Integrating Insights from the Parasport Community to Understand Optimal Experiences:

The Quality Parasport Participation Framework


The full typeset version of the manuscript is available at Psychology of Sport and Exercise: https://www.sciencedirect.com/science/article/pii/S1469029217306908

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Accepted 27 April 2018

Word count: 6376
Tables: 3
Figures: 5
Abstract

Objectives: Through parasport, adults and young athletes with mobility impairments often report increases in well-being and related psychosocial perceptions. While researchers often attribute these benefits to the positive social experiences that go along with sport participation, optimal parasport experiences have not been comprehensively defined. Applying a conceptualization of ‘participation’ across disability settings as a foundation (see Martin Ginis, Evans, Mortenson, & Noreau, 2017), we sought to generate an evidence-informed framework of optimal parasport participation.

Design/Method: This work was initiated through a synthesis of relevant empirical literature. Stakeholder input was then integrated with efforts to develop the framework across four phases based on the AGREE-II protocol for reporting and evaluating the process of developing clinical practice guidelines. In Phase 1, propositions about quality experiences were based on insights from the literature synthesis. In Phases 2 and 3, we developed a provisional framework informed by stakeholders who took part in an expert round-table (n = 16) and an online survey (n = 80). In Phase 4, the framework was refined through an online expert panel with 20 researchers and sport administrators.

Results: A hierarchical framework emerged across the four phases. The framework proposes 25 conditions across the physical environment, sport activities, and social environment of parasport organizations as precursors to quality experiences that, in turn, reinforce quality participation. Quality experience stands at the core, defined as a feeling state derived from athletes’ appraisals of whether their experiences satisfy one or more of their values and needs across six elements (i.e., Belongingness, Autonomy, Challenge, Mastery, Engagement and Meaning).

Conclusions: The ‘Quality Parasport Participation Framework’ directs future research examining athletes’ subjective evaluations of experiences within parasport, and sets forth provisional guidelines for promoting quality experiences within parasport.

Keywords: Disability sport; Parasport; Optimal experience; Positive Psychology; Participation
Integrating Insights from the Parasport Community to Understand Optimal Experiences: The Quality Parasport Participation Framework

Physical activity participation rates for individuals with physical disabilities are persistently lower than for able-bodied comparison groups (van den Berg-Emons, Bussmann, & Stam, 2010; Martin Ginis et al., 2010). For example, individuals with disabilities are more likely to report a sedentary lifestyle (Carroll et al., 2014) and less than half as likely to participate in sport (Sport England, 2016) when compared to individuals without disabilities. Despite these disparities, parasport is often looked toward to promote physical activity among individuals with disabilities (Rimmer & Rowland, 2008). Parasport refers to sport that is organized for participants with an intellectual, cognitive, physical or sensory disability (e.g., Canadian Paralympic Committee, 2013). Parasport adapted for individuals with limitations related to muscle control, movement, or sensory-related processing in particular is promoted because of its potential to empower individuals, create a sense of community, and redefine personal identities (e.g., Hoogsteen, & Woodgate, 2010; Martin, 2013; Shapiro & Martin, 2014). Accordingly, in recent years, sport administrators, health promoters, researchers, and other stakeholders have converged to promote sport participation for individuals with disabilities. This is evidenced by recent changes to the policies and practices of sport governing organizations, who are increasingly adopting the role of promoting parasport (Misener & Wasser, 2016).

Promoting parasport nevertheless entails more than just increasing access. In addition to increasing opportunities for participation, the experiences athletes have within parasport are likely to influence whether athletes enter sport and maintain involvement over time (Shirazipour et al., 2017). Indeed, parasport athletes may call to mind varying images when asked to describe optimal sport experiences. Whereas some parasport athletes’ ideal sport narratives feature peak
performances and recognition for sport accomplishments, others idealize feeling empowered by establishing independence and connecting with others (see Allan, Smith, Côté, & Latimer-Cheung, 2017). Yet other athletes describe sport as an avenue to overcome adversity and regain a sense of normalcy after acquiring a disability (Allan et al., 2017). Sport organizations who serve athletes with physical disabilities are thus tasked with the practical goal of providing fulfilling sport experiences to athletes, which may be facilitated by establishing a clear description of facets of these experiences and identifying conditions that lead to optimal experiences in sport. Given that a framework to support these goals does not currently exist, we sought to develop one.

Describing Optimal Sport Experiences

Attempts to describe optimal experiences trace back to longstanding philosophical debates surrounding the ‘good life’ and whether it is possible to describe its fundamental elements (Waterman, 2013). For psychologists, these debates are often positioned within humanist or positive psychology standpoints that each argue for the significance of optimal experiences, but disagree about how those experiences are achieved (Robbins, 2008). Humanist theorists expect that positive experiences are fundamentally defined by the individual and entail a balance between positive and negative experiences, evident within studies that seek individuals’ interpretations of positive involvement, as well as studies exploring post-traumatic growth, adversity, and resilience (e.g., Day & Wadey, 2016; Sarkar & Fletcher, 2014). By comparison, sport researchers who commonly apply positive psychology theories often identify fundamental human needs or assets that contribute to positive psychological experiences (e.g., core motives: Fiske, 2010).

Common theories grounded in positive psychology include basic needs theory, flow, and positive youth development; in addition to specific constructs like passion, self-compassion and eudaimonic well-being (see Lindahl, Stenling, Lindwall, & Colliander, 2015). As the most notable
example, self-determination theory suggests that satisfying three basic psychological needs, namely autonomy (feelings of control/volition), competence (sense of capability) and relatedness (feeling connected to others), enhances one’s internal motivation and positive experiences (Ryan & Deci, 2017; Gunnell, Crocker, Wilson, Mack, & Zumbo, 2013). As another example, several researchers have applied a positive youth development lens to youth sport, thereby viewing optimal experiences as those where youth enjoy in-the-moment sport involvement and develop personal assets like competence, connectedness, character, and confidence through continued participation (Côté, Turnnidge, & Evans, 2014). Recent sport research also applied the PERMA model (i.e., Positive emotion, engagement, relationships, meaning, and achievement; Seligman, 2011), where sport participants are expected to report greater well-being when they experience the five components from the model (Doyle, Filo, Lock, Funk, & McDonald, 2016). These examples are each ways that researchers examine sport experience through the lens of positive psychology.

Whereas many aspects of parasport reflect those facing all athletes, unique circumstances faced by parasport athletes make it necessary to consider the conditions that underpin optimal experiences in ways that go beyond the theories described above. The uniqueness of parasport experiences are evident in many practical tasks for athletes with physical disabilities to begin and maintain involvement (e.g., contacting facilities staff before competing to ensure accessibility, meeting with classifiers to determine competitive status, modifying equipment). Individuals with physical disabilities who seek sport opportunities are also confronted by barriers within policies (e.g., funding for programs), communities (e.g., availability of equipment), institutions (e.g., facility design), and interpersonal relationships (e.g., attitudes of others; Martin Ginis, Ma, Latimer-Cheung, & Rimmer, 2016). Barriers limit access, but also persist and threaten quality of participation. As an examples of obstacles faced even after achieving participation in sport,
parasport athletes’ daily experiences involve facing societal perceptions of disability sport as ‘lesser-than’ (Kittson, Gainforth, Edwards, Bolkowy, & Latimer-Cheung, 2013).

Parasport also entails unique environments surrounding social relationships with coaches and peers. Parasport coaches may take on distinct roles and skill-sets even if their coaching generally entails similar philosophies and expectations as coaching within able-bodied sport. As examples of unique parasport coaching roles, researchers point toward the need to collaborate closely with athletes (e.g., assessing needs and developing training; Martin & Whalen, 2014) and to adopt dynamic social roles (e.g., ushering individuals into parasport; Turnnidge, Vierimaa, & Côté, 2012). Peer environments may also vary, particularly when considering the social environments that emerge in dedicated peer groups where peers share similar disabilities and even experiences, compared to integrated or inclusive groups where peers vary regarding ability, and may include able-bodied participants (Hutzler, Chacham-Guber, & Reiter, 2013).

Certain features of sport (e.g., developing athletic identities, forming peer relationships, integration within one’s community) may also hold relatively great weight for promoting the presumed social benefits of parasport involvement (Martin, 2013). Even the circumstances that bring athletes into parasport vary widely and shape the narratives that athletes use to convey the personal meaning of sport for them – with many narratives being particularly unique to parasport (Allan et al., 2017). Although this understanding is well-established, existing theories and concepts used to understand parasport experiences have traditionally focused on more specific features – such as the value of athletic identities or peer relations – as opposed to the experience as a whole. We lack a comprehensive framework to identify and promote quality parasport experiences.

The Need for a Comprehensive Parasport Participation Framework
Comprehensive frameworks are sets of organizing principles that synthesize existing knowledge in a domain to direct research and practice towards important areas of investigation or application (Jason, Stevens, Ram, Miller, Beasley, Gleason, 2016). In contrast to theories that operationalize concepts and identify testable propositions about relationships between them, frameworks are higher-order efforts to describe a field of inquiry and often contain insights from numerous theories. Frameworks that describe optimal experiences in specific contexts have greatly advanced domains of knowledge beyond sport. As an example, Hackman and Oldham (1976) established the job characteristics framework to describe how optimal employment experiences are driven by the everyday conditions of one’s work (e.g., skill variety, task significance, autonomy) that produce positive feeling states like meaningfulness and responsibility. In the decades since it was established, the job characteristics framework has become a foundational academic work that is consistently applied to shape work design to enhance employee motivation while reducing negative workplace experiences (Humphrey, Nahrgang, & Morgeson, 2007).

Considering how to develop frameworks that represent optimal parasport experiences, it is prudent to consider conceptualizations of participation that are currently applied by rehabilitation and disability theorists. Notably, rehabilitation policy and research traditionally focused on participation as a right for individuals with disabilities, focusing on the degree to which a person is involved in activities in the community and society as a whole (e.g., fulfills roles, connects with others, is present within the community; Dijkers, 2010). Counter to this focus on observable features of participation, there is burgeoning interest in people’s subjective experiences while participating (i.e., evaluations and feelings about participation; Law, Petrenchik, King, & Hurley, 2007). Of interest in subjective aspects of participation, Hoogsteen and Woodgate (2010) defined youth participation in community or rehabilitation settings as when youth were involved in an
activity or personal relationship and held a sense of being included, having choice or control, and
working toward a valued goal. In a recent review that synthesized 10 such conceptualizations,
Martin Ginis, Evans, Mortenson, and Noreau (2017) defined full participation as when individuals
participate in an activity and have a positive subjective evaluation of their experience during
participation that entails one or more of six experiential elements: belongingness, autonomy,
challenge, mastery, engagement, and meaning. Whereas the authors were clear that the constellation
of elements needed to experience full participation vary from one person to another, they argued
that individuals should have opportunities to satisfy each of the six elements.

Although Martin Ginis, Evans, et al.’s (2017) definition of optimal participation experiences
was written for those with disabilities, it was created to apply across numerous domains (e.g.,
mobility, employment, physical activity). Thus, the concept of full participation represents a global
conceptualization (similar to the PERMA model; Seligman, 2011) that has not been applied to
parasport settings to describe how programs support or thwart quality experiences, nor does it make
claims regarding related outcomes. To construct an organizing foundation to situate full
participation within parasport, the purpose of the current research was to generate an evidence-
informed framework to explain quality (i.e., optimal) parasport participation in a way that builds
from existing descriptions of optimal experiences. The impetus behind this project was to
synthesize existing parasport-related literature alongside stakeholder input to support a range of
empirical efforts (e.g., measurement development, identifying research questions) and to mobilize
knowledge (e.g., resources and interventions for sport organizations). Applying the concept of full
participation (Martin Ginis, Evans, et al., 2017) as a foundation, the current manuscript describes
efforts to (re)define quality participation as it pertains to parasport, build a framework of principles
that describe its nature, and identify conditions within sport organizations that support it.
Methods

This project was completed within the context of the Canadian Disability Participation Project (CDPP.ca), which is a federally-funded multidisciplinary project to study and advance the participation of individuals with mobility impairments in mobility, employment, and physical activity domains. Our approach was guided by the AGREE-II framework (Brouwers et al., 2010) an internationally recognized protocol for reporting and evaluating the rigour, comprehensiveness and transparency of the process for developing clinical practice guidelines. Central to the protocol is a 23-item instrument to target six key areas in the development and reporting of guidelines: (1) defining the scope and purpose of guidelines; (2) integrating perspectives of end-user groups; (3) seeking rigor; (4) working to implement the guidelines to influence practice; (5) holding realistic implications; and (6) acknowledging limitations to editorial independence (Brouwers et al., 2010).

While oriented toward clinical guidelines, the AGREE-II framework has been modified and used when forming recommendations for physical activity messaging (see Latimer-Cheung, Rhodes, et al., 2013; Martin Ginis, Heisz, et al., 2017) and resources to support physical activity among adults with a spinal cord injury (see Arbour-Nicitopoulos et al., 2013). The AGREE-II protocol was specifically adapted for the current research (see online supplemental materials), with adaptations initially based upon amendments by Latimer-Cheung, Rhodes, et al. (2013). The Quality Parasport Participation Framework development was initiated by determining its scope and purpose, synthesizing existing literature, and constructing the framework alongside stakeholder insights.

Scope and Purpose

Members of the authorship team outlined the objective, practical questions, target population, and end users of the framework. To clarify what quality experiences in parasport programs entail, AGREE-II methods entail describing the scope and purpose of the framework. The
objective of this framework was to synthesize existing knowledge, outline key considerations, and provide a conceptual foundation upon which to base future research and derive recommendations for structuring and evaluating parasport programs. Practical questions the framework addressed include: What are the elements of a positive appraisal of one’s parasport participation? How should parasport programs be structured to foster these elements? In what ways can we generalize characteristics of quality parasport experiences across individuals, and in what ways are they inherently individual and unique? The intended end users of the version of the framework described in this manuscript are researchers studying or evaluating the quality of parasport participation. The target population nevertheless includes administrators and coaches in community sport organizations that serve athletes with physical disabilities and mobility impairments as they are key individuals responsible for influencing concepts captured in the framework. We use the term community parasport organizations to refer to public or private organizations that offer competitive activities, socially accepted as being ‘sport’, to athletes with physical disabilities and/or mobility impairments. The target population extends across ages, competitive levels, and sport types. Although the target population includes the coaches and administrators who shape parasport programs, the framework along with the resulting knowledge products (developed in subsequent steps, not described herein) will be of interest to parasport organizations, administrators, coaches, athletes, family members, and parasport funders. While we acknowledge this research may extend to sport organizations serving athletes with a disabilities that may not be classified as parasport (i.e., inclusive sport programs; adapted physical education), we focused specifically on parasport organizations as our target population.

Synthesis of Research Evidence
A foundational review article for this paper was Martin Ginis’ configurative review that included 10 empirical studies and reviews that proposed operationalizations of subjective components of participation experiences (Martin Ginis, Evans, et al., 2017). Despite the newness of this publication, we expected that previous studies have studied participants’ perceptions of their experience alongside features of their parasport/exercise program, using operationalizations that resemble elements of full participation. Thus, the evidence synthesis for this project (Shirazipour, Evans, Lithopoulos, Leo, Martin Ginis, & Latimer-Cheung, Submitted) consisted of literature that assessed athletes’ and exercisers’ subjective experiences, with a focus on how experiential aspects of participation were described previously.

Shirazipour et al. (Submitted) conducted a systematic review of five quantitative studies and 23 qualitative studies that studied subjective elements of participation in parasport and physical activity (i.e., studies that examined perceptions of belongingness, autonomy, challenge, mastery, engagement, or meaning). Although the goals of that review encompassed sport and physical activity, only two quantitative and eight qualitative studies were conducted with the goal of studying parasport experiences, which was necessary to be relevant for the current research. Key findings of this review were: (a) qualitative studies emphasized the centrality of the group environment (i.e., group composition and similarity of team members), (b) qualitative studies revealed the significance of coaches’ collaboration with athletes and efforts to gain disability-specific knowledge, and (c) quantitative studies revealed increases in task-specific self-efficacy (i.e., mastery) across the time spent within parasport programs. The review also revealed the paucity of research that directly assessed athletes’ perceptions of the quality of their parasport experience and the conditions that facilitate these experiences. Notably, considering that self-efficacy was the
only construct connected to the elements of full participation (i.e., mastery), it was clear that researchers have rarely studied qualities of parasport experiences.

Two original qualitative research studies were subsequently conducted to address gaps in the literature by exploring the quality of parasport participation across the life-course of adult parasport participants (Allan et al., 2017) and military veterans with physical disabilities (Shirazipour et al., 2017). These studies were led by members of the research team and further informed the current project. Among military veterans with a physical disability, Shirazipour et al. (2017) found that quality experiences were closely aligned with: (a) group environments, with ideal groups entailing camaraderie, acceptance, and a shared focus, (b) perceiving challenge or risk inherent in the activity, (c) perceiving an important social role, such as a peer mentor, and (d) feelings of independence and choice. Participants highlighted aspects that impacted these experiences within the physical environment (e.g., accessible and convenient settings), the social environment (e.g., positive attitudes of the public), and the program structure (e.g., training alongside athletes at a similar ability level). Allan et al. (2017) presented similar themes, but adopted a narrative approach that highlighted individual variability in how athletes derive meaning from parasport and define quality experiences. Allan et al. (2017) specifically argued for a perspective that accounts for the unique meanings that athletes may ascribe to parasport experiences. Across both qualitative studies, a theme also emerged involving athletes’ feeling equal and valued during participation – relating both to how parasport was viewed by the public, as well as situations where disability became irrelevant to their performance alongside others.

In sum, guided by the recent conceptualization of full participation (Martin Ginis, Evans, et al., 2017), a systematic review provided evidence for how features of the social environment influence the quality of parasport experiences (Shirazipour et al. 2017). The remaining qualitative
studies effectively applied the full participation operationalization to explore parasport experiences. Qualitative studies also integrated the voices of athletes when describing conditions that supported quality experiences, with Shirazipour et al. (2017) orienting these within three themes including the social environment, the physical environment, and program structure. The synthesis thus identified concepts that should be included within the framework, but also shaped the emerging framework in later phases by providing insights about the nature of parasport experiences (e.g., individual variability in what a quality experience entails; describing sport conditions related to the social environment, physical environment, and program structure). Furthermore, while the two supplemental qualitative studies were conducted by members of the current authorship team, stakeholder consultations with individuals at arm’s length from this project (described below) challenged assumptions or biases held by the authorship team.

Framework Construction through Stakeholder Engagement

Through a stakeholder-centered process based on AGREE-II principles this research included four phases: (1) Drafting evidence-based principles, (2) consulting stakeholders, (3) constructing the framework, and (4) seeking stakeholder feedback to refine and finalize the framework. Institutional ethical board approval was acquired when human volunteers were sought. Note that, contrary to the AGREE II recommendations, we did not undertake an explicit process to identify conflict of interests among stakeholders because competing interests were not a concern given the nature of the framework.

Phase 1: Drafting evidence-based principles. Drawing on our evidence synthesis, team members (MBE, AELC, KAMG, SNS) drafted principles and definitions that pertain to quality experiences in parasport. While not intended to be a potential framework, these principles were a starting point for discussion and review in subsequent steps of the process. Having an evidence-
based starting point (i.e., ‘straw dog’ recommendation) has been useful in other AGREE II-based research (e.g., Martin Ginis et al., 2011; Tremblay et al., 2016).

**Phase 2: Consulting stakeholders.** Stakeholders (see Table 2) were consulted through an online survey, followed by an in-person roundtable discussion.

**Phase 2A: Online parasport community survey.** The purpose of the online survey was to seek feedback from the parasport community to refine a preliminary list of ‘principles’ of quality experiences. An additional goal was to garner stakeholders’ descriptions of their most positive and negative parasport experience. We recruited a convenience sample of 80 parasport parents, coaches, athletes, or administrators (see Table 2) with recreational to international competitive experiences. Participants began the survey by providing open-ended responses regarding their most positive and negative sport experiences. Participants subsequently reviewed and evaluated the 14 principles (see left column, Table 1) by indicating the relevance of each principle for parasport athletes to have a positive sport experience (i.e., binary option as relevant or irrelevant) and providing detail using an open-ended comment box. Participants also ranked the entire list of principles from 1 (*most important*) to 14 (*least important*). Descriptive statistics were calculated for relevance and ranking scores, and a Friedman test with follow-up Wilcoxon Signed Rank pairwise comparisons to compare rank scores across principles. Kendall’s W test was conducted to assess the degree of agreement among ratings. Open-ended responses were initially open-coded by classifying similar comments within codes and were then deductively organized within themes that reflected Martin Ginis and colleagues’ (2017) experiential elements of quality experiences.

**Phase 2B: Expert roundtable discussions.** To garner insight on the emerging principles and identify conditions that promote quality experiences, roundtable discussions were hosted at a meeting of sport and exercise team members from the Canadian Disability Participation Project.
Two concurrent roundtables held during a two-hour meeting including 12 researchers and four administrative employees within national sporting bodies or community recreation organizations (see Table 2). Before the meeting, participants were provided with the foundational review article conceptualizing participation (Martin Ginis, Evans, et al., 2017) as well as a summary of how the current authorship team was adapting the concept within sport. Workgroups were led by facilitators [MBE, SNS, AELC] and had two specific goals: (a) raise thoughts about what ideal parasport experiences ‘look like’ based on the materials provided, and (b) identify conditions that ensure quality experiences are available to participants. Following the roundtables, group facilitators synthesized key comments from across the workgroups.

**Phase 3: Constructing the framework.** Considering the evidence base, the results of the online consultation and key themes from the roundtable discussions, the framework was constructed by the lead author and reviewed by team members [AELC, VA, CS].

**Phase 4: Seeking stakeholder feedback to refine and finalize the framework.** The goal of this phase was to seek feedback on the resonance and clarity of the framework from a panel comprised of Canadian Disability Participation Project researchers \(n = 12\) and community partners from national sporting bodies and community organizations \(n = 9\), along with nine additional researchers and sport administrators with relevant expertise. Invitations were sent via e-mail and included a link to an online survey. Twenty experts (55% affiliated with the Canadian Disability Participation Project) completed the survey, including six sport administrators and 14 researchers (see Table 2).

Panelists rated each definition and subcomponent included in the framework regarding its relevance (i.e., ‘Is this statement relevant for describing positive sport experiences?’) and clarity (i.e., ‘How clear is the meaning of this statement?’). When rating statements describing conditions
that foster quality experiences, participants evaluated the extent that each condition promotes a quality experience. All ratings were made on a scale from 1 (Not at all) to 5 (Very much so) and example survey items are included in the online supplemental materials. Panelists also provided open-ended feedback regarding each condition as well as regarding the framework as a whole. The lead author examined participants’ responses descriptively, by identifying the mean ratings and ranges related to each aspect, identifying frequencies to which aspects were rated near the lowest end of the scale, and by synthesizing open-ended comments. The lead author initially reviewed expert panel comments and initiated revisions to the framework before all members of the authorship team worked to finalize the framework.

Results

Framework Construction through Stakeholder Engagement

Phase 1: Drafting evidence-based principles. Insights from the synthesis of research evidence led the authorship team to define an initial list comprised of 14 ‘principles’ of quality experiences (see left column, Table 1) that was applied during stakeholder engagement (Phase 2).

Phase 2A: Online parasport community survey. Descriptive results regarding how community members responded to the principles and their definitions are provided within Table 1. Participants broadly supported the principles, with fewer than seven participants identified any construct/definition as being ‘irrelevant’ for quality experiences (see Table 1). Participants also ranked belongingness, mastery, integrated sport, and physical activity higher than challenge, personal growth, and engagement. Ratings across the 14 principles differed, $\chi^2 (13) = 65.85, p < .001$, and demonstrated a low but significant level of agreement across participants, $W (13) = .07, p < .001$ (Table 1).
Participants’ open-ended comments regarding positive and negative experiences (76 responses; 7340 words) along with open-ended responses to the 14 principles (38 responses; 2160 words) were also aggregated and oriented within themes (See online supplemental materials). Participants provided descriptions that aligned to each of the six experiential elements originally identified by Martin Ginis and colleagues (2017), providing personal applications to parasport. One downhill skiing coach aligned their description with mastery within the following quote:

“I’ve been working with a skier who is paralyzed from the abdomen down and is learning to monoski. We use a tether attached to the back of the chair to control speed and assist in getting down the hill. After the skier had gained enough confidence to complete turns and stop on his own, I would frequently ski up behind him and release the tether midway through a run, leaving him to independently finish the run without knowing it. When he found out that he’d skied the run without assistance he was thrilled.”

Furthermore, participants identified valued conditions (i.e., value of peer mentoring, collaborating with coaches, access to equipment, safety) and particularly drew attention to aspects of how sport programs are designed. For example, classification (i.e., being placed into classes for competition based on impairment level) was described as an important influence. One athlete stated:

“While I may have a similar disability as someone else, that doesn’t mean that we both have the same ability.” Classification was ideally described as a process that places participants within an appropriately challenging situation, but that led athletes to feel alienated when their classification placed them at a competitive disadvantage. Participants also identified cases where physical environments were not only a barrier to involvement, but also degraded the quality of parasport experiences. One athlete represented this sentiment: “It is hard to find people and places, so I’ve sometimes driven two hours and often bike alone.”
Aspects of relationships with coaches, family members, peers, and the community at large were also described. One parent described the particular potential for peer mentorship relationships to impact both mentors’ and mentees’ experiences: “My son has become a role model for new athletes... he will go to great lengths to help them get started, provide his personal equipment, offer carpooling and share his technical and computer expertise.” Finally, the importance of equality emerged through athlete descriptions of experiencing a ‘level playing field’ (e.g., “Feeling like the disability doesn't matter or even exist -sailing is an experience where being a wheelchair user does not matter”). In other words, athlete participants described experiences with losing their sense of disability when engaged in certain sport experiences.

**Phase 2B: Roundtable discussion.** When reflecting on the first query regarding the emerging framework, expert panel members reinforced insights from earlier phases by reflecting on the idiosyncratic quality of sport experiences. One related topic of discussion was about the potential for diversity in the elements that are most vital for a quality experience, by contrasting the needs of athletes at introductory or grassroots levels with athletes at more elite levels. Another feature of the discussion was that conditions supporting quality experiences need not only occur during participation, but also include the experiences surrounding parasport (e.g., availability of accessible public transportation, time at sport venue before or after events, interaction with the community outside of sport). When extending this discussion to identify conditions that support quality experiences, panel members identified that changes in one condition may influence numerous elements. For example, establishing close relationships could influence belongingness, but also create opportunities for social comparisons and vicarious experiences that relate to mastery.

Related to sport activities, panelists identified the importance of providing athletes with options and variability in sport programs to ensure all athletes find a ‘fit’. Panelists similarly
highlighted the need for individualized considerations, which included individual assessments of needs and finding ways to ensure that participants are placed in roles that they value. The experts also spent time describing safe spaces by detailing the importance of safety across the social environment (e.g., a setting where no judgement occurs), the physical environment (e.g., inclusiveness and access in facilities), and even within activities (e.g., coaches plan activities to limit undue harm). Panel members focused on peer relationships by discussing the influence of peer mentors, athlete role models, peer-based learning, and peer composition (i.e., structuring teams around similarity in ability, past experiences, or identity). They also promoted coach behaviors related to: (a) establishing interpersonal relationships with and among athletes despite diversity, (b) adjusting the level of challenge for each individual, (c) providing incremental feedback on individual goal progress, and (d) effectively integrating athletes with varying abilities as teammates.

Summary of Phases 2A/2B: Insights from online survey and roundtables. While we entered Phase 2 with 14 principles, the parasport community survey led the authorship team to redefine and collapse some principles (e.g., belongingness collapsed from three original social settings), remove others (e.g., personal development, opportunity for physical activity), or consider some of these principles as conditions of sport programs that may support quality experiences (e.g., safety, adaptations, being integrated). For example, although personal growth and opportunities for physical activity were highly-rated constructs, open-ended comments indicated that they were not elements of an experience or conditions that support quality participation. Rather, they were potential outcomes that would emerge over time. This resulted in a description that more closely aligned with the six experiential elements of participation (Martin Ginis, Evans, et al., 2017). Stakeholders and experts also identified conditions that may support or thwart quality participation beyond those identified in existing literature (e.g., classification, involvement in major
competitions, accessibility, peer mentoring). Finally, responses pointed out the challenge of accounting for individual variability in what constitutes a quality experience and accounting for temporality (i.e., distinguishing immediate and longer-term evaluations).

**Phase 3: Constructing the Framework.** Following these phases, the resulting hierarchical framework describes *quality participation* as broader subjective evaluations of parasport participation that are generated through *quality parasport experiences* (defined using the six aforementioned experiential elements) that may be, in turn, supported through 30 *parasport conditions* that exist within given parasport program settings. *Key considerations* were also integrated to orient the framework (i.e., qualifying statements that describe how the three levels of the framework relate, and to outline what they do and do not entail).

**Phase 4: Seeking stakeholder feedback to refine and finalize the framework.** Responses from the expert panel generally supported the resonance and applicability of the framework, with most comments prompting clarity in how components were defined, and how quality participation, quality experiences, and conditions were distinguished (Table 3 contains descriptive results and key comments). Two panel members pointed out the challenge of adequately representing the complexity and idiosyncrasy of quality experiences – described as an interaction between psychological, social, political, and physical forces. In response, the authorship team adapted wording to emphasize the individual nature of participation experiences, but also recognized all comprehensive frameworks face similar challenges in trying to account for variability across individuals. Panelists also encouraged clarity in the wording of parasport conditions, so the composition of the parasport conditions also shifted substantially between the two versions. Starting with 30 conditions, expert panel responses led to changes such as removing or collapsing several conditions (e.g., collapsing four conditions related to family support into two conditions that were
worded more generally) and introducing novel conditions recommended by experts (e.g., ‘Unique pathways’ was included in the social conditions).

Quality Parasport Participation Framework

The final Quality Parasport Participation Framework is presented in Figures 1 and 2 and features descriptions and definitions regarding how quality participation is based on athletes’ subjective perceptions regarding their parasport participation. Of particular note, each level of the framework includes key considerations that provide further detail based on the existing literature and stakeholder insights. Figures 3 and 4 focus on the 25 conditions that emerged and classifies them as relating to the physical environment, activities, or social environment.

Discussion

Para sport is an avenue for physical activity participation, but also offers unique social benefits that are particularly valuable to those with disabilities (Martin, 2013). The current project applied a methodology for reporting and evaluating rigour, comprehensiveness, and transparency (AGREE-II; Brouwers et al., 2010) to build a framework upon a conceptualization of participation (Martin Ginis, Evans, et al., 2017). This research ultimately formulated the Quality Parasport Participation Framework, which centers on six experiential elements that act as the ‘building blocks’ of quality parasport experiences. We identified 25 conditions spanning physical environments, social environments, and activities that promote quality experiences. Community stakeholder insights were included in the form of broad qualitative descriptions reported in the current study and earlier qualitative investigations (Allan et al., 2017; Shirazipour et al., 2017), along with more direct feedback on the framework through online surveys and expert panels.

Considering how this framework contributes to existing literature, it was developed through a community-engaged process that included surveying existing literature to identify key themes and
concepts before working with stakeholders to generate the framework. The framework provides structure within which existing theories may operate, rather than ‘replacing’ well-established theories or frameworks that continue to have applicability (e.g., positive youth development: Côté, Turnnidge, & Evans, 2014; identity theory; Martin, Eklund, & Mushett, 1997; self-determination theory; Ryan & Deci, 2017). The resulting framework also employs a conceptual foundation and structure that is novel when applied to parasport. The six experiential elements at its core are rooted in the Martin Ginis, Evans, et al. (2017) operationalization, which also aligns with optimal experience theories in other domains (e.g., PERMA; Seligman, 2011). Regarding its structure, it was developed as a framework (e.g., job characteristics framework; Hackman & Oldham, 1976) and therefore provides a descriptive and process-based account of how conditions support quality experiences and, in turn, quality participation.

When considering this framework, variability in individuals’ experience is one message that stands out. Emphasized by stakeholders, diversity in what contributes to quality experiences became a central message and is evidenced by how the definition of quality experiences focuses on variability across individuals, variability over time, and varying ways of satisfying the six elements.

What this means is that while the framework aligns with others that recognize core elements of optimal experience (e.g., core motives: Fiske, 2010), it ultimately aligns with the humanist position that the ability to define a quality experience fundamentally lies within the individual (see Robbins, 2008). The tension between these two stances is of course a challenge that faces all frameworks of positive experiences. Nevertheless, efforts to measure or promote quality experiences should account for the potential for each element to hold varying weight across individuals and over time.

Indeed, it is of interest to focus on this variability as an area of inquiry – using person-centered methods like daily diary or ecological momentary assessment designs to understand for whom, and
why, certain conditions promote quality experiences (Smyth, Zawadzki, Santuzzi, & Filipkowski, 2014).

The 25 conditions also set this framework apart because numerous conditions were unique to parasport. For example, the emergence of the conditions ‘Sport-related attitudes’ and ‘Status of parasport’ reveal the ways that negative or dismissive attitudes toward parasport may enter into the daily conditions faced by athletes – and situates them as something that organizations like parasport clubs or event planning committees should confront. Even though many conditions also relate to any context (e.g., coach-athlete relationships or funding for organizations), they were nevertheless defined in ways that reflect how they particularly relate to parasport experiences. Another consideration relates to the scope of the conditions. Noting the distinction between simply having access to sport and having a quality sport experience, we were careful to define conditions that enhance the quality of experiences rather than participation in an objective sense. As an example, even though limitations to facility accessibility or equipment quality influence whether or not individuals have access to sport outright, these aspects were included within the conditions because they may influence individuals’ ability to fully engage in parasport (Shirazipour et al., 2017). This nevertheless means that even though there is a large body of literature that describes the barriers to sport participation faced by individuals with disabilities (Martin Ginis et al. 2016; Rimmer, 2006), the conditions developed in this research do not directly target ways to increase participation. Furthermore, even though some conditions relate to awareness and positive interactions in the sport community, they do not represent the types of activism needed to address the social-political roots of oppression and discrimination faced by athletes with disabilities (Smith, & Perrier, 2014). Although it may be expected that quality experiences may help athletes adhere to parasport or
enable social missions, researchers and practitioners should thus explore how to promote awareness and participation through other means.

Considering the scope of the framework, it is also important to address methodological aspects of this research. The AGREE II framework provides the criteria upon which to judge rigour, comprehensiveness, and transparency of this framework along with the process to develop and communicate it (Brouwers et al., 2010). The online supplemental materials report the extent that all 23 items were addressed, ranging from defining scope and purpose, to applicability. One domain where the current project may not have fully achieved its aims relates to the extent that the guideline development group included individuals from all relevant professional groups. Although we sought broad representation from researchers, athletes, coaches, and administrators, participants were drawn from convenience samples in Canada, the United States, and the United Kingdom. Our focus on community parasport organizations may also limit sport programs that aim to be inclusive across youth with and without impairments. Continued efforts may thus be valuable to consider resonance in additional contexts and with a broader range of participants. It may also be useful to more deeply communities to achieve the goals of engaging with stakeholders. Although stakeholders were consulted throughout the framework development process, community-engaged scholarship conducted through closer partnerships may further advance this framework to address social issues that relate most directly to them (Schinke, McGannon, & Smith, 2013).

The insights derived through this evidence-informed framework should also be balanced against the existing literature that was its foundation. As a reminder, the initial phase of the framework drew upon original qualitative research that targeted the quality of parasport participation alongside a systematic review that captured the state of the literature. Although the existing literature extends across decades, the relative paucity of original studies directly exploring
conditions that influence the quality of parasport experiences (e.g., Shirazipour et al., submitted) constrains knowledge about how differences in physical, social, and program environments influence athlete experiences. This means that the evidence tying program conditions to athletes’ perceptions of parasport experiences was limited.

Acknowledging the limitations above, there remains much to learn as the framework is further studied and applied. Indeed, stakeholder and expert input was integrated with the goal of promoting application. In its current format, the framework is suitable for use by researchers to guide evaluation of parasport experiences. For research-related goals, measurement of quality experiences is one priority that will either entail developing a novel quality parasport experience measure, or by identifying existing surveys that could be used in ways that measure elements of quality experiences (i.e., task efficacy as one representation of mastery; Shirazipour et al., in press).

For national or regional organizations developing policies and practices for athletes with disabilities, this framework could inform decision-making. For example, the framework could be used to promote quality experiences when making decisions on distributing resources to sport clubs, when shaping youth sport coach education, or when developing sport and physical activity interventions.

Application is also a component of the adapted AGREE-II items that guided this research (see online supplemental materials, items 18-21). To facilitate application, we have undertaken a knowledge translation process to create a user-friendly tool conveying content of the framework. Through input from stakeholders, members of the authorship team developed: (a) a document that describes and illustrates the framework in practical terms, and (b) a program audit tool for administrators to self-evaluate their program; both tools are provided in the online supplemental materials and are available at www.cdpp.ca. Leaders within parasport organizations may use the
program audit tool to evaluate aspects of their organizations, and to identify ways to provide opportunities for athletes to experience autonomy, belongingness, challenge, mastery, engagement, and meaning. These products are nevertheless preliminary attempts to put the product of the current research into the hands of stakeholders who contributed to it, and further research is required regarding how this framework may ideally be used to influence practice.

Over the life span of the Canadian Disability Participation Project, our team will continue to monitor the literature related to quality participation. Given the nascent state of the literature, the lead authors (MBE and ALC) have committed to revisiting and updating the framework 5 years following its publication. To facilitate the update process, we hope that this framework will serve as a call for applied research examining parasport experiences. To promote applied research, Figure 5 builds upon the findings of this research to provide an illustration regarding key areas of the framework for future research. It is particularly important to study how the conditions outlined in the framework impact these experiences. As an example of how conditions may develop, literature reveals that integrated sport groups may strengthen bonds between individuals with disabilities and the broader community (Hutzler, Chacham-Guber, & Reiter, 2013), while also demonstrating how dedicated sport groups including members who feel similar support feelings of competence and camaraderie (e.g., Standal & Jespersen, 2008). As evidence about these conditions accrues, this framework should be revised to: (a) adjust which conditions are listed, and (b) revise the definitions of each condition to increase clarity. For this reason, it is vital to develop empirical methods that apply and test the framework, while also conducting reviews that reflect on its resonance and any success in generating resources and policies.
References


Humphrey, S. E., Nahrgang, J. D., & Morgeson, F. P. (2007). Integrating motivational, social, and contextual work design features: A meta-analytic summary and theoretical extension of the


Shirazipour, C. H., Evans, M. B., Lithopoulos, A., Leo, J., Martin Ginis, K. A., & Latimer-Cheung, A. E. (*Submitted*). Program conditions that foster quality physical activity participation experiences for people with a physical disability: A systematic review


**Table 1. Initial 14 concepts and definitions alongside average rank (1-14) and relevance, from Phase 2A (community members)**

<table>
<thead>
<tr>
<th>Concept and related definition</th>
<th>Ranking (1-14)</th>
<th>Irrelevant (f)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Belonging in community:</strong> The athletes’ sport involvement takes place within a positive club or organization</td>
<td>6.64 (3.81)</td>
<td>2</td>
</tr>
<tr>
<td><strong>2. Belonging in one's group:</strong> The athlete is involved with a small, united, group that shares common interests and relies on one another</td>
<td>6.72 (3.76)</td>
<td>2</td>
</tr>
<tr>
<td><strong>3. Positive relationships:</strong> The athlete develops positive and supportive individual relationships with peers, coaches, and others</td>
<td>6.63 (3.76)</td>
<td>0</td>
</tr>
<tr>
<td><strong>4. Choice and control:</strong> The athlete is able to control his or her sport involvement</td>
<td>8.68 (4.08)</td>
<td>2</td>
</tr>
<tr>
<td><strong>5. Feeling confident:</strong> Sport involvement allows the athlete to feel good about his or her personal attributes and provides opportunities to develop abilities</td>
<td>6.10 (3.67)</td>
<td>0</td>
</tr>
<tr>
<td><strong>6. Challenging activity:</strong> The athlete feels that their sport activities are challenging and demands a lot from him or her</td>
<td>8.13 (3.18)</td>
<td>2</td>
</tr>
<tr>
<td><strong>7. Meaningful activity:</strong> When being involved in sport has a purpose – it is meaningful for the participant and for those around them.</td>
<td>7.84 (4.19)</td>
<td>5</td>
</tr>
<tr>
<td><strong>8. Personal growth:</strong> The athlete feels as if they have developed psychologically because of their involvement in sport</td>
<td>8.38 (3.74)</td>
<td>5</td>
</tr>
<tr>
<td><strong>9. Safety:</strong> When engaged in sport, the athlete feels like they are safe</td>
<td>7.22 (4.90)</td>
<td>3</td>
</tr>
<tr>
<td><strong>10. Mental engagement:</strong> The athlete is able to become immersed in his or her sport – focusing mainly on the tasks they're completing and people around them</td>
<td>9.57 (3.35)</td>
<td>6</td>
</tr>
<tr>
<td><strong>11. Physical engagement:</strong> When attending their sport program, the participant feels like they have exerted his or her best effort</td>
<td>8.38 (4.05)</td>
<td>6</td>
</tr>
<tr>
<td><strong>12. Being integrated:</strong> The athlete feels like sport provides a feeling that he or she is ‘doing what everyone else is doing’ – being included</td>
<td>5.75 (3.76)</td>
<td>6</td>
</tr>
<tr>
<td><strong>13. Adequate adaptations:</strong> The activities, equipment, and facilities are adapted to be safe and challenging, by well-informed staff or coaches</td>
<td>8.15 (4.43)</td>
<td>1</td>
</tr>
<tr>
<td><strong>14. Opportunity for physical activity:</strong> The athlete feels participating in their sport provides physical activity</td>
<td>6.77 (3.91)</td>
<td>3</td>
</tr>
</tbody>
</table>

Note: Table depicts the mean ranking and the number of constructs that a mean was identified as higher-than/lower-than (i.e., follow-up pairwise comparisons using Wilcoxon Signed Ranks), and the number (f) of participants who indicated a construct was irrelevant.
**Table 2. Sample characteristics from Phase 2A, Phase 2B, and Phase 4**

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Phase 2A: Community consultation ((n = 80))</th>
<th>Phase 2B: Expert roundtable ((n = 16))</th>
<th>Phase 4: Online expert panel ((n = 20))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample subgroups</td>
<td>11% Parents</td>
<td>75% Researchers</td>
<td>70% Researchers</td>
</tr>
<tr>
<td></td>
<td>30% Coaches</td>
<td>25% Sport administrators</td>
<td>30% Sport administrators</td>
</tr>
<tr>
<td></td>
<td>38% Athletes</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>21% Sport administrators</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age in years (M (SD))</td>
<td>43.7 (14.06)</td>
<td>38.94 (8.29)</td>
<td>44.25 (10.26)</td>
</tr>
<tr>
<td>Sex</td>
<td>43% female</td>
<td>63% female</td>
<td>55% Female</td>
</tr>
<tr>
<td>Country</td>
<td>66% Canada</td>
<td>81% Canada</td>
<td>70% Canada</td>
</tr>
<tr>
<td></td>
<td>33% United States</td>
<td>6% United States</td>
<td>20% United States</td>
</tr>
<tr>
<td></td>
<td>1% United Kingdom</td>
<td>13% United Kingdom</td>
<td>10% United Kingdom</td>
</tr>
<tr>
<td>Highest level of experience:</td>
<td>• 26% Recreational/unstructured</td>
<td>• Primary researcher expertise:</td>
<td>• Primary researcher expertise:</td>
</tr>
<tr>
<td></td>
<td>• 18% Regionally competitive</td>
<td>• 69% Sport/exercise psychology</td>
<td>• 35% Sport/exercise psychology</td>
</tr>
<tr>
<td></td>
<td>• 31% National competitions</td>
<td>• 6% Adapted sport, with applied experience (e.g., coaching, classifier)</td>
<td>• 25% Adapted sport, with applied experience (e.g., coaching, classifier)</td>
</tr>
<tr>
<td></td>
<td>• 25% International</td>
<td>• 13% Rehabilitation</td>
<td>• 10% Rehabilitation</td>
</tr>
<tr>
<td>Athlete disability (for athlete sample):</td>
<td>• 34% spinal cord injury</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 13% spina bifida</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 9% cerebral palsy</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 44% other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. Across samples, sport administrator roles included employees within national sport governing bodies (e.g., high performance directors) or national/regional disability recreation organizations (e.g., leaders of adapted recreation programs).
### Table 3. Results from expert panel review (Phase 4) including expert ratings, key comments, and major changes to the framework

<table>
<thead>
<tr>
<th>Concepts reviewed by experts</th>
<th>Relevance M(SD)</th>
<th>Clarity M(SD)</th>
<th>Panel Comments</th>
<th>Changes to the Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quality Participation definition</td>
<td>4.45 (.83)</td>
<td>4.15 (.81)</td>
<td>- For sport-specific outcomes, include performance and personal development</td>
<td>- Emphasized personal,</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>subjective nature of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>quality participation</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>evaluations in</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>definition</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Emphasized complexity</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>of the features that</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>contribute to these</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>experiences</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>- Removed ‘subcomponent D’</td>
</tr>
<tr>
<td>Subcomponents</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A) Subjectiveness</td>
<td>4.65 (.59)</td>
<td>4.60 (.68)</td>
<td>- Better distinguish broad outcomes like well-being from those specific to sport contexts</td>
<td></td>
</tr>
<tr>
<td>B) Sport/PA outcomes</td>
<td>4.40 (.68)</td>
<td>4.25 (.91)</td>
<td>- ‘Fostering quality participation through quality experiences’ was described as vague and redundant with latter aspects</td>
<td></td>
</tr>
<tr>
<td>C) Broad outcomes</td>
<td>4.60 (.68)</td>
<td>4.50 (.69)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D) Fostering quality participation</td>
<td>4.00 (1.03)</td>
<td>3.40 (1.50)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quality Experiences definition</td>
<td>4.26 (1.05)</td>
<td>4.26 (1.05)</td>
<td>- Clarify the contrast between quality experiences as being short-term in nature compared to the quality participation definition that pertains to broad evaluations</td>
<td>- Emphasized the pleasurable and enjoyable nature of quality experiences within the definition and as a novel subcomponent</td>
</tr>
<tr>
<td>Autonomy</td>
<td>4.42 (1.07)</td>
<td>4.33 (.91)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Belongingness</td>
<td>4.58 (1.02)</td>
<td>4.57 (.84)</td>
<td>- Enjoyment in the moment is overlooked</td>
<td></td>
</tr>
<tr>
<td>Challenge</td>
<td>4.32 (1.16)</td>
<td>4.38 (.77)</td>
<td>- Rewording ‘elements’ as ‘quality experience elements’ for clarity</td>
<td></td>
</tr>
<tr>
<td>Engagement</td>
<td>4.26 (1.15)</td>
<td>4.38 (1.00)</td>
<td>- Clarifying belonging to groups compared to broad communities</td>
<td></td>
</tr>
<tr>
<td>Mastery</td>
<td>4.47 (.78)</td>
<td>4.48 (1.02)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Meaning</td>
<td>4.21 (1.08)</td>
<td>4.37 (.96)</td>
<td>- Ensure that ‘challenge’ element is phrased to be in relation to participants’ personal goals</td>
<td></td>
</tr>
<tr>
<td>Subcomponents</td>
<td></td>
<td></td>
<td></td>
<td>- Mastery should</td>
</tr>
<tr>
<td>A) Varied Value</td>
<td>4.61 (.98)</td>
<td>4.78 (.43)</td>
<td></td>
<td>acknowledge incremental</td>
</tr>
<tr>
<td>B) Varied means of achievement</td>
<td>4.56 (.98)</td>
<td>4.72 (.46)</td>
<td>- Continue to emphasize individual variability</td>
<td>- Continued to</td>
</tr>
<tr>
<td>C) Varies over time</td>
<td>4.41 (1.06)</td>
<td>4.35 (.86)</td>
<td>- Should clarify distinction between ‘variability over time’ and ‘varied means of achievement’</td>
<td>emphasize individual</td>
</tr>
<tr>
<td>D) Interrelatedness</td>
<td>4.61 (.98)</td>
<td>4.89 (.32)</td>
<td></td>
<td>variability</td>
</tr>
<tr>
<td>Conditions definition</td>
<td>4.31 (.47)</td>
<td>4.59 (.71)</td>
<td>- Quality conditions are features of the immediate environment, and overlook higher level conditions (e.g., national policies)</td>
<td>- Revised definition and</td>
</tr>
<tr>
<td>Subcomponents</td>
<td></td>
<td></td>
<td></td>
<td>subcomponents to convey</td>
</tr>
<tr>
<td>A) Classified into three groups</td>
<td>4.44 (.81)</td>
<td>4.50 (.63)</td>
<td>- Evidence for many conditions is anecdotal</td>
<td>conditions are specific to</td>
</tr>
<tr>
<td>B) Mechanisms to foster quality</td>
<td>4.29 (.99)</td>
<td>4.24 (.90)</td>
<td>- Ensure that conditions outside of a program context (e.g., family) are features that programs can influence</td>
<td>aspects that can be</td>
</tr>
<tr>
<td>C) Indiscriminate</td>
<td>4.53 (.62)</td>
<td>4.47 (.87)</td>
<td></td>
<td>influenced by specific organizations</td>
</tr>
</tbody>
</table>

**Note.** Relevance and clarity were rated on 5-point scales from not at all (1) to very much so (5)
PARTICIPATION IN PARASPORT

Figure 1. Final quality parasport participation framework.

QUALITY PARTICIPATION (QP) = an athlete’s broad subjective evaluation that his or her sport involvement is (or has been) satisfying, enjoyable, and generates personally-valued outcomes.

QUALITY EXPERIENCES = A feeling state involving satisfaction and enjoyment, based on an athlete’s appraisals of whether parasport experiences satisfy one or more of their own sport values and needs - which can be explored through perceptions of six elements when participating in sport:

- Feeling autonomous, wherein parasport participants perceive choice or control related to their sport involvement, and obtain a sense of independence in relation to sport involvement.
- Belongingness, wherein parasport participants develop relationships and gain group memberships that underpin a sense of connection and acceptance, as well as contribution to shared tasks or goals. This may relate to becoming a member of small groups (i.e., teams) or to broader sport communities (i.e., clubs or leagues).
- Experiencing challenge, wherein parasport participants feel their sport activities require their best effort and may appropriately push them beyond their comfort zone - while also not generating frustration.
- Feeling engaged, wherein parasport participants feel continually involved in sport activities, and being focused or immersed within those activities.
- Having a sense of mastery, wherein parasport participants accomplish new things or incrementally improve skills and feel confident about their sport abilities.
- Meaning consists of whether sport involvement represents a personally- and socially-meaningful activity for parasport participants.

CONDITIONS = Conditions that support quality experiences represent the social and physical environment as it is shaped by sport organizations and members across three domains: Sport activities, the physical environment, and the social environment. Conditions are aspects such as rules, facilities, normative beliefs, and policies that exist within sport programs or settings. These may simply be necessary for participation to occur, or may support quality experiences.

Quality participation should be considered in light of...

A) Subjectiveness: Quality participation in sport is an inherently personal or subjective evaluation.

B) Specific sport/PA outcomes: Parasport participants who have QP may experience positive outcomes directly related to the sport context. These outcomes may relate to participation (e.g., increasing or sustaining participation in sport activities), along with performance and psychosocial outcomes (i.e., enhanced motivation to participate).

C) Broad outcomes: Parasport participants who have QP, and who engage in those experiences over a long-term period of time, may experience positive physical, psychological, and social outcomes that apply across many contexts (e.g., well-being/personal development).

Quality experience elements should be considered in light of...

A) Varied Value: Value placed on quality experience elements may vary across people. Because athletes have unique or multiple motives for involvement, specific elements may have more bearing on how they evaluate their experience. For example, some people will value belongingness while others value feeling autonomous.

B) Varied Means of Achievement: Athletes may seek out different strategies to achieve a quality experience element. For example, some people may gain meaning in sport achieving competitive success while others pursue meaning by forming social identities within groups.

C) Varies over time: Over time, individuals may vary regarding the degree they value each quality experience element. For example, one individual may place a high value on mastery early on in sport experiences, and place greater importance on belongingness farther into their involvement.

D) Interrelatedness: The elements are closely related, meaning that specific experiences or events may support more than one element. For example, belonging to a group may also provide meaning.

Parasport conditions should be considered in light of...

A) Tangibility: Conditions can be directly controlled or supported by sport organizations to enhance the quality of participation.

B) Multifinality: Conditions don’t necessarily align with specific quality experience elements, so improving one condition could influence numerous quality experience elements (e.g., by obtaining higher quality sport equipment, participants using that equipment may perceive higher mastery and feel more engaged).
Figure 2. Final 25 conditions [Physical environment and Activity]

Conditions in the Physical Environment: The physical and structural components of the sport setting and its surrounding community.

1) Physical accessibility of facilities and services. A minimal level of accessibility in sport facilities and related services is essential to allow access to a quality experience. If lacking, a quality experience cannot occur (e.g., inability to accommodate certain individuals). Once minimal levels are met, further addressing accessibility enhances the quality of sport experiences (e.g., availability of adequate bathing spaces or ease of access).

2) Travel and access. Sport setting is near to participants and/or availability of affordable community transportation resources is considered, so all participants have ways to gain access. For example, when possible, sport planning may align with community transportation schedules.

3) Safe places. Participants perceive that facilities and location of sport setting are safe.

4) Access to equipment. Participants have access to equipment that suits their ability to experience optimal challenge and increased safety (e.g., appropriate chairs; running blades). This may mean seeking equipment for community use, or providing opportunities to try-out and purchase affordable equipment.

Conditions within the Activity: The nature of the sport activity itself. ‘Activities’ are shaped by the given sport and its rules, competitive level, as well as coaches or others responsible for designing the sport environment.

1) Sport type. Sport types or activities are available that are valued by participants.

2) Program size. The sport program seeks ways to attract participants to be large enough to have self-sustaining membership and provide varying ways to be involved in the program.

3) Funding and cost. Program has sustainable funding to support participants’ involvement in the activities required for quality experiences, and the cost to participants is as low as possible.

4) Options. To ensure matches between individuals and sport activities, participants have the choice among different sports/activities or among activities at varying skill levels.

5) Individual level of challenge. After consulting with the athlete, the activity is individually designed to appropriately challenge participants and even push athletes out of their comfort zone. While this involves making activities more difficult as skills develop, it may involve making activities easier for those with degenerative conditions where skills diminish.

6) Safe activities. Implementing sport tasks that include comfortable level of risk for each participant and limiting potential for physical harm as perceived by participants.

7) Classification. Classification process pursues equal opportunity and fair competition. Classification should also seek to limit chances for alienation so all participants feel that they ‘fit’ somewhere within the sport classification system (i.e., participants have an appropriate class to pursue advanced sport involvement through).

8) Inclusiveness and similarity. Sport activities may provide integration with able-bodied athletes or with group members with differing abilities, but will nevertheless provide chances for interactions and competitions among participants with similar ability/experience.
Figure 3. Final 25 conditions [Social environment]

Conditions in the Social Environment: The personal relationships formed with peers, coaches, and family, along with others in parasport and the surrounding societal attitudes toward sport.

1) Coach/instructor knowledge, skill, and learning. Technical knowledge and skill related to the sport, and the specific disability context, to design appropriate activity. In cases where the coach or leader does not have these skills or knowledge, they collaborate with the athlete and/or seek resources to enhance their skill-set (i.e., coach development programs, research, mentorship).

2) Coach/instructor autonomy support. Coach finds ways for athletes to perceive control over training programs or activities.

3) Coach/instructor tracking athlete improvement. Coach leads benchmarking or encourages self-monitoring so that athletes know when they improved, even marginally.

4) Coach/instructor develops roles. Coach actively encourages individual members to take on unique roles that are vital for the group, and these contributions are recognized.

5) Interpersonal skill of coach/instructor. Coach develops a supportive leadership style and fosters positive relationships with participants that engender trust.

6) Group environment. Members within the sport activity represent a cohesive group that feels united as they pursue shared goals. This group environment is supported and fostered by coaches/leaders and group members.

7) Mentorship or role modelling. Participants have opportunities to mentor others, or to seek and establish relationships with personal mentors (e.g., experienced members educate and form close relationships with newcomers). Peers also contribute to teaching/learning process, and have opportunities to take on additional leadership roles beyond being an athlete.

8) Familial support and integration [when relevant]. Family members (i.e., parents, significant others, etc.) generally support sport involvement, and provide support in autonomy-supportive manner. Sport organizations provide appropriate roles for these family members to take on in the sport community.

9) Educating parents and family members. Sport organization provides family members (e.g., parents) with opportunities to seek education regarding parasport.

10) Harassment. Sport environment is free from harassment and discrimination from all social interactions (e.g., peers, coaches, volunteers, program leaders, spectators).

11) Sport-related attitudes. Participants perceive genuine positive societal attitudes toward parasport, particularly from members of sport organizations (e.g., volunteers).

12) Status of parasport. Participants experience equal treatment and support, when participating alongside able-bodied competitions or within shared facilities. Parasport is taken seriously.

13) Unique pathways. Participants encounter other athletes with varying sport pathways and have support to pursue their individual pathway, ranging from elite international to recreational sport (i.e., not pushed into Paralympic pipeline).
Figure 4. Illustration of the interaction between components of the Quality Parasport Participation Framework. The figure is oriented to depict the hierarchical nature of quality participation (i.e., quality conditions as the basis for quality experiences, which support quality participation evaluations). However, the figure also illustrates several key considerations, including: (a) the tangibility and multifinality of changing parasport conditions, where one condition could influence numerous elements of a quality experience, (b) the variability of quality experiences, where the value ascribed to any given quality experience element may vary across situations, individuals, and over time, and (c) how parasport conditions independently influence participation in objective forms (i.e., being ‘enough’ to support parasport involvement) in addition to influencing subjective experiences. It does not feature more complex ‘feedback loops’ regarding how quality experiences may be shaped by participation over time.