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1 **Leveraging Sport Events for Sustainable Sport Participation: How Schools Contribute to**  
2 **Sport Development through Events**

3

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1 **Abstract**

2 **Research question:** Schools are recognized as a stakeholder in sport events; however, how their  
3 involvement can contribute to the leveraging processes remains unclear. This study explores the  
4 role of local schools in leveraging sport events for lifelong sport participation.

5 **Research methods:** The National Sports Festival of Japan was examined using a multiple case  
6 study approach. Six host cities were purposively selected, and semi-structured interviews were  
7 conducted with policymakers and sport governing body representatives of these cities ( $N = 11$ ).

8 **Results and Findings:** Nine categories related to schools' involvement in the event leveraging  
9 process were identified. These nine categories were further classified into four themes: (1) need  
10 for actions by or through schools, (2) presence of central actors, (3) intermediate outcomes for  
11 future promotional activities, and (4) supplemental conditions to amplify effects. Moreover, these  
12 themes and categories formed a framework illustrating a positive sustainable circular system that  
13 bolsters the event's impacts on sport participation in the host city.

14 **Implications:** Our findings contribute to the literature on sport event leveraging and sport  
15 development by showing the key administrative role of schools in increasing sport participation  
16 through the leveraging of events. For event organizers, this study highlights the importance of  
17 developing a continuous partnership with schools to implement the long-term policy for sport  
18 event's impact.

19 **Keywords:** Event legacy, Leveraging strategies, School-based sport program, Non-mega sport  
20 event

# 1 **Leveraging Sport Events for Sustainable Sport Participation: How Schools Contribute to**

## 2 **Sport Development through Events**

### 3 **Introduction**

4           The potential for sport events to foster passion and unify communities is well-  
5 documented (Crompton, 2004). Practitioners and scholars are interested in understanding how  
6 this potential can be translated into actual impacts on host cities (Aizawa et al., 2018; Inoue et  
7 al., 2018). Among the impacts of hosting sport events, promoting sport participation is one of the  
8 legacies proposed by event organizers in the bid stage (Minnaert, 2012; Orr & Jarvis, 2018).  
9 However, consistent evidence of increased sport participation is not yet available (Pappous &  
10 Hayday, 2016; Weed et al., 2015). Enhancing sport participation is a public policy priority  
11 because it has the potential to improve health (World Health Organization, 2018). Thus, it is  
12 important to explore how sport events can be leveraged to enhance their effects on increased  
13 sport participation (Chalip, 2006a; Chalip et al., 2017). Identifying leveraging strategies for sport  
14 participation can deepen an understanding of how sport participation increases through, or as a  
15 result of, event hosting and legacy projects.

16           To increase the impact of a sport event on sport participation, event organizers must  
17 collaborate with external stakeholders (Chalip et al., 2017). Among varied external stakeholders,  
18 local schools (including elementary, middle, and high schools) may serve as ideal venues for  
19 promotional campaigns, such as programs to introduce new participants to sport (Misener et al.,  
20 2015; Taks et al., 2014). However, the current understanding of schools' roles in increasing sport  
21 participation through events is limited in two ways.

22           First, although researchers explored how event organizers and governments can leverage  
23 events through schools (Misener et al., 2015; Pappous & Hayday, 2016; Taks et al., 2014), how

1 schools, in turn, can contribute to leveraging events for promoting sport participation remains  
2 unclear. Because establishing partnerships with schools is proposed as an effective leveraging  
3 strategy (Chalip et al., 2017), it is important to illustrate what makes this strategy effective.  
4 Second, previous work focused on how sport events can work with schools to increase the  
5 awareness of sport for athlete recruitment—the first stage of sport development (Green, 2005).  
6 We argue the importance of understanding stages beyond recruitment and propose a framework  
7 identifying strategies schools can implement to enable students’ lifelong sport participation.

8 Our research seeks to address these limitations by identifying schools’ specific actions  
9 and factors that may promote sport participation. We analyze six cases of the National Sports  
10 Festival of Japan (NSFJ) that leveraged the event to increase sport participation through local  
11 schools (i.e., elementary, middle, and high schools) and other educational institutions.

## 12 **Conceptual Framework**

### 13 *Theory of sport development*

14 The theory of sport development explains how people increase their engagement with  
15 sport. It offers critical insights into the promotion of sport participation as well as the  
16 identification and development of high-performance athletes (Green, 2005). The pathway of  
17 sport development can be depicted by a pyramid model, in which mass sport participation forms  
18 the base of the pyramid and is linked to elite sport at the top (Berg et al., 2018; Green, 2005;  
19 Sotiriadou et al., 2008, 2017). Green (2005) described the progression from awareness of sport to  
20 committed, high performance sport participation through the stages of athlete recruitment,  
21 retention, and transition. Recruitment (also termed ‘attraction’; Sotiriadou et al., 2008) refers to  
22 how sport organizations and teams introduce new participants to a sport. Retention is the process  
23 of increasing participants’ motivation for continuous participation in the sport, socializing them

1 into the team and sport subculture, and eliciting a commitment to further developing their sport  
2 skills (Brouwers et al., 2015; Green, 2005). Transition involves identifying promising athletes  
3 and moving them to more competitive playing environments (Green, 2005). Sotiriadou et al.  
4 (2008) added a fourth stage of nurturing, which is focused on developing the sporting success of  
5 the finest athletes and sustaining ‘a culture of elite athletes continuing triumphant  
6 accomplishments’ (p. 263).

7           Understanding the factors and motivations that drive participation at each stage, and  
8 implementing stage-specific strategies to foster athlete retention and transition, is essential  
9 (Brouwers et al., 2015; Green, 2005; Shilbury et al., 2008; Sotiriadou, 2013). In the recruitment  
10 stage, a critical strategy for bolstering the number of participants is to introduce children to a  
11 sport by providing them with opportunities to participate (Green, 2005) and increase their  
12 awareness of the psychological and social benefits of sport participation (Brouwers et al., 2015).  
13 Early exposure to a sport reduces potential time-conflicts between playing sports and other social  
14 or leisure activities (Green, 2005; Ward et al., 2004) and is generally associated with positive  
15 psychological and social outcomes, such as self-esteem enhancement and the development of  
16 meaningful relationships (Eime et al., 2013; Feldman & Matjasko, 2005).

17           However, athletes do not always progress sequentially through the pyramid model of  
18 sport development (Green, 2005). Some lose interest or face barriers that prevent their continued  
19 sport participation and progression to advanced stages. Thus, strategies to retain athletes and help  
20 them move to advanced stages must be implemented. Examples of retention strategies include  
21 developing quality competitions, events, and coaching services to facilitate transition to the  
22 higher level of sport participation and commitment; offering financial or social support; and  
23 promoting the social aspects of sport participation (Brouwers et al., 2015; Green, 2005;

1 Sotiriadou et al., 2008, 2014).

2           The theory of sport development offers general insights into the pathways by which  
3 individuals progress toward elite levels. However, it overlooks the question of who is involved  
4 with each stage of sport development and does not fully explain the roles that relevant  
5 stakeholders may play in attracting and developing athletes (Berg et al., 2019; Brouwers et al.,  
6 2015). This limitation has been partly addressed by Brouwers et al. (2015), who investigated  
7 developmental pathways of elite tennis athletes and illustrated the involvement of sport  
8 organizations and personnel in this process. Yet the roles of non-sport organizations, such as  
9 local governments and schools (Chalip et al., 2017), remain unexplained. Brouwers et al. further  
10 stressed the need for undertaking country-specific investigations of sport development  
11 stakeholders, as roles could vary based on the sport system adopted by a given country.

12           Scholars increasingly examine the interconnection between hosting sport events and sport  
13 development outcomes for residents (Aizawa et al., 2018; Misener et al., 2015; Taks et al., 2018).  
14 However, the theory of sport development—as originally conceived by Green (2005)—does not  
15 consider the influence of event hosting, and understanding such influence requires the integration  
16 of additional theoretical and empirical perspectives. In the next section, we turn to the sport  
17 event literature on sport participation outcomes, with an emphasis on event leverage (Chalip,  
18 2004, 2006b, 2018).

### 19 ***Event hosting and sport development***

20           Sport event hosting constitutes a central strategy for sport development to promote sport  
21 and boost awareness of sport participation (Sotiriadou et al., 2008; Weed et al., 2015). Sport  
22 participation outcomes of event hosting—commonly referred to as sport participation legacy  
23 (Veal et al., 2012)—entail elite sport performance and community sport performance outcomes

1 (Rowe et al., 2013). Drawing from the literature on sport event legacies (e.g., Kaplanidou &  
2 Karadakis, 2010; Misener et al., 2013; Rowe et al., 2013), elite sport performance outcomes can  
3 be classified into the development of sport programming to foster future elite athletes (sport  
4 programming legacy) and the generation of sport inspiration through the high performance of  
5 elite athletes (sport inspiration legacy). Community sport performance outcomes include the  
6 construction of sport infrastructure and facilities to encourage participation in the community  
7 (sport infrastructure legacy) and the enhancement of the community's reputation as a sporting  
8 city (sport reputation legacy).

### 9 ***Leveraging sport events for sport participation***

10 Weed et al.'s (2015) systematic review of the sport event literature concluded there is no  
11 conclusive evidence to support that sport events can inherently increase new sport participation.  
12 However, they acknowledge the potential of sport events to generate some sport development  
13 outcomes, such as increased frequency of participation in sport and re-engagement of lapsed  
14 participants (Weed et al., 2015). To activate this potential, sport participation must be  
15 intentionally stimulated before, during, and after an event (Aizawa et al., 2018; Ramchandani et  
16 al., 2015).

17 This need for event activation is underlined by the concept of event leverage, which  
18 refers to strategic activities and processes undertaken in connection with a sport event to  
19 optimize its community impacts (Chalip, 2004; Chalip et al., 2017). Event leverage is distinct  
20 from event legacy (Preuss, 2007, 2015) in that while the latter is concerned with defining and  
21 assessing the long-term outcomes of an event, the former focuses on *how* such outcomes may be  
22 produced (Chalip, 2006a). From the perspective of event leverage, events are not viewed as  
23 isolated opportunities solely managed by event organizers; rather, they constitute 'potentially



1 useful additions to the host community's product and service mix' (Chalip, 2018, p. 29). Hence,  
2 it is the responsibility of host community entities (e.g., local governments, businesses, schools)  
3 to leverage the potential of a sport event to generate long-term benefits by working with event  
4 organizers (Chalip, 2018; Taks et al., 2018).

5         These implications of the event leveraging concept were originally discussed to illustrate  
6 the activities and processes to increase the economic (Chalip, 2004), social (Chalip, 2006b), and  
7 environmental benefits (O'Brien & Chalip, 2008) of sport event hosting. More recently, this  
8 concept has been applied to the issue of sport development to understand how events can be  
9 strategically used to promote sport participation among residents (Chalip et al., 2017; Taks et al.,  
10 2018). Chalip et al.'s (2017) conceptual model demonstrated that event leveraging for sport  
11 participation requires alliances among event organizers, sport organizations, and non-sport  
12 organizations (e.g., schools, government, companies). These three types of organizations must  
13 collectively address specific challenges in two areas: (a) context of the event, and (b) availability  
14 of resources (Chalip et al., 2017). Regarding the former, key factors for consideration include the  
15 community's overall culture and cultural beliefs specific to sport; attitudes and opinions of local  
16 people toward sport participation, elite athletes, and festivals; and structures and systems in  
17 relation to event planning and implementation. In addition, the availability of resources must be  
18 assessed in terms of physical resources (e.g., equipment, facilities), human resources (e.g.,  
19 coaches, volunteers), and knowledge (e.g., sport promotion, event management). Tailoring  
20 strategies and tactics to meet community-specific challenges in these two areas can foster  
21 collaboration among organizations, increasing the impact of their leveraging efforts (Chalip et  
22 al., 2017).

23         In relation to this conceptual understanding about leveraging events for sport

1 participation, Taks et al. (2014) proposed multiple strategies and tactics event organizers could  
2 use, such as encouraging the involvement of schools. Derom and VanWynsberghe's (2015) study  
3 of the Tour of Flanders described a case, where local, provincial and regional governments used  
4 the heritage of this event to promote cycling in the host communities. Examples of promotional  
5 strategies included (a) building a permanent visitor center to promote the atmosphere and history  
6 of the Tour and (b) developing permanent Tour of Flanders cycling routes (Derom &  
7 VanWynsberghe, 2015). Consistent with Chalip et al.'s (2017) model, these findings indicate that  
8 different stakeholders can implement strategies to capitalize on opportunities that promote sport  
9 participation through events. Prior researchers also showed organizers must develop specific  
10 strategies for each targeted segment of the population (Derom & Lee, 2014; Derom &  
11 VanWynsberghe, 2015).

### 12 ***Leveraging sport events for children's sport participation***

13 Sport promotion campaigns commonly identify children as the target population.  
14 Targeting children can initiate multiplier benefits for sport participation because they can  
15 influence friends, parents, and by extension, the entire community (Schulenkorf & Edwards,  
16 2012). Schools' engagement in sport events is important for leveraging events for children's  
17 sport participation for two reasons: (1) schools are where most children learn physical activity  
18 behaviors (Kirk, 2005); and (2) schools can help children enhance awareness of sport  
19 participation and create sport participation patterns throughout their lives (De Meester et al.,  
20 2014; Ploeg et al., 2014).

21 Frawley and Cush's (2011) study of the 2003 Rugby World Cup revealed the number of  
22 junior rugby registrations increased significantly before and after the event because of (1)  
23 program development, (2) funding, (3) the promotion of sport, and (4) the timing of the event. Of

1 them, program development, especially a school-based program delivered by the national  
2 governing body (NGB), was a critical factor that increased junior rugby participation (Frawley &  
3 Cush, 2011). Misener et al.'s (2015) study of medium-sized events in Canada documented event  
4 organizers' attempt to promote children's awareness of sports (i.e., figure skating and athletics)  
5 in partnership with schools. For example, the organizers and the NGB invited school children to  
6 watch practice sessions of the championships and provided them with educational programs  
7 through collaborations with schools. These findings illustrate that delivering school-based  
8 programs or promotional activities is an important strategy for leveraging sport events.

9 In sum, researchers recognized the importance of local schools' engagement to enhance  
10 sport participation for children. However, we know less about how schools can be actively  
11 involved in sport events and how their active involvement contributes to sport event leveraging  
12 for increased participation and the ascension of child participants through sport development  
13 stages. Therefore, the following research question guided our investigation: *What actions and*  
14 *processes are taken by schools to contribute to leveraging sport events for sustainable sport*  
15 *participation?*

## 16 **Method**

### 17 *Context*

18 The NSFJ is an annual inter-prefectural multi-sport event in Japan. It is co-hosted by one  
19 of the 47 prefectures in cooperation with the Japan Sport Association—a national organization  
20 promoting lifelong sport among Japanese—and the Japanese Ministry of Education, Culture,  
21 Sports, Science and Technology (MEXT). This event features elite competitions and promotes  
22 sport at the grassroots level. In 2018, the 73rd NSFJ was held with a total of 38 sports over 11

1 days<sup>1</sup> (Japan Sport Association, n.d.a). A city or a town within the host prefecture hosts each  
2 individual event for a given sport.

3         The NSFJ is an appropriate setting to analyze sport event leverage from two perspectives:  
4 (1) event size and (2) the nature of the Japanese educational system. First, non-mega sport events  
5 are more likely to influence communities and local people’s behavior than mega sport events  
6 (Inoue et al., 2018; Taks, 2013). In the case of the 71st NSFJ, the number of visitors was  
7 461,075, and the total hosting cost was about \$31 million (Iwate Sport Promotion Section, 2017),  
8 including \$12 million spent on capital investment (e.g., construction of venues). This event was  
9 broadcasted by a national network, reaching a wide audience across Japan. Based on Müller’s  
10 (2015) classification, the NSFJ can be considered as a non-mega event.

11         Second, in the Japanese educational system, local schools play a key role in promoting  
12 sport to the youth (Kusaka, 1996). The MEXT develops national guidelines for various school  
13 subjects including physical education (PE), and these guidelines standardize teachers’  
14 instructional approaches across the nation (Nakai & Metzler, 2005). Beyond offering regular PE  
15 classes, Japanese middle and high schools also have interscholastic athletic teams as  
16 extracurricular activities. In 2013, 54.7% of teenagers belonged to interscholastic athletic teams,  
17 whereas 35.6% of teenagers participated in community or private sport clubs (Sasakawa Sports  
18 Foundation, 2013). Thus, Japanese schools provide youth with important opportunities to  
19 participate in sport through PE classes and interscholastic teams.

## 20 ***Data collection***

21         Six host cities were selected for a multiple case study approach (Yin, 2014) based on data

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<sup>1</sup> The 73rd winter NSFJ was held with three winter sports for eight days. Although the winter NSFJ is part of the NSFJ, it is held in a different prefecture and at a different time. Thus, the winter NSFJ was excluded from our research context.

1 from preliminary two-stage questionnaires<sup>2</sup>. We selected cases that vary in when the NSFJ was  
2 held, ranging from 1978 to 2011, to analyze the leveraging process from both short- and long-  
3 term perspectives (see Table 1). For each case, semi-structured interviews were conducted with  
4 policymakers and sport governing body representatives. We identified respondents using  
5 purposeful sampling (Creswell, 2007). Individuals were selected for interviews because they  
6 were responsible for planning and managing the NSFJ in their cities and had first-hand  
7 knowledge about how the NSFJ had impacted local sport participation. In addition, policymakers  
8 chosen for our interviews were knowledgeable about their local school systems because many  
9 worked for the Board of Education in their cities or for local schools. In total, 11 individuals  
10 from six host cities were interviewed. Each interview lasted about one hour. Background  
11 information on the respondents is shown in Table 1.

12 A semi-structured interview guide was developed to understand who, when, where, what,  
13 why, and how the NSFJ created sport participation impacts on each city based on the sport event  
14 leveraging frameworks (Chalip, 2006b; Chalip et al., 2017). For example, questions such as ‘why  
15 and how did you incentivize people to participate in sport?’ or ‘what made your efforts  
16 successful in generating a sport participation impact?’ were asked to identify key factors and  
17 specific actions. The same interview guide was used for all interviews, while different follow-up  
18 questions were asked depending on respondents’ answers to the original questions included in  
19 the guide. As supplementary data, we collected approximately 50 pages of documents. These  
20 included articles from local newspapers, research reports written by local school teachers, public  
21 relations magazines published by local governments, the official websites of the local  
22 governments and local sport governing bodies, and the local governments’ sport promotion

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<sup>2</sup> Details of the two-stage questionnaires are summarized in Supplemental Material A enclosed with this article.

1 policy plans. These documents illustrated how the sport held for the NSFJ was promoted in the  
2 host cities, especially after the NSFJ. We reviewed the documents to triangulate findings from  
3 interviews.

4 *(Insert Table 1 around here)*

## 5 ***Analysis***

6 Interviews were transcribed verbatim in Japanese and translated to English by a Japanese  
7 native speaker who is fluent in English. Data analysis was guided by thematic analysis (Braun &  
8 Clarke, 2012), which led us to develop a framework (Figure 1; see further discussion about the  
9 framework below) illustrating how sport events can be leveraged through schools. The fourth  
10 and fifth authors who conducted interviews first performed inductive coding by reading each  
11 transcript line by line. A focus was placed on identifying who, when, where, what, why, and how  
12 the NSFJ was leveraged based on the elements of the sport event leveraging framework (e.g.,  
13 involvement of various stakeholders, resources for leveraging events; Chalip, 2006b; Chalip et  
14 al., 2017). The authors created new codes when they found interviewee comments addressing  
15 either of the who, when, where, what, why, or how questions. The two authors identified 19  
16 categories (e.g., impact on children, partnership within the community) that described factors  
17 related to general leveraging strategies of the NSFJ.

18 These initial categories guided the second round of coding, in which the first and second  
19 authors analyzed the data independently using a mix of deductive coding (based on the initial  
20 categories identified through the first round of coding) and inductive coding through NVivo  
21 software. Both authors read transcripts line-by-line and assigned codes. In this round, the focus  
22 was narrowed to identify local schools' roles in event leveraging so the two authors coded the  
23 comments specifically discussing the roles of schools. They regularly discussed and compared

1 the codes found by each to establish a common understanding, and made modifications to codes  
2 when necessary. In addition, they compared data from different cases to find commonalities in  
3 leveraging strategies for increasing sport participation. This cross-case analysis provided  
4 triangulation of the findings (Yin, 2014). Then, codes referring to a similar idea or concept were  
5 gathered to form categories. The two authors kept analyzing the data until they reached a point  
6 where no information creating a new category was emerged from the data. This led to identifying  
7 nine categories directly pertaining to schools. Then, we determined the interconnection among  
8 nine categories and identified four themes comprising similar categories. Further, we identified  
9 structural relationships between the themes, which enabled us to develop a framework  
10 encompassing all themes and categories to illustrate the process of leveraging sport events  
11 through the educational system<sup>3</sup>. Additionally, we reviewed the event-related documents  
12 described above to confirm or disconfirm the evidence identified through the coding process  
13 (Creswell & Miller, 2000).

14 Peer debriefing was conducted to establish the credibility of the analysis (Creswell &  
15 Miller, 2000). In Hoskyn, Dickson, and Sotiriadou's (2018) study, peer debriefing was done  
16 within the research team. In our case, the third author, who did not perform interviews or data  
17 analysis, acted as a peer reviewer to reflect the research process (Creswell & Miller, 2000).  
18 Finally, member checking by an interviewee was conducted to increase the credibility of the  
19 findings, especially in relation to the structural relationship among themes (Creswell & Miller,  
20 2000).

## 21 **Findings and Discussion**

22 We identified nine categories illustrating how schools participated in the leveraging of the

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<sup>3</sup> The detailed discussion about categories and themes are summarized in Supplemental Material B enclosed with this article.

1 NSFJ for sport participation: (1) programs within the school setting, (2) promotions through  
2 school, (3) schools as venues, (4) school sport events, (5) teachers and educators, (6) sporting  
3 culture in school, (7) graduates, (8) sporting success, and (9) the existing culture. We classified  
4 the nine categories into four themes: (1) need for actions by or through schools, (2) presence of  
5 central actors, (3) intermediate outcomes for future promotional activities, and (4) supplemental  
6 conditions to amplify effects.

### 7 *Need for actions by or through schools*

8 This theme refers to the importance of promotional activities implemented by schools or  
9 through schools by other local stakeholders (i.e., Board of Education and sport governing bodies)  
10 to leverage the NSFJ. We identified four specific actions: programs within the school setting,  
11 promotions through school, schools as venues, and school sport events.

### 12 *Programs within the school setting*

13 Programs within the school setting refer to programs implemented by local schools that  
14 promote sport participation. In all cases analyzed, interviewees discussed that local schools,  
15 especially middle and high schools, provided students with opportunities (e.g., in-school  
16 workshops and classes as part of PE) to experience the sport held for the NSFJ in their cities.  
17 Interviewees 2A elaborated on this point: ‘The PE teacher decided to carry out a canoe  
18 workshop...His idea was to let all 200 incoming freshmen in [City 2] Senior High School  
19 experience paddling.’ Schools also created new interscholastic athletic teams for the sport held  
20 for the NSFJ. Interviewee 4A explained how hosting the canoe event for the NSFJ led to the  
21 creation of interscholastic canoe teams: ‘There are [three interscholastic canoe teams in] three  
22 middle schools including [City 4] North and South Middle Schools. [City 4] Middle School  
23 created a new team...In total, there are more than 100 team members.’



1           These in-school sport programs influenced students' sport participation behaviors outside  
2 the school setting (De Meester et al., 2014; Ploeg et al., 2014). Students' participation in sport at  
3 an early age could help them continuously participate in sport after graduation. Interviewee 3A  
4 supports this point: '...there is a [handball] team that alumni created...So, those people are  
5 alumni from [Prefecture] Central High School who have competed at the higher level.'

6           The significance of delivering in-school sport programs to increase sport participation  
7 supports findings from Frawley and Cush (2011) and Misener et al. (2015). While these scholars  
8 examined programs operated by the NGB, our findings demonstrated that school sport programs  
9 designed and managed by schools can promote students' sport participation. The current findings  
10 also augment Chalip et al.'s (2017) assertion that educational programs where new participants  
11 can learn about and experience a sport must be implemented in conjunction with an event to help  
12 them form positive attitudes about the sport. Thus, in-school sport programs serve as the first  
13 point of contact for students when they are exposed to a new sport, developing the foundation for  
14 lifelong sport participation.

#### 15 *Promotions through school*

16           Promotions through school describe efforts by local communities, governments, or sport  
17 governing bodies to promote sport to students using school settings; those efforts do not always  
18 involve students' actual participation in sport. In five cases, interviewees highlighted the city's  
19 Board of Education and local sport governing bodies targeted students or children to promote the  
20 sport at grassroots levels. In City 6, the government attempted to teach children about rugby  
21 before and after the NSFJ: 'While we [city government] were preparing for the NSFJ, we held  
22 touch rugby classes [for kids] by inviting the [Prefecture] team members...So, we focused on  
23 creating a connection between kids and the Rugby players.'

1 Promoting sport through schools is said to be a fruitful tactic because schools ‘have  
2 significant reach and contact with participant markets’ (Chalip et al., 2017, p. 266), which can  
3 amplify the effect of promotional activities. Interviewee 2A supported this point: ‘If those 200  
4 freshmen go back to their home and talk about the canoe workshop to their mom, 400 people, out  
5 of 13,000, which is the total population of [City 2], will know the term ‘canoe.’” This quote  
6 describes how information about in-school sport promotion efforts could spur word-of-mouth  
7 communications, boosting awareness of the event and sport in the city. As such, promoting sport  
8 through school is a strategy for not only impacting students’ sport participation but also  
9 generating a multiplier effect in the host city (Schulenkorf & Edwards, 2012).

#### 10 *Schools as venues*

11 For host cities, one goal of hosting the NSFJ is to develop or improve sport facilities in  
12 the host cities (Japan Sport Association, n.d.b). In five of six cases we studied, host cities built  
13 new public sport facilities for the NSFJ and have used these facilities since the event. Some  
14 sport-specific facilities were built within schools. In City 1 where sumo was held for the NSFJ in  
15 1978, sumo rings were built in local schools and have been used for PE classes and  
16 interscholastic teams. Interviewee 1C explained: ‘Wherever you go, there is a sumo ring [in the  
17 city]... And then eventually, every school [in the city] ended up building a sumo ring.’

18 According to Chalip et al.’s (2017) model, a lack of sufficient facilities meeting the  
19 increased demand for local sport participation is a critical challenge for sport event leveraging.  
20 Meanwhile, Taks et al. (2014) identified enhanced sport infrastructure as a legacy of sport events,  
21 which can benefit the development of sport after an event by increasing the accessibility of sport  
22 facilities for existing and new participants. Similarly, our interviewees indicated that building  
23 new sport-specific facilities in local schools created an environment where students can

1 participate in sport regularly and facilitated sport programs continuously, which would result in a  
2 long-lasting movement in host cities.

### 3 *School sport events*

4 Djaballah et al. (2015) found that hosting a sport event could empower local communities  
5 and sport clubs to organize other similar events. Hosting ancillary events in connection with a  
6 sport event is also important for integrating the event and sport into the community's cultural  
7 values and beliefs (Chalip et al., 2017). Consistent with these perspectives, in all six cases, local  
8 sport governing bodies and governments (the city's Board of Education) hosted or created local,  
9 regional, or national interscholastic sport events associated with the NSFJ. For example, City 1  
10 held interscholastic sumo events at the local and national levels after the NSFJ: 'The All Japan  
11 Junior High School Sports Festival [held in 1999] also created a quite big wave, and it helped the  
12 athletes improve and grow. And that leaves the [Elementary and Middle School Sumo]  
13 tournament in April' (Interviewee 1A). Interviewee 1A added that now, more than 200 children  
14 attend the tournament. This type of recurring event also helps local people appreciate the value  
15 of playing sumo: 'The families always come to see their own child compete...They are moved  
16 they can see their own child up there and their children have good manners' (Interviewee 1B).  
17 Recurring events enabled the value of sport to be shared within the entire host city, boosting  
18 awareness of sport among different demographics and generations. This finding confirms  
19 previous research (Clark & Misener, 2015; Ziakas & Costa, 2011) on the utility of hosting a sport  
20 event portfolio (i.e. multiple events in one place) as part of community and urban development.

### 21 *Presence of central actors*

22 It is crucial to identify persons who can take responsibility for implementing leveraging  
23 strategies (Misener et al., 2015). We found that schools, Boards of Education, and local sport

1 governing bodies were important stakeholders of sport events. Among them, teachers and  
2 educators (i.e., Board of Education staff) played an important role as central actors in leveraging  
3 efforts by promoting or teaching sport, or creating programs and opportunities for participation  
4 among students.

5 The vision and support of the Board of Education were driving forces behind these  
6 actions. As shown in Table 1, in most cases, the Board of Education staff were responsible for  
7 organizing the NSFJ. For example, Interviewee 5C identified their colleague in the National  
8 Sports Festival Promotion Division of the city’s Board of Education as being invested in the  
9 project: ‘...the administration wanted not just the promotion of the top sport, but the promotion  
10 of all sport, even at the grassroots level.’ In other cases, interviewees highlighted that the Board  
11 of Education provided financial support to hold community sport events or financed the long-  
12 term maintenance of facilities to facilitate sustainable sport participation.

13 The local sport governing bodies also played an important role. In all cases, interviewees  
14 mentioned that governing bodies helped leveraging efforts by hosting additional sport events or  
15 delivering promotional activities within schools or their own sport classes.

16 Chalip et al. (2017) argued the engagement of various stakeholders is an important  
17 element to leverage sport events. This study empirically demonstrated that collaborative  
18 partnerships among stakeholders, especially local schools, the Board of Education, and local  
19 sport governing bodies, are crucial to implementing leveraging efforts for long-term sport  
20 promotion.

### 21 ***Intermediate outcomes for future promotional activities***

22 This theme refers to different types of intermediate outcomes, or outputs, generated by  
23 leveraging efforts of schools and educational institutions. The outputs are essential for providing

1 continuous promotional activities, which can induce an increase in sport participation among  
2 host city residents. We found three types of intermediate outcomes: sporting culture in school,  
3 graduates, and sporting success.

#### 4 *Sporting culture in school*

5 Sporting culture in school refers to cultural values and beliefs that promote or facilitate  
6 sport within a school setting. In Chalip et al.'s (2017) model, the culture of the host community  
7 constitutes an important element of the event's context because it determines how community  
8 members view sport or what goals they seek to achieve for sport development. We found that  
9 actions taken by teachers and local schools developed a sport-related culture and coaching  
10 philosophy about training students in sport. For example, Interviewee 1B explained the coaching  
11 philosophy in City 1:

12 The coaches are all thinking about where the students will end up eventually, all  
13 throughout their days in elementary, middle, and high school. It's not trying to find  
14 results during their time in elementary, but trying to help them continue sumo throughout  
15 college, and maybe even when they're in the working class.

16 He indicated that this philosophy, initially established in the process of promoting sumo in City 1  
17 using the NSFJ, has been shared across the city, enabling local people to foster youth sumo  
18 wrestlers for 40 years. In addition, his quote describes the relationship among elementary,  
19 middle, and high schools. Even many years after the NSFJ, this relationship remains strong.

#### 20 *Graduates*

21 Graduates refer to graduates of high schools who played a sport while in school and  
22 continued playing the sport after graduation. In four cases, participants discussed how these  
23 graduates, many of whom belonged to intercollegiate athletic teams after graduating from high

1 school, have continued to participate in sport. The career paths of graduates have enhanced the  
2 reputation of the high schools they attended, further influencing the behavior of current students  
3 as role models. Interviewee 3A highlighted:

4           Graduates are playing in good universities...When you read the brochures of high  
5           schools, you can find which universities the graduates of the high schools attended...If  
6           the high schools can write those things into their brochures, the high schools will put  
7           more effort in handball [to enhance the team's performance].

8           Moreover, some graduates returned to their hometown and became teachers or coaches at  
9           local schools, delivering sport programs to the next generations: 'A student who respected me  
10          wanted to become a teacher and got hired as a middle school science teacher in 1985. He made a  
11          canoe [interscholastic] club in the school where he got hired' (Interviewee 2A).

12          The importance of retaining graduates for improving sport programs and facilities in host  
13          cities corresponds to Sotiriadou et al.'s (2008) discussion that the nurturing process in sport  
14          development can show retired athletes the pathways to perform new roles as coaches or umpires.  
15          The production of graduates engaging in local sport delivery can also address the community's  
16          challenges for the lack of human resources to sustain sport development after an event (Chalip et  
17          al., 2017). It is beneficial and important to establish long-term sport programs within school  
18          settings to sustainably promote sport because short-term initiatives often fail to deliver  
19          continuous participation (Nicholson et al., 2011; Pappous & Hayday, 2016). In this regard,  
20          graduates are positive intermediate outcomes sustaining the impacts of the NSFJ by extending  
21          the lifespan of local sport programs.

22          *Sporting success*

1 Sporting success reflects improvements in the athletic achievements of students or  
2 interscholastic teams. In five cases, respondents mentioned that the performance of the NSFJ  
3 sport was enhanced by hosting the NSFJ. In City 6, a local high school qualified to compete at  
4 the National High School Rugby Championships in 2013 for the first time in 12 years, which  
5 happened to be two years after the city hosted the NSFJ (Nagato Board of Education, 2013). In  
6 City 1, Interviewee1A also stated: ‘We gained support from the town as well as the prefecture  
7 [because of actions before and after the NSFJ]. The end results being that we started regularly  
8 winning National runner-up, or winning Nationals.’

9 Other examples showed local students’ selection for regional or national teams after the  
10 NSFJ. For example, Interviewees 2A discussed:

11 And this boy was selected as a member of the Japan national team when he was a senior  
12 in high school... Ever since then, a couple of members of the Japanese national team are  
13 selected from [City 2] Senior High School (Interviewee 2A).

14 Similarly, a report written by a teacher in City 2 revealed that despite the little time the city had  
15 to promote canoeing and train athletes, the student selected as the representative of the prefecture  
16 won first prize at the NSFJ. National team members from City 2 later served as role models for  
17 the younger generations (Konishi, 2017).

18 Our results indicate that sport participation may be inspired by the success of amateur  
19 athletes at local or national competitions. This finding shows how the performance of athletes  
20 and teams at elite sport competitions may affect sport participation (Frick & Wicker, 2016;  
21 Weimar et al., 2015).

22 ***Supplemental conditions to amplify effects***

1 Chalip et al.'s (2017) conceptual model and prior empirical evidence (Thomas & Dyall,  
2 1999; Wheeler, 2012) indicate that a community's culture influences how sport is promoted in  
3 the community. Our fourth theme captures this notion about the importance of considering the  
4 existing culture's influence on the implementation of leveraging strategies within school settings.

5 Interviewee 6A noted that the rugby team of a local high school had been famous and  
6 frequently qualified for national rugby competitions before the city hosted the NSFJ. Local high  
7 schools had participated in the National High School Rugby Championships 27 times before the  
8 NSFJ (Nagato City, 2014). Similarly, Interviewee 3A mentioned that interscholastic teams had  
9 existed at local schools before the NSFJ was hosted. These examples imply that there was a pre-  
10 existing system encouraging students to participate in the sport. Thus, local students and  
11 residents were already familiar with the sport of the NSFJ, so the most pressing task for schools  
12 and organizers of the NSFJ was to attract broader participants.

### 13 *A circular system of leveraging sport events through the educational system*

14 We developed a framework showing how the four themes and their specific categories are  
15 related to each other. The framework demonstrates that establishing circular systems within the  
16 school settings is a significant strategy for growing sport participation. The framework illustrates  
17 how educational institutions perform key administrative roles in leveraging processes (see Figure  
18 1). Specifically, it highlights that teachers and the Board of Education staff are the key elements  
19 of the leveraging process because they encourage students to engage with the sport hosted for the  
20 NSFJ through a variety of activities within school settings and contribute to popularizing the  
21 sport in the host city. Local sport governing bodies also supplemented their efforts. These actors  
22 are the starting point of a circular system of leveraging the NSFJ.

23 The circular system involves a feedback mechanism. Intermediate outcomes generated



1 through promotional activities can foster another movement to popularize the sport hosted for the  
2 NSFJ in the city. The sporting culture and students' successful athletic performance could elevate  
3 the reputation of local schools and the city in relation to the sport. The increased reputation, in  
4 turn, could promote financial support from the local government and sport governing bodies.  
5 Moreover, graduates may become future key actors who initiate another event leveraging cycle  
6 for the next generations. The circular system shows that the leveraging process nurtures students  
7 at all points on the sport development pyramid, which indicates that sport development systems  
8 were established through the NSFJ. Through this feedback mechanism, sport can be popularized  
9 in the host city longitudinally, changing sport participation behavior among students and local  
10 people. It should be noted that the circular system may vary depending on cultural attributes. For  
11 example, given a high interscholastic team enrollment rate (Sasakawa Sports Foundation, 2013)  
12 and a well-established PE curriculum in Japan, it is likely that school programs have a strong  
13 potential to form students' sport participation behavior in the Japanese context. This cultural  
14 background for the Japanese education system has also contributed to the efficacy of leveraging  
15 the NSFJ for sport participation within school settings.

16 *(Insert Figure 1 around here)*

### 17 **Implications for the Sport Event Leveraging Literature**

18 This study demonstrates the importance of involvement by local schools and educational  
19 institutions in the leveraging process (Chalip et al., 2017; Taks et al., 2018) and in enhancing  
20 sport participation legacies (Frawley & Cush, 2011; Weed et al., 2015). The leveraging tactics  
21 adopted by schools have led to creating a culture that values sport participation, students'  
22 positive attitudes toward sport, and personnel supporting the long-term development of sport in  
23 the community. Some updated schools' infrastructure was used as venues to serve an increased

1 number of students participating in sport after the NSFJ. The illustration of these tactics confirms  
2 and extends Chalip et al.'s (2017) conceptual model by demonstrating how event organizers and  
3 sport organizations can work with teachers and educational staff to influence key elements of the  
4 event context (e.g., culture, student attitudes) and address important resourcing challenges (e.g.,  
5 needs for personnel and venues that meet increased demands) in school settings.

6 Our findings also illustrate that localized leveraging strategies for increasing sport  
7 participation can be implemented by non-sport organizations, such as local schools and  
8 educational institutions. Previous scholars discussed the important roles played by the NGB in  
9 promoting sport participation through events (e.g., Frawley & Cush, 2011). Contrary to this prior  
10 understanding, we found local organizations were the main actors implementing leveraging  
11 efforts. These findings indicate that, in the context of the NSFJ, promotional activities were  
12 localized in each host city. This localization of promotional activities was further supported by  
13 the fact that not all categories identified through our analysis were applicable across all six cases.  
14 Chalip et al. (2017) questioned the utility of a top-down approach to sport development led by  
15 governments or NGBs because this approach 'fails to take adequate account of local conditions  
16 [and] privileges the wants and needs of sport organizations at the top of the sport apex rather than  
17 at the grassroots' (p. 273). As an important alternative to the oft-used top-down approach,  
18 localized strategies meet the needs and demands of residents and take into account the cities'  
19 resources (Chalip et al., 2017; Hoskyn et al., 2018; Macrae, 2017).

## 20 **Implications for the Theory of Sport Development**

21 While prior research explored the potential for sport events to increase the awareness of  
22 sport (Misener et al., 2015; Taks et al., 2014), this study qualitatively demonstrated how events,  
23 aided by schools, can help students progress through the stages of sport development.

1 Promotional tactics implemented by schools were fruitful at the recruitment stage of sport  
2 development, which is consistent with the theory of sport development proposing that targeting  
3 children for sport participation is a strategic way to grow a sport (Ward et al., 2004). Further, this  
4 study showed that school sports programming, or community programs hosted by school  
5 officials, offer means to retain participants and promote growth in the sport. These findings are  
6 consistent with previous research findings that demonstrated the utility of promoting the social  
7 aspects of sport participation by creating social events (e.g., school competitions and festivals)  
8 and other opportunities (e.g., school clubs) for interpersonal interactions (Brouwers et al., 2015;  
9 Green, 2005; Sotiriadou et al., 2008, 2014). With more participants in the sport, and more  
10 resources available to promote transitions to higher levels, many students were supported in  
11 increasing their commitment to playing the sport in competitive environments such as  
12 interscholastic or intercollegiate teams (i.e., transition stage). Some students even participated in  
13 elite national competitions (i.e., nurturing stage). These findings suggest a potential solution to  
14 issues inherent in the transitioning process, including a lack of information about advanced  
15 programs and adjustments to new environments (Green, 2005), broadening an understanding of  
16 the theory of sport development.

17 Collectively, the knowledge gained from our study is essential for facilitating smooth  
18 transitions and preventing dropouts (Nicholson et al., 2011; Pappous & Hayday, 2016) between  
19 each stage of sport development (Berg et al., 2018; Green, 2005; Sotiriadou et al., 2008, 2017),  
20 using schools as a site and school officials as agents of sport development. This new knowledge  
21 fills the literature gap regarding how non-sport organizations, such as schools, may assume the  
22 role of a central event stakeholder in leveraging events for sport participation (Brouwers et al.,  
23 2015; Chalip et al., 2017). In addition, our findings consider cultural, infrastructural, and policy-

1 related factors specific to a single country (Brouwers et al., 2015) and hence serve as a baseline  
2 for future studies examining interrelationships between sport development systems, event  
3 hosting, and schools in other countries.

#### 4 **Practical Implications**

5         Our findings have several managerial implications. First, we illustrated the administrative  
6 role of schools in leveraging sport events for sport participation. Based on this finding,  
7 organizing committees of sport events and governing bodies should consider how they can  
8 support local sport participation by partnering with schools. Partnerships are important because  
9 despite organizing committees' responsibility for maximizing the impacts of events  
10 (International Olympic Committee, 2015; Kellett et al., 2008), they are often dissolved shortly  
11 after the event and unable to oversee long-term plans for legacies (Misener et al., 2015).  
12 Moreover, sport governing bodies tend to be influenced by governmental policies and budgets  
13 for sport promotion (Grix, 2009). Consequently, as lasting organizations in the community,  
14 schools can take on responsibility of continued leveraging when organizing committees no  
15 longer exist.

16         Second, based on the findings that sport development processes can be boosted within  
17 school settings through event leveraging strategies, sport governing bodies and government  
18 officials should take advantage of the fact that school-based sport programs can benefit the  
19 development of elite athletes. This suggestion is especially relevant to countries where schools  
20 deliver sport programs for a large number of students, such as Japan, the United States, and the  
21 United Kingdom (Lim et al., 2011). Access to students makes it easy to identify and recruit  
22 potential elite athletes at an early stage. Additionally, because school-based sport programs can  
23 help students develop lifelong sport participation behavior, these programs have the potential to

1 address physical inactivity issues (Guthold et al., 2019).

2           Finally, this study offers implications for developing countries adopting the Japanese  
3 physical education system, such as Cambodia and Myanmar (Japan International Cooperation  
4 Agency, 2018; Sport for Tomorrow Consortium, 2017). Our findings show that schools can  
5 promote children’s participation in sport and spread engagement in sport and physical activities  
6 among their families and communities.

### 7 **Limitations and Future Research**

8           Some limitations of the current study should be noted. First, this study emphasizes the  
9 importance of partnerships between schools and event organizers to impact children’s sport  
10 participation behavior. However, this article does not address how such partnerships can be  
11 sustained after the conclusion of events.

12           Second, because we examined sport event leveraging for sport participation from both  
13 long- and short-term perspectives, some of our interviewees recalled events that were held a long  
14 time ago. This retrospective method may be subject to the issues of memory inaccuracy and  
15 biased reconstruction of the past (Snelgrove & Havitz, 2010). We confirmed the accuracy of the  
16 events and data discussed by our interviewees using supplemental documents; however, this  
17 remedy did not allow us to fully alleviate the issues inherent in retrospective methods (Snelgrove  
18 & Havitz, 2010).

19           Lastly, future researchers are encouraged to examine sport events held in countries with  
20 both similar and different educational systems to confirm the findings of this study. Moreover,  
21 given that each of our cases focused on the promotion of a single sport, the findings should be  
22 validated through the examination of cases involving the promotion of multiple sports to  
23 understand how schools can increase sport participation across different sports.

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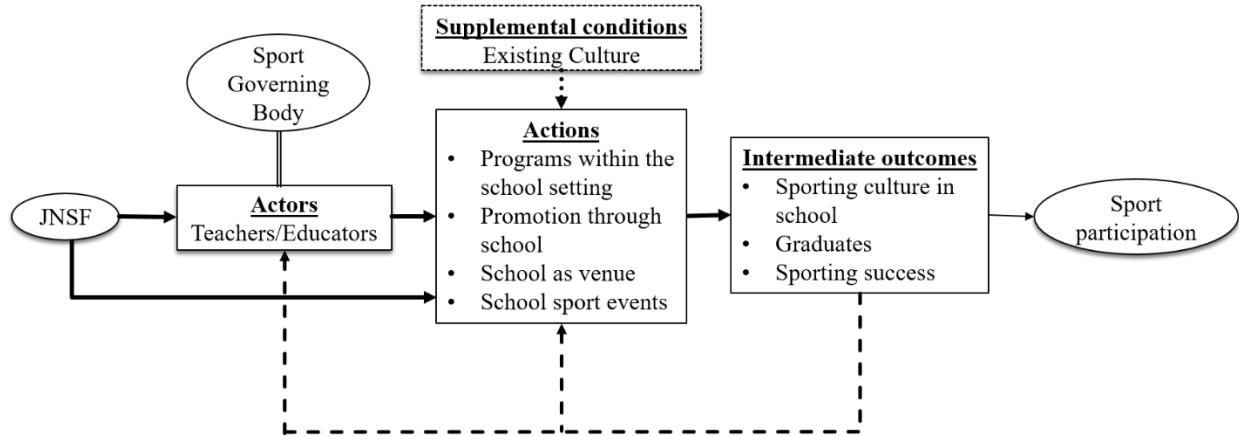
1 Table 1. List of Interviewees.

City ID	Sport hosted	Year of hosting NSFJ	Interviewee ID	Current affiliation
1	Sumo	1978	1A	Alternate president of the Prefectural Sumo Federation
			1B	Secretary general and vice chief director of the Prefectural Sumo Federation
			1C	Superintendent of the City Board of Education
2	Canoe	1988	2A	Staff of the Sport Promotion Group in the Prefectural Board of Education
3	Handball	1993	3A	Senior staff member of the Bureau of Creative City Promotion
4	Canoe	1994	4A	City official
5	Climbing	2004	5A	Vice-president of the Prefectural Mountaineering Federation
			5B	Executive director and secretary general of the City Silver Human Resources Center
			5C	President of the City Mountaineering Federation
			5D	Senior manager of the Athletic Promotion Division in the City Board of Education
6	Rugby	2011	6A	Assistant manager of the Sport Promotion Group in the City Board of Education

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3



1 Figure captions



Note: This framework consists of four components corresponding to the four themes: *actions* for the theme ‘need for actions by or through schools’; *actors* for the theme ‘presence of central actors’; *intermediate outcomes* for the theme ‘intermediate outcomes for future promotional activities’; and *supplemental condition* for the theme ‘supplemental conditions to amplify effects.’

2

3 Figure 1 A circular system of leveraging sport events through the educational system