

**Increasing the Accessibility to Sport and Physical Activity for  
Youth with Disabilities in Minnesota: Multiple Strategies Paper**

Alex Johnson, Greta Fix, Haley Ravndalen, Natalie Guse

November 20, 2018

LEAD 4961W (004)

University of Minnesota, Twin Cities

## Introduction

### Definition of the Issue

The existence of intellectual and physical disabilities, in a general sense, predates most of the knowledge that has been recorded on them. As the human race has evolved and progressed, our understanding of disabilities has evolved in the same direction; yet there are still a lot of questions surrounding the population of individuals with disabilities and concerns regarding how we, as a society, incorporate accessibility and integration. We know this is an issue because according to the World Health Organization, “About 15% of the world's population lives with some form of disability...,” an estimate that is considered to be on the rise (World Health Organization, n.d.). Closing in on a more local lens, the 2016 US Census estimated that 573,406 Minnesota residents live with a disability including 46,811 aged 5-17 years (U.S. Department of Commerce, 2016). These individuals deserve to live a healthy, active, and normal life so their disabilities shouldn't be holding them back from participating in physical activities and sports.

### Context of the Issue

As the human race has evolved and progressed, our understanding of disabilities has evolved in the same direction. However, the majority of the population of individuals with disabilities do not participate in physical activity (Carlson et al., 2013; Frey et al., 2008). This is an important issue to address because it raises concerns regarding how we, as a society, incorporate accessibility and integration through sport and physical activity. Perspectives from the United States as well as Nigeria and Germany were reviewed in order to better understand and conceptualize strategies for implementing within Minnesota to improve accessibility to sport/physical activity for individuals with disabilities.

Physical activity programs specifically designed for members of the community with physical and intellectual disabilities, such as those provided by the Special Olympics, have already been introduced and have grown within the last half-century. Frey, Temple, and Stanish (2017) pointed out that it has been “well documented that youth with intellectual disabilities are less active than peers without disabilities, however there are few published efforts to improve physical activity in this population segment” (p. 444). In their review, Frey and colleagues determine that both the quantity and quality of physical activity interventions for youth with intellectual disabilities are lacking. Nine out of the eleven studies within their review—five (5) from the United States; two (2) from New Zealand; three (3) from Taiwan; one (1) from Canada—reported significant increases in physical activity behavior.

Furthermore, while several interventions have shown promising results and evidence of some benefits for intervention programs, the reporting and design flaws make it difficult to generalize or replicate findings (Angulo-Barroso, Burghardt, Lloyd, & Ulrich, 2008; Chang, Shih, & Lin, 2014; Ulrich, Burghardt, Lloyd, Tieman, & Hornyak, 2011). Finally, there are many challenges to conducting large-scale interventions in youth with intellectual disabilities, so researchers are encouraged to develop multi-site collaborative projects to increase sample size, strengthen research design and improve generalizability of findings (Frey, Temple, & Stanish, 2017).

Taking this context into consideration (as well as the research synthesized within the previous research paper completed), the following sections will outline two intervention strategies that could be implemented within the Minnesota community to enhance the accessibility and inclusion of youth with disabilities in community sport and physical activity

opportunities. The first strategy will involve implementing an adaptability and inclusion representative as a resource within youth sport organizations in the greater Minneapolis area. The second strategy serves to provide more formal training and awareness of adaptability and inclusion within youth physical education teachers. This second strategy, therefore, will be implemented within elementary and middle schools in the Minneapolis-St. Paul area, which will serve as a starting point to expand throughout the country. Both strategies provide intervention within the awareness and understanding of the issue by enhancing the stakeholders that will act as resources for promoting improvements within their communities. Lastly, an underlying theme that serves as a base for both of these strategies is the shifting of intervention approaches serving adaptability and inclusion for youth with disabilities from being segregated towards integrating a unified movement enabling social inclusion to increase.

## **Intervention Strategy #1: Adaptability & Inclusion Representative Initiative**

### **Leadership Frameworks Chosen for this Strategy**

The basis of leadership frameworks that have been chosen to guide this strategy revolved around the synthesized idea that a shift in attitude and way of living connected to the topic of accessibility to sport for the disabled comes from individuals as representatives who can push the issue beyond what is comfortable and can be technically addressed, starting a movement through the power of small groups. Heifetz and Linsky, two individuals who act as representatives for furthering the understanding of leadership, formulated the distinction within leadership regarding adaptive versus technical challenges. Written in collaboration with Grashow, A., their book *The Practices of Adaptive Leadership*, promotes the focus on adaptive solutions which call for a shift in people's priorities, beliefs, habits, and loyalties (Heifetz, Linsky, & Grashow, 2009).

Furthering these concepts in a more recent publication, they put forth the realization that people will rarely hire anyone that is likely to disturb their jobs or their lives (Heifetz & Linsky, 2017). Adaptive work, however, “creates risk, conflict, and instability because addressing the issues underlying adaptive problems may involve upending deep and entrenched norms. Thus, leadership requires disturbing people” (Heifetz & Linsky, 2017, p. 19). In *The Necessary Revolution*, Peter Senge mirrors a similar projection when discussing about life beyond the bubble, or the limitations that contain our societal progress from social and environmental problems. As one of the choices for life beyond the bubble, Senge calls for the effort to “embrace variety” in order to “build community” (Senge, 2008, p. 40). Therefore, within addressing an adaptive issue such as that of this project, the push comes from within a shift of internal perspectives moving away from what is comfortable to build a nurturing community to address the problems at hand.

This representative initiative within enhancing accessibility for individuals with disabilities to sport and physical activity opportunities also utilizes the ideas proposed around creating a movement. Presented in a TED Talk in February of 2010, Derek Sivers utilized video footage of a lone concert guest starting a large scale dancing movement to suggest a couple of key lessons for starting a movement. He mentions that a movement must, first, be public and that there is great “importance of nurturing [the] first few followers as equals, so it’s clearly about the movement, not [individual]” (Sivers, 2010, 2:04). Once the first few followers join in, they create a crowd, “and a crowd is news” (Sivers, 2010, 1:07). This alludes to the power of small groups, which is further exemplified by Peter Block in *Community: The structure of belonging*. In the chapter devoted to the concept of small groups, Block advocates for the understanding of

the importance of small groups as the unit of transformation, acting as the structure in which employees and citizens become intimately connected, which then makes the work they are doing more personal (Block, 2008).

Senge, similarly, dedicated a chapter in his book to this same concept, titling Chapter 5: “Never Doubt What One Person and a Small Group of Co-Conspirators Can Do” (Senge, 2008, p. 57) In this chapter, he used Sweden's innovations and improvements regarding fossil fuels and alternative energy sources as a strengthening example to how small groups can transform systems and create adaptive solutions. According to the case analysis, countless local networks developed quietly, without governmental support, “thanks to the efforts of small groups of committed and courageous individuals who set out to find others with similar aspirations” (p. 58)

In conclusion, through these frameworks presented, the first intervention strategy will serve to implement a network of individuals as representatives for accessibility and inclusion in sport and physical activity opportunities, who will act as the internal push within the system to adjust the attitude and ways of living into a zone beyond the bubble of current comfort, and serve as the transformative power within small group collaboration to enhance a movement for unified sport through the Minneapolis and greater-Minnesota community.

#### The Research Base for this Intervention

The literature surrounding physical activity engagement for youth with disabilities has long shown a disparity of engagement behavior between disabled and non-disabled youth. Overall, children with disabilities engage in less physical activity compared to their typically developing peers (Carlson et al., 2013; Frey et al., 2008). This trend is relevant to the intervention

strategy being proposed because it proves a need for more institutional support within providing physical activity through a unified approach involving both youth with and without disabilities.

Providing statistical support for this trend from the United States, a survey published in 2007 obtained responses from 317 special education teachers in one southern state found that only 25% of teachers reported their students participated in community sports (Kleinert, Miracle, & Sheppard-Jones, 2007). In 2008, Foley, Byran and McCubbin published a study they completed that compared the physical activity levels of young children with and without intellectual disabilities during the elementary school day and during out-of-school time (Foley, Bryan, & McCubbin, 2008). Physical activity levels were measured using an accelerometer and results showed lower levels for children with intellectual disabilities compared to typically developing children across all different times, including physical education class, recess, after school, and on weekends. More recently, Stanish and colleagues (2014) also discovered physical activity levels measured by accelerometer to be significantly lower in adolescents with intellectual disabilities than typically developing adolescents (Stanish et al., 2014). According to their findings, while 29% of typically developing adolescents met the recommended time for moderate-to-vigorous intensity physical activity (MVPA, for short), just 6% of adolescents with disabilities that had met the recommended time.

Correspondingly, international evidence suggests that children and youth with intellectual disabilities are less active than their peers without intellectual disabilities. In Australia, Shields, Dodd and Ablitt (2009) found that 42% of children with Down syndrome performed 60 minutes of MVPA each day which is lower than published reports of typically developing Australian children (Shields et al., 2009). In a like manner, a study conducted in England reported no

children with intellectual disabilities met the physical activity recommendations, and participation in vigorous physical activity was essentially nonexistent.<sup>7</sup> Further, compared to published data on the general pediatric population in England, children with intellectual disabilities engaged in considerably more sedentary behavior. (Phillips & Holland, 2011). A more recently published study from Finland highlighted that children aged 6-16 years with intellectual disabilities were found to be 40% less active than their peers, and none of the children with intellectual disabilities met the recommended guidelines for physical activity compared to 40% of typically developing children who did (Einarsson et al., 2015).

As previously mentioned, the consistent presence of disparity between physical activity engagement among youth with and without disabilities verifies the need for more support from institutions and organizations through a unified approach. By providing a supporting role within institutions and organizations that provide physical activity opportunities at the youth level, the hope is that more youth with disabilities will be encouraged to engage in community sports and other physical activity opportunities with their non-disabled peers, promoting a more unified sense of community. To provide evidence for potential success with this form of intervention, the Manchester United Football Club can be referenced as a bright spot, or leading example. Downs & Paramio-Salcines (2013) conducted a case study on the Manchester United Football Club, specifically regarding their deliberate initiatives to promote accessibility services and procedures for spectators with disabilities. Phil Downs, a local community member, originally purchased the team to save them from bankruptcy, but utilized this as an opportunity to adjust the culture of the club and integrate efforts to improving disability accessibility within their stadium and to their club operations. In 1993, Phil Downs was “recruited on a full-time basis in an emerging and

pioneering managerial position at club level as Disability Liaison Officer at Manchester United,” (Downs & Paramio-Salcines, 2013, p. 140). Moving beyond the quantity to the quality of the fan experience, the Manchester United Football Club included the first position within any sport organization that was dedicated to enhancing the inclusion within their operations and service for members of the community with disabilities.

Outside of the sport and physical activity context, the Guthrie Theatre in Minneapolis, Minnesota also provides a leading example for including a designated representative for accessibility and inclusion within the culture and operations of their organization. The Accessibility Manager, Hunter Gullickson, at the Guthrie Theater ensures that the theater is welcoming to people of all abilities (“Accessibility Offerings”). Their award winning access program allows people with hearing, mobility, visual, intellectual, and even temporary impairments to have to opportunity to attend performances. The success of Hunter’s position and their Accessibility Offerings program provides great insight into how an Accessibility & Inclusion Representative might be function and be received in a youth sports and physical activity setting. Hunter’s role and influence even extends beyond the Guthrie. He provides consultations and access equipment rentals with other arts organizations, and the newly established MN Access Alliance for cultural administrators who want to “raise the bar for accessibility across the culture and arts sectors” (“Attend the First Minnesota Access Alliance Program!”). The success and influence of the accessibility initiatives at Manchester United and the Guthrie Theater inform both an international and local framework for implementing our strategy for appointing an Accessibility & Inclusion Representative in youth sports organizations in the Minneapolis area.

## Overview of the Intervention

### *Description*

This strategy involves requiring an Accessibility & Inclusion Representative to be present on the administration of prominent youth sports organizations. Having a knowledgeable resource and representative would benefit both athletes with and without disabilities--athletes with a disability would benefit from having an ally and advocate for their participation and athletes without a disability would benefit from increased participation of teammates with diverse perspectives.

The Accessibility & Inclusion Representative would act as a tool to change organizational culture and mindset. The representative would be responsible for addressing the issue not only through invitation for a cultural shift within the organization, but also for implementing formal policy change in Employee Handbook, organization mission statement, and other written items.

### *Who is Involved?*

We will need buy-in from organizations and people in and around Minneapolis. We will need at least one organization to implement our strategy of bringing an Accessibility & Inclusion Representative to their board of directors. We will need buy-in and support from existing members and participants in local youth sports organizations. Just as MN Access Alliance for access in the arts was made possible Minnesota voters through a Minnesota State Arts Board Operating Support grant and a legislative appropriation from the arts and cultural heritage fund (VSA Minnesota), our strategy will require government funding and voter support.

### *Who is Affected?*

Inclusion of everyone adds value for everyone. With the right support, including youth with disabilities will experience increased opportunity to participate in sports and physical activity programs. Increased diversity within these programs will give young people and adults alike the chance to connect and dispel negative stereotypes that surround disability. With our strategy of having an Accessibility & Inclusion Representative, the culture surrounding youth sports will be affected as well. Although there will be financial cost and cultural implications for implementing this strategy and getting buy-in from the Minneapolis community and sports organizations, the system will see positive benefits as a whole.

### *Resources Needed*

The resources needed for this strategy include funding and advocacy. Financial resources needed for implementing this strategy can be measured based on current, parallel strategies in other fields. According to Glassdoor (2015), the average salary for a YMCA Youth Sports Director in Minneapolis/St. Paul is \$36,936 per year (“Salary”). This salary can be used to project the funding needed to hire one Accessibility & Inclusion Representative at one organization during the first phase of our timeline. Funding will also be needed to provide adaptive equipment. According to Olson (2018), \$114,000 was raised by Gillette Children’s Specialty Healthcare in St. Paul that helped 50 families buy either specialized sports equipment for their kids, or iPads or other devices to help them communicate (para. 6). This breaks down to \$2,280 per family for equipment expenses. This money for the first phase will have to come from donations, but later on through the private sector and government support. Finally, resources for

advocacy will be needed as there will need to be buy-in from targeted youth sports organizations. The advocacy group will have to be volunteer-based and run.

## Evaluation

We will be able to tell if the intervention is successful if we reach our goals for each phase of the strategy (see Timeline section below for more in-depth breakdown), and if there is an increase in the number of children with disabilities who participate in sports and an increase in developing adolescents who meet the recommended time for moderate-to-vigorous intensity physical activity. In coordination with our projected timeline, this means that by the second-year mark, a partnership will be established with the Special Olympics and an Accessibility & Inclusion Representative will be hired at one youth sports organization in the greater Minneapolis/St. Paul area. By year five, this means that the majority of youth sports organizations will have an Accessibility & Inclusion Representative and they will have a committee for local Accessibility & Inclusion Representatives. By year ten, there will be policy change and support in the government to provide funds for these representatives.

## Timeline

Our timeline for strategy implementation in the greater Minneapolis and St. Paul area spans ten years. The first phase of our strategy from years 1-2 involves partnering with representatives from Special Olympics and developing a plan to pitch to one youth sports organization to hire an Accessibility & Inclusion Representative. Forging a partnership with the Special Olympics would provide a credible platform to establish trust with existing organizations and provide support for the initiative. Working with just one organization at first will inform a more defined structure for strategy implementation at other organizations. Obstacles to

implementation and successful actions can be observed and translated into a streamlined framework. Success at one youth sports organization will also create a platform for finding funding in the private sector and advocating for change in government policy.

The second phase of our strategy from years 2-5 will involve expansion to other organizations. This phase will involve soliciting funding from private organizations to financially support the initiative. As more youth sports organizations are invested in the initiative and able to hire an Accessibility & Inclusion Representative, this phase will also involve developing small groups for Accessibility & Inclusion Representatives across organizations. Peter Block regards small groups as “the unit of transformation” (Block, 2008). With a committee for local representatives across disciplines, there will be a greater opportunity for unity and support for the initiative.

The third and final phase of our strategy will span the final five years of our projected timeline. This phase will involve advocating for policy change in requiring large youth sports and physical activity organizations to have an Accessibility & Inclusion Representative. With more organizations involved in the effort, there will be increased literacy in the necessity and benefits of involving youth with disabilities in sports and physical activities. With increased education and tangible examples of how the effort and strategy functions, it will be easier to gain wider support from voters and government officials to advocate for policy change.

## Intervention Strategy #2: Training Program for Physical Education

### Teachers

#### Leadership Frameworks Chosen for this Strategy

For this strategy, there are a few relevant leadership frameworks that have been chosen to highlight. Similar to the previous strategy, looking at Heifetz and Linksys' technical vs. adaptive leadership, this strategy is adaptive. Instead of taking a technical approach where the solution would be a quick, easy fix that is implemented in one or two specific places, this strategy is an adaptive approach that changes values, beliefs, roles, and approaches to work (Heifetz & Linksy, 2009). As an adaptive strategy, it may take time to implement but it is a more long-term approach rather than a short-term technical approach. It is worth the risk and instability that comes with an adaptive strategy because it has the opportunity to be more sustainable.

In addition, an article titled *Talking about Art: An Experimental Course in High School Art Appreciation* refers to a famous educational philosopher named John Dewey who stated, "start where the pupils are," and how it relates to civic action projects (Lanier, 1968). In addressing how to promote civic engagement within youth, Velure-Roholt and colleagues talk about how young people tend to be excluded from community activities because of the assumption that they won't understand (Velure-Roholt et al., 2008). Instead of excluding them, it is important to include them and make them the driving force of this project. It can teach young people and adults how to effectively communicate with each other and give young people the opportunity to be curious and ask questions to gain an understanding of complex topics that will have an effect on them for their entire life. Starting the conversation early will only make young

people more aware of civic action projects and more engaged in relevant topics that need to be addressed in society as a whole.

### The Research Base for this Intervention

A successful and relevant example is the Minnesota Adaptive Athletics Association (MAAA), which provides sports experiences for high school athletes with disabilities in the same manner that they have been provided for non-disabled athletes (MAAA, n.d.). There are currently over 30 school areas that are members spanning across the state of Minnesota. This program is positively affecting the lives of the disabled athletes during their high school but there is a lack of support in K-8th Grade by giving them an opportunity to participate in physical education and sports. Seeing the success that the MAAA has and the effectiveness of their work has been an inspiration for this strategy and the efforts to incorporate experiences for younger athletes in their K-8th Grade Physical Education courses.

Another example from the tourism industry in Germany is their implementation of a certification process. The government developed criteria to evaluate each service and inspect them to see if they qualify for the “Tourism for All” seal (Twardowski, n.d.). They realized that the disabled community was an untapped market who was missing out on tourism activities because they weren’t accessible to them. In order to take action, they created accessibility standards for the entire nation. They use photographs and labels to indicate the services that are accessible to which disabilities. This accreditation process will be used as inspiration for the Physical Education classes as a model when it comes to regulating and certifying participating schools.

The National Disability Authority has created a resource to make services more accessible to people with disabilities. Some highlights include looking and speaking directly at the person with a disability, ask if they would like help, do not patronize them which we will incorporate into the strategy to give the teachers a toolbelt for success (“Make Your Services More Accessible”). This resource also includes different strategies for addressing different disabilities and specific tactics for each. Incorporating research like found in this source into our curriculum and collateral material, we are educating the teachers and setting them up for success in the classroom. The teachers will have all of the resources they need to feel confident in starting the conversation and working with students who have disabilities. Albert Bandura, a social science psychologist, discovered that Self-confidence is considered one of the most influential motivators and regulators of behavior in people's everyday lives (“Learning, Remembering, Believing”). This strategy will work to increase their confidence and inspire change in their schools.

## Overview of the Intervention

### *Description*

This strategy involves a systematic change that affects Physical Education (P.E.) Teachers in the United States. We would implement an online certification that each public P.E. teacher K-8 would be required to complete in order to teach. This certification would include information to inform and educate teachers on how to effectively include students with disabilities in class activities as well as strategies to work with these students who have barriers to participation. Since P.E. courses are required in public schools, this is a great way to reach

students who may not have access to additional programs as well as ensure they feel included and able to participate in their school P.E. class. The certification process would be an online training platform that the teachers will be required to complete the summer before each school year. It will be updated each year with new information as well as test prior knowledge from previous years. This certification will give the school a label as an accessible school for disabled students to attend. The curriculum will be generated and tested by professionals to gather insights on what is important for teachers to learn. Along with the certification, each teacher will receive materials that help them incorporate accessible activities into their existing activities as well as advice to properly deal with disabled students and their unique needs.

### *Who is Involved?*

We will need buy-in from the teachers and the schools for our physical education teacher training program. This curriculum will begin to be implemented in the schools that choose to add this to their current curriculum, which makes the schools the biggest decision maker involved. We will need at least one school to be the first buy in, and the rest will follow from there. The teachers are involved in that decision process too, as they will be adding a small portion of work to their preparation each year.

### *Who is Affected?*

The teachers, students, and families will gain the most value from this implementation of curriculum. Adding this training program for physical education teachers in schools will make the teachers much more knowledgeable and aware of diversity of students in situations. Many students with disabilities will be affected as they will be given more opportunities in schools, which can make life much easier for their friends and families. Beyond the students with disabilities, all students will gain a larger understanding and knowledge of how accessibility can be a constant battle for those with disabilities. As entire school districts, cities, and states decide to add the training program for physical education teachers to their schools, the entire community will benefit from the knowledge as they apply these diversity and inclusion into their lives.

### *Resources Needed*

The resources needed for this intervention are less tangible resources and the help of people and the resources they have to offer. The first resource that we need is the curriculum.

This curriculum will be funded by the budget of schools. With schools constantly looking for ways to cut down their budgets, this will be something that we will have to show in our pitch to emphasize the importance of this program and compare it to other options. Another part of the training platform that we will need is the people to develop our program. According to research conducted by Chapman Alliance, “an hour of eLearning costs ~\$10,000 to produce.”

## Evaluation

We will be able to determine success from the intervention if we follow through with each step of our 5 year strategy (see Timeline section below for more in-depth breakdown), and if we find success through a survey with their families. This would determine the involvement levels of the students and how they feel about the improvement of their experiences. This survey could be sent home each quarter in the mail, and would be used to evaluate how successful the training program and what could be improved.

Another source of evaluation may be the rates of disabled students attending schools. Watching the transfer and moving numbers of students to the education systems that implement the training program will show how successful this is. These schools should attract others in their direction, or create an urgency for other schools to implement the strategy if it is seen as successful.

## Timeline

Installing such a program will find progress over a span of 5 years. Within the first year, we would like to create our pitch to give to school districts around one area. It will also include finding someone to partner with professionals to create the training program. This partner will

help us evaluate what will be the most effective way to create inclusion within the physical education classes. We will start with one area so that we can find a place to start. The goal is to reach across the state, and at some point nation. Within two years, we would like to have notified schools and districts and gained interest from those who would be interested in implementing our program. This can be done through personal meetings, large group discussions, lectures, and speeches to school district boards. Our goal within the next 2 years from this is to with this is to find a few districts to begin with. This way, after these first few years of completion, we will have examples to show to other districts as the training program grows among others. Our biggest tool for growth will be found within schools that are successful with the physical education training program. Giving these schools the label as accessible for disabled students to attend with inclusion will create a want from others.

## Summary

From our research, we found that similar barriers to participation are relevant around the world. We strategize to improve each layer of the system down to the participants. By creating two adaptive strategies to decrease the barriers that individuals with disabilities face when participating in physical activities and sports, the intent is to spread a unified movement throughout the sport sector and, then, into other sectors of society.

Our first strategy involves appointing an Accessibility & Inclusion Representative on the Board of Directors for youth sports organizations. With a knowledgeable resource and advocate, both athletes with and without disabilities will benefit. Athletes with a disability will benefit

from having an ally for their participation and athletes without a disability will benefit from increased participation of teammates with diverse perspectives.

The second strategy includes a new stakeholder from the first: the education system. Rather than just asking teachers to create more involvement with students in the classroom, we focused on implementing a physical education teaching program that would be released each year. We would implement an online certification that each public P.E. teacher K-8 would be required to complete in order to teach. This would give the school a label as accessible for disabled students to attend.

Successful integration of these strategies will require great buy-in and assistance from the community, as outlined within the sections. The greatest component that will need to be properly addressed throughout both strategies is a shift in the outlook on disabilities from society. Providing opportunities in separation from non-disabled peers, although beneficial for improving access to sport and physical activity, does not serve to enhance the inclusion of disabled members of the community within society. Therefore, we hope that our implementations will successfully spark an increase in awareness towards the cause of social inclusion for individuals with disabilities, especially youth, with sport and physical activity opportunities acting as a platform to promote social well being and longevity in unification.

## References

- “Accessibility Offerings.” Accessibility, [www.guthrietheater.org/plan-your-visit/accessibility-offerings/](http://www.guthrietheater.org/plan-your-visit/accessibility-offerings/).
- Angulo-Barroso, R., Burghardt, A. R., Lloyd, M., & Ulrich, D. A. (2008). Physical activity in infants with Down syndrome receiving a treadmill intervention. *Infant Behav Dev*, *31*, 255-269. <https://doi.org/10.1016/j.infbeh.2007.10.003>
- “Attend the First Minnesota Access Alliance Program!” VSA Minnesota, 31 May 2017, [vsamn.org/attend-first-minnesota-access-alliance-program/](http://vsamn.org/attend-first-minnesota-access-alliance-program/).
- Block, P. (2008). The Small Group Is the Unit of Transformation. In P. Block, *Community: The structure of belonging* (pp. 93-100). San Francisco, CA, US: Berrett-Koehler Publishers.
- Carlson, S., Shields, N., Dodd, K., & Taylor, N. (2013). Differences in habitual physical activity levels of young people with cerebral palsy and their typically developing peers: a systematic review. *Disabil Rehabil*, *35*(2) 647–655.
- Chang, M. L., Shih, C. H., & Lin, Y. C. (2014). Encouraging obese students with intellectual disabilities to engage in pedaling an exercise bike by using an air mouse combined with preferred environmental stimulation. *Res Dev Disabil*, *35*(12), 3292-3298. <https://doi.org/10.1016/j.ridd.2014.08.020>
- Downs, P., & Paramio-Salcines, J. L. (2013). Incorporating accessibility and disability in the Manchester United culture and organization as part of their CSR policies. In J. L. Paramio-Salcines, K. Babiak, & G. Walters (Eds.), *Routledge handbook of sport and corporate social responsibility* (pp. 135-146). New York, NY: Routledge.

- Einarsson, I. O., Ólafsson, A., Hinriksdóttir, G., Jóhannsson, E., Daly, D., & Arngrímsson, S. A.(2015). Differences in physical activity among youth with and without intellectual disability. *Med Sci Sports Exerc*, 47(2), 411-418.  
<https://doi.org/10.1249/MSS.0000000000000412>
- Foley, J. T., Bryan, R. R., & McCubbin, J. A.(2008). Daily physical activity levels of elementary school-aged children with and without mental retardation. *J Dev Phys Disabil*, 20(4), 365-378. <https://doi.org/10.1007/s10882-008-9103-y>
- Frey, G., Stanish, H. I., & Temple, V. A. (2008). Physical activity of youth with intellectual disability: review and research agenda. *Adapt Phys Activ Q*, 25, 95–117
- Frey, G. C., Temple, V. A., & Stanish, H. I. (2017). Interventions to promote physical activity for youth with intellectual disabilities. *Salud pública de México*, 59(4), 437-445.
- Heifetz, R. A., Linsky, M., & Grashow, A. (2009) *The Practices of Adaptive Leadership*. Boston: Harvard Business Press
- Heifetz, R., & Linsky, M. (2017). *Leadership on the Line, With a New Preface: Staying Alive Through the Dangers of Change*. Harvard Business Press.
- How much does it cost to create an online course? (n.d.). Retrieved from <https://raccoongang.com/blog/how-much-does-it-cost-create-online-course/>
- Kleinert, H., Miracle, S., & Sheppard-Jones, K. (2007). Including students with moderate and severe intellectual disabilities in school extracurricular and community recreation activities. *Intellectual and Developmental Disabilities*, 45, 46–55.
- Lanier, V. (1968). Talking about Art: An Experimental Course in High School Art Appreciation. *Studies in Art Education*, 9(3), 32-44. doi:10.2307/1319763

Learning, Remembering, Believing: Enhancing Human Performance. (n.d.). Retrieved from <https://www.nap.edu/read/2303/chapter/13>

Make your services more accessible. (n.d.). Retrieved from

<http://nda.ie/Resources/Accessibility-toolkit/Make-your-services-more-accessible/>

McConkey, R., Dowling, S., Hassan, D., & Menke, S. (2013). Promoting social inclusion through unified sports for youth with intellectual disabilities: a five-nation study. *Journal of intellectual disability research*, 57(10), 923-935.

MAAA Minnesota Adapted Athletic Association. (n.d.) *Home - Member Schools*. Retrieved from <https://www.maaconference.org/g5-bin/client.cgi?G5genie=175>

Olson, Jeremy. "With Adaptive Sports, Gillette Helps Kids Buck Disabilities." *Star Tribune*, Star Tribune, 4 Feb. 2018, [www.startribune.com/with-adaptive-sports-gillette-helps-kids-buck-disabilities/472519043/](http://www.startribune.com/with-adaptive-sports-gillette-helps-kids-buck-disabilities/472519043/)

Phillips, A. C. & Holland, A. J. (2011). Assessment of objectively measured physical activity levels in individuals with intellectual disabilities with and without Down's syndrome. *PLoS ONE*, 6(12). <https://doi.org/10.1371/journal.pone.0028618>

"Salary: YMCA Youth Sports Director in Minneapolis-St. Paul, MN." *Glassdoor*, [www.glassdoor.com/Salaries/minneapolis-ymca-youth-sports-director-salary-SRCH\\_IL.0,11\\_IM567\\_KO12,38.htm](http://www.glassdoor.com/Salaries/minneapolis-ymca-youth-sports-director-salary-SRCH_IL.0,11_IM567_KO12,38.htm).

Senge, P. M. (2008). *The Necessary Revolution: How individuals and organizations are working together to create a sustainable world*. New York: Doubleday.

- Shields, N., Dodd, K. J., & Abblitt, C. (2009). Do children with down syndrome perform sufficient physical activity to maintain good health? A pilot study. *Adapt Phys Act Quart*, 26(4), 307-320. <https://doi.org/10.1123/apaq.26.4.307>
- Sivers, D. (2010, February). *How to start a movement* [Video file]. Retrieved from [https://www.ted.com/talks/derek\\_sivers\\_how\\_to\\_start\\_a\\_movement?language=en#t-159307](https://www.ted.com/talks/derek_sivers_how_to_start_a_movement?language=en#t-159307)
- Stanish, H. I., Must, A., Phillips, S., Curtin, C., Maslin, M., & Bandini, L. G. (2014). Comparison of moderate and vigorous physical activity levels among adolescents with and without intellectual disabilities. Orlando, Florida: American College of Sports Medicine, 2014.
- Twardowski, B. (n.d.). Accessible Germany. Retrieved November 17, 2018, from <https://www.abilities.com/community/accessible-germany.html>
- Ulrich, D. A., Burghardt, A. R., Lloyd, M., Tiernan, C., & Hornyak, J. E. (2011). Physical activity benefits of learning to ride a two-wheel bicycle for children with down syndrome: A randomized trial. *PhysTher*, 91(10), 1463-1477. <https://doi.org/10.2522/ptj.20110061>
- U.S. Department of Commerce. (2016). Disability characteristics. Retrieved from <https://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=bkmk>
- Velure-Roholt, R., Velure-Roholt, C., Pettis, S., & Smyth, P. (2008). Citizens Now: A guidebook for building more democratic communities with young people. *Public Achievement*.
- “Welcome to VSA Minnesota - The State Organization on Arts and Disability.” VSA Minnesota, [vsamn.org/](http://vsamn.org/).

*World Health Organization.* (n.d.). World report on disability. Retrieved from

[http://www.who.int/disabilities/world\\_report/2011/report/en/](http://www.who.int/disabilities/world_report/2011/report/en/)