

Volume 50, Number 1, 2019

# Runner



*The Journal of the Health and Physical Education Council of the Alberta Teachers' Association*



Practising Solo  
Time: Why and  
How?

Teaching  
Spectrum-Style—  
Part 2

The Benefits  
of Nature and  
Outdoor Play

Copyright © 2019 by The Alberta Teachers' Association (ATA), 11010 142 Street NW, Edmonton, Alberta T5N 2R1. Unless otherwise indicated in the text, reproduction of material in *Runner* is authorized for classroom and professional development use, provided that each copy contains full acknowledgement of the source and that no charge is made beyond the cost of reprinting. Any other reproduction in whole or in part without prior written consent of the ATA is prohibited.

*Runner* is published three times yearly by the ATA for the Health and Physical Education Council (HPEC). Opinions of writers are not necessarily those of the ATA or the HPEC. Editor: Astrid Kendrick. Editorial and production services: Document Production staff, ATA. ISSN 0707-3186

Individual copies of this journal can be ordered at the following prices: 1 to 4 copies, \$7.50 each; 5 to 10 copies, \$5.00 each; more than 10 copies, \$3.50 each. Please add 5 per cent shipping and handling and 5 per cent GST. To place your order, please contact Distribution at Barnett House, at [distribution@ata.ab.ca](mailto:distribution@ata.ab.ca).

This journal is available on microfilm from Canadian Education Index, Micromedia Limited, Acquisitions/CEI, 20 Victoria Street, Toronto, Ontario M5C 2N8.

Personal information regarding any person named in this document is for the sole purpose of professional consultation between members of the Alberta Teachers' Association.



The Alberta Teachers' Association

# Runner

Volume 50, Number 1, 2019

## Contents

- 2 Editor's Message ..... Astrid Kendrick  
3 President's Message ..... Nadeen Halls

### LIFE IS A JOURNEY—MAKE IT MEANINGFUL

- 4 Meaningful Physical Education—for Life! ..... Doug Gleddie  
7 Physical Education, Health Champions and Emotional Labour ..... Astrid Kendrick

### LIFE IS A JOURNEY—MAKE IT MINDFUL

- 9 Practising Solo Time: Why and How? ..... Shannon Kell

### LIFE IS A JOURNEY—MAKE IT INCLUSIVE

- 12 Reflections of a New Teacher ..... Chris Walcot  
15 Teaching Spectrum-Style—Part 2 ..... Mark Byra

### LIFE IS A JOURNEY—MAKE IT HEALTHY

- 25 Beyond Phys Ed: Three Ways to *Activate* the Whole School ..... Jill Lambden  
27 Research-Informed Teaching  
Tips for Health Educators ..... Shannon Kell, Lauren Sulz,  
Brent Bradford and Doug Gleddie  
33 Keeping Kids in the Game: Neuromuscular  
Training—a New Standard for Warming Up ..... Megan McKinlay

### LIFE IS A JOURNEY—TAKE IT OUTSIDE

- 36 Exploring the Literature on the Benefits of Nature  
and Outdoor Play and the Role of Play Leaders ..... Kaitlyn Sobchuk, Sarah Connolly  
and Dwayne Sheehan  
46 Developing Units for Creating  
Lifelong Outdoor Movers ..... Brett Richards and Erin Wright

### LIFE IS A JOURNEY—MAKE IT ACTIVE TODAY

- 49 Gymnastics for All: A Unit on Gymnastics Station Safety for K-6 ..... Dustin Turner

### LIFE IS A JOURNEY—LET'S CELEBRATE

- 52 2018 Award Winners

### Editorial Board

**Astrid Kendrick**  
Runner Editor

**Nadeen Halls**  
HPEC President

**Sonia Sheehan**  
HPEC Vice-President,  
Communications



# Life Is a Journey

Astrid Kendrick

For the past 57 years, *Runner*, the journal of the Health and Physical Education Council (HPEC), has been providing Alberta's teachers with up-to-date and relevant information about teaching health and physical education. The journal was first published in 1962, and since then, 49 volumes have been published and sent to teachers. I am very proud to play a small part in such a distinguished history by being the editor of this 50th volume.

Back in 1987, the year I took my last official physical education class, I would not have believed any time-travelling visitor who told me that I would someday be a phys ed teacher, let alone editor of the HPEC journal. At that time, I intensely disliked gym class and was looking forward to never setting foot on a volleyball court ever again once Physical Education 10 was done. Don't get me wrong—I loved skiing, hiking and playing tennis with my friends. But the typical team sports held no appeal for me.

Fast-forward 32 years, and here I am: a staunch advocate of daily physical activity, a strong proponent of comprehensive school health and a proud physical education teacher. What changed for me? At the University of Alberta, in 1990, I became hooked on step aerobics and running. I had close friends who dragged me to classes in the Butterdome (the U of A's athletics facility)

and hauled my butt around Edmonton's river valley running trails. I came to love feeling sweaty, and I stopped caring about how red my face got when I worked hard.

*Have faith, my fellow physical educators. The work you do today will be life-changing tomorrow.*

After graduating with my education degree, I moved to Jasper and worked at Marmot Basin as a sandwich maker (a fantastic first job!). During the two seasons I worked there, I learned how to snowboard and spent every day off work floating down fresh powder without a care in the world. But the call to teaching soon came—in the form of student loan repayments—and I headed to Pierceland, Saskatchewan, to teach at Island Lake First Nation School. My teaching assignment was half-time English and half-time physical education. This was initially terrifying, because of my fear of teaching gym, but I've come to treasure this wonderful balance between challenging my body and challenging my mind. I've experienced this balance at every school since then, and I wouldn't ever want to change it.

My journey to loving physical activity took a sharp detour after elementary school. After puberty, I was that girl in phys ed who reluctantly stood midcourt and watched the volleyball (or basketball or birdie or football) soar over her head. The best gift I received from my elementary phys ed teachers was physical literacy—so once I had survived those teenaged years, I could become an active and healthy adult.

Have faith, my fellow physical educators. The work you do today will be life-changing tomorrow. This issue of *Runner*, which is organized around the theme of the HPEC 2019 annual conference ("Life Is a Journey"), is dedicated to you.

*Life Is a Journey—Make It Active*



## President's Message

Nadeen Halls

I am grateful to be able to write this message as the incoming HPEC president for the 2018–20 term. A journey it has been. As I take time to reflect on my 18 years of health and physical education (HPE), my experiences as a member of the HPEC executive and now my master's studies as part of the Health and Physical Education MEd (#HPEMED) cohort at the University of Alberta, it seems like only yesterday that I was heading to my first HPEC conference back in 2001 as a brand new student teacher and HPEC member.

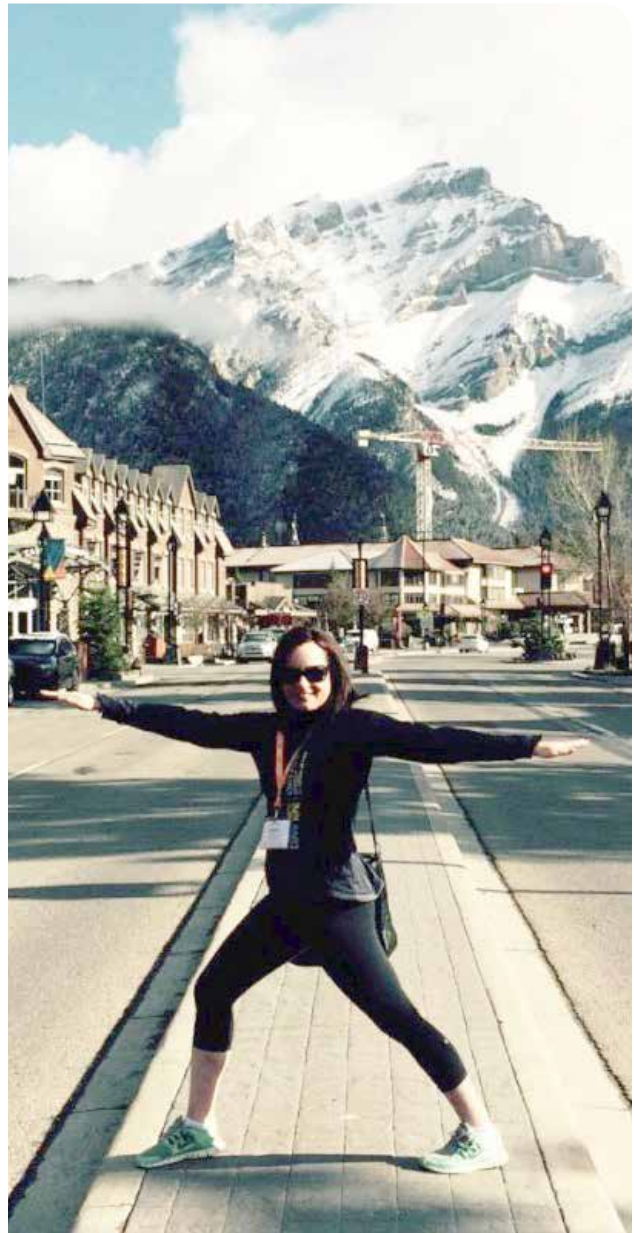
*I have come to realize just how important our own health and well-being are in the balance of work and life.*

One of the most valuable aspects of this work has been finding a community of people with a similar purpose and passion. These amazing people not only invest in their personal professional practice but also work to improve the HPE landscape in our province and country by providing quality HPE programs to students.

Most recently in my own journey, I have come to realize just how important our own health and well-being are in the balance of work and life (which sometimes can feel like one and the same). Although it is important to do the work, it is equally important to take the time to rest, recharge and find strategies that encourage ourselves (and each other) to be well—physically, emotionally, socially, intellectually and spiritually.

Your HPEC executive will be working to align our professional learning opportunities throughout the year with the theme of our annual conference (held May 9–11 in Red Deer)—“Life Is a Journey—Let It Be Active.” For more information about PD events around the province, check out the HPEC website ([www.hpec.ab.ca](http://www.hpec.ab.ca)). I encourage you to reach out and connect with us as part of our HPEC family. We are here to serve and support our members around this beautiful province.

*Life Is a Journey—Let It Be Active*



# Meaningful Physical Education—for Life!

Doug Gleddie

## Why Do I Have to Learn This?

As a kid, I asked this question with regard to math class and the study of Shakespeare in English class. Do you ever hear these questions from your phys ed students?

“Why are we doing basketball—*again?*”

“What possible purpose will the beep test serve me after I leave high school (or this phys ed class)?”

“Why do we have to learn how to waltz? Does anyone waltz anymore?” (Seriously, does anyone?)

These are legitimate questions about what possible worth these phys ed activities, skills and concepts might have 5, 10 or 50 years down the road. When students ask these questions, I believe what they are really searching for is meaning.

*When students ask these questions, I believe what they are really searching for is meaning.*

The Oxford Dictionaries website defines *meaning* as follows:

1. What is meant by a word, text, concept, or action. . . .

1.1 Implied or explicit significance. . . .

1.2 Important or worthwhile quality; purpose.<sup>1</sup>

The key definitions here are 1.1 and 1.2. In other words, what’s the point of physical education (or, at minimum, of certain activities done in phys ed)? If we can’t answer this question, we will never help develop lifelong physical activity in our students.

Back in 2017, I wrote a post for the crew over at Learning About Meaningful Physical Education (LAMPE) (Gleddie 2017). Since then, I have been privileged to be involved with the team on a project studying meaning in physical education teacher education (PETE). (Are you tired of

acronyms yet?) We are now moving the research into schools. Go figure—the LAMPE team’s purpose is to focus “on ways to prepare future physical education teachers and coaches to *foster meaningful engagement* in physical activity through [physical education] and youth sport” (*italics added*).<sup>2</sup> Cool!

As I was prepping for the project and my role in it, I read an open-access article written by members of the LAMPE team. In the article, Stephanie Beni, Tim Fletcher and Déirdre Ní Chróinín (2017) examine 50 studies on students’ experiences of meaning in physical education and youth sport. Their meta-analysis identifies five features that contribute to young people’s meaningful experiences in physical education:

- Social interaction
- Fun
- Challenge
- Motor competence
- Personally relevant learning

In the rest of this article, I will look briefly at these features and begin to explore how physical education teachers can create a program culture in which meaningful experiences (for students and teachers) can flourish and perhaps even lead to lifelong physical activity.

## Social Interaction

Students find meaning in the relationships created and sustained in phys ed. Take time to consider how your students interact with their peers, and use your observations to create purposeful groupings. Take time to identify and meet the social needs of individual students. Might there be gender bias in your class? From you or from your students? That type of bias inhibits relationships and can be damaging in terms of lifelong physical activity choices (as well as being hurtful at the time). As a teacher, how do you sustain the social aspect? By all means, interact

meaningfully with your students, but also consider your own physical education teacher social networks. Who can you connect with?

## Fun

Delight, joy, fun—these are all different. We don't have time to go into it here, but the important thing to remember is that fun is an important motivator for us all. Learning (especially in phys ed) should be fun! If you take time to observe the level of fun and enjoyment in your class, you will notice that learning often follows close behind. Think about your own levels of fun as you teach. Are you enjoying yourself? If so, the kids probably are too! Pay attention to this feature, for sure—but not at the expense of the other features.

*Paying attention to meaning making in purposeful, intentional ways (through pedagogy, content and assessment) will help create a culture of learning and growth in your phys ed class.*

## Challenge

Challenge is another important motivator, and it can be linked to autonomy and competence. (Incidentally, autonomy and competence are two key aspects of self-determination theory, with the third being relatedness.<sup>3</sup>) Opportunities for students to set their own goals and work toward personal competence are motivational (and fun). Observe the students in your class to ensure appropriate levels of challenge, and modify tasks as needed to ensure flow. Don't forget to challenge yourself! Teach something new, take a risk on a formative assessment or set a new teaching goal. Mihaly Csikszentmihalyi's flow theory suggests that when the challenge is slightly above our skill level, we perform at our best.<sup>4</sup>

## Motor Competence

Sometimes it seems like this part gets left out of physical education. It's pretty tough to find meaning in movement when you can't even play the game! To facilitate motor competence, create a culture of seeking personal competence where it is OK to try, fail and try again. (Hey, look! There's challenge again!) Consider the skill levels of *all* students, and remember that each kid has his or

her own story and prior relationship with physical activity (educative or miseducative). When students feel skilled, they are more engaged and can find meaning in movement. When was the last time you tried to learn a new physical activity? Your own physical activity journey has the potential to influence the journeys of your students. (Plus, it's fun!)

## Personally Relevant Learning

This feature at first glance seems like one of those “duh” moments. *Of course* learning has to be personally relevant. As we dig a little deeper, though, this can be a tough one. Try connecting the learning in physical education to the individual student. What does that student bring to the table from past experiences—good, bad or indifferent? Take some time to get to know your students, both in and out of class. Not every single aspect of your class will be personally relevant to every single kid. However, connections of relevance in one area can transfer to another. What makes physical education relevant for you? Each of our stories is unique. Don't be afraid to share yours!

I'll wrap this up with one final thought. These five features do not exist in isolation. As Beni, Fletcher and Ní Chróinín (2017, 305) write, “For example, although fun and social interaction were each identified separately as criteria that led to meaningful experiences in physical education settings, it was possible for one to either hinder or enhance the other.” Consider not only each feature in itself but also the interactions between them. For example, fun without learning can be less of a meaningful experience for students. Or providing an appropriate level of challenge in your phys ed class can make fun more likely, in turn making it easier to work with others (perhaps as a result of feeling safe because the activity is not too hard) and creating an environment conducive to increasing levels of meaning.

Paying attention to meaning making in purposeful (see what I did there?), intentional ways (through pedagogy, content and assessment) will help create a culture of learning and growth in your phys ed class. In this way, your students *and* you can foster meaningful experiences together—for life!



---

## Notes

1. Oxford Dictionaries, sv “meaning,” <https://en.oxforddictionaries.com/definition/meaning/> (accessed March 8, 2019).
2. See <https://meaningfulpe.wordpress.com> (accessed March 8, 2019).
3. See <http://selfdeterminationtheory.org/theory/> (accessed March 8, 2019).
4. See [www.pursuit-of-happiness.org/history-of-happiness/mihaly-csikszentmihalyi/](http://www.pursuit-of-happiness.org/history-of-happiness/mihaly-csikszentmihalyi/) (accessed March 8, 2019).

---

## References

- Beni, S, T Fletcher and D Ní Chróinín. 2017. “Meaningful Experiences in Physical Education and Youth Sport: A Review of the Literature.” *Quest* 69, no 3: 291–312. Also available at [www.tandfonline.com/doi/full/10.1080/00336297.2016.1224192](http://www.tandfonline.com/doi/full/10.1080/00336297.2016.1224192) (accessed March 8, 2019).
- Gleddie, D. 2017. “Delightful Physical Education.” LAMPE blog, March 13. <https://meaningfulpe.wordpress.com/2017/03/13/delightful-physical-education/> (accessed March 8, 2019).



*Doug Gleddie, PhD, is an associate professor in the Faculty of Education at the University of Alberta. He teaches physical education curriculum and pedagogy to undergraduate students, as well as graduate courses in health and physical education, reflective practice, physical literacy and research methods. His research focuses include narratives of physical education, school sport, physical literacy praxis, meaningful physical education and teacher education.*

*A version of this article was posted on Doug Gleddie's blog on October 19, 2017 (<https://purposefulmovement.net/2017/10/19/teaching-for-meaning-in-physical-education/>).*



# Physical Education, Health Champions and Emotional Labour

Astrid Kendrick

What is emotional labour, and how does it relate to physical education? *The AMA Dictionary of Business and Management* defines it as “the work of managing one’s emotions in the course of dealings with customers or employees” (Kurian 2013, 100). Arlie Hochschild (2003) first proposed this organizational construct in 1983, in her book *The Managed Heart*. She described how, in her work as a flight attendant, she was expected by both the organization and her customers to display the persona of the positive, happy stewardess. Her profession required her to provide emotional labour—the expression of only appropriate emotions while engaged in the duties of her job. This labour was particularly taxing when she was faced with disgruntled, rude or angry passengers.

Emotional labour is not simply the act of suppressing or expressing emotions while at work; it is a constructed response by an employee to react within the emotional rules of a workplace (Hochschild 2003). These emotional rules are the unspoken organizational expectations as to the expression of professionalism (Kelchtermans 2005). In physical education, that generally means appearing positive, engaging and enthusiastic while hiding anger, frustration or vulnerability. Staying focused on promoting the safety of students for 30–60 minutes while avoiding

*Health champions are especially vulnerable to destructive emotional labour.*

Hochschild (2003) suggests that a key element of emotional labour is the presence of deep or superficial acting. Deep acting occurs when the employee’s emotions align with the organizational rules regarding emotional expression, and it can be a protective factor. For example,

a teacher who identifies as a good teacher (Hargreaves 2001) can draw strength and resolve from that belief when faced with emotionally charged situations. When a teacher thinks, *I am a health champion—I am a positive force for change in this school*, that reflects deep acting in which the teacher’s understanding of him- or herself aligns with the organizational expectations of the profession.

Superficial acting, on the other hand, can be problematic (Grandey 2003). When one’s actual emotional response does not align with the organizational expectations for emotional expression, one has to work to manage one’s emotions. Emotional labour resulting from ongoing superficial acting can eventually result in emotional burnout or explosive emotional outbursts. Elsa, in the Disney movie *Frozen* (Buck and Lee 2013), describes the sensation of an emotional outburst in the song “Let It Go.” She likens it to a “swirling storm inside” that she has been trying to conceal and now is letting go.

The construct of emotional labour itself is gender neutral (Steinberg and Figart 1999) and can provide protective or destructive outcomes (Hülshager and Schewe 2011; Humphrey, Ashforth and Diefendorff 2015) for all school personnel. It becomes problematic when people bury their emotions for extended periods, regardless of whether they identify as male, female or other.

Health champions are especially vulnerable to destructive emotional labour, as they are expected to lead their schools in implementing positive health reforms. In my recent doctoral research on the emotional labour of female health champions involved in implementing comprehensive school health (CSH) reforms, my study participants described the difficulty they faced with implementing CSH in schools (Kendrick 2018). They expressed concern about the impact of their work on the workload of their colleagues, their ability to effectively change the school culture, and their emotional and mental well-being as they juggled their teaching commitments with leading reform efforts. They felt an intensification of their own emotional labour as they worked to promote health change in their schools.

One participant described the lived experience of emotional labour as being similar to responding to a first aid emergency (Kendrick 2018). When dealing with

colleagues for their “heart work” (Kendrick 2018, 80) with students can provide the encouragement they need in order to persevere with implementing reform.

*Physical educators can work to become healthy champions, caring for their own emotional needs in addition to doing the good work of health promotion.*

difficult situations, such as breaking up a fight, she buried her fear and anxiety so that she could calmly ensure the safety of her students. But in the aftermath—the time immediately after the emergency had passed—she needed some personal space to release those repressed feelings. Unfortunately, she noted, her school provided neither the physical space nor the time for staff to privately release their emotions. Instead, she had time only to take a deep breath, smile and start teaching her next physical education class.

Problematic emotional labour in health champions and physical educators can be addressed in two ways.

First, all educational actors (principals, assistant principals, teachers, educational assistants) should discuss which emotions should be managed in school buildings. Emotional labour plays an important role in creating safe and caring schools. Educational actors should manage explosive emotions to maintain a positive work environment.

Second, school leaders should encourage staff to find avenues for the safe expression of organizationally inappropriate emotions after a difficult experience. In my study, the participants all had different needs after emotionally charged situations (Kendrick 2018), so asking, “Do you need some time, space or a friend to help you right now?” is a key aspect of helping others release their emotions.

Relying on the protective factors of deep acting also has the potential to recharge physical educators and health champions after difficult situations. Colleagues can remind each other about the positive influence they have on students and staff as they create a healthy school community. Physical educators can work to become *healthy* champions, caring for their own emotional needs in addition to doing the good work of health promotion. In schools and physical education departments, recognizing

## References

- Buck, C, and J Lee, dirs. 2013. *Frozen*. Burbank, Calif: Walt Disney Pictures.
- Grandey, A A. 2003. “When ‘The Show Must Go On’: Surface Acting and Deep Acting as Determinants of Emotional Exhaustion and Peer-Rated Service Delivery.” *Academy of Management Journal* 46, no 1 (February): 86–96.
- Hargreaves, A. 2001. “Emotional Geographies of Teaching.” *Teachers College Record* 103, no 6 (December): 1056–80.
- Hochschild, A R. 2003. *The Managed Heart: Commercialization of Human Feeling*. 20th anniversary ed. Berkeley, Calif: University of California Press. (Orig pub 1983.)
- Hülsheger, U R, and A F Schewe. 2011. “On the Costs and Benefits of Emotional Labor: A Meta-Analysis of Three Decades of Research.” *Journal of Occupational Health Psychology* 16, no 3 (July): 361–89.
- Humphrey, R H, B E Ashforth and J M Diefendorff. 2015. “The Bright Side of Emotional Labor.” *Journal of Organizational Behavior* 36, no 6 (August): 749–69.
- Kelchtermans, G. 2005. “Teachers’ Emotions in Educational Reforms: Self-Understanding, Vulnerable Commitment and Micropolitical Literacy.” In “Emotions, Teacher Identity and Change,” ed K van Veen and S Lasky, special issue, *Teaching and Teacher Education* 21, no 8 (November): 995–1006.
- Kendrick, A H. 2018. “Inspiring Change: A Hermeneutic Phenomenology Exploring the Lived Experience with Emotional Labor by Female Health Champions Implementing Comprehensive School Health Reforms.” EdD dissertation, Werklund School of Education, University of Calgary. Also available at <https://prism.ucalgary.ca/handle/1880/107128> (accessed March 8, 2019).
- Kurian, G T. 2013. *The AMA Dictionary of Business and Management*. New York: American Management Association.
- Steinberg, R J, and D M Figart. 1999. “Emotional Labor Since *The Managed Heart*.” *Annals of the American Academy of Political and Social Science* 561, no 1 (January): 8–26.
- Zhang, Q, and W Zhu. 2008. “Exploring Emotion in Teaching: Emotional Labor, Burnout, and Satisfaction in Chinese Higher Education.” *Communication Education* 57, no 1: 105–22.



Astrid Kendrick, EdD, has been a classroom teacher in K–12 settings for nearly 20 years. She is a recent graduate of the Werklund School of Education doctor of education program, with a focus on educational leadership. Her doctoral thesis used hermeneutic phenomenology and a complex adaptive systems theoretical framework to explore the lived experience of emotional labour by health champions involved in implementing comprehensive school health reforms.

## Practising Solo Time: Why and How?

Shannon Kell

As an educator, have you ever been left without a realistic space in which to teach physical education? As the day progresses, do you feel like students become increasingly irritable, impulsive or even impatient? Have you found yourself struggling to find new and interesting, yet meaningful, learning activities or lessons? It may seem difficult or even impossible to believe, but there might be a solution to all these concerns, and it begins with the premise that our students are overstimulated. This article will explain how when we simply *plan to do nothing*, less might actually be more, and will discuss what research is starting to reveal about mindful, quiet and scheduled solo time for all ages.

*When we simply plan to do nothing, less might actually be more.*

### Fatigue, Overstimulation and Technology Overuse

With constant stimulation, mental fatigue occurs and behaviour issues may arise. We know that mental fatigue not only affects our concentration but also “manifests itself in negative emotions, irritability, impulsiveness, impatience, . . . insensitivity to interpersonal cues, . . . reduced performance, increased likelihood of taking risks, generally speaking in reduced competence and/or decreased effectiveness in functioning” (Berto 2014, 398). The inability to concentrate is only one symptom of fatigue. If this sounds like some students (or adults) you know, solo time may be a way for them to reset and refresh in the middle of the day, or even to begin the day.

Technology has become a way of life; we are always connected to and communicating with others. The

effects of technology use have crept into the lives of our children, who spend an average of eight hours per day using technology (cellphones, tablets, televisions, computers) and are experiencing various developmental delays that have been attributed to this use (Rowan 2010). *Technostress* is a relatively new term that describes

*With technology everywhere, children and youth may find it difficult to disconnect.*

technology overuse. Technostress, a subdimension of stress, has documented symptoms of joint pain, headache, anxiety, panic, mental fatigue and insomnia and has many direct or indirect negative effects on behaviour, thought, attitude and psychology (Cook 2015). With technology everywhere, children and youth may find it difficult to disconnect.

Alberta schools have recognized the reality of technology in students’ lives and have developed language and policies such as the digital citizenship policy (Alberta Education 2012) to support educators as they navigate the world of critical thinking and responsible, respectful online behaviour.

### What Is Solo Time?

A potential solution for feeling overstimulated, solo experiences have been reported as one of the most influential aspects of organized programs, with careful planning and support by teachers (Bobilya, McAvoy and Kalisch 2005). Solo time (structured periods of time spent alone, in silence and unplugged from technology) can help students calm down, get a fresh perspective and reorder

their lives. Almost 20 years ago, Kessler (2000, 36) recognized that “brief periods of silence and solitude in school can . . . give students a tool for cultivating rest and renewal.” Solo time can also provide an opportunity to check in and discover one’s feelings and thoughts. The foundation of all other emotional and social skills is the ability to identify one’s feelings.

*In as little as one minute (for younger students) to one hour (for older students), practising solo time can go a long way toward developing resiliency and life skills.*

Where we choose to unplug and engage in solo time makes a difference in how effectively and efficiently our brains relax and recover from stress. Outside is ideal. Research on cognitive restoration has found that exposure to natural environments aids recovery from physiological stress and mental fatigue better than urban settings (Berto 2014; Hartig et al 2003; Kaplan 1995; Pearson and Craig 2014). Nature offers us a sense of “being away” and an effortless stealing of our attention called fascination, which helps restore our cognitive functions. A recent study of postsecondary students found that, although they were resistant at first, students were pleasantly surprised by how much they enjoyed unplugging alone in nature for 60 minutes; many reported that they would use alone time in daily life to help with stress management (Kell and Giammarino 2017).

## What Might Solo Time Look Like in My Classroom or Gymnasium?

Teachers need not take students to the backcountry on a wilderness experience for solo time. Rather, they can implement simple daily breathing, relaxation and stillness exercises. Also referred to as mindfulness, solo time can be scheduled or impromptu, and it can even occur at multiple times throughout the day. Remember that solo time requires practice and repetition. Establishing expectations and routines will help students improve their skills. If you find that your students need a task at first, give them goal-setting and decision-making exercises that can be done during periods of silent reflection.

In Alberta’s K–12 physical education program of studies (Alberta Learning 2000), outdoor solo time can be applied

to the domains of individual activities and activities in an alternative environment, although it might be argued that no activity is actually taking place. Further connections to the curriculum can be made by asking students to

- understand the connection between physical activity, stress management, relaxation and well-being (B-8);
- reflect on body image (B-4);
- consider communication (C-1);
- think about respect for self and others (C-6);
- demonstrate effort and safety (D-1, D-2, D-3, D-5); and
- engage in goal setting (D-6, D-7).

Other curricular connections could be made with subject areas such as health education.

As you begin to practise solo time, you will find that there are more effective and less effective places and spaces, better and worse times of day, and ideal lengths of time, depending on your students’ ages and readiness. Key aspects of solo time include having a sense of being away from the normal routine (such as being outdoors, or even in a special spot chosen by the student), not communicating with anyone, not using technology and (after some practice) engaging in no task except for being in the moment. In as little as one minute (for younger students) to one hour (for older students), practising solo time can go a long way toward developing resiliency and life skills.

## Further Research

A study is currently under way to understand what students think of regularly scheduled outdoor solo time. A local school of 600 Grades 4–9 students is implementing a regular 20-minute solo time once per week during physical education class, to allow students to practise mindfulness and self-reflection.

After five months, an anonymous survey will be administered online to uncover student perceptions, such as what they regularly think about during solo time, whether they enjoy solo time and whether they like being unplugged. In addition, the teachers and researchers are interested in how the findings might inform their teaching: How long should solo time be for different ages or grades? How might we plan meaningful lessons to broach issues (such as worries or fears) that emerge from the survey data?

The progress of this study was presented at the HPEC 2018 annual conference, held at Mount Royal University in Calgary.



---

## References

- Alberta Education. 2012. *Digital Citizenship Policy Development Guide*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/3227621/digital-citizenship-policy-development-guide.pdf> (accessed March 11, 2019).
- Alberta Learning. 2000. *Physical Education (K-12)*. Edmonton, Alta: Alberta Learning. Also available at <https://education.alberta.ca/media/160191/phys2000.pdf> (March 11, 2019).
- Berto, R. 2014. "The Role of Nature in Coping with Psycho-Physiological Stress: A Literature Review on Restorativeness." *Behavioral Sciences* 4, no 4 (December): 394–409. Also available at [www.mdpi.com/2076-328X/4/4/394/pdf](http://www.mdpi.com/2076-328X/4/4/394/pdf) (accessed March 11, 2019).
- Bobilya, A J, L H McAvoy and K R Kalisch. 2005. "The Power of the Instructor in the Solo Experience: An Empirical Study and Some Non-Empirical Questions." *Journal of Adventure Education and Outdoor Learning* 5, no 1: 35–50.
- Cook, L N. 2015. "Restoring a Rhythm of Sacred Rest in a 24/7 World: An Exploration of Technology Sabbath and Connection to the Earth Community." *International Journal of Religion and Spirituality in Society* 5, no 4: 17–27.
- Hartig, T, G W Evans, L D Jamner, D S Davis and T Gärling. 2003. "Tracking Restoration in Natural and Urban Field Settings." In "Restorative Environments," ed T Hartig and H Staats, special issue, *Journal of Environmental Psychology* 23, no 2 (June): 109–23.
- Kaplan, S. 1995. "The Restorative Benefits of Nature: Toward an Integrative Framework." *Journal of Environmental Psychology* 15, no 3 (September): 169–82.
- Kell, S D, and R Giammarino. 2017. "Unplugging in the Wilderness: Student Perceptions of a Solo Experience." Poster presentation at Shaping the Future, Kananaskis, Alta, January 26–28.
- Kessler, R. 2000. *The Soul of Education: Helping Students Find Connection, Compassion, and Character at School*. Alexandria, Va: Association for Supervision and Curriculum Development (ASCD).
- Pearson, D G, and T Craig. 2014. "The Great Outdoors? Exploring the Mental Health Benefits of Natural Environments." *Frontiers in Psychology* 5 (October): 1–4. [www.frontiersin.org/articles/10.3389/fpsyg.2014.01178/full](http://www.frontiersin.org/articles/10.3389/fpsyg.2014.01178/full) (accessed March 11, 2019).
- Rowan, C. 2010. "Unplug—Don't Drug: A Critical Look at the Influence of Technology on Child Behavior with an Alternative Way of Responding Other Than Evaluation and Drugging." *Ethical Human Psychology and Psychiatry* 12, no 1: 60–68.



Shannon Kell, PhD, is an assistant professor at Mount Royal University in Calgary. Formerly a high school health and physical education teacher, she currently teaches in both the Health and Physical Education Department and the Education Department. A member of HPEC and of Physical and Health Education Canada (PHE Canada) (including the positions of member at large on the Research Council and Alberta representative on the board of directors), she seeks to remain current and involved in teacher preparation and schools. Her research interests include the exploration and implementation of outdoor, unplugged solo time for sustainable well-being for all ages, from school-aged to adulthood. She challenges you to go outside and take a timeout from your phone or laptop.

## Reflections of a New Teacher

Chris Walcot

For an emerging teacher, a lot seems overwhelming in the educational world. Ensuring that students are meeting requirements for all subjects on a day-to-day basis and that no one is slipping through the cracks and falling behind is a daunting prospect as I progress toward graduation and, ultimately, a teaching career. When I sit and talk about these worries with peers, the same topics are always of most concern: math and English language arts. I agree that these subjects are fundamental, but why is physical education left out of these conversations? Do people really disregard its importance to youth enough to not worry about it?

I am a fourth-year education student. Physical education was not always important to me. I know what it is like to be the last pick for a team and to not care about trying in gym class. As I grew and matured, I learned that it was not physical education that I did not connect with; it was how it was being taught. Now, I have a deep focus on and love of physical education, and I strive to make it something that becomes a passion for my future students.

This generation and the previous generation, more so than ever, are trending downward in physical education.

*Those who are so concerned about strength in math, science and English language arts would benefit too from an appreciation of physical literacy.*

Children spend over a third of their day in front of a screen of some kind (Rideout, Foehr and Roberts 2010), and nearly 95 per cent of adults are not meeting daily physical activity recommendations (US Department of Agriculture and US Department of Health and Human Services 2010). So who

is to blame for this? Is it the innovation and ease of use that come with technology in the modern age? Or is it simply a lack of education? My bet is on the latter. Our population is not a physically literate one. Oftentimes, the term *physical literacy* alone raises questions or brings about confused looks, and that's a shame.

Physical literacy is the ability to move confidently and competently in a variety of physical activities that benefit the development of the whole person (Gleddie, Hickson and Bradford 2018). That's it. No one is saying you need to be a first-round

pick in the NHL draft. Being physically literate is not something that is unachievable for the average person; rather, it is completely attainable by just about anyone. Those who are so concerned about strength in math, science and English language arts would benefit too from an appreciation of physical literacy, as we know that the mind and body work together in a monist approach; they cannot be separated. The problem solving, decision making, reaction time, focus and cooperation that emerge from being physically literate translate beautifully into all aspects of not only children's lives but our adult lives as well (Gleddie, Hickson and Bradford 2018). Being active in life and all realms of existence, understanding the benefits of health (mentally, physically and spiritually) that physical education brings, learning how to cooperate and work with teammates in group settings and to problem solve together, all while maintaining the mindset and the onus to do so regularly—these are the fundamental components of finding health literacy and becoming physically literate. And, trust me, it is there for everyone to take.

*Being active and healthy for life takes an all-inclusive approach.*

Being active and healthy for life takes an all-inclusive approach. There is no reason why mental or physical disabilities should ever encroach on one's opportunities to live a life that is as healthy as possible. My background is in special needs, and I know what it is like to work with adapted clients and programs that are atypical. From my experience, everyone is capable and everyone has a desire to be active, even if they do not directly understand the implications of it. We all have a human and primal desire to move and be creative in a physical manner. My phys ed classes will include all and will afford experiences that put students into situations that may require them to think and act in ways they may not have to usually. The biggest driver of inclusivity for me is understanding what it is like to be in the position of someone who has some sort of disadvantage. Playing basketball from a wheelchair and using only one arm to throw, catch and block are very real situations that many have to overcome and adapt to. Teaching all students through these opportunities will, hopefully, build their understanding of inclusivity and spark their desire to make sure that all are given the same opportunities they are.

In looking at adapting to the needs of others, a big factor is how our students learn. For some, going to phys ed is a

### *How can we expect all our students to not only learn but also build a passion for health literacy if they are not connecting to our teaching styles?*

fun experience and learning is mostly intrinsic. But for many, my younger self included, phys ed is a challenge, but not in a growing, healthy sort of way. My phys ed classes taught me only from a kinesthetic style of learning, never any other. How can we expect all our students to not only learn but also build a passion for health literacy if they are not connecting to our teaching styles?

Daily physical activity (DPA) shines here, in my mind, as it allows so much creativity to flow through cross-curricularly and to reach students in new ways that traditional phys ed may not. Through this approach, the artistic, creative students can become immersed in something they would normally shy away from, because it is connecting with them in a more meaningful and powerful way.

Alberta Education (2018) mandates that students in Grades 1–9 participate in a minimum of 30 minutes of

DPA every day through school organization; this can be achieved cross-curricularly and even broken into chunks. Not hard, my fellow educators, not hard. The program of studies is flexible and allows teachers to be creative in DPA, so use that to your advantage and make it work for you in your class. DPA doesn't mean that students stand in rows and do jumping jacks in between long division and frog dissections. Rather, it suggests that sitting in a desk is just one of the ways students learn. Take students outside and walk to a nearby park to observe ecosystems of plants and animals, or have them work through math problems involving physical activities (such as estimating how long it would take to run or walk a certain distance and then finding out how close their estimations were by actually doing it and recording the time). DPA could very easily have been structured in an archaic, doom-and-gloom sort of way, but instead it has allowed for creative freedom, so use it to its full potential.

While I did take a swing at modern technology earlier, it is not going anywhere, so why not also use it to your advantage? Ditch the cartoons and mindless games and find resources that can serve as a means of bringing DPA into your classroom. For example, GoNoodle and Move to Learn are amazing at getting students involved in physical activity while still appealing to their love of technology. This is new for a lot of us. Physical education coming from a screen still seems counterintuitive to me, but if we want the current and future generations to become physically literate and health literate and to have a desire to live active and healthy lives, we must be willing and able to reach them in ways that our generation may not have been reached.

This is becoming more and more relevant as technology emerges, and it will continue to be relevant for decades to come. I don't see technology receding. As teachers, we know that we need to be flexible and to be able to adapt to ever-present changes in lifestyles, interests and learning styles. Let's build this attitude into our program of studies for physical education. We talk about inquiry in all other subjects, and phys ed should not be left out of that conversation. Admittedly, I am a bit of a Luddite myself and not the most technology-savvy person, but I can see how technology has a place in physical education and how it can be beneficial.

A fun project that comes to mind would be to have students use the Coach's Eye app to film each other performing fundamental movement skills and then observe how differently people move in slow motion or compare their own movement to a friend's. Almost like a secretive

TGMD-3 (Test of Gross Motor Development) assessment—but we would never tell our Grade 2 students that, right? They would perceive the activity as a moviemaking opportunity, and they would get the chance to see how their body works when kicking a ball or making a horizontal jump. I would be willing to bet that nearly every student would jump at the opportunity to be part of this process. Very young children may not take away as many lessons from it, but it would still get them up and moving and

## Physical education is by and large the most important aspect of learning.

would mate technology with phys ed in a holistic way that would benefit all. I like our phys ed program of studies, and I think it touches on the ABCDs really nicely (Alberta Learning 2000). But it needs more hooks throughout. It reads as if all students are intrinsically motivated by physical education, and we know that is simply not true. If the program of studies would open itself up to a more progressive and living approach of adaptability in how we get students interested in phys ed, speaking to all intelligences, I think it would be a much more powerful tool.

All this being said, one of the most important aspects of physical education is assessing our students. None of what I have just said matters if we cannot guide our students in understanding their role in a healthy lifestyle and being active for life. Summative assessment is all right, but formative assessment is much more suited to the physical education world because it allows for feedback and constructive criticism during the learning, not afterward. Being physically literate is an ongoing life lesson that requires assessment at multiple points throughout so that students can adapt and change based on the feedback they are receiving and put it into action in real time. When our students have the ability to receive and be part of formative assessment, it touches on the physical, cognitive and affective domains and guides them to be a crucial part of their own learning (Gietschier-Hartman 2014). Summative assessment can also play a healthy role in physical education, as it is an area in which seeing results is dominant. Students are keen to see and show off their abilities as young athletes, and using summative assessment at the end of a collection of formative assessments would be appropriate, in my mind.

Physical education is by and large the most important aspect of learning. This might seem like an overstatement,

but trigonometry and Pythagorean theorem (although important) are not going to provide you with a long and healthy lifestyle. Being physically literate and active for life will, and this all begins with providing students with a physical education that matters to them, not like the one I received. Students need to connect with phys ed in ways that work for them while still understanding and benefiting from all the appropriate components that make up physical literacy. As educators, it is our duty to afford them this. If we can talk for hours on end about math and English, we can spend some time working on making phys ed an inclusive experience that follows all students for a lifetime.

## References

- Alberta Education. 2018. *Guide to Education: ECS to Grade 12: 2018–2019*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/3772212/guide-to-education-2018.pdf> (accessed March 12, 2019).
- Alberta Learning. 2000. *Physical Education (K–12)*. Edmonton, Alta: Alberta Learning. Also available at <https://education.alberta.ca/media/160191/phys2000.pdf> (accessed March 12, 2019).
- Gietschier-Hartman, S. 2014. “Formative Assessment in #PhysEd.” PHYSEDagogy blog, October 4. <https://physedagogy.com/2014/10/04/formative-assessment-in-physed/> (accessed March 12, 2019).
- Gleddie, D, C Hickson and B Bradford. 2018. *Physical Education for Elementary School Teachers: Foundations of a Physical Literacy Journey*. Victoria, BC: Ripon.
- Rideout, V J, U G Foehr and D F Roberts. 2010. *Generation M2: Media in the Lives of 8- to 18-Year-Olds*. Menlo Park, Calif: Kaiser Family Foundation. Also available at <https://kaiserfamilyfoundation.files.wordpress.com/2013/04/8010.pdf> (accessed March 12, 2019).
- US Department of Agriculture and US Department of Health and Human Services. 2010. *Dietary Guidelines for Americans*. 7th ed. Washington, DC: US Government Printing Office. Also available at <https://health.gov/dietaryguidelines/dga2010/dietaryguidelines2010.pdf> (accessed March 12, 2019).



Chris Walcot is a fourth-year bachelor of education student at Mount Royal University. As a preservice teacher, he hopes to inspire and educate future generations about the beauty and accessibility of our public lands and the opportunities for learning and physical education in a natural environment. His love of the outdoors was fostered in junior high, at Woodman Junior High School, in Calgary, when he was part of a class that specifically taught students about outdoor pursuits and outdoor education. He hopes to pass on to students of the future the attitudes and values of that class.



# Teaching Spectrum-Style—Part 2

Mark Byra

This article is the second in a series of three on the Spectrum of Teaching Styles (the Spectrum) (Mosston and Ashworth 2008). The primary purpose of this series is to help teachers expand their tool box of instructional strategies in order to meet the diverse needs of their students and the multiple learning outcomes associated with teaching K-12 physical education. As per the theme of this issue of *Runner*—“Life Is a Journey”—expanding one’s tool box of instructional strategies is an ongoing process, as is being physically active. It never finishes. The truly educated never graduate, just as those who are truly physically active never stop being physically active.

In the first article (Byra 2018), I examined the general Spectrum framework and the two teaching styles most frequently observed in K-12 physical education worldwide (Cothran et al 2005)—style A (command) and style B (practice). In this article, I present the three remaining teaching styles from the reproduction cluster—style C (reciprocal), style D (self-check) and style E (inclusion). I describe each style, provide example scenarios and practical suggestions for implementation, and examine each style in light of Alberta’s K-12 physical education learning outcomes (Alberta Learning 2000).

The common instructional approach across all five teaching styles from the reproduction cluster (styles A–E) is the requirement for learners to reproduce a known movement—that is, performing a movement that has been modelled (demonstrated) and subsequently practised, with the goal of replicating the modelled movement. Although styles C, D and E fall within the reproduction cluster, they differ significantly from styles A and B in terms of student engagement in decision making. In style C, the increase in student decision making relates to assessing a partner’s level of skill performance to include giving and receiving skill-related feedback to the partner. In style D, it relates to self-assessing one’s own skill performance, and in style E, to self-assessing one’s own skill performance and choosing a level of difficulty for a task. In addition to making these new decisions, students continue to be invited to make decisions about where they locate in the movement setting; when they

start, stop and move on to new tasks; and the pace at which they practise a task—all within parameters established by the teacher, as is the case in style B. In styles C, D and E, student decision making reflects characteristics of student-centred teaching (Rink 2014).

## Style C—Reciprocal

In physical education, a commonly employed peer-tutoring structure is the reciprocal style of teaching (Mosston and Ashworth 2008). In style C, learners are paired; while one (the doer) performs the modelled task, the other (the observer) observes. The role of the observer is to evaluate the performance of the doer and to give feedback based on the a priori movement criteria (task sheet) provided by the teacher (see Appendix A). The steps in analyzing performance and giving feedback are as follows:

1. Know the critical skill elements.
2. Observe the doer’s performance.
3. Compare and contrast the doer’s performance against the critical skill elements.
4. Draw a conclusion about the accuracy of the doer’s performance.
5. Communicate this result to the doer.

Once the doer completes the task as prescribed, the doer and observer switch roles. The name of this style—reciprocal—reflects how both partners serve in the roles of doer and observer.

In addition to showing students the roles of doer and observer when demonstrating the task, the teacher must carefully listen to the feedback the observer provides to the doer during practice time to ascertain the degree of congruence between the doer’s movement performance and the observer’s feedback. To maintain the integrity of style C, it is important that the teacher interacts only with the observer (not with the doer) during practice. Refraining from giving skill-related feedback to the doer will initially be difficult, because this is not what the teacher is used to doing. The ability to address skill

## Style C Scenario

Mrs Lee is teaching her Grade 5 students the forearm pass in volleyball as it is used in game play (that is, serve receive). During the first part of the lesson, the students have been practising the forearm pass in pairs, from a two-handed underhand toss, while located on the same side of the net (with one standing between the baseline and the attack line, and the other between the net and the attack line), as well as in groups of three (with one tossing the ball over the net to the passer, who attempts to pass the ball to the catcher located at the net). See Figure 1.

MRS LEE. Students, please come in and sit down. Let's add the role of observer to this current task. In our next task, each of you will be observed while passing the ball and will be given feedback about your performance. John, Madelyn, Barry and Emily, please stand up. You four will be working together in this drill. (See Figure 2.) John, you stand on the attack line on this side of the net. (*Moves him to that spot.*) Take this volleyball with you. You will be the tosser. Madelyn, you stand just beyond the attack line on the opposite side of the net. (*Moves her to the spot opposite John.*) You will be the passer. Emily, you need to stand right next to the net, same side as Madelyn. (*Moves her to that spot.*) You are the catcher. You will catch the ball (*overhead in volleying position*) that Madelyn passes to you. Then you will roll the ball back to John. Barry, I want you to stand five feet away from Emily, next to the net. (*Moves him to that spot and stands beside him.*) You are the observer. You will need this task sheet. (*See Appendix A.*) Your job is to tell Madelyn what she did well or what she needs to work on after each pass attempt. Students (*addressing the rest of the class, who are sitting and watching the demonstration*), please look at the poster on the wall. (*The poster is the same as the task sheet.*) Are you all ready? John, please toss the ball (*underhanded*) to Madelyn, just like you were doing in the last drill.

The three students demonstrate the task as described. Barry observes Madelyn's performance but doesn't say anything to her.

MRS LEE. Barry, what did Madelyn do well on that pass?

BARRY. She had her elbows locked when passing.

MRS LEE. Excellent observation! Now, Barry, as the observer, what do you have to do?

BARRY. Tell Madelyn how she did.

MRS LEE. Super. Now, please do that.

BARRY. Madelyn, you did a nice job of locking your elbows on that pass.

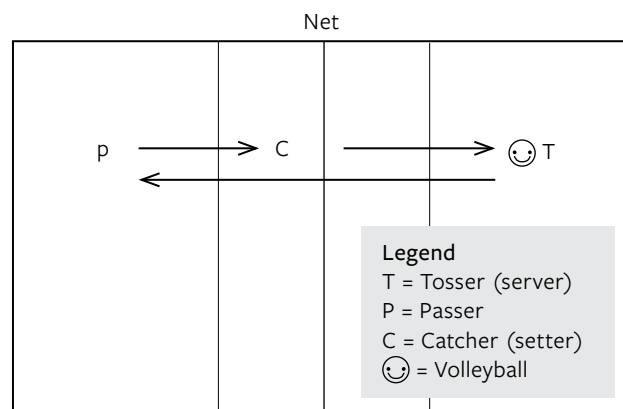
MRS LEE. OK, John, toss the ball to Madelyn one more time. Barry, be prepared to tell Madelyn how she does.

The three students once again demonstrate the task.

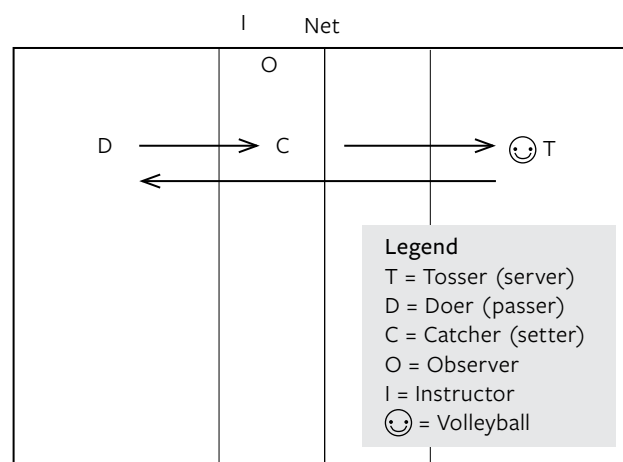
BARRY, *after Madelyn passes the ball*. Madelyn, I like how you kept your thumbs together on the pass.

MRS LEE. Nicely done, Barry. OK, after five tosses, each of you shifts one position. Shift from tosser to catcher to passer to observer to tosser. All right, class, do you have any questions about this drill and your role as an observer? (*Sees no hands raised.*) When I say begin, please form a group of four, find a space on the court and decide who starts where. I will be moving around the class to talk to the observer in each group. Ready, begin.

While the students are engaged in the drill, the teacher lets the observers know how they are doing in their role.



**FIGURE 1.** Groups of three practising the forearm pass (serve receive). Three or four groups of three can practise on one court at the same time.



**FIGURE 2.** Groups of four practising the forearm pass (serve receive) within the structure of style C. Three groups of four can practise on one court at the same time.

performance indirectly (that is, through the observer) will take time for the teacher to perfect.

## Practical Suggestions for Implementing Style C

### *What Are the Strengths of Style C?*

Style C is an instructional framework that serves to develop social interaction between learners and to encourage movers to analyze skill performance. While giving and receiving feedback, students learn the skills required to interact more appropriately with others, which helps them feel more successful (Dyson 2001). Observing, analyzing and drawing conclusions about how they and others are moving help learners better understand the processes of learning a physical task (Krathwohl 2002; McBride 1992). Receiving feedback consistently after each movement trial results in more correct responses in time (Siedentop 1991). More globally, allowing students to have more of a say in the learning process (that is, giving them greater opportunity to make decisions) supports higher levels of student engagement in physical education (Curran and Standage 2017; Dyson 2001, 2002).

### *How Should Students Be Paired in Style C?*

Research indicates that the amount of specific feedback observers direct toward the doer in the reciprocal style of teaching is greatest when learners are paired with friends. In a study by Byra and Marks (1993), the elementary-aged participants felt more comfortable receiving feedback from an observer who was a friend than from one who was not. Given these findings, physical education teachers should permit students to select their own partners when employing style C, unless other contingencies are evident (for example, social behaviour issues).

### *When Introducing Style C to Students, What Should Be the Focus of the Interaction Between the Observer and the Doer?*

Given that a primary goal of style C is to increase the amount of skill feedback given to students, it is critical to first develop an environment in which students feel comfortable giving and receiving feedback. To attain this goal, have the observer first look for and comment on the skill elements that the doer is performing well rather than the skill elements that need to be corrected. This will

increase the likelihood of developing a positive environment for giving and receiving feedback. For the most part, students prefer to hear about what they are doing well, not what they are doing wrong. Once students are comfortable with giving and receiving specific feedback, let the observers also address the skill elements that the doers need to improve upon.

*Style C is an instructional framework that serves to develop social interaction between learners and to encourage movers to analyze skill performance.*

## Style D—Self-Check

In style D—self-check—learners perform a task and subsequently check their own performance. After completing a trial or a series of trials of the task, learners engage in the cognitive behaviours specific to self-checking performance, with the help of a task sheet (see Appendix B). The cognitive behaviours associated with self-checking in style D are the same as those used by the observer when observing the doer's performance in style C (that is, know the critical skill cues of the task, compare and contrast performance with the known cues, and draw conclusions about the performance). According to Mosston and Ashworth (2008), students develop kinesthetic awareness in their motor performance by individually practising and checking for performance errors.

In style D, the teacher is responsible for observing learners as they perform a task and listening to them verbalize how they feel they performed. The teacher's interaction with learners revolves around asking them about their performance rather than telling them about their performance. As in style C, learners self-check their performance based on the a priori movement criteria (task sheet) provided by the teacher. Student independence moves to another level in style D, as learners no longer depend on an outside source for performance-related feedback.

To maintain the integrity of style D, the teacher must draw from students their thoughts about their own performance. This is not the norm for a physical educator; the norm is to tell learners how they performed, as in styles A and B. The ability to address students' skill performance indirectly (through questioning) takes time to perfect.

## Style D Scenario

Marcel, a Grade 3 student, is using a paddle to strike a softball-sized foam ball against the wall from a bounce. According to the task sheet, he is to strike the ball five times while thinking about the four critical skill cues: side to target, paddle back, eyes on ball and step with the nondominant foot (see Appendix B).

Mr Corbett, the teacher, observes one set of Marcel's trials, each of which results in the ball being hit to Marcel's right.

When Mr Corbett asks Marcel how he is doing, Marcel sadly states that he can't seem to hit the ball directly ahead of him, and he is not quite sure why this is happening. Mr Corbett asks him to read the four critical skill cues from the task sheet. He does so.

MR CORBETT. Do you think you're performing the skill cues as described?

MARCEL, *while doing the task again*. My paddle is back, I am watching the ball, I'm stepping, but it goes to the right.

MR CORBETT. Take a look at your starting position.

MARCEL, *tries again and contacts the ball straight to the wall*. Yes, that's it! I was facing the target rather than having my side to it.

MR CORBETT. Marcel, you're beginning to feel your performance and recognize what you are and are not doing. Excellent!

Mr Corbett then moves on to observe Josh.

## Practical Suggestions for Implementing Style D

### *What Is the Value of Having Students Assess Their Own Skill Performance?*

Research indicates that self-assessment strategies facilitate skill and cognitive learning (Beckett 1991; Jenkins and Byra 1997). When teachers guide students to self-check their performance, they become thinking movers (Pill 2018). In turn, this leads them to become independent learners, which is something most physical educators strive to develop in their students. Students who know how to self-assess will feel more confident in pursuing new and diverse movement experiences outside of the school physical education setting. Style D fits well with general outcome D in Alberta's physical education program of studies, specifically through the elements of goal setting and personal challenge and of active living in the community (Alberta Learning 2000).

### *What Information Is Included on a Task Sheet, and How Can Students and the Teacher Use This Information?*

A task sheet informs both students and the teacher. The task sheet can be given to each student as a handout or made into a large wall poster for a group of students or the whole class to read, and it can be used once or multiple times. It can be used to inform students about the task, the critical skill cues of the task and how to analyze performance (a peer's in style C and their own in style D), as well as to provide examples of potential feedback statements (style C). It can also serve as a place to record student performance (a peer's or their own). These records of performance are a good example of formative assessment. Frequently, students' questions can be answered by simply referring them back to the task sheet. Task sheets are useful when teaching in styles C, D and E.

## Style E—Inclusion

The purpose of style E—inclusion—is to include all learners at their appropriate levels of participation and skill. More specifically, style E allows for individual skill differences between learners.

What sets style E apart from the other teaching styles in the reproduction cluster is how students make decisions with regard to self-selecting the level of difficulty at which they practise a task and self-assessing their own task performance. In styles A–D, all students practise a task at a teacher-prescribed level of difficulty; no planned attempt to accommodate individual differences in students' skill abilities is made. In style E, the teacher formally presents to students different levels of task difficulty, from which each student selects a level. Students are given legitimate options for practising a task, options based on factors or variables that make the task more difficult or less difficult. In addition to self-selecting the level of task difficulty, students in style E assess their own task performance, with the help of a task sheet and guidance from the teacher.

The primary goal of style E is to challenge and motivate students to engage in tasks at an appropriate skill level (Byra and Jenkins 1998; Chatoupis and Emmanuel 2003). Individualizing instruction to permit greater student success is the underlying premise of style E (Mosston and Ashworth 2008).



## Style E Scenario

Last class, Ms Berry's Grade 3 students practised throwing a ball underhanded as part of a unit on throwing, catching and striking. She taught using style E. In today's class, she will introduce striking with a bat, once again in style E. She calls style E "being included."

First, she highlights, through demonstration and explanation, the five critical skill cues of focus for striking with a bat (see Appendix C and Figure 3). Then, using a foam ball (the size of a tennis ball, a softball or a handball), she demonstrates three levels of task difficulty:

- Striking a ball off a batting tee
- Striking a ball that is underhand tossed by a partner from the side (5 feet away)
- Striking a ball that is underhand tossed by a partner from in front (15 feet away)



### Performance Cues for Batting

1. Bat back (over shoulder, sticks up like a toothpick)
2. Eyes on ball (eyes on the ball all the time)
3. Side to target (turn your side to the target)
4. Level swing (swing flat as a pancake)
5. Rotate and shift (roll over shoelaces of back foot)

FIGURE 3. Example wall poster to be posted on the gymnasium wall (performance cues for batting).

See Appendix C and Figure 4

Ms Berry explains to students that after each set of five trials, they must self-check their performance against the critical cues posted on the wall chart and decide whether to increase, retain or decrease the difficulty level of the task in a subsequent set of five trials.

After checking students' understanding of the task, she tells them that she calls this style of teaching "being included." She then instructs students to choose a partner, who will serve in a supporting role (retrieving the ball that is hit from a batting tee, or tossing the ball underhanded to the batter and then retrieving the ball), and begin striking the ball at the initial level of task difficulty they have chosen.

### Levels of Task Difficulty for Batting

#### Task (Variable 1)

Level	Task description	Right-handed	Left-handed
1	Bat ball from batting tee	BATTER → ▲ TEE	▲ TEE BATTER →
2	Bat underhand-tossed ball from side (tosser kneeling 5 feet from batter)	BATTER → ■ TOSSER	TOSSER ■ BATTER →
3	Bat underhand-tossed ball from front (tosser standing 15 feet from batter)	BATTER → ■ ← TOSSER	■ ← TOSSER BATTER →

#### Size of Ball (Variable 2)

Level	Size
1	Large ● 8-inch foam ball (handball size)
2	Medium ● 5-inch foam ball (softball size)
3	Small ● 3-inch foam ball (tennis ball size)

FIGURE 4. Example wall poster to be posted on the gymnasium wall (levels of task difficulty for batting).

While her students are engaged in practice, Ms Berry observes their performance and provides individual feedback by asking them specific questions about the level of difficulty they have chosen and the critical skill cues they are and are not performing. This helps her determine whether they are self-checking their performance accurately.

After the students have completed three to five sets of five trials, she gathers them in and provides some general positive feedback about the choices they made with regard to the level of task difficulty, as well as about the accuracy of their self-checking performance. During the last two minutes of the lesson, she asks them to tell her about this teaching style called "being included" in order to examine their understanding of style E.

## Practical Suggestions for Implementing Style E

### *What Is the Primary Value of Style E, and What Impact Does It Have on Student Engagement?*

In style E, the teacher accepts individual ability differences between learners. Providing students with options to make a task more difficult or less difficult is what individualized instruction is all about. Allowing students to make these decisions empowers them. When students are empowered, they perceive the practice environment as being much more meaningful, which positively influences their level of engagement in the activity (Curran and Standage 2017; Kirby et al 2015).

The level of student decision making is significant in style E, and this decision making is closely associated with students developing responsible personal and social behaviours. In style E, differences between learners (for example, ability level or prior experience) are emphasized, and these differences are to be welcomed and respected by all.

### *What Teacher Knowledge Is of Importance When Implementing a Style E Episode?*

A well-designed style E episode takes time and much thought to plan and implement. In short, the teacher needs to be knowledgeable about

- the skill levels of the students in relation to the motor task to be presented,
- the factors or variables that can be manipulated to make the task less or more difficult,
- how to guide students to make appropriate decisions about the level of task difficulty and
- how to guide students to assess their own task performance.

In style E, it is paramount that the teacher has a wealth of knowledge about the content being delivered and the students being taught.

### *What Can the Teacher Do to Increase the Chances of a Style E Episode Being Successful?*

When first introducing style E, the teacher should limit student decision making about the level of difficulty at which to practise. To do so, the teacher can manipulate only one factor (for example, allowing students to choose between batting the ball off the tee, striking a ball tossed from the side or striking a ball pitched from in front—but providing only one size of ball).

After students have some experience in selecting the level of difficulty, only then should the teacher introduce them to the process (decision making) of self-assessing performance. After all, assessing students' skill performance is second nature to the teacher, and being assessed by the teacher is what students typically expect.

Style E is complex! Break it down for your students. Make it palatable to them.

## Styles C, D and E and Alberta's K–12 Physical Education Learning Outcomes

The cognitive learning domain, in addition to the psychomotor learning domain, is of primary emphasis in styles C, D and E. Time in the instructional process is specifically devoted to having students assess either a partner's performance (style C) or their own performance (styles D and E). While students are physically engaged, the cognitive operations in which they engage include knowing the critical skill cues of the task, comparing and contrasting performance with the known cues, and drawing conclusions about performance (cues that were performed well and cues that need to be addressed in subsequent trials).

The aim of K–12 physical education in Alberta is to “enable individuals to develop the knowledge, skills and attitudes necessary to lead an active, healthy lifestyle” (Alberta Learning 2000, 5). In terms of the general outcomes found in the K–12 physical education program of studies, styles C, D and E can be used to help students “acquire skills through a variety of developmentally appropriate movement activities” (p 5) in typical and alternative learning environments (general outcome A) and to help students foster responsibility to lead an active lifestyle, specifically through effort and through goal setting and personal challenge (general outcome D).

Style C is also intimately connected to general outcome C: “Students will interact positively with others” (Alberta Learning 2000, 5). Communication, leadership and teamwork can all be developed in the framework of the observer and the doer in style C. In essence, in style C, learners are highly engaged in the cognitive and affective educational learning domains while actively performing physical activity (Krathwohl 2002).

With students making decisions about the level of difficulty of a task, style E is also especially well connected to effort and personal challenge, two elements of general outcome D.

Well-designed styles C, D and E episodes can meet multiple outcomes associated with the psychomotor, cognitive and affective educational learning domains.

## Summary

In this article, I have introduced you to three Spectrum styles—C, D and E—in some detail, through scenarios and practical suggestions for implementation. In addition, I have described how Alberta’s general outcomes for K-12 physical education (Alberta Learning 2000) align with these three teaching styles. Styles C, D and E are what I call comprehensive teaching styles. Comprehensive teaching styles meet multiple objectives and outcomes from multiple educational learning domains simultaneously. As with the first article (Byra 2018), I hope that I have provided you with enough information to tempt you to incorporate some styles C, D and E episodes in your daily teaching of physical education.

When implementing a new teaching style that is unfamiliar to your students, remember the phrase “repetition, repetition, repetition.” Your level of success with any one of these three relatively complex teaching styles will likely be marginal during the first few attempts, because it will be new to you and to your students; with additional practice, however, your rate of successfully implementing the new teaching style will increase dramatically. Joyce, Weil and Showers (1992) report that teachers continue to feel a certain level of discomfort with a new teaching strategy until they have tried it 10 or more times. Just as it takes a Grade 3 student many repetitions to execute the overhand throw at the utilization level of skill proficiency (Graham, Holt/Hale and Parker 2013), it will take you (and your students) repeated episodes of using a given teaching style to reach the level of success you want. Keep this caveat in mind!

Stay tuned for “Teaching Spectrum-Style—Part 3” in the next issue of *Runner*. I will present style F (guided discovery), style G (convergent discovery) and style H (divergent discovery), from Mosston and Ashworth’s (2008) production cluster of teaching styles. The essence of the production cluster of teaching styles is discovery learning. Cognitive dissonance in learners induces the process of inquiry, which leads to discovery.

## Appendix A: Style C Task Sheet or Wall Poster for Forearm Pass (Serve Receive) in Volleyball



### Doer

1. Pass the ball (using the forearm pass) to the catcher (who stands in the setting position at the net).
2. After five trials, rotate positions (from doer to observer to tosser to catcher).
3. Rotate through all positions twice.

### Observer

1. Using the task sheet, offer feedback to the doer after each trial (positive specific feedback followed by corrective specific feedback).

### Critical Skill Elements for Forearm Pass

- Ready position (square to target, wide base, knees bent, sitting position)
- Under the ball (knees bent, sitting position, ball played between knees)
- Thumbs together and parallel on contact
- Elbows locked (not praying) on contact
- Weight shifts toward the catcher following contact

## Examples of Specific Feedback Statements

- “I like how you have your thumbs together!” (positive specific)
- “Lock your elbows before contact.” (corrective specific)
- “You are square to the target. Awesome!” (positive specific)
- “Be sure to shift your body weight toward the target after contact.” (corrective specific)
- “Nice job playing the ball between your knees!” (positive specific)

## Steps in Analyzing Performance and Giving Feedback

1. Know the critical skill elements.
2. Observe the doer’s performance.
3. Compare and contrast the doer’s performance with the critical skill elements.
4. Draw a conclusion about the accuracy of the doer’s performance.
5. Communicate this result to the doer.

## Appendix B: Style D Task Sheet or Wall Poster for Striking with a Paddle

### Critical Skill Elements for Striking with a Paddle

- Side to target
- Paddle back
- Eyes on ball
- Step with the nondominant foot

### Task 1

1. While positioned 10 feet from the wall, complete three sets of five trials of the forehand stroke from a bounced ball.
2. After completing each set of five trials, circle C (correct) or NW (needs work) for each critical skill cue.
3. Now complete two more sets of five trials.

Critical skill cues	Set 1	Set 2	Set 3	Set 4	Set 5
Side to target	C NW	C NW	C NW	C NW	C NW
Paddle back	C NW	C NW	C NW	C NW	C NW
Eyes on ball	C NW	C NW	C NW	C NW	C NW
Step with nondominant foot	C NW	C NW	C NW	C NW	C NW

### Task 2

1. With a partner on court, have your partner toss the ball over the net, let the ball bounce and then hit it back to your partner using the forehand stroke.
2. After completing a set of five trials, circle C (correct) or NW (needs work) for each critical skill cue.
3. Now complete two more sets of five trials.
4. After completing three sets of five trials, switch roles with your partner.

Critical skill cues	Set 1	Set 2	Set 3	Set 4	Set 5
Side to target	C NW	C NW	C NW	C NW	C NW
Paddle back	C NW	C NW	C NW	C NW	C NW
Eyes on ball	C NW	C NW	C NW	C NW	C NW
Step with nondominant foot	C NW	C NW	C NW	C NW	C NW



## Appendix C: Style E Task Sheet or Wall Poster for Batting

### Levels of Difficulty

#### Task

Level 1	Bat a ball from a tee
Level 2	Bat an underhand-tossed ball from the side
Level 3	Bat an underhand-tossed ball from in front

#### Size of Ball

Level 1	Large
Level 2	Medium
Level 3	Small

### Directions

1. Select a task and a ball size for your first set of five trials.
2. Write the level of the task and the ball size in the appropriate box.
3. Write the number of successful hits you think you will make out of five trials (prediction).
4. Now complete five trials. Record the number of successful attempts out of five (actual).
5. After completing the first set of five trials, choose the task level and ball size you want to use to complete a second set of five trials. Repeat steps 2, 3 and 4.
6. After completing the second set of five trials, choose the task level and ball size you want to use to complete a third set of five trials. Repeat steps 2, 3 and 4.

Set actual	Task (level)	Ball (level)	Prediction	Actual
1			—/ 5	—/ 5
2			—/ 5	—/ 5
3			—/ 5	—/ 5

### Performance Cues for Batting

*Adapted from Graham, Holt/Hale and Parker (2013).*

- Bat back (bring the bat way back over your shoulder so it sticks up like a toothpick)
- Eyes on ball (keep your eyes on the ball all the time)
- Side to target (turn your side to the target or field)
- Level swing (extend your arms to swing flat as a pancake)
- Rotate and shift (roll over the shoelaces of your back foot)

### References

- Alberta Learning. 2000. *Physical Education (K-12)*. Edmonton, Alta: Alberta Learning. Also available at <https://education.alberta.ca/media/160191/phys2000.pdf> (accessed March 14, 2019).
- Beckett, K D. 1991. "The Effects of Two Teaching Styles on College Students' Achievement of Selected Physical Education Outcomes." *Journal of Teaching in Physical Education* 10, no 2 (January): 153-69.
- Byra, M. 2018. "Teaching Spectrum-Style—Part 1." *Runner* 49, no 1: 24-31.
- Byra, M, and J Jenkins. 1998. "The Thoughts and Behaviors of Learners in the Inclusion Style of Teaching." *Journal of Teaching in Physical Education* 18, no 1 (October): 26-42.
- Byra, M, and M C Marks. 1993. "The Effect of Two Pairing Techniques on Specific Feedback and Comfort Levels of Learners in the Reciprocal Style of Teaching." *Journal of Teaching in Physical Education* 12, no 3 (April): 286-300.
- Chatoupis, C, and C Emmanuel. 2003. "Teaching Physical Education with the Inclusion Style: The Case of a Greek Elementary School." *Journal of Physical Education, Recreation and Dance* 74, no 8: 33-38, 53.
- Cothran, D J, P H Kulinna, D Banville, E Choi, C Amade-Escot, A MacPhail, D Macdonald, J-F Richard, P Sarmiento and D Kirk. 2005. "A Cross-Cultural Investigation of the Use of Teaching Styles." *Research Quarterly for Exercise and Sport* 76, no 2: 193-201.
- Curran, T, and M Standage. 2017. "Psychological Needs and the Quality of Student Engagement in Physical Education: Teachers as Key Facilitators." *Journal of Teaching in Physical Education* 36, no 3 (July): 262-76.
- Dyson, B. 2001. "Cooperative Learning in an Elementary Physical Education Program." *Journal of Teaching in Physical Education* 20, no 3 (April): 264-81.
- . 2002. "The Implementation of Cooperative Learning in an Elementary Physical Education Program." *Journal of Teaching in Physical Education* 22, no 1 (October): 69-85.
- Graham, G, S A Holt/Hale and M Parker. 2013. *Children Moving: A Reflective Approach to Teaching Physical Education*. 9th ed. New York: McGraw-Hill.
- Jenkins, J, and M Byra. 1997. "An Exploration of Theoretical Constructs Associated with the Spectrum of Teaching Styles." In *Research on Teaching and Research on Teacher Education: What Do We Know About the Past and What Kind of Future Do We Expect?*, ed F Carreiro da

- Costa, 103–8. Lisbon, Portugal: Association Internationale des Écoles Supérieures d'Éducation Physique International/Association for Physical Education in Higher Education (AIESEP).
- Joyce, B, M Weil and B Showers. 1992. *Models of Teaching*. 4th ed. Boston: Allyn & Bacon.
- Kirby, S, M Byra, T Readdy and T Wallhead. 2015. "Effects of Spectrum Teaching Styles on College Students' Psychological Needs Satisfaction and Self-Determined Motivation." *European Physical Education Review* 21, no 4 (November): 521–40.
- Krathwohl, D R. 2002. "A Revision of Bloom's Taxonomy: An Overview." *Theory into Practice* 41, no 4: 212–18.
- McBride, R E. 1992. "Critical Thinking—an Overview with Implications for Physical Education." *Journal of Teaching in Physical Education* 11, no 2 (January): 112–25.
- Mosston, M, and S Ashworth. 2008. *Teaching Physical Education*. 6th ed; 1st online ed. Jupiter, Fla: Spectrum Institute for Teaching and Learning. [www.spectrumofteachingstyles.org/e-book-download.php](http://www.spectrumofteachingstyles.org/e-book-download.php) (accessed January 24, 2019).
- Pill, S. 2018. "The Game Sense Approach: Developing Thinking Players." *Runner* 49, no 1: 32–39.

- Rink, J E. 2014. *Teaching Physical Education for Learning*. 7th ed. New York: McGraw-Hill.
- Siedentop, D. 1991. *Developing Teaching Skills in Physical Education*. 3rd ed. Mountain View, Calif: Mayfield.



Mark Byra, PhD, is a professor in the Division of Kinesiology and Health at the University of Wyoming, where he has taught since 1989. Prior to that, he taught physical education and French for five years in Penticton, British Columbia. In addition to teaching at the junior high school level, he coached volleyball at the junior high school, high school, provincial and university levels in British Columbia and Nova Scotia, for approximately 10 years. His primary line of research revolves around examining the impact of different Spectrum teaching styles in the physical education setting on learner and teacher behaviour. He completed his BEd at the University of Victoria (1979), his MS at Dalhousie University (1983) and his PhD at the University of Pittsburgh (1989).

## Beyond Phys Ed: Three Ways to Activate the Whole School

Jill Lambden

Physical education class is a great way for students to learn new skills and get their hearts pumping. But why stop there? Creating a school environment that fosters active living contributes to success at school, positive behaviour and an improved school culture, as well as paving the way for students to be active for life. Try these three ways to *activate* your entire school.

### Mix It Up

Talk to any of your colleagues, and they will testify to the diversity of their students. Some students are obsessed with hockey, and others would rather solve math problems than strap on a pair of skates. Alberta schools are beautifully diverse, chock-full of students with a dizzying array of interests, abilities and backgrounds. By offering a wide variety of options, you can get more students moving—and even enjoying themselves in the process.

*Creating a school environment that fosters active living contributes to success at school, positive behaviour and an improved school culture, as well as paving the way for students to be active for life.*

Here are some ways Alberta teachers can make that happen:

- *Offer whole-school activities.* Advocate for whole-school events throughout the school year, such as the Terry Fox Run and International Walk to School Day in the fall; 12 Days of Fitness and a winter carnival in the

snowy season; and Jump Rope for Heart, Color Run and active transport challenges in the spring.

- *Try unconventional activities.* As you well know, every school has students who are enthusiastic about playing traditional sports and others who are more inclined to participate in noncompetitive activities. Here are some ideas for getting all kids in motion:

- Hiking club
- Parkour
- Bocce
- Yoga
- Laundry basket Frisbee
- Slacklining
- Geocaching
- Snow shovelling
- Martial arts
- Cheerleading
- Snowman-building contests
- Hula Hoop
- Inline skating
- Lip-synch battle club
- Table tennis



## Gear Up

The right equipment can help students and staff stay active during the school day. Is your school roof littered with balls? Does your recess bin contain a knotted mass of unusable skipping ropes? Was your gymnastics equipment purchased back when *you* were a student? Have your tarmac lines disappeared along with several seasons of snowmelt?

Beyond the regular budget for instructional supplies, here are some ways to supplement your gear:

- *Apply for a grant.* If you don't have the time or are not experienced with grant writing, ask parents, school wellness leaders, community partners or colleagues to help you apply for a grant. Many local organizations around Alberta provide funding targeted at active living. Other grants are available provincewide.
- *Fundraise.* Could your school council organize a fundraiser to replace missing and battered recess equipment? School councils can be great at fundraising, so get on your council's radar!
- *Stretch your budget.* Talk to local businesses. Can you get discounted rates at the golf course or a hot deal on a class set of lacrosse sticks? Inexpensive items such as pool noodles and scarves can be used in so many ways, in and out of class. Negotiate with local fitness facilities (such as gyms, swimming pools or arenas) to support your physical education program, family events or youth nights.
- *Incidental fees.* Talk to your principal about whether you can access incidental fees. Some schools give parents the option to pay a small fee specifically intended for purchasing equipment to support active lunch or recess.

Once you have the gear, do your best to maintain it. Minimize the wear and tear on equipment by teaching and enforcing proper use and having someone responsible for recess equipment collection, inspection and storage. (Hint—find out if students or volunteers can help!)

## Team Up

Promoting student wellness is not the job solely of health and physical education teachers. Capitalize on the strengths and passions of *all* the people in your school community. Start conversations about getting the school active, and you may be surprised at who is willing to pitch in!

Could you find

- a parent to teach a few yoga classes over lunch?
- a Harry Potter-loving school counsellor to lead a quidditch club?
- a group of creative students to plan and lead recess games?
- an Elder to share the pure joy of traditional hand games?
- a wellness team to coordinate some whole-school events?

If you haven't done so already, team up with a health promotion coordinator (HPC) or health promotion facilitator (HPF) from Alberta Health Services. We work in cities and towns across Alberta to make schools healthy places for students to learn and grow. We believe in the strength of partnerships with others who imagine a healthier future for Alberta's children and youth. Whether you are a superintendent, a principal or a teacher, do not hesitate to contact the HPC or HPF assigned to your school jurisdiction. If we don't know the answer to your question, we can find someone who does. For more information, reach us at [healthychildrenandyouth@ahs.ca](mailto:healthychildrenandyouth@ahs.ca).



*Jill Lambden, MSc, RD, has worked in school health promotion for over 10 years. During her time as a health promotion facilitator with Alberta Health Services, she has worked on local and provincial projects to support school health. She firmly believes in the power of schools to help kids be mentally and physically healthy. She enjoys yoga, downhill skiing and trying to keep up with her two high-energy kids.*



# Research-Informed Teaching Tips for Health Educators

Shannon Kell, Lauren Sulz, Brent Bradford and Doug Gleddie

The relationship between research and practice is challenging yet important. Many teachers feel that research is too difficult to access and read, too theoretical and not applicable to their daily work or needs, and too time-consuming. However, research-informed pedagogy can help teachers enhance their practice (Cordingley 2008). Health and physical education scholars continue to conduct and share research locally, nationally and internationally as part of their work and their passion for education, while acknowledging that transforming theory into practice is challenging.

In an effort to narrow the research-practice gap in health and physical education, we aim to activate a partnership between researchers and teachers in Alberta, through the Alberta Teacher Educators of Physical and Health Education (ATEPHE) group. Our goal is to help bridge the gap between research knowledge and practical application for health and physical education teachers. Through our collaborative articles in *Runner*, we hope to enable teachers to make use of current, relevant research in their daily practice to enable informed, evidence-based program changes. In the last issue of *Runner*, we offered research-informed tips for teachers of physical education to use in their teaching (Sulz et al 2018). Here, we extend the research-informed tips to teachers of health education.

*Research-informed pedagogy can help teachers enhance their practice.*

## About ATEPHE

ATEPHE is involved with the preparation of health and physical education teachers for all contexts across Alberta.

The group has been active for several decades, with significant involvement from a variety of members, especially Nancy Melnychuk, from the University of Alberta. Members take turns chairing the group; currently, this role is held by Shannon Kell (Mount Royal University). ATEPHE includes professors, instructors and researchers

in professional preparation programs at Alberta postsecondary institutions (see the end of the article for a list of current active members).

Historically, this group has brought expertise, experience and resources to the Health and Physical Education Council (HPEC) executive table, while taking back perspectives and initiatives from HPEC to our students (preservice teachers), our programming, our research and the various professional groups with which we engage. The strong relationship between ATEPHE and HPEC has been critical in engaging the future of the profession. It ensures a united effort in preparing quality professionals who will be able to promote health and physical literacy in their schools and with their future students.

## Teaching Tips

### Technology Overuse: Learning How to Take a Healthy Break

Shannon Kell

Health education can be a pivotal space for students to learn about well-being for self and others. A particular area of growing concern is technology overuse and the impact this has on well-being. We are always connected to the Internet and communicating with others (Jiang, Schmillen and Sullivan 2018), which makes disconnecting from technology difficult.

We know that screen time has been linked to developmental delays, as well as documented symptoms such as headache, anxiety, panic, mental fatigue, joint pain and insomnia (Cook 2015; Rowan 2010). It is important to note that Internet addiction and excessive use of online communication have been found to be a direct result of psychological stress (Jiang, Schmillen and Sullivan 2018). It has also been found that dependence on social technology is partly to blame for students' inability to cope with stressful situations (Flatt 2013).

A recent pilot study at a local Grades 4–9 school included 98 participants who engaged in a regularly scheduled “unplugged” outdoor solo sit for 20 minutes once per week. The purpose of the study was to gather student perceptions of outdoor solo time and to offer the opportunity to disengage from technology. The findings showed that 73.5 per cent of the students enjoyed the solo time, and 80.6 per cent liked being unplugged. Moreover, 70.4 per cent thought that 20 minutes was too short. When the students were asked what the solo time was useful for, the four most frequent responses were relaxation, thinking, clearing the head and unplugging (Kell 2018).

*Taking a timeout to be outside and unplugged is not a waste of academic time. It might just be that doing nothing will help us all do more.*

This is not surprising. We know that outdoor settings have restorative benefits—emotionally, cognitively and physically (Berto 2014; Coon et al 2011; Hartig et al 2003; Kaplan 1995). We also know that the use of electronic devices in a natural setting has been found to counteract the restorative benefits of nature (Jiang, Schmillen and Sullivan 2018). What we can learn from this is that taking a timeout to be outside and unplugged is not a waste of academic time. It might just be that doing nothing will help us all do more.

The following are some strategies to help students learn about the benefits of unplugging and taking a timeout (preferably outside):

- Encourage students to leave their devices inside for recess, lunch and breaks. Following breaks, debrief as a class about what they did and how it felt.
- Ask students to journal about how they feel after 30 minutes on the computer (or on the cellphone or watching TV) and compare that with how they feel after 30 minutes of physical education (or walking with a friend). The journal activity can be done during a solo sit outside.
- Discuss with students when it is appropriate or necessary to use a device and when it is not. How can we be responsible with devices but also recognize that we use them for academics and other important reasons?
- Ask students to log the time they spend on devices. Then create a class challenge to decrease that time. This can also be a take-home challenge. Students can challenge their parents or guardians, friends, or other classes.

## References

- Berto, R. 2014. “The Role of Nature in Coping with Psycho-Physiological Stress: A Literature Review on Restorativeness.” *Behavioral Sciences* 4, no 4 (December): 394–409. Also available at [www.mdpi.com/2076-328X/4/4/394/pdf](http://www.mdpi.com/2076-328X/4/4/394/pdf) (accessed March 15, 2019).
- Cook, L N. 2015. “Restoring a Rhythm of Sacred Rest in a 24/7 World: An Exploration of Technology Sabbath and Connection to the Earth Community.” *International Journal of Religion and Spirituality in Society* 5, no 4: 17–27.
- Coon, J T, K Boddy, K Stein, R Whear, J Barton and M H Depledge. 2011. “Does Participating in Physical Activity in Outdoor Natural Environments Have a Greater Effect on Physical and Mental Wellbeing Than Physical Activity Indoors? A Systematic Review.” *Environmental Science and Technology* 45, no 5 (March 1): 1761–72.
- Flatt, A K. 2013. “A Suffering Generation: Six Factors Contributing to the Mental Health Crisis in North American Higher Education.” *College Quarterly* 16, no 1 (Winter). <http://collegequarterly.ca/2013-vol16-num01-winter/flatt.html> (accessed March 15, 2019).
- Hartig, T, G W Evans, L D Jamner, D S Davis and T Gärling. 2003. “Tracking Restoration in Natural and Urban Field Settings.” In “Restorative Environments,” ed T Hartig and H Staats, special issue, *Journal of Environmental Psychology* 23, no 2 (June): 109–23.
- Jiang, B, R Schmillen and W C Sullivan. 2018. “How to Waste a Break: Using Portable Electronic Devices Substantially Counteracts Attention Enhancement Effects of Green Spaces.” *Environment and Behavior*. Published ahead of print, July 16. <https://journals.sagepub.com/doi/10.1177/0013916518788603> (accessed February 1, 2019).
- Kaplan, S. 1995. “The Restorative Benefits of Nature: Toward an Integrative Framework.” *Journal of Environmental Psychology* 15, no 3 (September): 169–82.
- Kell, S D. 2018. “Outdoor Solo Time: What Do Elementary Students Think?” Unpublished manuscript.
- Rowan, C. 2010. “Unplug—Don’t Drug: A Critical Look at the Influence of Technology on Child Behavior with an Alternative Way of Responding Other Than Evaluation and Drugging.” *Ethical Human Psychology and Psychiatry* 12, no 1: 60–68.



Shannon Kell, PhD, is an assistant professor at Mount Royal University in Calgary. Formerly a high school health and physical education teacher, she currently teaches in both the Health and Physical Education Department and the Education Department. A member of HPEC and of Physical and Health Education Canada (PHE Canada) (including the positions of member at large on the Research Council and Alberta representative on the board of directors), she seeks to remain current and involved in teacher preparation and schools. Her research interests include the exploration and implementation of outdoor, unplugged solo time for sustainable well-being for all ages, from school-aged to adulthood. She challenges you to go outside and take a timeout from your phone or laptop.

## Advocating for Health Education in Your School

Lauren Sulz

Despite the relevant and critical content in health education curricula (mental health, social and emotional competencies, media literacy), the subject is often marginalized and overlooked. Across Canada, health education is often separated from the overall school agenda; health literacy becomes an add-on, and only a small percentage of teaching time is devoted to health education (Anderson, Mandigo and Gleddie 2018).

The involvement of teacher champions who advocate for quality health education is imperative for lasting change. The following four strategies for advocating for health education (adapted from Birch, Priest and Mitchell 2015) provide direction for these efforts to help move health education forward in Canadian schools.

*The involvement of teacher champions who advocate for quality health education is imperative for lasting change.*

### **Present Information About the Health Behaviours and Health Status of Students**

School administrators, teachers and parents may not be aware of the poor health behaviours of Canadian children and youth. This information is useful in making the case for the importance of health education. A relevant and comprehensive source of information related to student health is the ParticipACTION report card on physical activity for children and youth (ParticipACTION 2018).

### **Emphasize Links Between Health and Academic Success**

As a result of the understandable interest of schools in student achievement, school administrators, teachers and parents tend to emphasize educational outcomes in subject areas such as math, science and literacy. Often overlooked is the impact of health on student learning. Health and education have a reciprocal relationship (Anderson, Mandigo and Gleddie 2018). Enhancing the understanding that boosting health also boosts learning (Suhrcke and de Paz Nieves 2011) can help prioritize health education.

## Consider Linking to Other School Programs

For example, the health education curriculum serves as a vital component of the comprehensive school health approach,<sup>1</sup> providing a platform for explicit teaching and learning about health, in addition to broader features such as the whole-school environment, policy and community collaborations (Leahy and Simovska 2017).

### **Be Familiar with Provincial Curriculum**

Evidence suggests that teachers face the challenge of limited allotted time for delivering quality and effective health education (Wright 2006). Advocates must be knowledgeable about provincially mandated instructional time for health education (for example, 50 hours per year in Grades 7–9 in Alberta) and the content of the health education curriculum (Alberta Education 2018; Alberta Learning 2002a, 2002b).

---

#### Note

1. For more information, see the Pan-Canadian Joint Consortium for School Health website ([www.jcsh-cces.ca](http://www.jcsh-cces.ca)) (accessed March 15, 2019).

---

#### References

- Alberta Education. 2018. *Guide to Education: ECS to Grade 12: 2018–2019*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/3772212/guide-to-education-2018.pdf> (accessed March 15, 2019).
- Alberta Learning. 2002a. *Career and Life Management*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/160199/calm.pdf> (accessed March 15, 2019).
- . 2002b. *Health and Life Skills Kindergarten to Grade 9*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/160196/health.pdf> (accessed March 15, 2019).
- Anderson, A, J Mandigo and D Gleddie, eds. 2018. *Healthy Schools, Healthy Futures: Make Your School a Health-Promoting Community*. Toronto: Thompson.
- Birch, D A, H M Priest and Q P Mitchell. 2015. “Advocacy for Quality School Health Education: The Role of Public Health Educators as Professionals and Community Members.” *The Health Educator* 47, no 1 (Spring): 38–44. Also available at <https://files.eric.ed.gov/fulltext/EJ1153606.pdf> (accessed March 15, 2019).
- Leahy, D, and V Simovska. 2017. “Critical Perspectives on Health and Wellbeing Education in Schools.” In “School Health Education and Promotion: Current Approaches and Critical Perspectives,” ed D Leahy and V Simovska, special issue, *Health Education* 117, no 5: 430–33. Also available at [www.emeraldinsight.com/doi/pdfplus/10.1108/HE-06-2017-0034](http://www.emeraldinsight.com/doi/pdfplus/10.1108/HE-06-2017-0034) (accessed March 15, 2019).

ParticipACTION. 2018. *The Brain + Body Equation: Canadian Kids Need Active Bodies to Build Their Best Brains: The 2018 ParticipACTION Report Card on Physical Activity for Children and Youth*. Toronto: ParticipACTION. Also available at [https://participation.cdn.prismic.io/participation%2F38570bed-b325-4fc8-8855-f15c9aebac12\\_2018\\_participation\\_report\\_card\\_-\\_full\\_report\\_0.pdf](https://participation.cdn.prismic.io/participation%2F38570bed-b325-4fc8-8855-f15c9aebac12_2018_participation_report_card_-_full_report_0.pdf) (accessed March 15, 2019).

Suhrcke, M, and C de Paz Nieves. 2011. *The Impact of Health and Health Behaviours on Educational Outcomes in High-Income Countries: A Review of the Evidence*. Copenhagen: World Health Organization (WHO) Regional Office for Europe. Also available at [www.euro.who.int/\\_data/assets/pdf\\_file/0004/134671/e94805.pdf?ua=1](http://www.euro.who.int/_data/assets/pdf_file/0004/134671/e94805.pdf?ua=1) (accessed March 15, 2019).

Wright, J. 2006. "Physical Education Research from Postmodern, Poststructural and Postcolonial Perspectives." In *The Handbook of Physical Education*, ed D Kirk, D Macdonald and M O'Sullivan, 59–75. London: SAGE.



*Lauren Sulz is an assistant professor in the Department of Secondary Education at the University of Alberta. Her primary research commitments focus on school-based strategies for promoting active, healthy lifestyles among children and youth. She aims to create a whole-school environment where student health is an essential foundation of the school's core mission*

*of learning. She teaches undergraduate courses in physical and health education curriculum and pedagogy, and graduate courses in whole-child education and whole-school approaches to student health.*

## Teach Resiliency: An E-Resource Focused on Supporting Student—and Teacher—Mental Health

Brent Bradford

As a researcher focusing on wellness in postsecondary institutions, I'd like to share some information worthy of consideration as we continue to advocate for quality health education in K–12 schools.

Postsecondary student wellness is a growing concern, and the prevalence of mental health issues has been on the rise (Hunt and Eisenberg 2010; Mental Health Commission of Canada 2013, 2015). According to the Healthy Minds Network (2014), approximately 21 per cent of postsecondary students reported depression and 22 per cent reported anxiety disorders. In a survey of Alberta postsecondary students, in the past year 16 per cent had received a diagnosis or treatment related to depression and 19 per cent had received a diagnosis or treatment related to anxiety (American College Health Association 2016). Our K–12 students are likely not much different.

Teachers, with their knowledge, skills and attributes, have been recognized as the most important building blocks of the education system (Yilmaz 2011). Additionally, as health educators, we are perfectly positioned to positively influence our students daily because of our role and our presence in our students' lives. It is, therefore, critical that we continue to employ every skill and resource at our disposal to support student wellness.

For example, the e-resource Teach Resiliency ([www.teachresiliency.ca](http://www.teachresiliency.ca)) is worthy of our attention. Teach Resiliency is an access point to an e-library packed with practical and evidence-informed resources to support student and teacher mental health literacy (Rodger 2019). Of an estimated 1.2 million children and youth in Canada affected by mental health issues, less than 20 per cent will receive appropriate treatment.<sup>1</sup> Therefore, it is vital for us to continue searching for quality resources (such as Teach Resiliency) to assist in student and teacher wellness. And let's not forget that "the key to teaching about mental health is to make it part of everyday experience" (Rodger 2019, 93).

*As health educators, we are perfectly positioned to positively influence our students daily because of our role and our presence in our students' lives. It is, therefore, critical that we continue to employ every skill and resource at our disposal to support student wellness.*

### Note

1. See [www.mentalhealthcommission.ca/English/focus-areas/children-and-youth](http://www.mentalhealthcommission.ca/English/focus-areas/children-and-youth) (accessed March 15, 2019).

### References

American College Health Association (ACHA). 2016. *American College Health Association–National College Health Assessment II: Alberta Canada Reference Group: Executive Summary*. Hanover, Md: ACHA. Also available at [www.healthycampusalberta.ca/wp-content/uploads/2018/01/NCHA-II-WEB-SPRING-2016-ALBERTA-CANADA-REFERENCE-GROUP-EXECUTIVE-SUMMARY-2.pdf](http://www.healthycampusalberta.ca/wp-content/uploads/2018/01/NCHA-II-WEB-SPRING-2016-ALBERTA-CANADA-REFERENCE-GROUP-EXECUTIVE-SUMMARY-2.pdf) (accessed March 15, 2019).



Healthy Minds Network. 2014. *The Healthy Minds Study: 2014 Data Report*. Ann Arbor, Mich: Healthy Minds Network. Also available at <http://healthymindsnetwork.org/research/data-for-researchers/> (accessed March 15, 2019).

Hunt, J, and D Eisenberg. 2010. "Mental Health Problems and Help-Seeking Behavior Among College Students." *Journal of Adolescent Health* 46, no 1 (January): 3–10. Also available at [www.jahonline.org/article/S1054-139X\(09\)00340-1/pdf](http://www.jahonline.org/article/S1054-139X(09)00340-1/pdf) (accessed March 15, 2019).

Mental Health Commission of Canada. 2013. *Making the Case for Investing in Mental Health in Canada*. Ottawa, Ont: Mental Health Commission of Canada. Also available at [www.mentalhealthcommission.ca/sites/default/files/2016-06/Investing\\_in\\_Mental\\_Health\\_FINAL\\_Version\\_ENG.pdf](http://www.mentalhealthcommission.ca/sites/default/files/2016-06/Investing_in_Mental_Health_FINAL_Version_ENG.pdf) (accessed March 15, 2019).

———. 2015. *Informing the Future: Mental Health Indicators for Canada*. Ottawa, Ont: Mental Health Commission of Canada. Also available at [www.mentalhealthcommission.ca/English/major-mhcc-documents-2007-2017#2015](http://www.mentalhealthcommission.ca/English/major-mhcc-documents-2007-2017#2015) (accessed March 15, 2019).

Rodger, S. 2019. "Promoting Positive Mental Health." In *Physical and Health Education in Canada: Integrated Approaches for Elementary Teachers*, ed J Barrett and C Scaini, 85–94. Champaign, Ill: Human Kinetics.

Yilmaz, A. 2011. "Quality Problem in Teaching Profession: Qualities Teacher Candidates Feel to Be Required of Teachers." *Educational Research and Reviews* 6, no 14 (October): 812–23. Also available at <https://academicjournals.org/journal/ERR/article-full-text-pdf/E9A08377563> (accessed March 15, 2019).



Brent Bradford, PhD, has been an assistant professor in the Faculty of Education at Concordia University of Edmonton since 2015. In addition to his extensive K–9 teaching experience, he served as a teacher educator from 2009 to 2014 while pursuing graduate work at the University of Alberta. His teaching has been recognized with awards at both the K–12 and the postsecondary levels. He has presented and published extensively on physical and health education and is an Erasmus+ and Mobile+ scholar (University of the Basque Country, Spain [2016]).

## Using Key Factors of Educational Change to Support the Creation of Healthy School Communities

Doug Gleddie

Creating and supporting a healthy school community require a significant investment of time, people and resources. As health champions attempt to move forward from classroom-based health education models to a broader comprehensive school health approach, it is important to remember that what we are really advocating for is school change.

Michael Fullan, Andy Hargreaves and others have been conceptualizing and researching school change for a long time (Fullan 2002; Fullan, Cuttress and Kilcher 2005; Hargreaves 2007; O'Neill 2000). Key factors of their work can inform our efforts to effect lasting change in the area of healthy school communities (Gleddie and Robinson 2017).

### Professional Development

Professional development (PD) is the first of these factors. PD should be specific, timely and ongoing. The interplay between PD opportunities and contextual learning is critical. Often, PD supports are available only at the beginning of a venture. Ensure that learning and reflective opportunities are available at every stage of change and that they involve all stakeholders.

### Building Capacity for Leadership

Building capacity for leadership is another critical element. This involves the concepts of shared leadership and distributed leadership. Although administrators should certainly be champions of change, they share this responsibility with students, teachers, parents and community partners. Create a multistakeholder team to distribute leadership roles and increase engagement levels.

*As health champions attempt to move forward from classroom-based health education models to a broader comprehensive school health approach, it is important to remember that what we are really advocating for is school change.*

### Transforming the Culture

Transforming the culture is the final, and perhaps most complex, factor for change. Recognize that it takes time and considerable effort to change a school's culture. Essentially, we want healthy schools to be "the way we do business." Health happens as a natural extension of who we are as a school community. Consider gathering together appropriate partners to establish for the school a clear vision (Where are we going?) and mission (How do we get there?) that is inclusive of health.

## References

- Fullan, M. 2002. "The Change Leader." *Educational Leadership* 59, no 8 (May): 16–21. Also available at [www.ascd.org/publications/educational-leadership/may02/vol59/num08/The-Change-Leader.aspx](http://www.ascd.org/publications/educational-leadership/may02/vol59/num08/The-Change-Leader.aspx) (accessed March 15, 2019).
- Fullan, M, C Cuttress and A Kilcher. 2005. "8 Forces for Leaders of Change." *Journal of Staff Development* 26, no 4 (Fall): 54–58, 64. Also available at [www.learningforward.org/docs/jsd-fall-2005/fullan264.pdf](http://www.learningforward.org/docs/jsd-fall-2005/fullan264.pdf) (accessed March 15, 2019).
- Gleddie, D L, and D B Robinson. 2017. "Creating a Healthy School Community? Consider Critical Elements of Educational Change." *Journal of Physical Education, Recreation and Dance* 88, no 4: 22–25.
- Hargreaves, A. 2007. "The Long and Short of Educational Change." *Education Canada* 47, no 3 (Summer): 16–23. Also available at [www.edcan.ca/wp-content/uploads/EdCan-2007-v47-n3-Hargreaves.pdf](http://www.edcan.ca/wp-content/uploads/EdCan-2007-v47-n3-Hargreaves.pdf) (accessed March 15, 2019).
- O'Neill, J. 2000. "Fads and Fireflies: The Difficulties of Sustaining Change." *Educational Leadership* 57, no 7 (April): 6–9. Also available at [www.ascd.org/publications/educational-leadership/apr00/vol57/num07/toc.aspx](http://www.ascd.org/publications/educational-leadership/apr00/vol57/num07/toc.aspx) (accessed March 15, 2019).



Doug Gleddie, PhD, is an associate professor in the Faculty of Education at the University of Alberta. He teaches physical education curriculum and pedagogy to undergraduate students, as well as graduate courses in health and physical education, reflective practice, physical literacy and research methods. His research focuses include narratives of physical education, school sport, physical literacy praxis, meaningful physical education and teacher education.

## References

- Cordingley, P. 2008. "Research and Evidence-Informed Practice: Focusing on Practice and Practitioners." In "Knowledge Transformation and Impact," ed J Gardner and A Pollard, special issue, *Cambridge Journal of Education* 38, no 1: 37–52.
- Sulz, L, D Balderson, D Gleddie, C Hickson, D Chorney and S Kell. 2018. "Research-Informed Tips for Teaching Physical and Health Education." *Runner* 49, no 1: 9–14.

## Current Active ATEPHE Members

### Danny Balderson

Associate Professor,  
Faculty of Education,  
University of Lethbridge  
[daniel.balderson@uleth.ca](mailto:daniel.balderson@uleth.ca)

### Brent Bradford

Assistant Professor,  
Faculty of Education,  
Concordia University of  
Edmonton  
[brent.bradford@concordia.ab.ca](mailto:brent.bradford@concordia.ab.ca)

### David Chorney

Associate Professor,  
Faculty of Education,  
University of Alberta  
[dchorney@ualberta.ca](mailto:dchorney@ualberta.ca)

### Doug Gleddie

Associate Professor,  
Faculty of Education,  
University of Alberta  
[dgleddie@ualberta.ca](mailto:dgleddie@ualberta.ca)

### Leigh Goldie

Instructor Emeritus,  
Physical Education and  
Kinesiology, Grande Prairie  
Regional College  
[lgoldie@gprc.ab.ca](mailto:lgoldie@gprc.ab.ca)

### Astrid Heidenreich

Instructor, Faculty of  
Health, Community and  
Education, Mount Royal  
University  
[aheidenreich@mtroyal.ca](mailto:aheidenreich@mtroyal.ca)

### Clive Hickson

Professor, Faculty of  
Education, University of  
Alberta  
[clive.hickson@ualberta.ca](mailto:clive.hickson@ualberta.ca)

### Shannon Kell (Chair)

Assistant Professor, Faculty  
of Health, Community and  
Education, Mount Royal  
University  
[skell@mtroyal.ca](mailto:skell@mtroyal.ca)

### Jason McLester

Instructor, Faculty of  
Science and Arts  
(Kinesiology and  
Education), Medicine Hat  
College  
[jmclester@mhc.ab.ca](mailto:jmclester@mhc.ab.ca)

### Aletheia Mendes

Instructor, Faculty of  
Health and Community  
Studies, MacEwan  
University  
[mendesA2@macewan.ca](mailto:mendesA2@macewan.ca)

### Hayley Morrison

Instructor, Faculty of  
Education, University of  
Alberta  
[hjmorris@ualberta.ca](mailto:hjmorris@ualberta.ca)

### Dwayne Sheehan

Associate Professor,  
Faculty of Health,  
Community and  
Education, Mount Royal  
University  
[dpsheehan@mtroyal.ca](mailto:dpsheehan@mtroyal.ca)

### Lauren Sulz

Assistant Professor,  
Faculty of Education,  
University of Alberta  
[lsulz@ualberta.ca](mailto:lsulz@ualberta.ca)

### Nadine Van Wyk

Assistant Professor, Faculty  
of Health, Community and  
Education, Mount Royal  
University  
[nvanwyk@mtroyal.ca](mailto:nvanwyk@mtroyal.ca)

### Rob Weddell

Instructor, Faculty of  
Kinesiology, Red Deer  
College  
[rob.weddell@rdc.ab.ca](mailto:rob.weddell@rdc.ab.ca)

### Ilsa Wong

Cochair, Department of  
Kinesiology and Physical  
Education, University of  
Lethbridge  
[ilsa.wong@uleth.ca](mailto:ilsa.wong@uleth.ca)

# Keeping Kids in the Game: Neuromuscular Training—a New Standard for Warming Up

Megan McKinlay

What do you do with your students or athletes to warm up? Traditionally, warm-ups have been variable, including such diverse activities as laps around the gym, dynamic warm-ups and static stretching. New evidence shows that warm-ups that include agility, balance, strength and aerobic components significantly reduce rates of injury (by up to 35 per cent) and improve fitness, both of which are important in keeping children and youth active throughout their lives (Emery et al 2015).

Sport injuries are common among Canadian junior high and high school students, and they are a significant burden to the health-care system. In a Calgary-area study, researchers found that 60 per cent of junior high students and 66 per cent of high school students sustained an injury in a given school year (Emery, Meeuwisse and McAllister 2006; Emery and Tyreman 2009). Sport injury is the leading cause of medical treatment in youth in Canada and the sixth leading cause of injury cost (Richmond et al 2018). The consequences of injury include lower participation in physical activity, fewer social interactions, increased risk of subsequent injury and the development of osteoarthritis later in life.

*New evidence shows that warm-ups that include agility, balance, strength and aerobic components significantly reduce rates of injury (by up to 35 per cent) and improve fitness, both of which are important in keeping children and youth active throughout their lives.*

Much of what we know about warm-ups comes from research done in an effort to reduce injuries in sport. The FIFA 11+ is a well-known neuromuscular training

(NMT) program in soccer. Floorball, European handball, basketball, Aussie rules football and other sports have adopted their own versions. Although many variations have emerged to suit the needs of individual sports, the programs all follow the same recipe of aerobic, agility, balance and strength components. NMT strategies focus on training the link between the muscular system and the neurological system so that they can work optimally together, which gives muscles better control when performing various movements. The evidence has been clear that these programs are effective in reducing injuries in sport settings, but research was needed to conclude that this type of warm-up is both effective and feasible in a school setting (Richmond et al 2016).

The University of Calgary's Sport Injury Prevention Research Centre (SIPRC) partnered with Ever Active Schools to better understand the effectiveness of NMT warm-up programs in junior high physical education classes. A three-year study in Calgary junior high schools showed that students who consistently completed this type of neuromuscular warm-up in their physical education classes had significantly fewer lower-body injuries compared with their peers (Emery et al 2018). This is particularly important given that 70 per cent of injuries from sport and recreation are in the lower extremities (Murphy, Connolly and Beynnon 2003).

An NMT warm-up can be more demanding than a traditional warm-up. The idea is that NMT develops strength and stability in the joints to ensure proper technique in any movement. Developing these habits and skills earlier in life contributes to developing healthy bones and joints in the long term, which can keep one active for longer in the sports and activities one loves.

Some challenges teachers cited in doing the NMT warm-up were the high number of exercises, the time it took to do the warm-up, and the awkward or difficult exercises (Richmond et al 2018). The Be Fit for Life (BFFL) Network, Ever Active Schools (EAS), the Health

and Physical Education Council (HPEC), and SIPRC have updated a teacher resource—the Let’s Warm Up! poster—to reflect the latest evidence on warming up for junior high students and teachers. The goal was to use the feedback received from teachers throughout the research process to make the NMT warm-ups (which we know to be effective) easier to implement, to offer more choice, to make the program more accessible and open to modifications, and to make it more flexible so that if you have fifteen minutes one day and three the next, you can still do a great warm-up.

The updated Let’s Warm Up! poster can be found (along with other resources) at <https://everactive.org/free-printable-resources/>, [www.befitforlife.ca/resources/jrhighwarmup/](http://www.befitforlife.ca/resources/jrhighwarmup/) and <https://ucalgary.ca/siprc/studies/school>.

---

## References

- Emery, C A, W H Meeuwisse and J R McAllister. 2006. “Survey of Sport Participation and Sport Injury in Calgary and Area High Schools.” *Clinical Journal of Sport Medicine* 16, no 1 (January): 20–26.
- Emery, C A, T-O Roy, J L Whittaker, A Nettel-Aguirre and W van Mechelen. 2015. “Neuromuscular Training Injury Prevention Strategies in Youth Sport: A Systematic Review and Meta-Analysis.” *British Journal of Sports Medicine* 49, no 13 (July): 865–70.
- Emery, C A, and H Tyreman. 2009. “Sport Participation, Sport Injury, Risk Factors and Sport Safety Practices in Calgary and Area Junior High Schools.” *Paediatrics and Child Health* 14, no 7 (September): 439–44.
- Emery, C, C van den Berg, S A Richmond, L Palacios-Derflingher, A Nettel-Aguirre, M McKinlay, P Doyle-Baker and B Hagel. 2018. “A School-Based Program to Reduce Injuries Through Neuromuscular Training: iSPRINT a Cluster-Randomized Controlled Trial.” *Injury Prevention* 24, no S2 (November): A11.
- Murphy, D F, D A J Connolly and B D Beynon. 2003. “Risk Factors for Lower Extremity Injury: A Review of the Literature.” *British Journal of Sports Medicine* 37, no 1 (February): 13–29.
- Richmond, S A, A Donaldson, A Macpherson, W Bridel, C van den Berg, C F Finch, B Hagel and C A Emery. 2018. “Facilitators and Barriers to the Implementation of iSPRINT: A Sport Injury Prevention Program in Junior High Schools.” *Clinical Journal of Sport Medicine*. Published ahead of print, March 26. [https://journals.lww.com/cjsportsmed/Abstract/publishahead/Facilitators\\_and\\_Barriers\\_to\\_the\\_Implementation\\_of.99238.aspx](https://journals.lww.com/cjsportsmed/Abstract/publishahead/Facilitators_and_Barriers_to_the_Implementation_of.99238.aspx) (accessed March 18, 2019).
- Richmond, S A, J Kang, P K Doyle-Baker, A Nettel-Aguirre and C A Emery. 2016. “A School-Based Injury Prevention Program to Reduce Sport Injury Risk and Improve Healthy Outcomes in Youth: A Pilot Cluster-Randomized Controlled Trial.” *Clinical Journal of Sport Medicine* 26, no 4 (July): 291–98.



Megan McKinlay is the communications lead with the Be Fit for Life (BFFL) Network, working to inspire, educate and support Albertans in leading healthy, physically active lifestyles. Over the course of this research project, she worked as a knowledge broker with Ever Active Schools and the Sport Injury Prevention Research Centre, and she continues to share the work alongside many partners across Alberta.



# LET'S WARM UP!



Choose exercises from each column, start some music and get moving! Focus on quality over speed. Add or modify these exercises based on the needs of your group. Warm ups that include aerobic, agility, strength and balance exercises are proven to prevent injuries. A great warm up gets your body ready for activity, and helps your muscles to have better control when doing different movements.

AEROBIC	AGILITY	STRENGTH	BALANCE
1-2 laps around the space	Start with 30 seconds & progress to 1 minute	Hold for 20-30 seconds & progress to repeating 3 times	Try to balance for 30 seconds on each leg.
<b>FORWARD RUN</b> 	<b>ZIG ZAG RUNNING</b> 	<b>PLANK</b>  ON ELBOWS	<b>SINGLE-LEG BALANCE</b> 
<b>SKIPPING</b> 	<b>DOUBLE/SINGLE LEG SQUAT JUMPS</b> 	 ON HANDS	<b>SINGLE-LEG BALANCE</b> HOLDING A PARTNER SLIGHTLY WITH ONE OR TWO FINGERS 
<b>KNEE LIFTS</b> 	<b>ON THE SPOT</b> 	 WITH ALTERNATING LEG LIFTS	<b>SINGLE-LEG BALANCE</b> WITH EYES CLOSED 
<b>HEEL KICKS</b> 	<b>FORWARDS &amp; BACKWARDS</b> 	<b>SIDE PLANK</b>  ON ELBOWS	<b>SINGLE-LEG BALANCE</b> WITH BOUNCE PADS 
<b>SIDEWAYS SHUFFLES</b> 	<b>SIDE TO SIDE</b> 	 ON HANDS	<b>SINGLE-LEG BALANCE</b> 
<b>FORWARDS RUNNING</b> WITH QUICK START AND STOPS 	<b>SKATE JUMPS</b> 	<b>NORDIC HAMSTRING</b> Repeat 3 times and progress to 10 repetitions 	<b>SINGLE-LEG BALANCE</b> WHILE GROUING 
<b>SPEED RUNS</b> 		<b>LUNGES</b> BASIC ON BOTH LEGS, UP TO ONE LEG AT A TIME 	

**REMEMBER TO...**

- Keep your knees in line with your ankle
- Land lightly on the balls of your feet
- Not let your knees buckle inwards
- Keep your hips facing forwards



# Exploring the Literature on the Benefits of Nature and Outdoor Play and the Role of Play Leaders

Kaitlyn Sobchuk, Sarah Connolly and Dwayne Sheehan

## The Current Problem

Over the last decade and a half, Canadian children and youth have been receiving failing grades of D (2005–06), F (2007–12) and D minus (2013–18) for overall physical activity (Active Healthy Kids Canada 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014; ParticipACTION 2015, 2016, 2018).<sup>1</sup> The 2016 ParticipACTION report card gave children a D minus for overall physical activity because only 9 per cent of children aged 5–17 reached the recommended time of 60 minutes per day of moderate to vigorous physical activity (p 13). A letter grade of D indicates an unacceptable level of physical activity opportunities and programs for children, and an F indicates a sedentary lifestyle for children (Active Healthy Kids Canada 2008, 8).

In North America, children spend an average of only four to seven minutes per day in unstructured play as the result of an increase in structured programs indoors (Hofferth and Sandberg 2001, 206–8; Juster, Ono and Stafford 2004, 8). This increase in structured programs is due partly to the perceived barriers of media (Levin 2013), lack of community (Rivkin 1998, 200), culture (societal and familial) (Woolley, Pattacini and Somerset-Ward 2009, 2–33) and safety concerns (Charles et al 2008, 15; Clements 2004, 74; Rivkin 1998, 200–201). Safety concerns include crime, traffic, disease and the general security of children. If children do not have access to natural elements, they may lose the connection with nature that humans have consistently built over time (Woolley, Pattacini and Somerset-Ward 2009, 19–22), which harms biophilia.

Biophilia is the relationship that humans have created with nature in order to survive (Kellert 2006, 9; Nedovic and Morrissey 2013, 282). Positive effects of overall health and well-being have been associated with this connection to the outdoors and nature (Bohling Philippi 2006; Hu et al 2015, 55; Kellert 2006, 9; Nedovic and Morrissey 2013, 282). As children gain a sense of biophilia, they undergo cognitive development related to learning and respecting nature (Kellert 2002). This maturation gives them an understanding of the world they live in so they can develop the skills to problem solve (Elkind 2007; Olsen and Smith 2017, 1056; Ridgers, Knowles and Sayers 2012, 50; Staempfli 2009, 272).

## Evidence of the Benefits of Outdoor Play Learning

Many studies have found that exposure to nature results in positive cognitive and social outcomes in children. These positive outcomes include improved cognition through increased use of academics, reflection (Frost 2004, 16) and attention (Mårtensson et al 2009, 1150; Taylor and Kuo 2009, 407; Taylor, Kuo and Sullivan 2001, 71; Wells 2000, 790). Flouri, Midouhas and Joshi (2014, 179) found that spending time in nature improves attention, motor skills and self-regulation. A correlation

*Many studies have found that exposure to nature results in positive cognitive and social outcomes in children.*

between outdoor time and decreasing attention deficit hyperactivity disorder (ADHD) symptoms exists (Kuo and Taylor 2004, 1583; Taylor and Kuo 2009, 406). Wells (2000, 790) found that attention increased in children from low-income families when they moved into a more natural neighbourhood. Frost et al (2004, 44) discovered that sand and water play has the greatest value for children's social and cognitive development compared with fixed playground equipment. Educational nature play, demonstrated across the United Kingdom in its forest schools, resulted in an increase in motivation, concentration, confidence, knowledge of nature, motor skills and awareness of others in three- to five-year-olds who interacted with woodlands practically and academically (O'Brien and Murray 2007, 254).

When play is studied independent of nature play, the results are similar. Play has been linked to brain development, language acquisition (Christakis, Zimmerman and Garrison 2007, 967–69; Perry et al 2010, 1900), development of socioemotional skills and self-regulation (Diamond 2014, 9–11; Flouri, Midouhas and Joshi 2014, 179). Self-regulation promotes math and comprehension skills as the result of children's interactions and achievements through active play (Becker et al 2014, 67). Ralli and Payne (2016, 42) found that young children's early childhood development improved through parallel play with older children, as it allowed them to pick up new words and concepts. In addition, natural environments can act as a catalyst for children's desire to learn about math and science (Wellhousen 2002).

## Personal Development

White (2011) and Santer, Griffiths and Goodall (2007) found that outdoor time increased girls' assertiveness and boys' creativity, helping them build relationships. According to McClintic and Petty (2015) and White (2011), these changes occur because children feel less inhibited.

Outdoor play creates a learning environment that fosters curiosity and investigation in children (Thomas and Harding 2011, 13–14). In the natural world, children are frequently challenging their abilities; managing their play; and enhancing their creativity, motor skills and observations through diverse and challenging environments (Crain 2001; Fjørtoft 2004, 39; Fjørtoft and Sageie 2000, 93–95; Murray and O'Brien 2005, 29; Ridgers, Knowles and Sayers 2012, 60). High levels of confidence and appreciation of

activities result in a child who wants to lead and teach others (Ridgers, Knowles and Sayers 2012, 56).

Children have reported that they were more motivated to learn about natural elements and were more aware of environmental issues in their community when playing outside (Ridgers, Knowles and Sayers 2012, 58).

## *Outdoor play creates a learning environment that fosters curiosity and investigation in children.*

Woolley, Pattacini and Somerset-Ward (2009, 10–11) reinforce the idea that a better connection with nature results in the development of social skills, confidence, understanding of the world, learning, motor skills and leadership.

## Wellness

When children participate in outdoor play, they become stronger, mentally and physically (Acar 2014, 846; Burdette and Whitaker 2005, 47–48; Fjørtoft 2004, 22). Outside, children experience reduced stress and increased interactions with others (Wells and Evans 2003, 323–24). Goodenough (2008), Louv (2008) and Young (2008) report that when children are outside, they have improved cognitive function and reduced risk of disease.

Diseases linked to a lack of time outside include myopia (Rose et al 2008, 1284), vitamin D deficiency (Misra et al 2008, 406) and asthma (Lovasi et al 2008, 648). Obesity and dyslipidemia are also linked with a lack of physical activity (Janssen and LeBlanc 2015, 192; Nelson, Carpenter and Chiasson 2006, 5; Strong et al 2005, 736). Natural sunlight may help prevent some diseases, such as depression, as it triggers the brain to release serotonin, increasing calmness, focus, attention, memory and well-being (Baldwin and Rudge 1995, 44; Levandovski et al 2013, 4).

## Play

The American Academy of Pediatrics, American Public Health Association, and National Resource Center for Health and Safety in Child Care and Early Education (2011) acknowledge that unstructured play is more valuable for children than passive entertainment. Unstructured play occurs organically and spontaneously, solely by the child (Alexander, Frohlich and Fusco 2014, 1190; Ridgers, Knowles and Sayers 2012, 54; Titman

1994). Children highlight freedom, choice, pleasure and fun as being the most important parts of play (Alexander, Frohlich and Fusco 2014; Ridgers, Knowles and Sayers 2012, 49; Titman 1994).

Unstructured play develops children's resiliency, allowing them to manage their emotions and interactions in facing challenges so that they can reach their full potential, mentally and physically (Ginsburg 2007, 183). Silver and Ramsey (1983), Innocenti et al (1986), Tizard and Hughes (2008), and Creaser (1989) all found that adult involvement can be positive but can also disrupt the flow of language, thought, dramatic play and play with peers.

When engaging with a natural environment, children have been seen to be more creative and imaginative (Fjørtoft and Sageie 2000, 93; Staempfli 2009, 277). Taylor et al (1998) and Franklin (2008) also found increased creativity and imagination in children who engaged in play with greenery, pebbles and twigs. Herrington and Brussoni (2015, 481) discovered that kids said they liked plants, mud, water, animals and stones for natural play, as these offered more opportunities for engagement.

Once children look beyond the physical value of an object, they can create limitless play experiences, producing what is known as the concept of affordance (Gibson 1979). Affordance with loose parts enhances motor skills, with varied movements with each symbolic object (Herrington and Brussoni 2015, 478; Nedovic and Morrissey 2013, 283). Play with nature-based loose parts has been observed to increase engagement, as children's play lengthens and deepens (Nedovic and Morrissey 2013, 288; Refshauge et al 2015, 239; Woolley and Lowe 2013). Props also foster creativity and imaginative play through the concept of affordance. Providing a wide spread of play instruments allows children to manipulate, explore and create opportunities for limitless play (Olsen and Smith 2017, 1063).

In gardens with varied produce, children saw an increase in physical activity through curiosity and engagement with the natural world (Fjørtoft and Sageie 2000, 95). The physical activity that results from curiosity is a side effect of affordance (Herrington and Brussoni 2015, 481). For example, a structure (such as a teepee) promotes a sense of familiarity, security and imagination in children, while soft flooring (such as mulch) increases children's physical activity, possibly due to increased willingness to engage in risky play (Nedovic and Morrissey 2013, 287–89). Dymont and Bell (2008, 956) found that implementing greenery in schools resulted in an increase of 71 per cent for light to moderate physical activity and

49 per cent for vigorous physical activity. Nature play involves movement patterns that are more complex and more intense, as well as longer engagement times (Herrington and Brussoni 2015, 481).

An adventure playground incorporates the outdoors to potentially "offer an abundance of developmental opportunities for children to grow emotionally, socially, and physically" (Staempfli 2009, 268). Luchs and Fikus's (2013, 215) observational study found that a nature-based playground afforded more complex and more diverse play, resulting in a 7 per cent increase in the number of children who played for longer than the 30-minute observational period.

The outdoors allows children free access and play to challenge their abilities (Bullard 2012; Frost et al 2004, 44). Risky play encourages self-efficacy, as it helps children manage their risks by their competency, overall benefiting their health and development (Brussoni et al 2015, 6447; Brussoni et al 2012, 3142; Lavrysen et al 2017, 101; Moore, Goltsman and Iacofano 1992). Olsen and Smith (2017, 1065) indicate that "outdoor play environments have abundant opportunities to support the whole-body experience of children."

## Fundamental Movement Skills

Fundamental movement skills (FMS) are the basic skills that children will need in order to perform advanced movements in the future, such as in sports (Lubans et al 2010, 1019). FMS involve locomotion, body control and object control and include running, throwing, hopping, kicking, climbing, rolling and catching. Children establish their FMS when they enjoy the challenge at hand (Frost et al 2004, 44). Simple toys and building toys help develop children's fine motor skills through the amount of manipulation they can achieve with the toys (Spencer and Wright 2014, 29). Barbour (1999) states that the concept of affordance, tied with multiplay environments, creates an inclusive setting where all children have the potential to develop the physical skills they will need later in life.

## The Role of Play Leaders

### Playworkers

Playworkers seek to support and facilitate the play process, based on the idea that play is instinctual. To accomplish this, they focus on providing space for play.<sup>2</sup>

Brown and Taylor (2008, 87) describe the role of playworkers as being based on two continua: the first



continuum represents adults' internal reactions to play, and the second represents adults' approaches to directing play. Playworkers consciously strive to be in the middle zone of each continuum in order to achieve effective playwork. The first continuum describes playworkers' reactions to play, ranging from nonludic (desire to assert adult authority) to ludic (desire to join in and direct play), with paraludic existing at the centre (p 87). The second continuum describes their approaches to play, ranging from didactic (directing and teaching) to chaotic (negligent or egocentric), with ludocentric existing at the centre (p 87). By achieving the centre of both continua, playworkers take on the role of witness, where they join in play alongside the child only when invited; this is done by being aware of the position of power they hold as adults and by consciously working to not allow that to take over (p 88).

Playworkers structure play in a way that directs learning toward lessons about what is good, such as how to properly interact with other children (Brown and Taylor 2008, 86). Moreover, playworkers seek to protect children from harm by making decisions regarding what is safe, based on the idea that children are immature and incompetent in making those decisions themselves (p 86).

The Play Rangers program is an example of playworkers in action in the United Kingdom. Play Rangers has been running play programs since 2007 and now has 11 locations at which trained playworkers promote outdoor play and risk-taking skills in a controlled environment.<sup>3</sup>

## Play Ambassadors

The mission of the Vivo Play Ambassadors program, in Calgary, is to advocate for the importance of play in a healthy life and to increase play in communities.<sup>4</sup> Play ambassadors appreciate that play can also have an impact on them, personally and professionally. They become role models in their communities and seek to inspire change through their play sessions, with the ultimate goal of changing people's long-term behaviours. Play ambassadors believe that intrinsically motivated play has a positive impact on everyone and that it can effect change in one's physical, social, cognitive and emotional well-being.<sup>5</sup>

Vivo's play ambassadors are unique in how they understand and approach play. Playworkers and play ambassadors agree about the importance of play in the life of a child and how it is fundamental to healthy development and well-being, at both the individual level

and the community level. However, how they approach play facilitation is where their philosophies differ. The characteristics of play as defined by play ambassadors are that it is freely chosen, intrinsically motivated and imaginative. This contrasts with playworkers, who interpret play as personally driven rather than imaginative. For play ambassadors, free choice also allows children to navigate risky play (heights, dangerous tools, disappearing, rough-and-tumble, high speeds, dangerous elements). Furthermore, play ambassadors take a more hands-on approach than other playworkers by acting as play role models, inspiring imagination through enhancing the environment and asking probing questions.<sup>6</sup>

*Play ambassadors believe that intrinsically motivated play has a positive impact on everyone and that it can effect change in one's physical, social, cognitive and emotional well-being.*

## Playworks Coaches

Playworks coaches, although similar to other play leaders in their title and their mission to increase the social, physical and emotional well-being of children, are playworkers who base their work on an entirely different foundation of principles.<sup>7</sup> Playworks was founded in 1995 by Jill Vialet in Oakland, California, and now serves approximately 1,300 schools across the United States.<sup>8</sup>

One contrast between the Playworks program and the Play Ambassadors program is that Playworks largely focuses on changing school culture and does so through organized, adult-led play. In its 2017 national annual survey, school staffs who had partnered with Playworks reported significant increases in the creation of safe and effective learning environments, in students' ability to focus during class, in the number of physically active students, in student inclusion at recess and in students' sense of belonging. Furthermore, they reported a decrease in the time needed to transition from recess to learning, as well as in the number of conflicts and the time spent resolving conflicts in the classroom.<sup>9</sup>

Beyler et al (2013) undertook a randomized control trial of 29 schools to evaluate the effects of Playworks on students' physical activity. The results of the study



showed that students at the schools that had Playworks present during recess engaged in more-vigorous activity and were less likely to be sedentary (p 11). Furthermore, students at the treatment schools were more likely to be engaged in organized games and to use equipment as intended, while students in the control schools were more likely to engage in unstructured play and to misuse equipment (p 14).

Fortson et al (2013, 17), in a similar study, found less reported bullying and decreased time needed to transition from recess to learning, with increased readiness to learn. They also found an increased feeling of safety in the schools. The study findings are similar to the national survey results posted by Playworks in 2017, and they align with its mission to have a positive impact on school environments.

## Play Therapy

Play therapy is a way to counsel children that uses toys, games or media to facilitate communication with children; this approach is for children under 12, as they have a limited ability to verbalize their feelings and to use abstract reasoning (Kottman 2011, 3). Play can be used with children to establish rapport, to help them understand their interactions and relationships, to help them reveal feelings they have not been able to verbalize, to help them constructively act out their feelings, to provide an environment where they can test limits, and to help them gain insight into their own behaviour and motivation (Thompson and Henderson 2006).

In 1947, Axline (1989) identified eight principles of play therapy that guide how play therapists approach and interact with children; some of these principles align with those of the Play Ambassadors program. First, adults should allow children to solve their own problems if they are able to do so; this requires maintaining respect for children's abilities. Second, adults should not overly direct children's actions.<sup>10</sup> Play therapy deviates from Play Ambassadors in stating that adults must recognize children's feelings and reflect those feelings back to them to provide insight into their behaviour (Axline 1989).

## Adventure Play

Several projects related to the concept of adventure play have been initiated in Calgary.

The Mobile Adventure Playground (MAP) focuses on providing a dynamic play area made up primarily of loose

parts, which kids can use to build, demolish and change as they please.<sup>11</sup> MAP strives to provide opportunities for active, imaginative, creative, nature-based and self-directed play. Through these types of play, children develop their cognitive, emotional and social skills. Play ambassadors are present to ensure safety and to inspire play without directly supervising the children. Parents are encouraged to be onlookers during the play experience.

*In recent years, international movements have been launched around the concept of playworkers and the important role they can play in the development of a more curious, healthy and nature-based childhood.*

Common Digs is a Calgary-based organization that incorporates adventure and nature-based play into the school curriculum. This is also known as nature kindergarten, a concept that originated in the United Kingdom and has now expanded to the United States and Canada.<sup>12</sup> Components of this curriculum include regular and extended nature visits, supported risk taking, observation and inquiry, hands-on play and learning, storytelling, and mindfulness.<sup>13</sup>

## Conclusion

Play in nature strengthens children's physical, social, cognitive and self-efficacy capabilities, which can improve their quality of life. Nature can improve the health, attitudes and learning potential of children, which can be further enhanced when paired with spontaneous, unstructured play. Unstructured play incorporates the idea of affordance (Gibson 1979), which allows children to remain engaged in an activity because their play with an object inspires their curiosity, imagination and creativity. Unstructured play may also include elements of trial and error and risk taking, which allow children to develop self-worth through accomplishing a challenging task.

In recent years, international movements have been launched around the concept of playworkers and the important role they can play in the development of a more curious, healthy and nature-based childhood. These movements have now taken hold across North America in the form of initiatives such as Playworks, the Mobile

Adventure Playground, Common Digs and Play Ambassadors. The evidence overwhelmingly suggests that the way to overcome chronic sedentary behaviour in children and youth is through play and nature-based activities. Although the research is clear, it may take initiatives such as those discussed here to serve as the catalysts for us to return to nature-based play.

## Notes

1. All the 2005–18 report cards on physical activity for children and youth can be accessed from [www.participation.com/en-ca/resources/report-card/](http://www.participation.com/en-ca/resources/report-card/) (accessed March 20, 2019).
2. See [www.skillsactive.com/PDF/sectors/Playwork\\_Principles.pdf](http://www.skillsactive.com/PDF/sectors/Playwork_Principles.pdf) (accessed March 20, 2019).
3. See [www.playwork.co.uk/media/9869/play\\_rangers\\_a\\_definition.pdf](http://www.playwork.co.uk/media/9869/play_rangers_a_definition.pdf) (accessed March 20, 2019).
4. See [www.vivo.ca/playambassadors/](http://www.vivo.ca/playambassadors/) (accessed March 20, 2019).
5. M Leung and S England, unpublished Play Ambassadors training PowerPoint slides, 2017 (retrieved from Matt Leung, of Vivo for Healthier Generations).
6. The play ambassadors' and playworkers' philosophies are respectively outlined by Leung and England and by SkillsActive (see notes 2 and 5).
7. See [www.playworks.org/services/playworks-coach/](http://www.playworks.org/services/playworks-coach/) and [www.playworks.org/about/why-play/](http://www.playworks.org/about/why-play/) (accessed March 20, 2019).
8. See [www.playworks.org/about/what-we-do/history-milestones/](http://www.playworks.org/about/what-we-do/history-milestones/) (accessed March 20, 2019).
9. See [www.playworks.org/impact/playworks-annual-survey/playworks-coach-playworks-teamup/](http://www.playworks.org/impact/playworks-annual-survey/playworks-coach-playworks-teamup/) (accessed March 20, 2019).
10. See also Leung and England (note 5).
11. See [www.calgary.ca/CSPS/Parks/Pages/Locations/Mobile-Adventure-Playground.aspx](http://www.calgary.ca/CSPS/Parks/Pages/Locations/Mobile-Adventure-Playground.aspx) (accessed March 20, 2019).
12. See [www.commondigs.com/nature-kindergarten/](http://www.commondigs.com/nature-kindergarten/) (accessed March 20, 2019).
13. See [www.commondigs.com/our-practice/](http://www.commondigs.com/our-practice/) (accessed March 20, 2019).

## Bibliography

- Acar, H. 2014. "Learning Environments for Children in Outdoor Spaces." In "4th World Conference on Learning, Teaching and Educational Leadership (WCLTA-2013)," ed J G Laborda, special issue, *Procedia—Social and Behavioral Sciences* 141: 846–53.
- Active Healthy Kids Canada. 2005. *Dropping the Ball: Canada's Report Card on Physical Activity for Children and Youth*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2Feca2b1af-b941-475d-a543-9a1e51a079d1\\_participation-2005-report-card-droppingtheball-full.pdf](https://participation.cdn.prismic.io/participation%2Feca2b1af-b941-475d-a543-9a1e51a079d1_participation-2005-report-card-droppingtheball-full.pdf) (accessed March 20, 2019).

- . 2006. *Canada's Report Card on Physical Activity for Children and Youth—2006*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2F2d31a427-5acc-45f9-9084-8d07e6838a2b\\_participation-2006-report-card-kidstvtime-full.pdf](https://participation.cdn.prismic.io/participation%2F2d31a427-5acc-45f9-9084-8d07e6838a2b_participation-2006-report-card-kidstvtime-full.pdf) (accessed March 20, 2019).
- . 2007. *Older but Not Wiser: Canada's Future at Risk: Canada's Report Card on Physical Activity for Children and Youth—2007*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2F0d8c0a85-2fe2-4eb6-91c8-1cc23e5446f5\\_participation-2007-report-card-olderbutnotwiser-full.pdf](https://participation.cdn.prismic.io/participation%2F0d8c0a85-2fe2-4eb6-91c8-1cc23e5446f5_participation-2007-report-card-olderbutnotwiser-full.pdf) (accessed March 20, 2019).
- . 2008. *It's Time to Unplug Our Kids: Canada's Report Card on Physical Activity for Children and Youth—2008*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2Fa0caf139-9613-4fee-9c2e-040bd6a63a2b\\_participation-2008-report-card-unplugourkids-highlight.pdf](https://participation.cdn.prismic.io/participation%2Fa0caf139-9613-4fee-9c2e-040bd6a63a2b_participation-2008-report-card-unplugourkids-highlight.pdf) (accessed March 20, 2019).
- . 2009. *Active Kids Are Fit to Learn: The Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth 2009*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2Fc3677380-6e38-47f1-81f3-16df0fac959c\\_participation-2009-report-card-activekidsfittolearn-full.pdf](https://participation.cdn.prismic.io/participation%2Fc3677380-6e38-47f1-81f3-16df0fac959c_participation-2009-report-card-activekidsfittolearn-full.pdf) (accessed March 20, 2019).
- . 2010. *Healthy Habits Start Earlier Than You Think: The Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth 2010*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2Fb3162c01-c186-435c-ae5a-50e4561dd73c\\_participation-2010-report-card-healthyhabitsstartearly-full.pdf](https://participation.cdn.prismic.io/participation%2Fb3162c01-c186-435c-ae5a-50e4561dd73c_participation-2010-report-card-healthyhabitsstartearly-full.pdf) (accessed March 20, 2019).
- . 2011. *Don't Let This Be the Most Physical Activity Our Kids Get After School: The Active Healthy Kids Canada 2011 Report Card on Physical Activity for Children and Youth*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2F41b12c76-5708-43e7-8af6-2dc407cc65c6\\_participation-2011-report-card-afterschoolactivity-full.pdf](https://participation.cdn.prismic.io/participation%2F41b12c76-5708-43e7-8af6-2dc407cc65c6_participation-2011-report-card-afterschoolactivity-full.pdf) (accessed March 20, 2019).
- . 2012. *Is Active Play Extinct? The Active Healthy Kids Canada 2012 Report Card on Physical Activity for Children and Youth*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2F27bd4411-1b35-49b2-b79f-2e83c47a954a\\_participation-2012-report-card-activeplayextinct-full.pdf](https://participation.cdn.prismic.io/participation%2F27bd4411-1b35-49b2-b79f-2e83c47a954a_participation-2012-report-card-activeplayextinct-full.pdf) (accessed March 20, 2019).
- . 2013. *Are We Driving Our Kids to Unhealthy Habits? The 2013 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2F5f01dc16-de46-4fb3-bald-c340a8ef9e32\\_participation-2013-report-card-unhealthy-habits-full.pdf](https://participation.cdn.prismic.io/participation%2F5f01dc16-de46-4fb3-bald-c340a8ef9e32_participation-2013-report-card-unhealthy-habits-full.pdf) (accessed March 20, 2019).
- . 2014. *Is Canada in the Running? The 2014 Active Healthy Kids Canada Report Card on Physical Activity for Children and Youth*. Toronto: Active Healthy Kids Canada. Also available at [https://participation.cdn.prismic.io/participation%2Ffee5ca65b-fb34-4b24-9a24-170a319f681c\\_participation-2014-report-card-canada-in-the-running-full.pdf](https://participation.cdn.prismic.io/participation%2Ffee5ca65b-fb34-4b24-9a24-170a319f681c_participation-2014-report-card-canada-in-the-running-full.pdf) (accessed March 20, 2019).

Alexander, S A, K L Frohlich and C Fusco. 2014. "Active Play May Be Lots of Fun, But It's Certainly Not Frivolous: The Emergence of Active Play as a Health Practice in Canadian Public Health." *Sociology of Health*

- and *Illness* 36, no 8 (November): 1188–204. Also available at <https://onlinelibrary.wiley.com/doi/10.1111/1467-9566.12158/> (accessed March 20, 2019).
- American Academy of Pediatrics (AAP), American Public Health Association (APHA), and National Resource Center (NRC) for Health and Safety in Child Care and Early Education. 2011. *Caring for Our Children: National Health and Safety Performance Standards: Guidelines for Early Care and Education Programs*. 3rd ed. Elk Grove Village, Ill: AAP; Washington, DC: APHA. Also available at [http://nrckids.org/files/CFOC3\\_updated\\_final.pdf](http://nrckids.org/files/CFOC3_updated_final.pdf) (accessed March 20, 2019). Cited in Olsen and Smith 2017, 1057.
- American Public Health Association (APHA). 2013. “Improving Health and Wellness Through Access to Nature.” Policy Statement No 20137. <http://apha.org/policies-and-advocacy/public-health-policy-statements/policy-database/2014/07/08/09/18/improving-health-and-wellness-through-access-to-nature/> (accessed March 20, 2019).
- Axline, V M. 1989. *Play Therapy: The Inner Dynamics of Childhood*. With an introduction by C R Rogers. New York: Churchill Livingstone. (Orig pub 1947.)
- Baldwin, D, and S Rudge. 1995. “The Role of Serotonin in Depression and Anxiety.” *International Clinical Psychopharmacology* 9, no S4 (January): 41–46.
- Barbour, A C. 1999. “The Impact of Playground Design on the Play Behaviors of Children with Differing Levels of Physical Competence.” *Early Childhood Research Quarterly* 14, no 1: 75–98. Cited in Herrington and Brussoni 2015, 478.
- Becker, D R, M M McClelland, P Loprinzi and S G Trost. 2014. “Physical Activity, Self-Regulation, and Early Academic Achievement in Preschool Children.” *Early Education and Development* 25, no 1: 56–70.
- Beyler, N, M Bleeker, S James-Burdumy, J Fortson, R A London, L Westrich, K Stokes-Guinan and S Castrechini. 2013. *Impact and Implementation Findings from an Experimental Evaluation of Playworks: Effects on Play, Physical Activity and Recess*. Princeton, NJ: Robert Wood Johnson Foundation. Also available at [www.rwjf.org/content/dam/farm/reports/evaluations/2013/rwjf405971/subassets/rwjf405971\\_2/](http://www.rwjf.org/content/dam/farm/reports/evaluations/2013/rwjf405971/subassets/rwjf405971_2/) (accessed March 20, 2019).
- Bohling Philippi, V. 2006. “The Power of Nature to Help Children Heal.” *Exchange* (September/October): 49–52.
- Brown, F, and C Taylor, eds. 2008. *Foundations of Playwork*. New York: Open University Press.
- Brussoni, M, R Gibbons, C Gray, T Ishikawa, E B H Sandseter, A Bienenstock, G Chabot et al. 2015. “What Is the Relationship Between Risky Outdoor Play and Health in Children? A Systematic Review.” *International Journal of Environmental Research and Public Health* 12, no 6 (June): 6423–54. Also available at [www.mdpi.com/1660-4601/12/6/6423/](http://www.mdpi.com/1660-4601/12/6/6423/) (accessed March 20, 2019).
- Brussoni, M, L L Olsen, I Pike and D A Sleet. 2012. “Risky Play and Children’s Safety: Balancing Priorities for Optimal Child Development.” *International Journal of Environmental Research and Public Health* 9, no 9 (September): 3134–48. Also available at [www.mdpi.com/1660-4601/9/9/3134/](http://www.mdpi.com/1660-4601/9/9/3134/) (accessed March 20, 2019).
- Bullard, J. 2012. *Creating Environments for Learning: Birth to Age Eight*. 2nd ed. Boston: Pearson. Cited in Hu et al 2015, 55.
- Burdette, H L, and R C Whitaker. 2005. “Resurrecting Free Play in Young Children: Looking Beyond Fitness and Fatness to Attention, Affiliation, and Affect.” *Archives of Pediatrics and Adolescent Medicine* 159, no 1: 46–50. Also available at <https://jamanetwork.com/journals/jamapediatrics/fullarticle/485902/> (accessed March 20, 2019).
- Charles, C, R Louv, L Bodner and B Guns. 2008. *Children and Nature 2008: A Report on the Movement to Reconnect Children to the Natural World*. Santa Fe, NMex: Children and Nature Network. Also available at <https://getoutdoorsflorida.org/documents/CNMovement.pdf> (accessed March 20, 2019).
- Christakis, D A, F J Zimmerman and M M Garrison. 2007. “Effect of Block Play on Language Acquisition and Attention in Toddlers: A Pilot Randomized Controlled Trial.” *Archives of Pediatrics and Adolescent Medicine* 161, no 10 (October): 967–71.
- Clements, R. 2004. “An Investigation of the Status of Outdoor Play.” *Contemporary Issues in Early Childhood* 5, no 1 (March): 68–80. Also available at <https://journals.sagepub.com/doi/pdf/10.2304/ciec.2004.5.1.10/> (accessed March 20, 2019).
- Crain, W. 2001. “How Nature Helps Children Develop.” *Montessori Life* 13, no 3 (Summer): 22–24.
- Creaser, B H. 1989. “An Examination of the Four-Year-Old Master Dramatist.” *International Journal of Early Childhood* 21, no 2 (September): 55–68. Cited in Hu et al 2015, 60.
- Czalczyńska-Podolska, M. 2014. “The Impact of Playground Spatial Features on Children’s Play and Activity Forms: An Evaluation of Contemporary Playgrounds’ Play and Social Value.” *Journal of Environmental Psychology* 38 (June): 132–42.
- Diamond, A. 2014. “Executive Functions: Insights into Ways to Help More Children Thrive.” *Zero to Three* 35, no 2 (November): 9–17.
- Dymont, J E, and A C Bell. 2008. “Grounds for Movement: Green School Grounds as Sites for Promoting Physical Activity.” *Health Education Research* 23, no 6 (December): 952–62.
- Elkind, D. 2007. *The Power of Play: Learning What Comes Naturally*. Philadelphia: Da Capo.
- Fjørtoft, I. 2004. “Landscape as Playscape: The Effects of Natural Environments on Children’s Play and Motor Development.” *Children, Youth and Environments* 14, no 2: 21–44.
- Fjørtoft, I, and J Sageie. 2000. “The Natural Environment as a Playground for Children: Landscape Description and Analyses of a Natural Playscape.” *Landscape and Urban Planning* 48, nos 1–2 (April 20): 83–97.
- Flouri, E, E Midouhas and H Joshi. 2014. “The Role of Urban Neighbourhood Green Space in Children’s Emotional and Behavioural Resilience.” *Journal of Environmental Psychology* 40 (December): 179–86.
- Fortson, J, S James-Burdumy, M Bleeker, N Beyler, R A London, L Westrich, K Stokes-Guinan and S Castrechini. 2013. *Impact and Implementation Findings from an Experimental Evaluation of Playworks: Effects on School Climate, Academic Learning, Student Social Skills, and Behavior*. Princeton, NJ: Robert Wood Johnson Foundation. Also available at [www.playworks.org/wp-content/uploads/2017/11/Mathematica-Study.pdf](http://www.playworks.org/wp-content/uploads/2017/11/Mathematica-Study.pdf) (accessed March 20, 2019).
- Franklin, M B. 2008. “Words in Play: Children’s Use of Language in Pretend.” In *A Place for Play: A Companion Volume to the Michigan Television Film “Where Do the Children Play?”*, ed E Goodenough, 27–34. Carmel Valley, Calif: National Institute for Play. Cited in Nedovic and Morrissey 2013.
- Frost, J L. 2004. “How Adults Enhance or Mess Up Children’s Play.” *Archives of Pediatrics and Adolescent Medicine* 158, no 1 (January): 16.

- Frost, J L, P-S Brown, J A Sutterby and C D Thornton. 2004. "The Developmental Benefits of Playgrounds." *Childhood Education* 81, no 1: 42–44.
- Gibson, J J. 1979. *The Ecological Approach to Visual Perception*. Boston: Houghton Mifflin. Cited in Herrington and Brussoni 2015, 478.
- Ginsburg, K R. 2007. "The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent–Child Bonds." *Pediatrics* 119, no 1 (January): 182–91. Also available at <https://pediatrics.aappublications.org/content/pediatrics/119/1/182.full.pdf> (accessed March 20, 2019).
- Goodenough, E, ed. 2008. *A Place for Play: A Companion Volume to the Michigan Television Film "Where Do the Children Play?"* Carmel Valley, Calif: National Institute for Play. Cited in Nedovic and Morrissey 2013.
- Herrington, S, and M Brussoni. 2015. "Beyond Physical Activity: The Importance of Play and Nature-Based Play Spaces for Children's Health and Development." *Current Obesity Reports* 4, no 4 (December): 477–83.
- Hofferth, S L, and J F Sandberg. 2001. "Changes in American Children's Time, 1981–1997." *Advances in Life Course Research* 6: 193–229.
- Hu, B Y, K Li, A De Marco and Y Chen. 2015. "Examining the Quality of Outdoor Play in Chinese Kindergartens." *International Journal of Early Childhood* 47, no 1 (April): 53–77.
- Innocenti, M S, J J Stowitschek, S Rule, J Killoran, S Striefel and C Boswell. 1986. "A Naturalistic Study of the Relation Between Preschool Setting Events and Peer Interaction in Four Activity Contexts." *Early Childhood Research Quarterly* 1, no 2 (June): 141–53. Cited in Hu et al 2015, 60.
- Janssen, I, and A G LeBlanc. 2015. "Systematic Review of the Health Benefits of Physical Activity and Fitness in School-Aged Children and Youth." In *School Nutrition and Activity: Impacts on Well-Being*, ed A Hassen, 183–219. Oakville, Ont: Apple Academic Press.
- Juster, F T, H Ono and F P Stafford. 2004. *Changing Times of American Youth: 1981–2003*. Ann Arbor, Mich: Institute for Social Research, University of Michigan. Also available at [http://ns.umich.edu/Releases/2004/Nov04/teen\\_time\\_report.pdf](http://ns.umich.edu/Releases/2004/Nov04/teen_time_report.pdf) (accessed March 20, 2019).
- Kellert, S R. 2002. "Experiencing Nature: Affective, Cognitive, and Evaluative Development in Children." In *Children and Nature: Psychological, Sociocultural, and Evolutionary Investigations*, ed P H Khan and S R Kellert, 117–52. Cambridge, Mass: MIT Press. Cited in Ridgers, Knowles and Sayers 2012, 60.
- . 2006. "Building for Life: Designing and Understanding the Human–Nature Connection." *Renewable Resources Journal* 24, no 2 (Summer): 8–24.
- Kemple, K M, J Oh, E Kenney and T Smith-Bonahue. 2016. "The Power of Outdoor Play and Play in Natural Environments." *Childhood Education* 92, no 6: 446–54.
- Kottman, T. 2011. *Play Therapy: Basics and Beyond*. 2nd ed. Alexandria, Va: American Counseling Association.
- Kuo, F E, and A F Taylor. 2004. "A Potential Natural Treatment for Attention-Deficit/Hyperactivity Disorder: Evidence from a National Study." *American Journal of Public Health* 94, no 9 (September): 1580–86. Also available at <https://ajph.aphapublications.org/doi/pdf/10.2105/AJPH.94.9.1580/> (accessed March 20, 2019).
- Lavrysen, A, E Bertrands, L Leyssen, L Smets, A Vanderspikken and P De Graef. 2017. "Risky-Play at School: Facilitating Risk Perception and Competence in Young Children." *European Early Childhood Education Research Journal* 25, no 1: 89–105.
- Levandovski, R, B Pfaffenseller, A Carissimi, C S Gama and M P L Hidalgo. 2013. "The Effect of Sunlight Exposure on Interleukin-6 Levels in Depressive and Non-Depressive Subjects." *BMC Psychiatry* 13, no 75: 1–8. <https://bmcpsy psychiatry.biomedcentral.com/track/pdf/10.1186/1471-244X-13-75> (accessed March 20, 2019).
- Levin, D E. 2013. *Beyond Remote-Controlled Childhood: Teaching Young Children in the Media Age*. Washington, DC: National Association for the Education of Young Children. Cited in Kemple et al 2016, 447.
- Louv, R. 2008. *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Rev ed. Chapel Hill, NC: Algonquin. Cited in Nedovic and Morrissey 2013.
- Lovasi, G S, J W Quinn, K M Neckerman, M S Perzanowski and A Rundle. 2008. "Children Living in Areas with More Street Trees Have Lower Prevalence of Asthma." *Journal of Epidemiology and Community Health* 62, no 7 (July): 647–49.
- Lubans, D R, P J Morgan, D P Cliff, L M Barnett and A D Okely. 2010. "Fundamental Movement Skills in Children and Adolescents: Review of Associated Health Benefits." *Sports Medicine* 40, no 12 (December): 1019–35.
- Luchs, A, and M Fikus. 2013. "A Comparative Study of Active Play on Differently Designed Playgrounds." *Journal of Adventure Education and Outdoor Learning* 13, no 3: 206–22.
- Mårtensson, F, C Boldemann, M Söderström, M Blennow, J-E Englund and P Grahn. 2009. "Outdoor Environmental Assessment of Attention Promoting Settings for Preschool Children." *Health and Place* 15, no 4 (December): 1149–57.
- McClintic, S, and K Petty. 2015. "Exploring Early Childhood Teachers' Beliefs and Practices About Preschool Outdoor Play: A Qualitative Study." *Journal of Early Childhood Teacher Education* 36, no 1: 24–43.
- McKenzie, T L, and D A Cohen. 2006. *SOPARC (System for Observing Play and Recreation in Communities): Description and Procedures Manual*. La Jolla, Calif: Active Living Research. Also available at <http://activelivingresearch.org/soparc-system-observing-play-and-recreation-communities/> (accessed March 20, 2019).
- Milteer, R M, K R Ginsburg and D A Mulligan. 2012. "The Importance of Play in Promoting Healthy Child Development and Maintaining Strong Parent–Child Bond: Focus on Children in Poverty." *Pediatrics* 129, no 1 (January): e204–13. Also available at <http://pediatrics.aappublications.org/content/pediatrics/129/1/e204.full.pdf> (accessed March 20, 2019).
- Misra, M, D Pacaud, A Petryk, P F Collett-Solberg and M Kappy. 2008. "Vitamin D Deficiency in Children and Its Management: Review of Current Knowledge and Recommendations." *Pediatrics* 122, no 2 (August): 398–417.
- Moore, R C, S M Goltsman and D S Iacofano, eds. 1992. *Play for All Guidelines: Planning, Design and Management of Outdoor Play Settings for All Children*. Berkeley, Calif: MIG Communications. Cited in Herrington and Brussoni 2015, 480.
- Murray, R, and L O'Brien. 2005. "Such Enthusiasm—a Joy to See": *An Evaluation of Forest School in England*. Farnham, Surrey, UK: Forest Research. Also available at [www.forestresearch.gov.uk/documents/1418/ForestSchoolEnglandReport.pdf](http://www.forestresearch.gov.uk/documents/1418/ForestSchoolEnglandReport.pdf) (accessed March 20, 2019).
- Nedovic, S, and A-M Morrissey. 2013. "Calm Active and Focused: Children's Responses to an Organic Outdoor Learning Environment." *Learning Environments Research* 16, no 2: 281–95.



- Nelson, J A, K Carpenter and M A Chiasson. 2006. "Diet, Activity, and Overweight Among Preschool-Age Children Enrolled in the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC)." *Preventing Chronic Disease* 3, no 2 (April): 1–12. Also available at [www.cdc.gov/pcd/issues/2006/apr/pdf/05\\_0135.pdf](http://www.cdc.gov/pcd/issues/2006/apr/pdf/05_0135.pdf) (accessed March 20, 2019).
- O'Brien, L, and R Murray. 2007. "Forest School and Its Impacts on Young Children: Case Studies in Britain." *Urban Forestry and Urban Greening* 6, no 4 (November): 249–65.
- Olsen, H, and B Smith. 2017. "Sandboxes, Loose Parts, and Playground Equipment: A Descriptive Exploration of Outdoor Play Environments." *Early Child Development and Care* 187, nos 5–6: 1055–68.
- ParticipACTION. 2015. *The Biggest Risk Is Keeping Kids Indoors: The 2015 ParticipACTION Report Card on Physical Activity for Children and Youth*. Toronto: ParticipACTION. Also available at [https://participaction.cdn.prismic.io/participaction%2F61cf55e8-c1c0-42c7-ba6b-1480fd2c29b9\\_participaction-2015-report-card-full.pdf](https://participaction.cdn.prismic.io/participaction%2F61cf55e8-c1c0-42c7-ba6b-1480fd2c29b9_participaction-2015-report-card-full.pdf) (accessed March 20, 2019).
- . 2016. *Are Canadian Kids Too Tired to Move? The 2016 ParticipACTION Report Card on Physical Activity for Children and Youth*. Toronto: ParticipACTION. Also available at [https://participaction.cdn.prismic.io/participaction%2Fa4d484ff-8306-4461-8e3d-8600e4c2702b\\_participaction-2016-report-card-are-kids-too-tired-to-move-full.pdf](https://participaction.cdn.prismic.io/participaction%2Fa4d484ff-8306-4461-8e3d-8600e4c2702b_participaction-2016-report-card-are-kids-too-tired-to-move-full.pdf) (accessed March 20, 2019).
- . 2018. *The Brain + Body Equation: Canadian Kids Need Active Bodies to Build Their Best Brains: The 2018 ParticipACTION Report Card on Physical Activity for Children and Youth*. Toronto: ParticipACTION. Also available at [https://participaction.cdn.prismic.io/participaction%2F38570bed-b325-4fc8-8855-f15c9aebac12\\_2018\\_participaction\\_report\\_card\\_-\\_full\\_report\\_0.pdf](https://participaction.cdn.prismic.io/participaction%2F38570bed-b325-4fc8-8855-f15c9aebac12_2018_participaction_report_card_-_full_report_0.pdf) (accessed March 20, 2019).
- Perry, L K, L K Samuelson, L M Malloy and R N Schiffer. 2010. "Learn Locally, Think Globally: Exemplar Variability Supports Higher-Order Generalization and Word Learning." *Psychological Science* 21, no 12 (December): 1894–902.
- Ralli, J, and R G Payne. 2016. "Let's Play at the Library: Creating Innovative Play Experiences for Babies and Toddlers." *Library Trends* 65, no 1 (Summer): 41–63.
- Refshauge, A D, U K Stigsdottir, B Lamm and K Thorleifsdottir. 2015. "Evidence-Based Playground Design: Lessons Learned from Theory to Practice." *Landscape Research* 40, no 2: 226–46.
- Ridgers, N D, Z R Knowles and J Sayers. 2012. "Encouraging Play in the Natural Environment: A Child-Focused Case Study of Forest School." *Children's Geographies* 10, no 1: 49–65.
- Rivkin, M. 1998. "'Happy Play in Grassy Places': The Importance of the Outdoor Environment in Dewey's Educational Ideal." *Early Childhood Education Journal* 25, no 3 (September): 199–202.
- Rose, K A, I G Morgan, J Ip, A Kifley, S Huynh, W Smith and P Mitchell. 2008. "Outdoor Activity Reduces the Prevalence of Myopia in Children." *Ophthalmology* 115, no 8 (August): 1279–85.
- Santer, J, C Griffiths and D Goodall. 2007. *Free Play in Early Childhood: A Literature Review*. London: National Children's Bureau. Also available at [www.playengland.org.uk/media/120426/free-play-in-early-childhood.pdf](http://www.playengland.org.uk/media/120426/free-play-in-early-childhood.pdf) (accessed March 20, 2019). Cited in Kemple et al 2016, 449.
- Silver, P G, and P G Ramsey. 1983. "Participant Observation: Broadening Points of View." *Early Child Development and Care* 10, nos 2–3 (January): 147–56. Cited in Hu et al 2015, 60.
- Spencer, K H, and P M Wright. 2014. "Toddlers and Preschool: Quality Outdoor Play Spaces for Young Children." *Young Children* 69, no 5 (January): 28–34.
- Staempfli, M B. 2009. "Reintroducing Adventure into Children's Outdoor Play Environments." *Environment and Behavior* 41, no 2 (March): 268–80.
- Strong, W B, R M Malina, C J R Blimkie, S R Daniels, R K Dishman, B Gutin, A C Hergenroeder et al. 2005. "Evidence Based Physical Activity for School-Age Youth." *Journal of Pediatrics* 146, no 6 (June): 732–37. Also available at [www.jpeds.com/article/S0022-3476\(05\)00100-9/fulltext/](http://www.jpeds.com/article/S0022-3476(05)00100-9/fulltext/) (accessed March 20, 2019).
- Taylor, A F, and F E Kuo. 2009. "Children with Attention Deficits Concentrate Better After Walk in the Park." *Journal of Attention Disorders* 12, no 5 (March): 402–9.
- Taylor, A F, F E Kuo and W C Sullivan. 2001. "Coping with ADD: The Surprising Connection to Green Play Settings." *Environment and Behavior* 33, no 1 (January): 54–77.
- Taylor, A F, A Wiley, F E Kuo and W C Sullivan. 1998. "Growing Up in the Inner City: Green Spaces as Places to Grow." *Environment and Behavior* 30, no 1 (January): 3–27. Cited in Nedovic and Morrissey 2013.
- Thomas, F, and S Harding. 2011. "The Role of Play: Play Outdoors as the Medium and Mechanism for Well-Being, Learning and Development." In *Outdoor Provision in the Early Years*, ed J White, 12–23. London: SAGE.
- Thompson, C L, and D A Henderson. 2006. *Counseling Children*. 7th ed. Pacific Grove, Calif: Brooks/Cole. Cited in Kottman 2011, 4.
- Thompson, W. 2011. *Children and the Natural Environment: Experiences, Influences and Interventions—Summary*. Natural England Research Report NERR040. Peterborough, Cambridgeshire, UK: Natural England. Also available at <http://publications.naturalengland.org.uk/file/61087> (accessed March 20, 2019).
- Titman, W. 1994. *Special Places; Special People: The Hidden Curriculum of School Grounds*. Godalming, Surrey, UK: World Wide Fund for Nature. Also available at <https://files.eric.ed.gov/fulltext/ED430384.pdf> (accessed March 20, 2019).
- Tizard, B, and M Hughes. 2008. *Young Children Learning*. 2nd ed. Malden, Mass: Blackwell. Cited in Hu et al 2015, 60.
- Wellhausen, K. 2002. *Outdoor Play Every Day: Innovative Play Concepts for Early Childhood*. Boston: Cengage. Cited in Olsen and Smith 2017, 1065.
- Wells, N M. 2000. "At Home with Nature: Effects of 'Greenness' on Children's Cognitive Functioning." *Environment and Behavior* 32, no 6 (November): 775–95.
- Wells, N M, and G Evans. 2003. "Nearby Nature: A Buffer of Life Stress Among Rural Children." *Environment and Behavior* 35, no 3 (May): 311–30.
- White, J. 2011. "Capturing the Difference: The Special Nature of the Outdoors." In *Outdoor Provision in the Early Years*, ed J White, 45–56. London: SAGE. Cited in Kemple et al 2016, 449.
- Woolley, H, and A Lowe. 2013. "Exploring the Relationship Between Design Approach and Play Value of Outdoor Play Spaces." *Landscape Research* 38, no 1: 53–74. Cited in Herrington and Brussoni 2015, 478.



Woolley, H, L Pattacini and A Somerset-Ward. 2009. *Children and the Natural Environment: Experiences, Influences and Interventions*. Natural England Commissioned Report NECR026. Sheffield, South Yorkshire, UK: Natural England. Also available at <http://publications.naturalengland.org.uk/file/76002/> (accessed March 20, 2019).

Young, T. 2008. "Creating Specific Features to Foster Nature Connections." In *The Outdoor Playspace Naturally: For Children Birth to Five Years*, ed S Elliott, 44-74. Castle Hill, New South Wales, Australia: Pademelon. Cited in Nedovic and Morrissey 2013.



*Kaitlyn Sobchuk will graduate with a BSc in kinesiology from the University of Calgary in 2019. Growing up playing elite soccer, she has always been intrigued by how people interact with each other and with the environment to improve their quality of life. She was a research assistant and project manager at Vivo for Healthier Generations, in Calgary, where she interviewed and systematically observed the public to understand what they needed in order to promote and support healthy living. She is currently researching older women's knowledge and awareness of osteoporosis at the University of Calgary to influence the prevention plan of this disease in Canada.*

---

*Sarah Connolly, BN, is a registered nurse at a rural hospital in Fernie, British Columbia. She is passionate about public health and has done research with Vivo for Healthier Generations, analyzing park usage trends and the benefits of unstructured play programs. She is passionate about the potential of nature-based physical activity to promote health and prevent disease, and she is looking for opportunities to expand this field of research.*



*After 19 years of teaching K-12 physical education, Dwayne Sheehan, PhD, joined the Department of Health and Physical Education at Mount Royal University in 2008. He is passionate about assisting young physical educators in their pursuit of a teaching credential. His pedagogical approach to instructing is grounded in his past experiences and ongoing commitment to professional development. He is always looking for links between his research and teaching to enhance the learner experience.*

# Developing Units for Creating Lifelong Outdoor Movers

Brett Richards and Erin Wright

Outdoor education is education *in, about and for the outdoors*” (Donaldson and Donaldson 1958, 17). Outdoor education programs can be tailored to the environment and to teaching focus areas. More specifically, through outdoor education, students can expect to grow individually with respect to their self-concept, self-efficacy and self-respect (Alberta Education 1990). Students can improve their quality of life through acquiring knowledge, skills and attitudes related to the use of the outdoors for leisure pursuits, creative endeavours, and the development and maintenance of a healthy lifestyle (Alberta Education 1990).

*Providing students with the knowledge and skills to work in and enjoy the outdoors has several benefits.*

Teachers can adapt outdoor education programs to meet students’ needs and reflect their interests, as well as to make use of the opportunities presented by the local environment, the knowledge and expertise of volunteers, and the teacher’s passions. Providing students with the knowledge and skills to work in and enjoy the outdoors has several benefits, including fostering environmental stewardship; establishing a connection to the natural environment; and developing the hands-on skills needed to work in, survive in and enjoy the outdoors while engaging in lifelong leisure activities.

Louv (2005) coined the term *nature-deficit disorder*, which describes children’s lack of interaction with nature and their consequent lack of understanding of nature and lack of ability to learn in and participate in activities outdoors. Teachers can play a crucial role in reducing nature-deficit disorder and reconnecting students to the outdoors and nature.

Outdoor physical activity has several benefits, including the following:

- Reduced disruptive behaviours, attention deficit hyperactivity disorder (ADHD) symptoms and symptoms associated with depression (Louv 2005)

- Decreased acute and chronic illness (Louv 2005)
- Increased levels of physical activity and, ultimately, a reduction in overweight and obesity (Louv 2005)
- Increased creativity and problem-solving ability (Louv 2005)
- The development of social and leadership skills, including cooperation, sharing, trust, caring, and sensitivity to the needs and rights of others (Alberta Education 1990; Louv 2005)
- The building of connections to the outdoor environment, including to plants and animals (Louv 2005)

## Bicycle Maintenance and Safety Unit

### Location Context

Edmonton has a large network of river valley trails that can afford untold adventures on a bicycle and the largest urban park in Canada, with more than 160 kilometres of maintained pathways, including 7 kilometres of protected bike lanes in the city’s core.<sup>1</sup> Edmonton’s bike lanes and river valley paths encourage people of all ages and abilities to participate in sustainable transportation, physical activity and appreciation of the outdoors.

Linking students who live in urban environments to outdoor activities that they can safely participate in—close to home—is extremely important. One school in Edmonton’s west end developed a bicycle maintenance and safety unit as a way to engage students in outdoor activity and link to curricular outcomes related to environmental and outdoor education (Alberta Education 1990).

### Benefits for Students

One of the most interesting aspects of creating a nontraditional outdoor physical education unit is observing the surprising ways students grow to become active and capable citizens.

A main motivation for this project was the desire to promote an inclusive, safe and green method of

transportation that could be a viable option for a younger generation of citizens, given the influx of bicycle lanes in the community.

The inclusivity of the project was especially appealing. While there are certainly a wide range of skill levels in biking, it is a noncompetitive activity that most students feel comfortable with. This unit gave a new group of students the opportunity to excel as they could act as experts in a field in which they were already proficient. This was most noticeable in the bicycle maintenance component, as unlikely leaders were quick to direct other students in the proper methods for wielding a wrench or handling a tire lever.

*One of the most interesting aspects of creating a nontraditional outdoor physical education unit is observing the surprising ways students grow to become active and capable citizens.*

As a result of the noncompetitive participation and the increased confidence that students demonstrated, this unit was a success in a number of ways that were largely unanticipated.

## Developing Your Own Unit

Although this particular unit concentrated on bicycle maintenance and safety, any number of similar endeavours could be used as the basis for developing the habits that lead to long-term participation in outdoor physical activity.

With lifelong engagement as a goal for any educator, it is important to reflect on what contributes to making our teaching practices as relevant and enduring as possible. Though this list is far from comprehensive, the following strategies were found to be advantageous in the creation of the bicycle maintenance and safety unit and could be beneficial in the development of other units.

### Find a Community Program

Reaching out to a community-centred organization was the most important decision made in developing this unit. Over the three months from conception to completion of the unit, the school was in close contact with members of the Edmonton Bicycle Commuters Society, who were instrumental in creating the most thorough and complete

program possible. The nonprofit organization provided information on the topics of maintenance and safety, helped procure supplies, and found mechanics willing to volunteer in the school. It was remarkable to see the lengths to which they were willing to go to help out. Perhaps more than anything else, this project revealed how valuable resources in the community can be when they are effectively integrated into the classroom.

### Ask for Help

Asking for help can be difficult for an educator to do, but inviting an expert into the classroom can be a rewarding experience. Students connect to the real-life anecdotes and testimony of experts in a way that is difficult for a teacher to replicate. The presence of an expert in the room can add immediate credibility to the content and provide an opportunity for the teacher to model an inquisitive nature—a necessary trait for lifelong learning and participation.

### Know Your Environment

Even the most detailed and purposeful plan can fail if the appropriate environment is not present. Understanding the strengths and the limitations of the school and the community goes a long way in predicting the success of a program.

Part of the appeal of creating the bicycle unit came from the location and the demographics of the school. The school is situated in a quiet neighbourhood near a river valley packed with trails, and it has the support of families who can afford bikes for their children. This unit likely would not be as effective at schools where these factors are not present.

*When teachers select tasks that they find engaging, that is perhaps the simplest way to support students in their quest to become lifelong movers.*

### Follow Your Interests

When teachers select tasks that they find engaging, that is perhaps the simplest way to support students in their quest to become lifelong movers. It has long been understood that the “ignition of enthusiasm [is one of] the most essential” aspects in creating a lifelong habit

(Ng and Sou 2008). When it comes to sparking that enthusiasm, the role of the teacher is critical (Tezci et al 2016). Simply put, when students see the teacher engaged, inquisitive and passionate about anything, they are more likely to reciprocate.

## Conclusion

The bicycle unit was created in response to a growing trend in a particular community. The methods used to develop the program could easily be adapted to fit the interests and capabilities of other communities and still achieve the fundamental goal of providing students with the opportunity to learn and become leaders through hands-on education.

Teachers can develop programs and lesson plans based on student or teacher interests, the availability of volunteers or the specific activities that the local environment is conducive to. Providing opportunities for students to be hands-on, active learners in outdoor settings can reduce nature-deficit disorder, increase health and wellness, and create lifelong active learners (Alberta Education 1990; Louv 2005).

---

## Note

1. See [www.edmonton.ca/transportation/cycling.aspx](http://www.edmonton.ca/transportation/cycling.aspx) and [www.edmonton.ca/activities\\_parks\\_recreation/parks\\_rivervalley/river-valley-parks.aspx](http://www.edmonton.ca/activities_parks_recreation/parks_rivervalley/river-valley-parks.aspx) (accessed March 21, 2019).

---

## References

- Alberta Education. 1990. *Environmental and Outdoor Education*. Edmonton, Alta: Alberta Education. Also available at <https://education.alberta.ca/media/3114964/eoed.pdf> (accessed March 21, 2019).
- Donaldson, G W, and L E Donaldson. 1958. "Outdoor Education: A Definition." *Journal of Health, Physical Education, Recreation* 29, no 5: 17–63.
- Louv, R. 2005. *Last Child in the Woods: Saving Our Children from Nature-Deficit Disorder*. Chapel Hill, NC: Algonquin.
- Ng, F, and H H Sou. 2008. "From Practice to Theory: The Pilot Study on Applied Learning." *International Journal of Learning* 15, no 9: 123–33.
- Tezci, E, F Sezer, S Aktan and U Gurgan. 2016. "Do Lifestyles Shape Self-Regulated Learning Strategies?" *Eurasian Journal of Educational Research* 65: 239–58. Also available at <http://ejer.com.tr/public/assets/catalogs/en/erdogantezci65.pdf> (accessed March 21, 2019).



Brett Richards, BA, BEd, is an elementary and junior high teacher in Edmonton. A former university student athlete, he is committed to an active lifestyle and passionately promotes physical wellness among his students.



Erin Wright, BSc, MPH, teaches at Concordia University of Edmonton. She is passionate about her family, her community and promoting health for all school-aged children and youth.

# Gymnastics for All: A Unit on Gymnastics Station Safety for K–6

Dustin Turner

I often hear that gymnastics is one of the most difficult units to teach in physical education, especially if you are not a physical education specialist—or maybe even if you are but have no formal gymnastics training.

I thought teachers might appreciate the following overview of a K–6 gymnastics unit I have used to guide my lessons. I hope it is as valuable for you as it has been for me. Of course, I modify it greatly from year to year and from class to class, depending on my students' needs and abilities. Please feel free to use it as you see fit and to modify it to best suit your students' learning needs.

## Specific Learning Outcomes (K–6)

*From Alberta's physical education program of studies (Alberta Learning 2000).*

- A-1, A-2, A-3, A-4, A-5, A-6, A-8, A-9, A-10, A-11, A-12
- C-1, C-3, C-4, C-5, C-6
- D-1, D-2, D-3, D-4, D-5, D-7, D-9

## Materials

- White flip chart paper
- All gymnastics equipment available

## Objective

- To acquire and improve upon skills through a variety of developmentally appropriate movement activities

## Success Criteria

- I will set a goal and work toward meeting that goal.
- I will demonstrate safe play, while maintaining a challenging environment.

- I will create a movement sequence that includes the class-created success criteria.

## Methods

### Procedures

- Explain the gymnastics success criteria to students (see above).
- On the walls of the gym, post a piece of flip chart paper at each station. Label each piece of paper with the station number.
- Have students form their own groups of four or five students (or create functional groupings, if required). Assign a station to each group.
- Students work in their group to answer the following questions for their station (writing the answers on the flip chart paper):
  - What safety reminders do you have for your station?
  - What challenges would you suggest to others for this station?
- Write down the students' instructions for each station, guiding a conversation about student-created safety suggestions and age-appropriate movement challenges. Type up these instructions so that they can be posted at each station for future classes and modified slightly to be age-appropriate and within safety guidelines.
- As students move from station to station, they read the instructions as a group before beginning their play. Allot one minute for this task.
- Have students work through all the stations (changing stations as a whole class when you blow the whistle).



## Schedule

### Day 1

- Rule-generating sessions
- Progression through a few stations

### Days 2–5

- General review of a few key safety guidelines
- Reminder to review the student-generated station rules before starting any station
- Introduction of various challenges for certain stations

### Days 6–10

- General review of a few key safety guidelines
- Reminder to review the student-generated station rules before starting any station
- Introduction of gymnastics routine expectations

### Days 11–14

- General review of a few key safety guidelines
- Reminder to review the student-generated station rules before starting any station
- Gymnastics routine practice and performances (one or two at the end of each class as groups are ready)

### Days 15 and 16

- Missions Impossible—an obstacle course that students work through, using the various gymnastics skills they have acquired throughout the unit

## Examples of Station Instructions

### Stations 1 and 2 (Climbing Structure)

- Only go up to the noted height—no higher.
- Always maintain three points of contact (for example, two feet and one hand).
- Stay underneath bars that are higher than shoulder-height. Go on top of bars that are lower than shoulder-height.
- Only one person at a time is allowed on any given piece of equipment.
- While using the ladder, make your body as long as it can be. Hold the highest bar reachable.

- If climbing, please go all the way down. Don't jump off when you are almost down.

### Station 3 (Horse and Crash Mat)

- Only one person is allowed on the horse and crash mat at a time.
- No flips or aerials.
- Twists are OK.
- Land on buttocks.
- No pushing.

### Station 4 (Trestles and Ladders)

- Climb up and down ladders (not from the side).
- Stay under equipment that is higher than shoulder-height. Go over equipment that is lower than shoulder-height.

### Station 5 (Ropes)

- The two ropes above the crash mat are for climbing or trying to hold yourself up.
- Please go up and then go down slowly. Don't let yourself drop.
- The two ropes in between benches are for swinging.

### Station 6 (Floor Mats)

- Use ribbons and Hula Hoops safely.
- Be aware of the body space required (so that you do not hit others with the equipment).
- Create a routine or sequence with your group.
- If your group does not want to use the Hula Hoops and ribbons, push the equipment off the mats.
- While the rest of the group watches, one person can go on the mat and perform somersaults, handstands, cartwheels or log rolls.

### Station 7 (Balance Beams)

- Only one person is allowed on the beam at a time.
- Try to perform a balance routine that includes three levels (high, medium, low).
- Walk on the balance beam (no running).

## Modifications

- Ensure that the stations involve activities that are appropriate to the grade level.
- Lower or raise equipment for various grade levels, according to the Calgary Board of Education's Canadian Climber safety course.
- Add or remove stations, depending on your gym's equipment.

---

## Reference

Alberta Learning. 2000. *Physical Education (K-12)*. Edmonton, Alta: Alberta Learning. Also available at <https://education.alberta.ca/media/160191/phys2000.pdf> (accessed March 21, 2019).



*Dustin Turner is the assistant principal at Chris Akkerman School in Calgary. He is a former physical education teacher who has lived with a passion for health and wellness. He serves on the HPEC executive as secretary.*

*A version of this article was posted to the HPEC blog on October 30, 2018 (<http://albertahpec.blogspot.com/2018/10/>).*

## 2018 Award Winners

### HPEC Awards

#### Robert Routledge Address

Joyce Sunada

#### Distinguished Service Award

Mark Yurick

#### Certificate of Commendation

##### *Southwest*

Aaron Becking

##### *Greater Calgary*

Kendra Harper

##### *Calgary*

Andrina Boyles

Jennifer Schoenberger

##### *Greater Edmonton*

Kylie Rott

David van den Bijgaart

##### *Edmonton*

Colette Tercier

Michael Topping

##### *Central West*

Timmery Welsh

Amy Wesolowsky

##### *Northeast*

Tina Skakun

##### *Northwest*

Cameron Macmillan

### PHE Canada Awards

#### Dr Andy Anderson Young Professional Award

Jonathan Mauro

#### National Award for Teaching Excellence in Physical Education

Nadeen Halls

Nancy McKeage

#### Quality Daily Physical Education Award

In 2017/18, 71 schools across Alberta were awarded two or more stars for their support of and commitment to quality daily physical education. See <https://phecanada.ca/inspire/quality-daily-physical-education/qdpe-award-recipients-2017-2018/> for the list of schools.

Great work, everyone! For more information about the award winners, go to [www.hpec.ab.ca/conference-awards18/](http://www.hpec.ab.ca/conference-awards18/).

# Publishing Under the *Personal Information Protection Act*

The Alberta Teachers' Association (ATA) requires consent to publish personal information about an individual. Personal information is defined as anything that identifies an individual in the context of the collection: for example, a photograph and/or captions, an audio or video file, and artwork.

Some schools obtain blanket consent under FOIP, the *Freedom of Information and Protection of Privacy Act*. However, the *Personal Information Protection Act* (PIPA) and FOIP are not interchangeable. They fulfill different legislative goals. PIPA is the private sector act that governs the Association's collection, use and disclosure of personal information.

If you can use the image or information to identify a person in context (for example, a specific school or a specific event), then it is personal information and you need consent to collect, use or disclose (publish) it.

Minors cannot provide consent and must have a parent or guardian sign a consent form. Consent forms must be provided to the Document Production editorial staff at Barnett House together with the personal information to be published.

Refer all questions regarding the ATA's collection, use and disclosure of personal information to the ATA privacy officer.

Notify the ATA privacy officer immediately of **any** incident that involves the loss of or unauthorized use or disclosure of personal information, by calling Barnett House at 780-447-9400 or 1-800-232-7208.

Maggie Shane, the ATA's privacy officer, is your resource for privacy compliance support.

780-447-9429 (direct)

780-699-9311 (cell, available any time)



## The Alberta Teachers' Association

### Consent for Collection, Use and Disclosure of Personal Information

Name: \_\_\_\_\_ (Please print)

☐

I am giving consent for myself.

☐

I am giving consent for my child or ward.

Name: \_\_\_\_\_ (Please print)

By signing below, I am consenting to The Alberta Teachers' Association collecting, using and disclosing personal information identifying me or my child or ward (identified above) in print and/or online publications and on websites available to the public, including social media. By way of example, personal information may include, but is not limited to, name, photographs, audio/video recordings, artwork, writings or quotations.

I understand that copies of digital publications may come to be housed on servers outside Canada.

I understand that I may vary or withdraw this consent at any time. I understand that the Association's privacy officer is available to answer any questions I may have regarding the collection, use and disclosure of these audiovisual records. The privacy officer can be reached at 780-447-9429 or 1-800-232-7208.

Signed: \_\_\_\_\_

Print name: \_\_\_\_\_ Today's date: \_\_\_\_\_

For more information on the ATA's privacy policy, visit [www.teachers.ab.ca](http://www.teachers.ab.ca).

## Contributions to *Runner*

*Runner*, the journal of the Health and Physical Education Council of the Alberta Teachers' Association, is a professional journal for physical education teachers in Alberta. Authors are encouraged to submit articles of relevance in either a peer review or editorial review process. Topics may include, but are not limited to, personal explorations of significant classroom experiences; descriptions of innovative classroom and school practices; reviews or evaluations of instructional and curricular methods, programs or materials; discussions of trends, issues or policies; and scientific research.

Manuscripts on other themes will also be considered for publication and may be up to 2,500 words long. References to works cited should appear in full in a list at the end of the article using the author-date system. Photographs, line drawings and diagrams are welcome. To

ensure quality reproduction, digital photographs should have a minimum of 300 DPI. A caption and photo credit should accompany each photograph. The contributor is responsible for obtaining consent to use a photo image and written parental permission for any image or works by children under 18 years of age.

Manuscripts should be submitted electronically in Word format. A cover page should include the contributor's name, professional position, address, phone number and e-mail address. A Copyright Transfer Agreement must be completed once a submission is accepted.

Contributions are reviewed by the editor, who reserves the right to edit for clarity and space.

Send manuscripts for future issues to Astrid Kendrick at [runner@hpec.ab.ca](mailto:runner@hpec.ab.ca).

---

## Copyright Transfer Agreement

I/we, \_\_\_\_\_, the author(s), transfer copyright of the manuscript entitled \_\_\_\_\_

to the Health and Physical Education Council of The Alberta Teachers' Association, in consideration of publication. This transfer shall become effective if and when the manuscript is accepted for publication, thereby granting the Health and Physical Education Council the right to authorize republication, representation and distribution of the original and derivative material. I/we further certify that the manuscript under consideration has not been previously published and is my/our own original piece. I/we understand that the work may be edited for publication.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Address \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_ E-mail \_\_\_\_\_

Two-sentence biographical note about the author(s):

---

---

---

---

---



## HPEC Mission Statement

The Health and Physical Education Council (HPEC), as a professional organization of teachers, advocates for quality health and physical education programs and provides opportunities for professional growth and development of its members. HPEC is committed to providing leadership in creating healthy, active school communities.

## HPEC Vision Statement

Alberta teachers will provide quality instruction and programs in health and physical education to promote the development of healthy, active lifestyles in students.

## Objectives

The objectives of HPEC shall be to

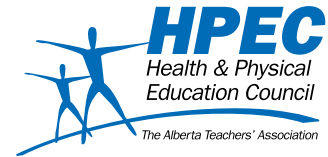
- improve curriculum, instruction and assessment in health and physical education through increased knowledge, skills and understanding;
- develop, study and propose professional resources and responses to health and physical education issues;
- ensure that teachers have access to meaningful professional development opportunities that meet their needs throughout all stages of their career;
- enhance the expertise of members by promoting an understanding of current research to inform professional practice;
- liaise with other organizations that seek to promote healthy, active lifestyles within school communities;
- further the continuous development and evaluation of standards and guidelines within the profession for personnel, programs and facilities in health and physical education; and
- facilitate broad-based, skilful participation in the planning and implementation of effective, collaborative, ongoing professional development.

## Beliefs

HPEC believes that

- a well-delivered health and physical education curriculum supported by quality instruction can change health behaviours of children and youth in K-12;
- health and physical education play a valued and vital role in providing a quality, balanced education for all children and youth in Alberta schools;
- all students in all grades in Alberta schools should have the right and opportunity to experience sustained, vigorous physical activity through participation in quality daily physical education programs;
- wellness is an outcome of quality health and physical education programs that develop the knowledge, skills and attitudes to assist students to make appropriate choices to live active, healthy lives; and
- comprehensive school health is the framework for the delivery of quality health and physical education programs to promote and develop wellness in Alberta's children and youth.

*From the Executive Handbook of the Health and Physical Education Council (2016).*



### HPEC Contacts

#### President

**Nadeen Halls**  
president@hpec.ab.ca

#### Runner Editor

**Astrid Kendrick**  
runner@hpec.ab.ca

#### ATA Staff Advisor

**Fred Kreiner**  
fred.kreiner@ata.ab.ca

Contact information for the complete HPEC executive is available on the HPEC website ([www.hpec.ab.ca](http://www.hpec.ab.ca)).

### Check Out All Things HPEC Through Our Social Media Platforms

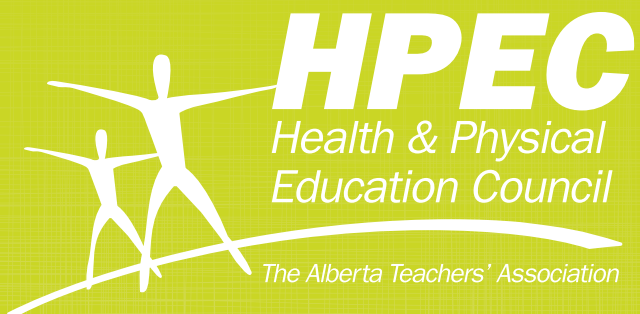
Twitter:  
[@albertaHPEC](https://twitter.com/albertaHPEC)

Facebook:  
[www.facebook.com/HPECAAlberta](https://www.facebook.com/HPECAAlberta)

Blog:  
<http://albertahpec.blogspot.ca>







.....  
[www.hpec.ab.ca](http://www.hpec.ab.ca)



## Runner

*The Journal of the Health & Physical Education  
Council of the Alberta Teachers' Association*

ISSN 0707-3186  
Barnett House  
11010 142 Street NW  
Edmonton AB T5N 2R1



The Alberta  
Teachers' Association