activity Reporter to collect membership data on all B.C. sport sector participants.

⁴ Women's Sports Foundation, "Factors Influencing Girls' Participation in Sports."

⁵ Guylaine Demers and Bruce Kidd, "Recommendation Report" (FPTSC Work Group on Women and Girls in Sport, October 2018), 14.