Game Changers: Providing Equitable Sporting Opportunities for Students with Disabilities

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Abstract

The benefits of sport for youth are well documented and include but are not limited to increased levels of general health and well-being, greater social engagement, enhanced self-esteem, and improved academic performance. Nevertheless, the literature finds that students with disabilities do not have the same or equitable access to school sport. Students with disabilities often face additional barriers beyond limited sporting opportunities that are intrapersonal, interpersonal, and structural. In response, Physical and Health Education Canada launched Game Changers, an initiative focused on improving school sport opportunities and providing leadership training for students with disabilities. Funded by Sport Canada, students with disabilities, their schools' physical education teachers, communities' sport leaders, and university researchers came together in this participatory action research project. The results of this study are consistent with the literature; however, we found that not only are barriers to participation structural for youth with disabilities, but they are also pedagogical and demonstrate a significant equity gap in access to school sport.

Keywords: school sport; equity; barriers to participation; students with disabilities; participatory action research

Résumé

Les avantages du sport pour les jeunes sont bien documentés et comprennent, entre autres, l'amélioration de la santé générale et du bien-être, un plus grand engagement social, une meilleure estime de soi et de meilleurs résultats scolaires. Néanmoins, la documentation montre que les étudiants handicapés n'ont pas le même accès ou un accès équitable au sport scolaire. Outre les possibilités sportives limitées, les étudiants handicapés sont souvent confrontés à des obstacles intrapersonnels, interpersonnels et structurels. En réponse à cette situation, le ministère de l'Éducation physique et de la Santé du Canada a lancé Game Changers, une initiative visant à améliorer les possibilités de sport à l'école et à offrir une formation en leadership aux étudiants handicapés. Financé par Sport Canada, ce projet de recherche-action participative a réuni des étudiants handicapés, des enseignants d'éducation physique de leur école, des dirigeants sportifs de leur communauté et des chercheurs universitaires. Les résultats de cette étude cadrent avec les constats de recherche ; cependant, nous avons remarqué que pour les jeunes handicapés, les obstacles à la participation sont non seulement structurels mais également pédagogiques, et qu'ils soulignent par là un écart important en matière d'équité dans l'accès au sport à l'école.

Mots-clés: sport scolaire; équité; obstacles à la participation; étudiants handicapés; recherche sur l'action participative

Introduction

It is undeniable that sport and physical activity provide a wealth of benefits for youth (Bailey et al., 2015; Hale et al., 2021; Wilson et al., 2022; Wright et al., 2016). Positive outcomes for youth who participate in sport and physical activity on a regular basis include but are not limited to improved physical, mental, and emotional well-being, increased levels of happiness, improved academic and cognitive performance, heightened levels of self-esteem and confidence (Biddle et al., 2019; Eime et al., 2013; Panza et al., 2020). In 1978, the United Nations Education, Scientific, and Cultural Organization (UNESCO) recognized sport as a human right. In connection with the Universal Declaration of Human Rights, this charter (International Charter of Physical Education, Activity, and Sport) proclaimed that sport was a conduit to achieving a broad set of outcomes, including peace, lifelong education, and social needs of the individual (UNESCO, 1978). The charter, then and recently updated in 2015, proclaims and promotes inclusive access to sport for all persons (UNESCO, 2015). UNESCO suggests it is incumbent upon governments to overcome the barriers that exist for their citizens to have meaningful opportunities to participate in sport and physical activity. While opportunities to engage in community sport may depend on socioeconomic status, neighbourhood, and family structure, the school system is the most obvious place to offer sport and physical activity for all youth (Einarsson et al., 2016). Facilities, equipment, and trained professional educators are available to support sport and physical activity programs, providing equitable access to a fundamental human right.

The benefits of participation in sport and physical activity are without doubt; however, not all youth are afforded equitable opportunities to participate in school sport (Brazendale et al., 2020; Case et al., 2020; McLoughlin et al., 2017; Robinson et al., 2023; Shields & Synnot, 2016). This research investigates an initiative designed to increase sporting opportunities for one of these under-served communities, students with disabilities (SWD*). This pilot project, *Game Changers*, sought to engage SWD in the planning and implementation of sporting activities of their choice in their school. *Game Changers* hoped to provide equitable access to school sport,

through the development and delivery of specialized inclusive school sport programming and leadership development, including mentorship and sport-specific tactics, strategies, and knowledge. Students with disabilities will be better positioned to engage in sport programming and take on coaching and mentorship roles with their peers. (PHE Canada & Zakaria, 2023, p. 3). Significant to the goal of providing equity, *Game Changers* would provide the necessary programming and leadership components that would serve these youth now and in the future, leading to "sport for social development and increased participation of youth with disabilities in sport" (PHE Canada & Zakaria, 2023, p. 3).

While many factors have led to concern for the general health and well-being of our youth (ParticiPACTION, 2022), sport and physical activity can be a readily available mechanism to support the physical, social, mental, and emotional well-being of our youth (Bailey et al., 2015; Biddle et al., 2019). Additionally, the research reveals that SWD, as a group, fall far short of the minimum daily physical activity guidelines, defined as time spent in moderate to vigorous physical activity (MVPA) (Brazendale et al., 2020; Case et al., 2020; Physical Activity Guidelines for Americans, 2018). Despite the significant evidence supporting access to sport as having broad and substantial benefits to youth, SWD often face numerous barriers to participation in sport (CDC, 2023; Crawford & Godeby, 1978; Robinson et al., 2023; Shields & Synnot, 2016).

Although access to instruction in physical education in Canada is mandated for all students, the same cannot be said for school sport. Additionally, while many studies extoll the benefits of sport and physical activity, few focused on SWD (Einarsson et al., 2016; te Velde et al., 2018).

Nevertheless, the evidence finds that SWD also benefit from sport engagement (Aitcheson et al., 2022; Wilhite & Shank, 2009). Understanding that equitable access to sport is a human right, Physical and Health Education (PHE) Canada launched *Game Changers* with the support of Sport Canada (Davis et al., 2023). This program aimed at providing sport and leadership opportunities for SWD has three goals: 1) bring awareness and opportunities for inclusive sport opportunities for all students; 2) provide an empowering opportunity for SWD to participate, make choices, and act as leaders in the development of sport programming; and 3) engage SWD in sport as participants, leaders, mentors, and role models. *Game Changers* was piloted in two Nova Scotia high schools and one in Ontario. This article reviews the *Game Changers* program, the literature supporting the implementation of this program, and the results from the Ontario site. While the findings from the Ontario site are consistent with those of the two Nova Scotia schools, the data revealed several new findings. Not only are barriers to participation structural for SWD, but they are also pedagogical and demonstrate a significant equity gap in access to school sport.

Literature Review

Benefits of Sport Participation

Even though our understanding of the benefits of physical activity for youth has been advancing beyond the physical to include many additional claims/benefits, society and education institutions have responded slowly with structures that will take advantage of this knowledge. A brief review of recent meta-analyses and systematic reviews of the literature find benefits including but not limited to happiness (Zhang & Chen, 2019), a reduction in anxiety and depression (Panza et al., 2020), improved cognitive functioning (Biddle et al., 2019), enhanced social and psychological outcomes (Eime et al., 2013), improved academic performance (CDC, 2023), and numerous health benefits (Janssen & LeBlanc, 2010; Shields & Synnot, 2016). Nevertheless, Canadian youth score poorly in annual health, well-being, and physical activity assessments (ParticipACTION, 2022).

In 2022, Canadian youth scored a D on physical activity, measured as the percentage of children and youth who completed 60 minutes of MVPA daily (ParticipACTION, 2022). Similarly, in 2022, the Canadian Disability Participation Project (CDPP) scored youth and children with disabilities as a D when measuring physical activity (Arbour-Nicitopoulos et al., 2022), and in the United States, 88% of the youth with disabilities did not meet the daily physical activity guidelines (Memari et al., 2015). Significantly, the authors of the CDPP study identified several measurement gaps or concerns when evaluating the activity levels of youth with disabilities, suggesting a lower score. Significantly, as experienced during data collection with *Game Changers*, "measurement in Canadian adolescents with disabilities poses many challenges given the diverse movement patterns, communication styles, and levels of cognition of this population" (Arbour-Nicitopoulos et al., 2022, p. 5). Further, the majority of the data used to determine whether or not SWD met the daily activity guidelines came from parent and self-reporting, significantly less reliable than direct measures using accelerometers. While this study represented the first of its kind, focused specifically on children and youth with disabilities, its flaws suggest that the comparable score on physical activity levels in youth with disabilities may be lower than reported.

As a human rights issue, it is indisputable that all persons should have equal opportunity to participate in sport (ParticiPACTION, 2022; UNESCO, 1978, 2015). Compounding a limited offering of sporting choices available to SWD are accessibility challenges and limited expert coaching (PHE Canada & Zakaria, 2023; Robinson et al., 2023), along with physical and intellectual limitations (Must et al., 2015; Tyler et al., 2014). SWD face additional barriers to

participation in sport of an intrapersonal, interpersonal, and structural nature (Crawford & Godbey, 1989). Additionally, the more barriers faced by SWD leads to less physical activity and an increase in sedentary behaviours (Einarsson et al., 2016).

Einarsson et al. (2016) reported that youth with intellectual disabilities (ID) objectively had 40% less time physically active compared to typically developed individuals. None of the 90 study participants achieved the physical activity guideline of 60 minutes of daily MVPA. Similarly, Stanish et al. (2019) reported that only 6% of youth with ID met the physical activity guidelines in a similar study. This research is significant in that MVPA was measured using accelerometers. In connection with *Game Changers*, Einarsson et al. found that typically developed individuals spent 25% more time during the school day at MVPA levels and 73% more than youth with ID after school. Relatedly, youth with ID reported participating in sport mainly for social reasons. While other students also stated this as a reason for participation, unlike youth with ID, the majority indicated they participated for skill improvement and fitness. Significantly, Einarsson et al. concluded that youth with ID depend on schools for their sport and physical activity needs.

The United Nations Inter-Agency Task Force on Sport for Development and Peace (2005) suggested that sport become a priority for government policymakers due to the positive correlation between sport and health. Nevertheless, the data available on sport opportunities for SWD in schools and the community are limited (McLoughlin et al., 2017). Darcy and Dowse (2012) concur, finding that youth with ID take part in sport less often. Significant among the reasons for reduced levels of participation was a lack of choice. They report that benefits for those who participate include having fun with friends and a sense of achievement.

Velde et al. (2018) also found psychosocial health benefits for SWD sports participation. Specifically, "a strong association between sport participation and exercise self-efficacy" (p. 1). Significant to *Game Changers*, Wilson et al. (2022) found that while recreational physical activity provides an array of benefits for youth, sport provides distinctive accumulative well-being enhancements. As with these studies, Aitchison et al. (2022) agreed that sporting opportunities for SWD are limited and that the same physical benefits are afforded these individuals when they are physically active. They add, similar to the work of Einarsson et al. (2016) and Stanish et al. (2019), that individuals with a disability participate for various social reasons. Aitchison et al. found that these positive social benefits of sport participation include: "socialization opportunities, pure enjoyment, a sense of freedom and providing an arena to challenge stereotypes" (p. 101163).

The literature broadly agrees that SWD benefit from participation in sport and that many of those benefits are unique to sport. However, we must be cognizant that sport, and in this study, school sport, often only focuses on elite athletes and winning (Bale & Sang, 1996). All too often, a judgment made on the participation of SWD in sport becomes a measure of the disability they are living with and not the possibilities in sport that exist for them (Goodwin & Ebert, 2018). UNESCO (1978, 2015), the United Nations Inter-Agency Task Force on Sport for Peace and Development (2005), and Bailey et al. (2015), amongst others, all emphasize the broad benefits and the fundamental human right of sport for all–in its many forms. Nevertheless, the literature suggests that SWD have limited equitable opportunities to participate in school sport.

Barriers to Participation

To create meaningful and sustainable change in providing SWD sporting opportunities, one must attempt to understand and investigate the barriers to participation for this specific group. Crawford and Godbey (1987) proposed three types of leisure barriers: intrapersonal, interpersonal, and structural. Intrapersonal barriers, defined as personal preferences and individual attributes, include, in part, "prior socialization into specific leisure activities, perceived self-skill, and

subjective evaluations of the appropriateness and availability of various leisure activities" (p. 122). These intrapersonal barriers may be seen in the individual as a reluctance to participate in sport due to low self-esteem or a lack of confidence, especially with and in front of others (Rimmer et al., 2004; Buffart et al., 2009; Wright et al., 2019). Additionally, based on their environment, experience, and attitude, the individual may have specific and limited sport and physical activity preferences. However, one of the goals of a school physical education (and sport) program is to expose youth to a wide variety of lifetime sport and leisure activities (Davis et al., 2023).

Interpersonal barriers involve relationships. Based on their intrapersonal preferences, does the individual have people in their lives that will help facilitate their participation in their chosen activities? This may include parents/caregivers, siblings, friends, teachers, coaches, and other adults. Of importance to this research, Goodwin and Eales (2020) make the point that more than support is necessary to achieve meaningful and beneficial participation in sport and physical activity. Teachers and other support workers must practice a trauma-informed pedagogy. Training is vital to engage SWD in safe and relational instructional strategies that will not trigger or retraumatize SWD or dissuade their participation. Finally, structural barriers to participation in sport or leisure activities, as Crawford and Godbey (1987) envisioned, are the largest category. They include constraints such as financial resources, available time, availability of opportunity (including the knowledge of such opportunities), and lack of knowledgeable coaches/teachers.

The literature discussing barriers for SWD finds physical and intellectual barriers (Brazendale et al., 2020), lack of choice, cost, insufficient support, attitudes of others, and lack of interest (Darcy & Dowse, 2013), negative societal attitudes, and a lack of professional training to support these individuals (Case et al., 2020; Goodwin & Eales, 2020). These barriers align with Crawford and Godeby's (1987) intrapersonal, interpersonal, and structural categorization. Nevertheless, equity and inclusion policies within the school system in Canada advocate for equal access and the necessary support to provide for all students (Davis et al., 2023). Of the limited research into inclusive physical education from the perspective of the SWD, Goodwin and Watkinson (2000) found themes that defined what they termed as bad days and good days. They categorized bad days as interpersonal and intrapersonal barriers, including social isolation, perceived lack of competence, and restricted participation through the lack of support from teachers and peers. Conversely, aligned with this study, Goodwin and Watkinson determined that inclusive physical education, or what they labeled as good days, included for the SWD a sense of belonging, sharing in the wide range of benefits of physical activity in a social setting, and the opportunity for skillful participation due to adaptations and modifications. Maher and Haegele (2023) agree with these basic tenets of inclusion, adding that the SWD must feel valued. Sport and related activities are, by their nature, expressions and experiences of community.

The reality for Canadian youth with a disability is that they "do not have a choice of the sport activities in which they engage; they participate in what is available and accessible not necessarily their preferred activity" (Arbour-Nicitopoulos et al., 2022, p. 6). Relatedly, PHE Canada created *Game Changers*, a fully funded initiative to support sporting opportunities for and with SWD.

Game Changers

Game Changers is a PHE Canada initiative supported by a team of researchers from St. Francis Xavier and Brock Universities, Special Olympics Nova Scotia, and funded by Sport Canada. *Game Changers,* as a pilot project, aimed to:
- engage SWD in school-based sport (para/adapted/inclusive),

- provide them with the training and knowledge to act as leaders and role models in their communities, and
- engage SWD in sport beyond participation as leaders, mentors, and role models.

Game Changers takes a "participant-based approach to increase participation and retention that goes beyond inclusion to support a more equitable approach vital to physical literacy, movement confidence, overall sport experience, and lifelong engagement and advancement of sport for youth with a disability" (PHE Canada & Zakaria, 2023, p. 4). Furthermore, *Game Changers* hopes to reduce the negative perceptions and stereotypes of sport participation of SWD.

The development and implementation of *Game Changers* involved four phases. First, an environmental scan and the development of resources suited to Collins Academy were completed. Second, all research participants engaged in a training and mentorship workshop developed and implemented by PHE Canada to learn and share knowledge about inclusion, leadership, physical literacy, and adapted physical activity/sport. The second half of the workshop was student-focused, where, together with the champion participants, students received support in brainstorming sport and physical activity options suited to their needs and of their choice. PHE Canada facilitators led the students through a Design Studio process to select the activities in which they would like to participate. The decision-making process, led by PHE Canada facilitators and the teacher champions, was difficult, perhaps because this group had never experienced this level of autonomy. Researchers observed that two of the less verbal students, when asked to sketch some activity ideas on chart paper, enjoyed drawing Spongebob Squarepants characters. Rather than interpreting this as off-task, the group decided to include a Spongebob-themed activity day, seeing the Spongebob drawings as the way in which these students communicated their ideas. Inherent to the PAR process, this is an example of the research participants' direct involvement, research with, rather than researching on participants (Fitzgerald et al., 2021). In this phase of the workshop, SWD developed their *Game Changers* program, determining how to allocate funding and how they would overcome the existing barriers to school sport participation at Collins Academy (e.g., intrapersonal, interpersonal, and structural). The sport choices made by SWD broadly represented typical school sport experiences. However, student choice addressed some of the barriers perceived by the students (e.g., limited/low ability, negative sport attitude, and experience) and teacher-champions (e.g., lack of expertise, resources, facility, and funding). Students selected activities that included dodgeball, scooter activities, soccer baseball, balloon badminton, and beach volleyball. A highlight of the program for students involved amazing race-type activities, e.g., bean bag toss, cup stacking, and modified basketball longshot. The implementation of the *Game Changers* program took place in the third phase, often requiring the support of EAs and student leaders. Additionally, specialized equipment was purchased, and inside-of-school facilities were booked. The final phase of *Game Changers* involves knowledge mobilization to share the findings and hopefully inspire other school sites to consider their school sport programming options for SWD. Ideally, Game Changers would create an environment in the school that better positions SWD to participate in sport and act as leaders and mentors with their peers. Additionally, the programming and leadership elements of Game Changers would result in sports for social development and heightened involvement of SWD in sport.

Methodology – Participatory Action Research

As with *Game Changers*, participatory action research (PAR) in sport hopes to disrupt inequities based on various forms of marginalization and hegemony. As a research methodology, PAR seeks to "understand the experiences of those involved, affected by or excluded from various

forms of sport and physical activity" (Holt et al., 2013, p. 334). Moving beyond traditional methods of "researching on to researching with young people" (Fitzgerald et al., 2021, p. 423), PAR hopes to engage research participants as co-researchers to investigate their community (school sport opportunities) and create sustainable change that is desired by and significant to them. Situated within Freire's (1987) supposition of praxis, co-researchers work together to reconstruct their reality through the development of knowledge, critical reflection, and action. PAR as a research methodology achieves the desired outcomes of *Game Changers* through the equitable sharing of power with all research participants and engaging them as active participants in the research process (Jacobs, 2018). Anchored in interpretive (understanding inequities from the perspective of the community) and critical theories (examining the systemic inequities that disadvantage SWD in school sport), PAR gives license to co-researchers to create sustainable change (Frisby et al., 2005).

PAR, as a form of action research, is bounded by four dynamic and interconnected phases: planning, acting, observing, and reflecting (Kemmis et al., 2014). The cyclical nature of action research supports self-reflection as co-researchers strive to understand and improve "the rationality and justice of their own social or education practices, as well as their understanding of these practices and the situations in which these practices are carried out" (Kemmis & McTaggart, 1988, p. 1). In considering PAR, Mackay (2016) suggests we see this form of research as "not a series of iterative cycles that lead on from each other but rather a self-reflecting spiral that is continuous" (p. 1). The spiral nature of PAR may require an adjustment in outcomes as participants determine the path forward (Cook, 2009) (see Figure 1). Through each cycle, it becomes necessary to respond to the participants' needs in working towards the desired change (Fals Borda, 2001). In *Game Changers*, this meant creating an environment in response to existing structures that would transform the current system's values, beliefs, and structures to provide more and sustainable sporting opportunities for SWD at this school and future research sites.

Figure 1
Participatory Action Research Cycles

As a pilot using PAR, this iteration of Game Changers hoped to inform the program's growth across Canada. In an attempt to disrupt the inequity inherent to sport and the use of traditional forms of research that may contribute to those inequities, the self-reflecting nature of PAR allows *Game Changers* to develop a sport program led and developed by the research participants for their benefit (Luguetti & Oliver, 2018). As PAR, all research partners engaged to some degree in various stages of the action research process: planning, acting, observing, and reflecting (see Table 1). Champions, educational assistants, and students played a significant role in the planning, acting, and reflecting; they did not have any input into how data were collected and analyzed. The researchers understood that not all research participants will participate equitably in all phases of the research (Jacobs, 2018; Kearney et al., 2013; Young, 2013). As a pilot, through reflection and feedback from knowledge mobilization, we hoped to inform future iterations of *Game Changers* on how to engage all participants in all phases of the research.

Table 1
Game Changers Participatory Action Research Cycle

PAR Steps	Specific Activities	Participants
1. Reflect and plan	Participant/environmental scan, workshop/resource development	Four researchers, PHE Canada, Special Olympics Nova Scotia
2. Observe, reflect, plan	Pre-sport program implementation data collection and program planning	16 SWD, 14 leadership students, four champions, two researchers
3. Reflect, plan, act	Workshop/Design Studio/*Game Changers* planning	16 SWD, 14 leadership students, four champions, two researchers, PHE Canada
4. Act, observe, reflect	*Game Changers* in action (researcher observations)	16 SWD, 14 leadership students, four champions, two researchers
5. Observe, reflect, plan	Post-sport program implementation data collection	16 SWD, four champions, two researchers
6. Reflect	Knowledge mobilization	Four researchers, PHE Canada
7. Reflect, plan	Revise pre- and post-*Game Changers* program data collection, workshop, and implementation	Four researchers, PHE Canada

Methods

This study employed a comprehensive mixed-methods research approach to gather and analyze data. Combining quantitative and qualitative techniques in a mixed-methods study provides a multi-faceted, holistic, and deeper understanding of the *Game Changers* program (McKim, 2017). The four data sources included pre- and post-program surveys for student participants, pre- and post-program focus group interviews for student participants, pre- and post-program focus group interviews for teacher-champion participants, and school/sport observations.

The study received research ethics approval from the two universities and the district school board. This report uses pseudonyms for all research participants, the school site, and the district school board.

All focus group interviews were recorded and transcribed verbatim before being analyzed by three university researchers for emerging themes. One researcher did all four focus group interviews. Focus group construct/variable categories evaluated included barriers, facilitators/supports, intentions, motivations, participation, and an appraisal of Game Changers. The research team collaborated on developing the focus group questions following a broad literature review and in consultation with PHE Canada as the *Game Changers* program developed. Examples of prompting questions included:

- In what ways do you and/or other teachers and/or coaches support students/athletes with various disabilities so that they can participate in school sports? (champion-participant question)
- Are there any other activities you would like to try participating in, in school sports? What needs to happen for you to do this? (student-participant question)

Data analysis from the focus group transcripts followed an inductive process. The initial data were systematically narrowed to significant groups, extracting participants' perspectives and experiences (Miles & Gay, 2016). Braun and Clarke's (2006) phases of thematic analysis guided the data analysis, revealing dominant themes and facilitating comprehensive interpretation. Researchers' data analysis 'reflects descriptions and themes as well as the interrelation of themes' (Creswell, 2012, p. 18). The research team scrutinized responses multiple times, resulting in the coding of elements into emerging themes to identify commonalities, original insights, and patterns.

Participants

PHE Canada worked with the researchers to secure the Ontario site, Collins Academy. The site was selected based on access to the identified population, school administration support, champions (physical educators), the need for sport programming for students with a disability, and interest and declared readiness at Collins Academy to implement *Game Changers*. Collins Academy has a school population of greater than 500, serving students in grades 9 through 12. The program included 16 students with various developmental and intellectual disabilities who take the majority of their school programming in a segregated class. Although all students were verbal, some were living with communication difficulties, and one experienced echolia (the non-voluntary repetition of another person's speech). Some students lived with low gross motor abilities, others with low fine motor skills. None of the students experienced mobility disabilities. Research participant selection criteria within the school site did not exist. All students in the "community class" participated, resulting in a wide range of abilities to understand the focus group questions and respond. Four teacher champions and 14 students from a leadership class also participated in the program. Two university researchers were on site for the workshop and observed programming on two separate occasions.

Results

The data reveal that *Game Changers* was generally successful in achieving its three overarching goals. *Game Changers* brought awareness and opportunities for inclusive sport for all students at this school site. Through knowledge mobilization and utilizing the champions teacher network, the impact of *Game Changers* will be much broader than the immediate research site. The second goal was achieved in part. Students were empowered to participate and make choices

regarding their sport programming; however, although they participated in the workshop and received leadership training, they did not have the opportunity to act as leaders. Finally, SWD did participate in a range of sport and physical activities but did not act as mentors or role models.

Survey Data

Data from surveys given to SWD pre-and post-implementation of *Game Changers* follows in Table 2. Of the 16 SWD participating in *Game Changers*, 10 completed the same 48-item survey pre- and post-implementation. Surveys were completed with the assistance of parents/guardians, champions, or educational assistants. The survey consists of five subscales: autonomy, belonging, intrinsic motivation, perceived competence, and participation. These subscales were selected from published and peer-reviewed work deemed to be reliable and valid (Goudas et al., 1994; Kowalski et al., 2004; Ntoumanis, 2001; Richer & Vallerand, 1998; Standage et al., 2006).

Table 2
Means and Standard Deviations of the Pre- and Post-Game Changers Survey

Scale/Question	Pre-Mean (SD)	Post-Mean (SD)
Perceived Competence	4.58 (1.16)	5.48 (.82)
Intrinsic Motivation	4.97 (1.32)	5.85 (.88)
Autonomy	5.27 (1.46)	5.55 (1.34)
Belonging	5.13 (1.27)	5.40 (.71)
Activity School Sport	2.22 (1.56)	3.40 (1.27)
Activity Evenings	1.57 (1.13)	1.90 (1.37)
Activity Weekends	1.57 (.73)	2.40 (1.35)

The survey responses generally indicated favourably significant changes from pre to post-program assessments. The largest effect size was observable in the domain *intrinsic motivation*, with a mean increase of .88 ($t(9)=3.33$, $p=.022$, Cohen's $d = .87$). Based on the effect size, this finding indicated that the intrinsic motivation increased strongly after the completion of the program. While only approaching significance, a meaningful increase of the domain *perceived control* was also found (Mean difference = .90, $t(12)=1.90$, $p=.090$, Cohen's $d=.60$). The effect size indicated a medium increase in perceived control. The dimensions of autonomy and belonging did not show significant changes from pre- to post-program evaluation.

For participation, none of the measured variables indicated significant changes. However, mean increases approaching significance of activity during school sport ($\Delta = 1.11$, $t_{(9)}=1.97$, $p=.084$, Cohen's $d=.66$), in the evenings ($\Delta = .44$, $t_{(9)}=1.84$, $p=.104$, Cohen's $d=.61$), and on weekends ($\Delta = .57$, $t_{(9)}=1.89$, $p=.095$, Cohen's $d=.63$) were observed.

Focus Group Interviews

Consistent with the research, intrapersonal, interpersonal, and structural barriers to participation were revealed in detail. Aside from satisfying, in part, the three goals of *Game Changers*, the champion focus group interviews revealed concerns around equity and equality for SWD. As in other pilot sites and consistent with the literature, focus group interviews with the students proved difficult (Arbour-Nicitopoulos et al., 2022, p. 5). Focus groups with SWD necessarily received the assistance of educational assistants (EAs) and teacher-champions. Some students needed help communicating their thoughts, others required support to stay on-task, and

often, the EAs interpreted the meaning of their responses. Researchers took field notes during the interviews to help explain and analyze the focus group transcripts, noting if the EA or teacher-champion directed or interpreted the student response. Again, consistent with other pilot sites, a few students offered no or few answers. A summary of the pre-and post-interviews with the students and champions follows exploring themes from the data, specifically barriers to participation and issues of equity for SWD in school sport participation.

Barriers to Participation

Aligned with the survey data, student participants generally enjoyed *Game Changers* and expressed the intrinsic motivation to participate further in sporting activities such as Unified soccer and Special Olympics track and field. Student comments regarding autonomy and belonging echoed the survey data, as did the comments of the champions. That is, with all of the success of *Game Changers,* neither students nor champions see a meaningful place for SWD in school sport. As described by the students, multiple barriers hampered their sport participation, classified as intrapersonal (desired activities not available at the school), interpersonal (lack of support from parents/guardians, coaches/teachers who do not know how to support them), and structural (lack of opportunity, financial concerns, and time constraints). Additionally, the students expressed the need for their teacher's and EAs support during sport activities, revealing an interpersonal barrier and a structural constraint.

As Crawford and Godbey (1987) suggested, the barriers to participation are interconnected. This example offered by the students illustrates the complexity of the barriers to SWD participation in school sport. The students felt that teachers and coaches other than their classroom teacher and educational assistants (EAs) did not understand them or their needs. One student commented that they felt comfortable and more confident when, "my teacher is there or my EAs looking at me, like working out or practicing drills," While this is an interpersonal, relational barrier, it is also structural, as their EAs and classroom teachers are not available outside class time to support them.

Game Changers temporarily removed many barriers, allowing SWD to participate in and enjoy a form of sport. More than one student commented in post-interviews that *Game Changers* provided more opportunities to "play," with Trent commenting, "I learned new things and now we got new equipment that is ours." While *Game Changers* offered students voice and choice in selecting and participating in sport-like activities, when asked if they were likely to continue to engage in sport beyond *Game Changers*, Karl's answer was common, "No, nothing is going to change for me." Students felt their participation would continue in track and field along with Special Olympics when offered; however, in agreement with the teacher-champions, beyond *Game Changers*, it appears this increased access to physical activity is unsustainable.

The systemic depth of the barriers and the lack of equity for SWD is illustrated in this anecdote from the champions. They reported that at the first track and field meet of the year, SWD, who usually participated separately within a Special Olympics category, were forced to participate in the events alongside all other students. The dismay of the champions was palpable as they described their disappointment. SWD participated in a 100-metre relay race alongside all other school competitors, "This was supposed to be a fun, practice meet, and our students were in lanes beside all others trying to hand off the baton without interfering with the next lane. The fun was taken out of it." Events like these reinforce for SWD that they do not belong. As will be demonstrated, the champions and the system do not see a viable path to equitably integrating SWD into school sport.

A Path Forward: Overcoming Barriers to Achieve Equity

Students reported enjoying *Game Changers* and the opportunity to engage in sport. Although the students did not feel that *Game Changers* would result in lasting change for them, they were more aware of sport and physical activity opportunities, with one student joining Unified soccer. Unified sport and Special Olympics track and field offer SWD opportunities to participate in sport with other students at the school. Unified sport, "joins people with and without intellectual disabilities on the same team. It was inspired by a simple principle: training together and playing together is a quick path to friendship and understanding" (Special Olympics, 2023). The champions agreed that Unified sport and Special Olympics can support the sporting needs of SWD, but they are still determining if it is viable at their school due to the lack of support.

The champions further acknowledged that *Game Changers* positively impacted their school culture. Teachers and students engaged with their students. However, consistent with student observations, they do not believe it is sustainable. Attempting to describe the influence *Game Changers* had on their school and what the possibilities for sport would like in the future, teacher-champion, Jade offered these comments,

> Access to activities that are tailored towards them (SWD) and other things, like cost and athletic ability, for example, like making certain teams (makes it difficult). But after what we've done (*Game Changers*), I've also understood that with some of our students just their intellectual impairment really hinders them in the ability to play some games… Some students, I just don't know how to say that, I don't see they can (participate in school sport), it's so difficult to find any activity that they can play and enjoy. They cannot physically or mentally comprehend the steps without direct assistance and then when they have direct assistance, it kind of takes away from the fun and the flow of the game. When we had games that even our lowest functioning students could participate in, sometimes were not as much fun for the more competent individuals, the majority of our student population won't engage in activities like these for long.

As will be addressed in the discussion, equity and inclusion must be seen as a progressive pathway, and that no one model fits every school. Inherent to *Game Changers,* student voice and choice, along with local context-dependent design, allow school communities to develop sports programs that address their students' needs. However, as Jade's comments indicate, equitable opportunities for SWD will also take a pedagogical shift. Focusing on possibilities rather than barriers will lead to inclusion and equity in sport for SWD. However, the lack of broad school support, and structural and interpersonal issues (financial, time, awareness, staffing), seemed to colour all of the champion responses even though they understood the deficit and the inequity in sporting opportunities for SWD. One champion commented in the pre-interview that they could not envision a way SWD could engage in meaningful sporting opportunities at their school. Another added,

> The opportunities are there, but they're kind of fictitious when it comes to competitive sport. Any of our school community athletes (SWD), could try out for the team. They will not make it because they don't have the skill, and even if they have this skill, many of the teams like basketball, there is a system that the coach wants them to do. And they wouldn't necessarily be able to adapt to and learn a new strategy in order to participate in those competitive School environments.

These comments suggest that perhaps it is possible to achieve equality (allowing everyone to try out for the team), but realizing equity will require a significant pedagogical shift. This opinion did not change by the end of *Game Changers*.

Individually and collectively, the champions were tired, commenting, "We can't serve all of their (SWD) needs all of the time. We need other teachers and coaches to develop their

awareness and support." Within the current system and the levels of support, financial, time, and pedagogical (the approach/system to equitably engage SWD in school sport), champions did not see a way to provide equitable opportunities for SWD. However, they saw *Game Changers* as a vehicle in which equality was offered to these students and a path to equity envisioned. Darryl commented,

> I hope, in the Game Changers context, we have opened the eyes of some of the teachers here to say, like maybe it's not as bad as they think it is to include our students. You know, it's not as difficult but there's still some culture they're working on and in building a more inclusive environment for everyone.

Even with an improved awareness, champions struggled to see an alternative form of sport programming that would include SWD equitably, noting that coaches do not know how to meaningfully include these students on their teams, the highly competitive nature of school sport, that the students are not independent, and a general lack of awareness in the school community.

In summary, SWD learned about concepts that will serve them in the future, e.g., physical literacy, adapting sport to meet their needs, and engaging with others in a fun, social, sporting environment. They identified barriers and designed sport programs to meet their needs and interests. SWD engaged in a wide variety of sport and physical activities they previously did not have the opportunity to participate in. However, the activities chosen by SWD were often sport-like. Students agreed that their favourite *Game Changers* event was a day of glow in the dark activities with "Amazing Race" type games (e.g., bean bag toss, basketball long shot, cup stacking). Phoebe's comment accurately represents the juxtaposition between increased opportunities to engage in physical activities and the sport-like nature of *Game Changers* activities, "I loved the Halloween day. Pumpkin bowling was the best. I didn't really like the Halloween basketball, but pumpkin bowling was fun." Additionally, SWD expressed the motivation to continue and extend their participation in sport and physical activity. Champions felt *Game Changers* further illuminated these students' many barriers to achieving equitable participation, however they were reluctant to confirm sustainable and equitable participation for SWD post-*Game Changers*.

Discussion

The data reveal that *Game Changers* positively influenced the sport participation and sporting opportunities afforded SWD at Collins Academy. The results of this study are consistent with the literature; barriers to participation in school sport exist within the school system for SWD at this school site (Aitchison et al., 2022; Arbour-Nicitopoulos et al., 2022; Darcy & Dowse, 2013; Goodwin & Watkinson, 2000; Robinson et al., 2023). Significantly, *Game Changers* as PAR revealed that although this school board positions equity above equality, this is not the case when it comes to opportunities for sport and physical activity for all students (Lakeview District School Board (LDSB), 2023). The LDSB has an Equity and Inclusive Education Procedure memorandum based on the Ontario Equity and Inclusion Strategy and an Equity Education Policy. These documents focus on equity for staff, administration, and students. The primary objectives are equity, inclusion, and representation for all students. Nevertheless, there is an equity–equality gap as demonstrated at Collins Academy.

Education has often focused on equality, as "the condition of being equal in quantity, amount, value, intensity, etc. The condition of having equal dignity, rank, or privileges with others; the fact of being on equal footing" (Oxford English Dictionary, 2023). This has been manifested in ongoing failed attempts to provide all students with the same educational programming and

opportunity (Duncan-Andrade, 2022). Education cannot simply provide each student with the same and expect all students to be successful. Equity, as emphasized by the Ontario Ministry of Education in their policy document *Equity and Inclusivity in Ontario Schools* (2014), suggests we must consider individual differences to achieve equity. Offering the same path to equality only serves the needs of some students. In line with this perspective, equitable and inclusive practice aspires to offer all students the essential support for meaningful success (LDSB, 2023). In the classroom, teachers have come to understand and apply differentiated instruction, the need to modify and adapt instructional strategies and teaching resources to achieve individual success. This study demonstrates a system that will offer sporting equality (tryout for the team), but does not offer equity (differentiation, adaptation, and support). Maher and Haegele (2023) view inclusion as an intersubjective experience that extends beyond the facility or programming offered to the SWD. Inclusion becomes fluid as it should be student-centred, aligned with the SWD experiences and feelings rather than that of the educational institution or the teachers' feelings or beliefs. Education lives in policy and procedure memorandum, often ignoring the lived experience or the situational context. Additionally, Penney (2002) points out that "initiatives designed to extend access to and opportunities in activities must be recognized as being instigated from a social and cultural dominance position. Typically, they are destined to promote patterns of behaviour that will reinforce this dominance" (p. 117). In agreement, Goodwin and Watkinson (2000) point out that often an educators' pedagogy is framed in their world view not understanding that it may not align with their students. This misalignment of needs and interests might be extended to educational institutions. The data from this study supports this conflicted view of providing sporting equity and the lack of autonomy for SWD.

Freire (1987) informed us of the importance of self-determination and empowerment in overcoming oppression or disadvantage. To achieve equity, those who are marginalized must be involved; otherwise, those making the decisions do so from a position of power. *Game Changers* as PAR re-distributed this power imbalance in favour of the marginalized group, SWD, with the necessary support. This program provided a form of equity. As noted by teacher champions, Goodwin and Watkinson (2000) found that a significant factor in the success of inclusive physical education or sporting opportunities is the people engaged in developing, implementing, and participating in physical activity with SWD. To achieve equity, educational administration, and teachers must up their game. Current and future research into the benefits of sport and physical activity must direct all school programs (Maher & Haegele, 2023).

A commitment to equality would require that these students can participate in school sport like anyone else with the necessary support. However, it is apparent that in the current structures and interpersonal relationships, SWD will not be successful in attempting to play school sport. The teacher champions at the school site are aware that SWD do not have the same opportunities as others and they extended this view of sport to intramurals, suggesting without support or a *Game Changers* type program to facilitate the involvement of SWD "the games are just too complicated and they require too much skill to be able to succeed." Dana and Yendol-Hoppey (2019) remind us that often in education there is a disparity between the ideals and implementation of social justice. Equity is achievable in schools for SWD when barriers are recognized, supports put in place, and the marginalized population is given a voice.

One of the *Game Changers* activities that champions felt involved students successfully was a soccer baseball tournament. This event underscores the separation between equity and equality for the SWD and the pedagogical shift that must occur. Jade described the event: "they didn't really play by the rules. It was like, everybody gets to bat. Everybody gets to score, the kids that usually don't get to succeed, had a great time because they usually don't get to run the bases."

It was difficult for the champions and the leadership students to comprehend that SWD's needs and sporting opportunities are as necessary as they are for others (Robinson et al., 2023; UNESCO 1978, 2015). They placed their understanding and vision of sport as primary while providing opportunities for SWD (Duncan-Andrade, 2022; Penney, 2002).

Penney (2002) noted, "Invariably, there is a failure to acknowledge that the activities and behaviours that we may regard as appropriate, desirable and/or worthy of public recognition are not necessarily viewed in the same light in other social or cultural contexts" (p. 117). School systems, sporting structures within the school system, and those that participate, both coaches and students, have placed winning as the most significant goal. Bale and Sang (1996) remind us, "In our modern society there are no prizes for slow running, there are no prizes for style, and results are often regarded as being more important than performance" (p. 21). The literature reveals that mainstream students participate for improved fitness and skill, and although both groups identified winning trophies as important to their participation, the system disadvantages SWD (Stanish et al., 2019; Turnnidge et al., 2012). Special Olympics and Unified sport offer SWD a meaningful venue for participation. Nevertheless, champions expressed that coaches lacked the knowledge and skill to support SWD and felt they did not have the time to work with SWD.

For all of the success of *Game Changers* at this school site, many barriers remain for SWD to achieve equitable opportunities/representation for sport participation. These obstacles, as demonstrated by *Game Changers*, are not insurmountable. An alternate vision of sport participation (a pivot in how sport is viewed, its purpose, and how it is delivered) and increased support for SWD are necessary if this group of young people is to have the support necessary to achieve equity. In agreement with this work, Shields and Synnot (2016) found that sports and physical activity programs cannot be plug-and-play. That is, sports programming offered to SWD is context-dependent (e.g., the range of disability and school community characteristics) and must consider student preferences. They suggest offering inclusive pathways, a progression from segregated activities "to individual activities, or social competitions and then moving on to mainstream or group activities or competitive sport" (p. 6). Such an inclusive program, they add, could help build a foundation of skill and confidence. Essentially, it comes down to choosing equity over equality (Duncan-Andrade, 2022). To afford this group of students the same opportunities as all other students, unique supports and structures must be implemented for them to succeed (Brazendale et al., 2020; Wright et al., 2016). Shields and Synnot (2016) suggested that one-off programs will not lead to lasting success. *Game changers* funding allowed for schools to purchase specialized equipment for sport programs for SWD. Additionally, as demonstrated in *Game Changers*, program success for SWD required partnerships between a wide array of facilitators and supporters: parents, schools, disability groups, the health sector, and community sport sectors. The inclusive pathways, as suggested by Shields and Synnot may contribute to building sustainable partnerships.

Goodwin and Watkinson (2000) asked a question central to *Game Changers* and sporting opportunities for SWD, "By listening carefully to students, will we come to see disability as a natural expression of diversity and come to understand that which is setting us apart from one another?" (p. 157). Maher and Haegele (2023) agree, suggesting physical educators and other adult stakeholders make programming and pedagogical decisions based on the experiences and understanding of SWD. Shields and Synnot (2016) suggested three categories of strategies that may help SWD participate in sport on individual, social, and policy levels. Aligned with the findings of this research, examples of these strategies include improved teacher training, including student voice in activity choice, selecting sport that is meaningful and accessible to SWD, and developing partnerships between the sport and disability sectors and education. On a micro level,

coaches and teachers must learn how to support SWD in school sport. On a broader scale, the school community, including school and sport structures, must be adapted to provide equitable sporting opportunities.

Conclusion

The benefits of sport should be attainable for all; moreover, we need to afford equitable opportunities for SWD with the school system in Canada. While numeracy and literacy receive worthy attention in our schools, the literature informs us that sport and physical activity should receive significantly more attention (Einarsson et al., 2016). Access is offered, but equity is not due to a variety of reasons, including but not limited to structural and systemic barriers. Duncan-Andrade (2022) informed us that without a genuine comprehension of the meaning of equity, its distinction from equality, and the implications of such a shift for schools, the field is prone to generating another momentary fad focused on jargon rather than instigating a fundamental transformation. Although *Game Changers* created excitement and engagement in the greater school community, it is only sustainable with funding and structural change. Continued engagement with Special Olympics and growing involvement in Unified Sport appears to be the most direct path to providing equity.

The school system and sport identify inclusion and equity as primary goals of their operation. However, the need to understand how sport can provide a wide range of cascading benefits to the individual and the school limits the true investment in providing sporting opportunities for SWD (Bailey et al., 2015). It will take more than a commitment to equity; action is required to provide sporting opportunities. This action plan must include intrapersonal, interpersonal, and structural support (Crawford & Godeby, 1987). In agreement with Crawford and Godeby, Shields and Synnot (2016) reported that SWD face additional physical, social, and societal barriers. However, when SWD are afforded one-on-one coaching, encouragement, and support (e.g., *Game Changers*), parents reported an increase in their child's confidence and competence and the likelihood that they will want to continue to participate in sport. Goodwin and Ebert (2018) add that support must be offered to parents who suffer from overreliance when it comes to finding and supporting sporting programs that are appropriate for their children. SWD must be informed about possible sporting opportunities, afforded voice and choice. All levels of the school system and their families must be educated to overcome these barriers, and a broad array of structural supports must be put in place (financial, personnel, and time).

No individual should have an advantage over another regarding a basic human right, such as sport (UNESCO 1978, 2015). Nevertheless, to choose equity, we must understand that the "pivot from an equal education system to an equitable education system is not a soft pivot. Equity is a hard pivot that will not be achieved without a much deeper understanding of the reasons equal education has largely failed" (Duncan-Andrade, 2022, p. 24). Understanding what sport is and can be for SWD will additionally take a pedagogical shift, not placing the views and aspirations of the dominant culture on this marginalized group. As schools reflect society, Duncan-Andrade (2022) suggested that if we are to "align our reality with our rhetoric… we must align all five segments of our responsibility to that end: purpose, people, program, practice, and the policy needed to support it all" (p. 148). Alternatively, as Crawford and Godeby (1987) surmised, we must attend to the intrapersonal, interpersonal, and structural barriers that exist for equitable participation in school sport for SWD. In agreement, Maher and Haegele (2023) argue that if inclusion for SWD in sport and physical activity is viewed as providing access to what all other students have (equality) "appears reductive and problematic" (p.86). As this research finds, Maher and Haegele

suggest inclusion involves establishing equitable practices including modifications and adaptations to allow SWD to succeed. There is no single vision of sport that works for all SWD. Opportunities for participation could include segregated or integrated sport, Special Olympics, or Unified Sport. In its highest form, as *Game Changers* through PAR has done, inclusive sport must be student centred, must allow for student voice and choice to create a sense of belonging and acceptance. As with all students in our schools engaged in sport, physical activity, and physical education, the hope is that all youth are intrinsically motivated to be active in the moment and throughout their lives.

Limitations

As pilot research, we acknowledge a number of limitations in this study. First, as noted by Arbour-Nicitopoulos et al. (2022,) data collection in working with SWD, even when it is in the form of PAR, can be challenging. Research participants presented various cognitive and intellectual (dis)abilities and communication styles. For example, during focus group interviews, a few students readily engaged. In contrast, others offered very little or required assistance from EAs, who interpreted, offering what they felt the student was communicating. Relatedly, in some cases, collecting survey data was only possible with the assistance of teachers, EAs, or parents/guardians, making us wonder if the data accurately reflected student voices. Second, while it is challenging to do a true randomized controlled study with a small population, we acknowledge that the absence of a control group is a limitation, and results should be interpreted in that light. Nonetheless, from a feasibility perspective, it is challenging to conduct such a study much differently. We encourage those who undertake similar research to consider using a wide array of data collection methods, including those that rely less on verbal methods.

SWD* - *Game Changers* researchers have chosen "people-first" language in all reports and knowledge dissemination, hoping to avoid objectifying and othering the research participants (Kiuppis, 2018). This approach, while not universally accepted, is consistent with "person-first" language adopted by the United Nations and all of its agencies.

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