California Association for Health, Physical Education, Recreation and Dance

e-Journal

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President's Message

Hello CAHPERD Members,

As I complete my term as President, I want you to know that accepting the top position of our association has been one of my best professional decisions, and as it turned out, something that has filled a void in my life. When I agreed to run as president-elect, I had no idea that I would be retired during my year to lead. As I was considering the position of President-Elect two years ago, I knew that many of the great educators who have held the position before me had also worked at the same time. Being the person that I am, I'm thinking, "Well I can handle both also." After being so passionate about teaching PE/Health for 37 years, building long relationships within my district with administrators, superintendents, school board members, and my peers at all levels - plus all the wonderful educators I have met through CAHPERD, to find myself "retired" . . . well let's just say that I'm very glad to have this Association to keep me involved with the subject matter that I'm still so passionate about.

As my position of President comes to a close and I enter the position of Past President, I could not pass up a chance to let you know how rewarding the work we have done this year has been! This is due in no small part to all of you, (the membership and the leadership TEAM). I'm so grateful for the work many of my predecessors did to bring this association forward to the foundation of what CAHPERD is presently.

As we know, nothing ever stays the same …. are you ***Feeling the Change***? Our association continues to evolve. The good news is that CAHPERD is financially solvent, continues to be your watchdog in Sacramento, helps members with issues at the school district level, collaborates with other subject matter state associations and works closely with the Society of Health and Physical Educators (SHAPE America) to improve our services. The list of passionate educators who have contributed their volunteerism and expertise to this organization is long, and they know who they are. I wish to say "THANK YOU." As a ground-level educator, I'm forever grateful for their work with our association to get us to where we are today.

I believe there is more to our profession than that "safe place" we call the classroom, playground, gym, locker room or dance room. All children in this great state deserve to have the best in all our subject matters. Without the information we provide them, they cannot continue their journey of life. There are so many other people, such as legislators, personnel at the California Department of Education (CDE) and the California Commission on Teacher Credentialing, local administrators and school board members who are not necessarily involved in or informed about our subject matters. They develop the laws and regulations that govern us, yet fail to understand what it is that we provide. This belief led me to CAHPERD, which sees a bigger picture of what we do.

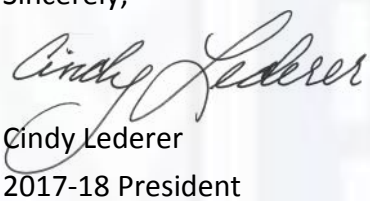
President's Message (Cont)

The gavel now passes to Tim Hamel of Fresno State University. I'm proud to call him my friend and colleague and I look forward to helping continue the wave upward in the coming year. Executive Director Barbara Ann Buckalew, Administrative Assistant, Shelby Heinlein, and Treasurer- Joanie Verderber, you hold us all up. To Dr. Brent Powell, Stanislaus State University, thank you for your guidance over the last 2 years! You're the BEST!!

If you still are reading this letter, then you care about what is going on with our Association. I challenge you to step out of your comfort zone, lay down the "I can't" reasons and ***join the leadership team of this great association. Help us make a difference in children's lives and help our association grow. Join me in one of the best professional decisions ever made.***

A heartfelt "THANK YOU" to all of you! See everyone in Garden Grove next February as we celebrate "Our Time!"

Sincerely,



Cindy Lederer
2017-18 President

Editor's Message

It is our pleasure to provide the CAHPERD Membership with another strong edition of the CAHPERD journal. The continued growth of the journal and the scope of the articles that have been submitted demonstrates the passion of our state faculty and teachers have for sharing their knowledge and research with others.

Once again, this journal includes several dedicated faculty members and teachers from the state of California and beyond. These authors expand our knowledge and show a willingness to work together by going outside of their university for collaborations. These include collaborations with departments outside of Kinesiology and collaborations with K-12 teachers. The bridge between higher education and K-12 education is vital not only for CAHPERD but for our continued success in schools in the state of California.

As always, we encourage submissions from faculty, K-12 educators, and graduate students across HPERD. Please consider the journal for both original research articles and teaching tips. This is an organization that survives off of the support and leadership of teachers and future professionals, and as a result, this journal is meant to increase the knowledge base of those individuals. This journal would not be possible without you!

We hope that you enjoy these articles, and we look forward to providing you with future editions of your state journal.

Sincerely,

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Note: The opinions of authors and the topics accepted for publication do not necessarily represent the viewpoints of CAHPERD or the CAHPERD leadership.

Peer Reviewed Article

Perceptions of 4th-7th Grade Students Regarding Inclusion in General Physical Education Classes

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ABSTRACT

The purpose of this study was to examine the attitudes of general education students towards inclusion-based physical education. Participants in this study were enrolled in two different Southern California public schools: School 1: 102 seventh graders and School 2: 246 4th through 6th graders. A modified version of the Ten Item Children's Attitude toward Inclusive Physical Education - Revised questionnaire (CAIPE-R) was used to collect student's responses regarding how receptive they would be to having a student with an orthopedic impediment in their physical education class. The majority of students at both schools responded positively to all ten survey items, indicating they were receptive to including a student with special needs in their general physical education class, as well as allowing for adaptations to the environment to help that student experience success. The results suggest strong student support for PL-92-142 since most of the students demonstrated inclusive attitudes towards having students with physical limitations in their physical education classes. Several of the eleven elementary school classes demonstrated significantly less support for inclusion than the other classes, suggesting the influence of classroom teachers may be an important factor influencing student attitudes towards inclusion.

Introduction

With the recent emphasis on inclusion in public school education**,** mainstreaming students with disabilities into general physical education classes has become a growing trend (Wilson, Beamer & Block, 2016; Roth, 2015). Social inclusion of students with disabilities among their peers is essential in order to dispel negative attitudes toward physical limitations (Obrusnikova & Block, 2007). For successful inclusion to occur in educational settings, however, peers must extend acceptance towards classmates with disabilities (Obrusnikova, Block, & Dillon, 2010). Without peer acceptance, students with disabilities may not have a successful experience in physical education, have limited social learning opportunities, and may be marginalized or even bullied by peers (Goodwin & Watkinson, 2010; Hutzler, Fliess, Chacham, & Van den Auweele, 2002; Place & Hodge, 2001). When special needs students have been mainstreamed into general physical education classes, without appropriate accommodations or modifications, they have often felt social isolation and rejection from other students. They have also reported their participation often involved nonphysical activities, such as being a line judge

(James, Kellman, & Lieberman; 2011).

Fortunately, many children without disabilities have positive attitudes toward including classmates with disabilities in physical education and sports activities (McKay, Block, & Park, 2015; Modell, 2007; Verderber, Rizzo, & Sherrill, 2003; Murata, Hodge, & Little, 2000). Some children without disabilities, however, may have negative attitudes towards peers with disabilities in their physical education classes because they have had no prior experience with them (Lindsay, McPherson & Maxwell, 2012). Some may also not want students with disabilities in their physical education classes, because they feel that these students will slow down and reduce the quality of their physical education activities (Obrusníková & Block, 2007).

Despite the emphasis on inclusion in physical education, not all general physical educators are properly prepared or confident to provide an environment that is conducive to their learning (Beamer & Yun, 2014; Lindsay, Proulx, Thomson, & Scott, 2013; Tripp, Rizzo, & Webbert, 2007). If special needs students are placed into general physical education classes without proper supports, modified equipment, or modified curriculum, it is unlikely they will be able to achieve their full potential (Campos, Ferreira, & Block, 2013). Conversely, students who have been assigned to an alternative physical education setting, such as adapted physical education, may not be able to achieve as much success because they are isolated from their general education peers (Roth, 2015). However, when general physical education classes have been properly managed, inclusion into those classes has been reported as a positive, beneficial experience by students with special needs (James, Kellman, & Liebermann, 2011).

The attitudes of the non-adapted physical education students in general physical education classes are critical in insuring a positive experience for students with special needs (Bebetsos, 2013, Obrusinikova & Block, 2007). Consequently, it is important physical education teachers help students in their classes to be accepting and compassionate towards special needs students who are mainstreamed into their classes. The impact of other students' attitudes towards the mainstreaming of children with special needs into general physical education classes has been studied using the Children's Attitudes toward Inclusion in Physical Education – Revised (Block, 1995). While there have been studies regarding the perceptions of parents and teachers of the effectiveness of including children with special needs in general physical education classes, there is limited research regarding how receptive general education students are towards including children with special needs. The purpose of this research was to use the CAIPE-R questionnaire to examine whether general education students support inclusion-based Physical Education and whether they believe modifications should be made to a team sport activity to make it easier for a special needs student to participate and experience success. The results of this study should provide an assessment of how successful schools have been in helping general physical education students develop positive attitudes towards students with physical limitations. The results should also be useful in determining specific areas in which physical education teachers can help prepare general physical education students prior to attempting to foster inclusion (Campos et. al, 2013). With the increasing importance of inclusion of special needs students in general physical education classes, determining perceptions of non-special needs students towards inclusion should help administrators and teachers develop better strategies to help students with special needs have a more successful transition into general physical education classes.

The CAIPE-R (Children's Attitude toward Inclusive Physical Education - Revised), was developed and validated by Block (1995). CAIPE-R measures students' attitudes towards inclusion in physical education based upon a hypothetical scenario (*see Figure 1*). Specifically, students are read a scenario describing a student with physical limitations. This scenario briefly describes the

student's ability level and visible sign of their disability (i.e. a wheelchair). Following the reading of this scenario, students complete the CAIPE-R which requires them to respond to a series of questions about how willing they would be to incorporate the hypothetical student into their physical education class activities. The CAIPE-R has been utilized in multiple studies of both high school and middle school physical education classes (Block, 1995, Campos et. al, 2003, Hutzler & Levi, 2008). Interestingly, when examining the perceptions of high school students towards inclusion in Physical Education, general education students participating in organized sports had similar perceptions to students who were not participating in organized sports (Hutzler & Levi, 2008). Campos, Ferreira, and Block (2013) found there was little difference between students who were already participating in inclusion based Physical Education vs those who were not. For this study, the five point Likert scale responses were compressed into a "Yes/No" forced choice format. This was deemed appropriate because of the limited understanding children in elementary school have of Likert scale response formats (Mellor & Moore, 2014).

Methodology

Students from two public schools in Southern California completed the CAIPE-R survey to help answer the questions: 1) How receptive are general education students to including students with disabilities into their physical education classes? 2) Do general education students feel the environment in physical education classes should be adapted to help students with disabilities fully participate and experience success? Both schools were selected non-randomly.

Participants

Middle School

Participants at this school included 102 (out of total of 425) seventh grade general education students enrolled in four general physical education classes at one middle school. The gender of the respondents was: 44.1% (45) males and 55.9% (57) females. The 2015-16 ethnicity percentages of the total student body for this school were: 66.5% White, 14.7% Latino, 8.7% Asian, and 7.9 mixed.

Elementary School

Participants at this school included 237 4-6th graders enrolled in eleven different classrooms. The student counts by grade level were: 4th grade (83), 5th grade (94), and 6th grade (60). The gender of the respondents was 48.9% (116) Males and 51.1% (121) Females. The 2015-16 ethnicity percentages of the total student body for this school were: 79% Latino, 20% African American, and 1% White.

Data Collection Procedure

For both schools, IRB permission was secured in advance from both the researcher's university and the respective school districts. For the middle school, only students who brought back a signed consent form were allowed to complete a survey. In accordance with the CAIPE-R testing protocol, the researcher read the scenario describing a student with special needs. After the researcher finished reading the scenario to the class, the researcher read the ten survey questions, one at a time, to accommodate differences in students' reading abilities. The students were then asked to complete each of the questions in the demographic section which included items for gender, grade level, self-perceived fitness level, and self-perceived enjoyment of Physical Education. Students were instructed not to enter their names on the surveys, and there were no questions by which they could be personally identified.

For the elementary school, the procedure was similar except the researcher first met with the eleven elementary school teachers as a group and went over the directions regarding how to administer the survey, which was identical to that for the middle school. Each of the eleven teachers

then administered the survey to their class. After all of the surveys for the two schools were completed and collected, the researcher coded the data for entry onto an Excel spreadsheet.

Results

Elementary School: Six percent the of students considered themselves to have a low level of fitness, 60% considered themselves to have a medium level of fitness, and 34% considered themselves to have a high level of fitness. Eight percent the students indicated they had a low level of enjoyment in Physical Education, 46% indicated they had a medium level of enjoyment in Physical Education, and 46% indicated they had a high level of enjoyment in Physical Education. Seventy-four percent of the students indicated they participated in a sport outside of school.

Middle School: Five percent the of students considered themselves to have a low level of fitness, 57% considered themselves to have a medium level of fitness, and 38% considered themselves to have a high level of fitness. Twelve percent the students indicated they had a low level of enjoyment in Physical Education, 41% indicated they had a medium level of enjoyment in Physical Education, and 47% indicated they had a high level of enjoyment in Physical Education. Seventy-three percent of the students indicated they participated in a sport outside of school.

Responses for the ten-item CAIPE-R varied across test items and results can be viewed on Table 1. A range of 61.1% to 91.7% of the students concurred with the ten statements. Over 80% indicated they would like to help Peter score a basket (91.7%), allow him to shoot at a lower basket (90.6%), help him practice and play the games (89.4%), talk with him and be his friend (86.7%), and come to their PE class (81.4%).

Chi Square Analysis revealed significant differences for three of the items for the variable of school ($p < .05$). A significantly higher percentage of 7th grade students (98.1%) than 4-6th grade students (74.3%) indicated it would be OK having Peter in their PE class. A significantly higher percentage of 7th grade students (95.1%) than 4-6th grade students (64.6%) indicated they would be willing to make a pass to Peter. However, a significantly higher percentage of 4-6th grade students (93.7%) than 7th grade students (79.4%) indicated they would be willing to help him practice and play the games if he were in their PE class.

It is interesting that over 75% of the students in each of the eleven elementary classes indicated they would be willing to pass the ball to Peter. However there were dramatic differences in the percentages for several of the other survey items. For the item, "It would be OK having Peter come to my PE class," two of the classes had percentages of less than 50% agreement (40.9% and 47.1%) while two other classes had extremely high percentages of agreement (89.6% and 95.2%). For the item, "it would be fun to have Peter in my PE class," two of the classes had 38.9% and 45.4% agreement while five of the classes had agreement percentages that exceeded 80%. For the Item, "I would pass the ball to Peter," two of the classes had low percentages of agreement (27.8% and 45.4%) while seven other classes had percentages of agreement that exceeded 70%.

Discussion

Similar to Archie and Sherrill's (1989) findings using the Children's Attitudes Towards Handicapped (CATD), most students in this study were receptive to having a student with orthopedic impairment in their general physical education class. These findings are congruent with James, Kellman, and Lieberman (2011) who found that, with guidance, general education students are willing to work with students with special needs to avoid feelings of social isolation and rejection. It is noteworthy a strong majority of students in two separate schools, that differed dramatically in ethnic composition, indicated they would be accepting of a student with an orthopedic impairment. These

results were also similar to the findings of Campos, Ferreira, & Block (2003) and Hutzler & Levi, (2008).

The findings also indicate general education students are generally willing to implement modifications to class activities in order to facilitate participation for students with special needs. Specifically, a high percentage of the students indicated they would pass the ball to a student with orthopedic impairment and assist a student with orthopedic impairment in scoring on a lower, modified basket. These results further demonstrate that general education students are willing to allow students with special needs to play in games with them and not solely participate in support roles such as score keepers or referees. Regardless of gender, the majority of all students in this study demonstrated a positive attitude towards including students with orthopedic impairment into the general physical education setting.

It is very interesting that the support for inclusion at the elementary school was extremely low in some of the classes, but very high in others. There are several possible explanations for this discrepancy. While the primary researcher distributed the surveys and read the scenario to all of the 7th graders, the responsibility of administrating the survey to the 4-6th graders was given to each of the eleven classroom teachers. Consequently, it is possible the teachers in those classrooms may have not have followed correct procedures for administrating the survey. Specifically, they may not have read the scenario or the questions and simply given the survey to the students. It is also possible the teachers in these classes may not have read the story with a sympathetic voice or minimized the importance of the scenario in some way. Variations in class climate may also have affected the results.

The results of this study are limited because of the participation of just two, non-randomly selected schools. While school ethnic information was accessible, individual student ethnicity was unknown, which made comparisons for that variable unfeasible. In addition to the differences in sample size and the percentage of potential respondents who participated at each school, it is important to note both the age and ethnic differences between the two schools. While this study focused on students with orthopedic impairment, more research is needed regarding students with non-visible disabilities such as Autism and Intellectual Disability. Interviews with students from multiple schools in different geographic areas would also help to develop a more complete understanding of general education students' attitudes.

References

Archie, V.W. & Sherrill, C.(1989). Attitudes toward handicapped peers of mainstreamed and nonmainstreamed children in physical education. *Perceptual & Motor Skills,* 69 (1), 319-322.

Beamer, J. A. and Yun, J. (2014). Physical Educators' Beliefs and Self-Reported Behaviors Toward Including Students With Autism Spectrum Disorder, *Adapted Physical Activity Quarterly, 31*, 362-376.

Bebetsos, E., Derri, V., Zafeiriadis, S., and Kyrgiridis, P. (2013). Relationship among Students' Attitudes, intentions and Behaviors towards the Inclusion of Peers with Disabilities, in Mainstream Physical Education Classes, *International Electronic Journal of Elementary Education,* 5(3), 233-248.

Block, M.(1995). Development and Validation of the Children's Attitudes Towards Integrated Physical Education – Revised (CAIPE-R) Inventory, *Adapted Physical Activity Quarterly,* 12, 60-77.

Campos, M., Ferreira, J., Block. M. (2013). An Analysis Into the Structure, Validity, and Reliability of the Children's Attitudes Towards Integrated Physical Education-Revised (CAIPE-R), *European Journal of Adapted Physical Activity,* 6(2), 29-37.

Goodwin, D.L. & Watkinson, E.J. (2010). Inclusive physical education from the perspective of students with physical disabilities. *Adapted Physical Activity Quarterly*, 17 (2), 144.

Hutzler, Y., Fliess, O., Chacham, A, & Van den Auweele, Y. (2002). Perspectives of children with physical disabilities on inclusion and empowerment: Supporting and limiting factors. *Adapted Physical Activity Quarterly*, 19 (3), 300.

Hutzler, Y. and Levi, I. (2008). Including Children With Disability In Physical Education: General and Specific Attitudes of High School Students, *European Journal of Adapted Physical Activity,* 1(2), 21–30.

James, A. R., Kellman, M., and Lieberman, L. (2011). Perspectives on Inclusion from Students with Disabilities and Responsive Strategies for Teachers, *Journal of Physical Education, Recreation & Dance*, 82(1), 33-54.

Lindsay, S., Proulx, M., Thomson, N., and Scott, H. (2013). Educators' Challenges of Including Children with Autism Spectrum Disorder in Mainstream Classrooms. *International Journal of Disability, Development and Education, 60*(4), 347-362.

Lindsay, S., McPherson, A.C. & Maxwell, J. (2012). Experiences of social exclusion and bullying at school among children and youth with cerebral palsy. *Disability & Rehabilitation*, 34 (2), 101.

McKay, C., Block, M., & Park, J. Y. (2015). The impact of Paralympic school day on student attitudes toward inclusion in physical education. *Adapted Physical Activity Quarterly*, 32 (4), 331.

Mellor, D. & Moore, K.A. (2014). The use of Likert scales with children. *Journal of Pediatric Psychology,* 39(3), 369-379.

Modell, S. J. (2007). Student perceptions about sports for persons with physical disabilities – An exploratory study. *Palaestra*, 23 (3), 32.

Murata, N.M, Hodge, S.R., & Little, J.R. (2000). Students' attitudes, experiences, and perspectives on their peers with disabilities. *Clinical Kinesiology* (Online Edition), 54 (3), 59-66.

Obrusnikova, I., Block, M. E. & Dillon, S. (2010). Children's beliefs toward cooperative playing with peers with disabilities in physical education. *Adapted Physical Activity Quarterly*, 27 (2), 127.

Obrusnikova, I. & Block, M. E.(2007). Inclusion in physical education: A review of the literature from 1995-2005. *Adapted Physical Activity Quarterly*, 24 (2), 103.

Place, K. & Hodge, S. R. (2001). Social inclusion of students with physical disabilities in general physical education: A behavioral analysis. *Adapted Physical Activity Quarterly*, 18 (4), 389.

Roth, K. (2015) Commit to Inclusion Confusion, *Journal of Physical Education, Recreation & Dance*, 86(3), 3-4.

Tripp, A., Rizzo, T. L., and Webbert, L. (2007). Inclusion in Physical Education: Changing the Culture, *Journal of Physical Education, Recreation & Dance*, 78(2), 32-48.

Verderber, J., Rizzo, T. L. & Sherrill, C. (2003). Assessing student intention to participate in inclusive physical education. *Adapted Physical Activity Quarterly,* 20 (1), 26.

Wilson, W.J., Beamer, J. & Block, M, (2016). Adapted Physical Education in Self-Contained Settings: Planning for Successful Instruction. Strategies, 29 (5), 22.

Figure 1. Scenario of a child with an orthopedic impairment

Peter is the same age you are. However, he cannot walk, so he uses a wheelchair to get around. Peter likes playing the same games you do, but he does not do very well in the games. Even though he can push his wheelchair, he is slower than you and tires easily. He can throw a ball, but not very far. He can catch balls that are tossed straight to him, and he can hit a baseball off a tee, but he cannot shoot a basketball high enough to make a basket. Because his legs do not work, he cannot kick a ball.

Figure 1. Scenario read to students prior to taking the Ten Item CAIPE-R Inventory. From "Development and Validation of the Children's Attitudes Toward Integrated Physical Education – Revised (CAIPE-R) Inventory." By M. Block, 1995, Adapted Physical Activity Quarterly, 12, pp. 60-77.

Table 1

Percent of elementary and middle school students support of inclusive physical education (CAIPE-R Items).

	Yes		No	
	%	N	%	N
GENERAL STATEMENTS				
If Peter were in my P.E. class, I would like to help him practice and play the games.	89.4	(303)	10.6	(36) *
If Peter were in my P.E. class, I would talk to him and be his friend.	86.7	(294)	13.3	(45)
It would be OK having Peter come to my P.E. class.	81.4	(276)	18.6	(63) *
P.E. would be fun if Peter was in my P.E. class.	76.7	(260)	23.3	(79)
When playing a team sport like basketball, it would be OK having Peter on my team.	67.8	(230)	32.2	(109)
Because Peter cannot play sports very well, he would slow down the game.	61.9	(210)	38.1	(129)
SPORT-SPECIFIC STATEMENTS				
I would be willing to help Peter to score the basket.	91.7	(311)	8.3	(28)
In basketball I would allow Peter to shoot at a lower basket	90.6	(307)	9.4	(32)
In basketball it would be good if nobody could steal the ball from Peter while passing.	77.6	(263)	22.4	(76)
In basketball I would I be willing to make a pass to Peter.	73.7	(250)	26.3	(89) *

* Chi Square: Significant differences in responses between 4-6th graders and 7th graders $p < 0.05$

Peer Reviewed Article

Systematic Adaptations for Students who are Deafblind

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ABSTRACT

Part of an adapted physical educators' responsibility is to provide successful adaptations and if needed, provide an alternative physical activity to meet the unique needs of students with disabilities. Due to the low incidence of students who are deafblind, providing proper adaptations and alternative physical activities may be challenging. To assist with the examination of proper adaptations the Dynamic System Theory and Newell's Model can be utilized. A systematic approach to make adaptation to physical activities can lead to an increase in participation, skill development, and independence. Adapted physical educators can increase the probability that appropriate motor and physical activities are presented to a student who is deafblind by examining the individual, environment, and task constraints.

Introduction

There is a significant need for information, resources, and research in the field of deafblindness pertaining to adapted physical education in order to facilitate successful inclusion (Lieberman, Ponchillia, & Ponchillia, 2013). Over 61% of school aged children with deafblindness are being educated a portion of their day in a regular classroom [National Center on Deaf-Blindness (NCDB), 2017]. With the increase in inclusion, adapted physical educators need to be prepared to include students with deafblindness in physical education and must have the attitude, knowledge, and skills needed to meet their educational needs.

Educational techniques and interventions within special education are individualized and specifically designed, which may include adaptations when appropriate to the content, methodology, or delivery of instruction [Individuals with Disabilities Education Improvement Act (IDEIA), 2004]. Appropriate instructional strategies are critical components in the success and participation of a child who is deafblind (Hartshorne, Hefner, Davenport, & Thelin, 2011).

Highly qualified adapted physical educators can design, implement, and evaluate motor skills, and levels of fitness of students with disabilities; especially from low incidence populations including deafblindness (Anderson & Smith, 2013; Regan & McElwee, 2013). However, most adapted physical educators have little or no knowledge and no previous training related to teaching students with deafblindness (Lieberman, Haibach, & Schedlin, 2012). Many adapted physical educators also lack knowledge in how to develop appropriate programs for students who are deafblind (Lieberman & MacVicar, 2003).

Deafblindness

A total of 9,635 individuals, birth through 21 years old, were included in the national child count of youth who are deafblind (NCDB, 2017). Many of these children are provided early intervention and special educational services under IDEIA, (2004). Under this Act:

> Deaf-blindness means concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational needs that they cannot be accommodated in special education programs solely for children with deafness or children with blindness [34 C.F.R. §300.8(c)(2)].

Due to the concomitant loss in hearing and vision, it is imperative that individualized programs and instruction are provided to improve overall development (Muller, 2006).

In addition, 90% of this population has one or more additional disabilities, with approximately 43% having four or more additional disabilities (NCDB, 2017). Some children may experience additional physical or cognitive disabilities, complex medical needs, and/or behavior challenges. Consequently, children with deafblindness are a vastly heterogeneous low incidence disability population and at times are misunderstood due to the nature and extent of their diverse characteristics (McCormick, 2015; Schalock, 2016).

Dynamic Systems Theory and Newell's Model of Motor Development

The Dynamic Systems Theory (DST) is an ecological perspective of motor development, which emphasizes that movement tasks are controlled and produced by interactions of the individual's body subsystems (i.e., vision, hearing, muscular, skeletal) and the environment (Smith & Thelen, 1993; Thelen & Ulrich, 1991). Karl Newell developed a model of constraints based off of interactions occurring within an organism causing movement to occur (Newell, 1986). The process of motor development is connected to changes within the individual, environment, and task (Newell, 1984, 1986; Thelen & Smith, 1996, see Figure 1). The individual's body subsystems are in constant self-organization in order to adapt to change as different patterns of movement are acquired (Kamm, Thelen, & Jensen, 1990). As the process of motor development occurs, the subsystems of the body must reorganize due to new behavioral change, known as motor learning.

The dynamic system approach describes the concept of constraints as potential rate limiters or affordances. A rate limiter "is an individual constraint or system that hold[s] back or slows the emergence of a motor skill" (Haywood & Getchell, 2009, p. 23). Affordances are a person's capabilities based on the movement possibility related to the task and the environment (Gibson, 1977). Affordances tend to promote and encourage developmental change.

Based on the DST, each subsystem is interdependent with other subsystems, which contribute to the attainment or delay of motor skills. The influence of individual constraints is one major aspect of the DST. Impairments to specific body subsystems (i.e., vision, hearing) may act as rate limiters for specific motor skills (Kamm et al., 1990; Thelen, 1998). Although vision and hearing are usually not totally absent, the degree of loss can greatly impact other subsystems concurrently impacting motor development.

Children with deafblindness need educators who are trained with specialized skills and interventions to meet their needs. Adapted physical educators need to be knowledgeable of the adaptations and interventions needed to develop a specially designed educational program in their least restrictive environment. Newell's model and the DST can be applied to understand student's constraints and to systematically establish appropriate adaptations and activities to promote development and increased skill performance.

Systematic Adaptations

Let's examine C.J., a 3rd grade student who is new to his elementary school. C.J. loves to be active

and included with his peers. C.J has Usher Syndrome, which is an inherited condition that affects both hearing and vision. Vision loss is typically due to retinitis pigmentosa, which is a loss of peripheral vision causing tunnel vision (National Institute on Deafness and Other Communication Disorders, 2008). The adapted physical educator has never had a student with Usher Syndrome or deafblindness. In order to develop his IEP and what adaptations he may need, the adapted physical educator will perform appropriate evaluation through assessments and examine the three constraints (i.e., individual, environment, and task; see Table 1).

Individual Constraints.

The first essential component of Newell's Model and the DST that an adapted physical educator needs to be aware of is his/her individual constraints. Individual constraints involve both the student's structural and functional constraints. The student's structural constraints (i.e., body structures) provide information on how a student's body performs; it may include how he or she may ambulate or their ability to see and hear. Gaining information about the student's structural performance is important. For students who are deafblind, such as C.J., the adapted physical educator needs to learn about C.J.'s visual acuity (i.e., clarity, 20/20) and field of vision as well as his hearing.

The adapted physical educator started by collaborating with other professionals who are a part of C.J.'s team and are experts within their field. The adapted physical educator can consult with C.J.'s certified teacher of the blind or visually impaired and certified teacher of the deaf or hard of hearing to learn more about C.J.'s vision and hearing. In addition, reviewing the student's IEP and cumulative folder can provide additional information, such as a functional vision assessment or audiology report.

In this example, the adapted physical educator gained knowledge that C.J. has 50 degrees of peripheral vision loss. His visual acuity, corrected with glasses, is 20/70, meaning with normal acuity what a person sees at 70 feet, C.J. is able to see at 20 feet. The teacher of the deaf or hard of hearing reviewed his audiology report. C.J. has profound hearing loss and communicates through American Sign Language and at times through tactile sign language. This knowledge will assist with environmental adaptations needed to instruct C.J. He may need preferential seating in squads and he will have an interpreter or intervenor to provide him communication access. Adapted physical educators must also be aware of any contraindications that a student may have due to their disability or equipment. For example, hearing aids and cochlear implants should be removed before any aquatic activities.

The student's functional constraints include specific individual characteristics such as: strength, endurance, flexibility, confidence, fear, communication, socialization skills, and level of independence within a physical education environment. A student's interest level and attention should also be observed and noted. This information can be gathered through a student's IEP and assessment results. Observations of the student in both structured and unstructured environments can also be valuable, in addition to motor skill and fitness assessment results.

Additional information can be acquired through speaking with the student's teacher, parents, nurse, physical therapist, occupational therapist, and other service providers. All educators need to work in collaboration to create the optimal learning environment. One of the barriers to include students with deafblindness in physical education is the lack of knowledge about the student's educational needs (Lieberman & Houston-Wilson, 1999). Therefore, it is imperative to obtain information about the individual, both structurally and functionally.

C.J.'s adapted physical educator contacts his previous adapted physical educator to learn more about his functional constraints. The adapted physical educator learns that C.J. loves to be physically active and social but becomes frustrated

easily when his peers and teachers do not understand him. An adaptation would be to provide him with multiple means of communicating (i.e., paper and pen, iPad, sign language). C.J. is highly motivated by praise and enjoys being able to perform activities independently or with a peer. C.J. is interested in sports but tends to have a short attention during instructions and learns best through visual demonstrations. Making sure C.J. is familiar with the equipment and environment prior to participating in a skill or activity will increase his understanding of the task and his willingness to participate. Therefore, providing pre-teaching prior to a new unit would be very beneficial. After gaining this information, additional environmental adaptations should be examined. Due to the interconnectedness of constraints, changes to one constraint can alter another constraint.

Environmental Constraints

The second component is environmental constraints, which includes the surroundings, location, lighting, noise level, number of participants involved, surface (i.e., hard, grass, rough etc.), and the setting of the skill, whether in an open or closed environment. Reexamining the student's individual constraints, can provide information on what environmental adaptations may be needed.

Due to the changing environment in physical education, the student must be able to adjust their skill and combine skills to be successful in open environments (Moran, 2012). Therefore, providing the opportunity to perform a skill in a closed environment may increase participation and confidence. An adaptation to perform the skill independently first, then add in additional participants can increase skill success.

In addition, access to information whether through visual, auditory, or physical modalities may need to be adjusted to meet the student's constraints. Students who are deafblind may miss information due to their decreased access to the environment and the teacher. Their access to information is necessary for learning, communicating, and overall development. Instead of effortlessly receiving information they must work to attend, gather, and interpret the information (Alsop et al., 2012).

Interpreters or interveners, can assist in providing access to information. A sign language interpreter will change spoken English into American Sign Language. An intervener is a paraprofessional who has specialized training in deafblindness and works with the student by providing them access to their environment by their preferred means of communication (Alsop et al., 2012). Some students who are deafblind may also utilize assistive devices for communication. These devices should be brought and utilized in their physical education environment and if needed, training should occur.

Furthermore, the lighting within the environment may also affect a student's vision. C.J.'s vision is affected by the amount of light and position of the light. Direct light behind the instructor will make it difficult for C.J to see; also, poor lighting conditions will decrease C.J.'s vision. Therefore, the teacher may need to reposition where they stand. Instruction may need to occur in a shaded area compared to direct sunlight. C.J. also learns best through visual cues and demonstrations. Due to the degree of his hearing loss, information should be presented visually within his field of vision. Large picture cue cards and video demonstrations can provide vital information to the student; in addition to learning basic signs to incorporate during class.

Task Constraints

The third essential component is task constraints. This area can be easily manipulated by an adapted physical educator. Based on the individual and environmental constraints, the task may need to be modified to allow the student to experience successful skill performance. Performing a task analysis can provide valuable information on modifications needed for the student to increase their skill level (Menear & Davis, 2007).

Task constraints include the type of equipment being used within the activity. In addition, the dimensions or distances within an activity may need to be adapted. The rules of a particular activity along with the performance of a discrete or a continuous movement are task constraints. Furthermore, the relationships (i.e., individual, partner, or group) within the task can be

a constraint. For some students, pre-teaching of a skill or activity may need to be performed before class participation (Lieberman et al., 2013).

For instance, C.J has difficulty continuously performing a manipulation skill due to his visual impairment. He tends to lose track of the equipment. Providing an adaptation of string or rope attached to the equipment (i.e., wiffle ball) can increase his independence and opportunities to practice. The rope allows him to independently bring the ball back to continue practicing the skill. This will also decrease his level of frustration, when trying to search and find his ball.

He also prefers high contrasting colored equipment, which allows him to see the equipment easier in the gymnasium or outside, such as kicking a yellow ball on black pavement. Due to C.J.'s tunnel vision, equipment and students are not seen until they are in his central vision. Activities where balls are being thrown around quickly in various, unplanned directions, may not be a safe environment for C.J. In addition, chasing and fleeing games without proper modifications or assistance may be unsafe due to the chance of collisions. Providing a trained peer as a sighted guide would be helpful, along with slowing the pace of the activity. When analyzing student centered constraints, the players, game or activity, playing object, and the area or environment, should be considered as part of the systematic process of adaptation (see Table 2).

Conclusion

Children with deafblindness have fewer opportunities to participate in physical activities, are overall less active than their peers, and have motor skill delays (Lieberman & Houston-Wilson, 1999; Sherrill, 2004). Each student will have their own set of constraints; applying this systematic way to provide adaptations will increase participation and accessible opportunities to participate.

Development of fundamental motor skills at an early age provides students with confidence and abilities to perform many activities (Davids, Chow, & Shuttleworth, 2005). As a student increases their skill level and independence, the adaptations and assistance should fade out due to the change in their constraints. Therefore, their individualized program should be altered to meet their new functional level. It is vital that students with deafblindness engage in physical activities, physical fitness, and physical education during their school years. These students need leisure activities as part of their daily living to insure a high quality of life (Block, Taliaferro & Moran, 2013). Examining constraints within Newell's Model and the DST can encourage movement performance. Systematically providing adaptations to the environment and task based on the student's individual constraints can provide increased participation, success, and the correct physical and motor movement to occur.

References

Alsop, L., Berg, C., Hartman, V., Knapp, M., Lauger, K., Levasseur, C., Prouty, M., & Prouty, S. (2012). A family's guide to Interveners for children with combined vision and hearing loss. Logan, UT: SKI-HI Institute.

Anderson, K., & Smith, J. D. (2013). Systematic alignment of dual teacher preparation: Connecting foundations of high-quality clinical placements, and graduates' knowledge and skills. Washington, DC. 2013 OSEP Project Director's Conference.

Block, M. E., Taliaferro, A., & Moran, T. (2013) Physical activities and youth with disabilities: Barriers and supports. The Prevention Researcher, 20, 18-20.

Davids, K., Chow, J. Y., & Shuttleworth, R. (2005). A constraints-based framework fornonlinear pedagogy in physical education. Journal of Physical Education New Zealand, 38, 17-29.

Gibson, J. J. (1977). The theory of affordances. In R. Shaw & J. Bransford (Eds.), Perceiving, acting and knowing: Toward an ecological psychology. Hillsdale, NJ: Erlbaum.

Hartshorne, T. S., Hefner, M. A., Davenport, S. L. H., & Thelin, J. W. (2011). CHARGE syndrome. In R. J. Shprintzen, (Ed.) San Diego, CA: Plural.

Haywood, K. M., & Getchell, N. (2009). Life span motor development (5th ed.). Champaign, IL: Human Kinetics.

Individuals with Disabilities Education Improvement Act of 2004. 20 U.S.C. §1400.

Kamm, K., Thelen, E., & Jensen, J. L. (1990). A dynamical systems approach to motor development. Physical Therapy, 70, 763-775.

Lieberman, L. J., Haibach, P., & Schedlin, H. (2012). Physical education and children with CHARGE syndrome: Research to practice. Journal of Visual Impairment & Blindness, 106, 106-119.

Lieberman, L. J., & Houston-Wilson, C. (1999). Overcoming the barriers to including students with visual impairments and deaf-blindness in physical education. RE:view, 31(3), 129-138.

Lieberman, L. J., & MacVicar, J. M. (2003). Play and recreational habits of youths who are deaf blind. Journal of Visual Impairment & Blindness, 97, 755-768.

Lieberman, L. J., Ponchillia, P. E., & Ponchillia, S. V. (2013). Physical education and sports for people with visual impairments and deafblindness: Foundation of instruction. New York: AFB Press.

McCormick, M. (2015). New to deafblindness? Five tips for administrators. TX SENSEABILITIES, Spring Summer 2015, 10-13. Retrieved from http://www.tsbvi.edu/new-to-deafblindness-five-tips-for administrators.

Menear, K. S., & Davis, T. (2007). Modifying physical activities to include individuals with disabilities: A systematic approach. Journal of Physical Education, Recreation & Dance, 78, 37-41.

Moran, T. E. (2012). I WANT TO PLAY TOO!! Identifying barriers to participation [pt. 1]: Minimize the impact of cognitive load. Palaestra, 26, 8-45.

Morris, G. S. D., & Stiehl, J. (1999). Changing kid's games (2nd ed.). Champaign, IL: Human Kinetics

Muller, E. (2006). Deaf-blind child counts: Issues and challenges. Alexandria, VA: Project Forum at NASDSE. Retrieved from http://nasdse.org/DesktopModules/DNNspot-Store/ProductFiles/25_b77a012d-78ff-40c-87e7-03bb13784ba4.pdf.

National Center on Deaf-Blindness. (2017). 2016 National Child Count of Children and Youth who are Deaf-Blind. Retrieved from https://nationaldb.org/library/page/2199 .

National Institute on Deafness and Other Communication Disorders. (2008, February). Usher Syndrome (No. 98-4291) [Fact Sheet]. Retrieved from https://www.nidcd.nih.gov/staticresources/health/hearing FactSheetUsherSyndrome.pdf.

Newell, K. M. (1984). Physical constraints to development of motor skills. In J. R. Thomas (Ed.). Motor development during childhood and adolescence (pp. 105-120). Minneapolis: Burgess.

Newell, K. M. (1986). Constraints on the development of coordination. In Wade, M. G. & Whiting, H. T. A. (Eds.). Motor Development in Children: Aspects of Coordination and Control (pp. 341-360). Dordrecht, Germany: Martinus Nijhoff.

Regan, K., & McElwee, C. (2013). Linking special teacher preparation coursework to clinical practice. 2013 OSEP Project Director's Conference, Washington, District of Columbia.

Schalock, M.D. (2016). The 2015 National Child Count of Children and Youth who are Deaf-Blind. Monmouth, OR: National Center on Deaf-Blindness, The Research Institute, Western Oregon University.

Sherrill, C. (2004). Adapted physical activity, recreation, and sport: Crossdisciplinary and lifespan (6th ed.). New York: McGraw-Hill.

Smith, L. B., & Thelen, E. (1993). A Dynamic Systems Approach to Development: Applications. Cambridge, Mass: MIT Press. doi: 10.1353/etc.0.0093.

Thelen, E. (1998). Bernstein's legacy for motor development: How infants learn to reach. In M. Latash (Ed.), Progress in Motor Control (pp. 267-288). Champaign, IL: Human Kinetics.

Thelen, E., & Smith, L. B. (1996). A Dynamic Systems Approach to the Development of Cognition and Action. Cambridge, MA: MIT Press.

Thelen, E., & Ulrich, B. D. (1991). Hidden Skill: A dynamic systems analysis of treadmill stepping during the first year. Monographs of the Society for Research in Child Development, 56, (1, Serial No. 223).

Table 1

Examples of Constraints to Consider in Physical Education

Individual	Environment	Task
Ambulation	Surface	Rules
Body structure	Surroundings	Movement type
Sensory limitations/ needs	Type of information presented	Type of equipment
Endurance	Distance	Relationships
Strength	Temperature	Experience level
Flexibility	Lighting	Purpose
Motivation	Layout	Quantity/quality
Independence	# of players	Responsibilities
Socialization	Amount of equipment	Prior skills needed

Table 2

Examples of Adaptations in Physical Education Based on Constraints

Players	Playing Object	Game/Activity	Playing Area/ Environment
Change the role of the players	Bigger or smaller	Change the rules of the game	Make the area larger or smaller
Limit or add responsibility	Softer or harder	Reduce repetitions or slow the pace	Make visible boundaries
Modify demands on the student	Audible or bright in color (i.e., contrast)	Decrease time of activity or add rest periods	Lower the height of goals
Decrease competition	Change the texture	Increase chances	Enlarge the width of goals
Decrease or increase the amount of players	Heavier or lighter	Change the relationships	Orient the individual to the area
Provide a peer to assist	Increase the size of the target	Add guidance or a leader	Outside or inside
Use pennies/colors to justify team members	Use multiple objects	Increase the tactile cues	Change surface area
Allow selection of positions	Allow selection of equipment	Change the objective of the game	Adjust external stimuli

Modified from: Morris & Stiehl, 1999

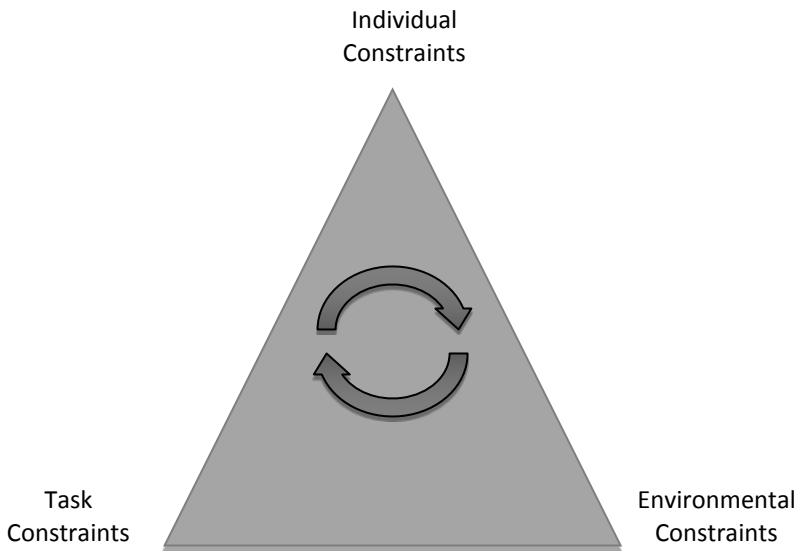

Figure 1: Newell's model of constraints (Adapted from Newell, 1986).

Peer Reviewed Article

Mindfulness from A to Z:
Concepts, Practices, Resources and Tips for Health and Physical Educators

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ABSTRACT

Mindfulness is a type of contemplative practice that presents opportunity to focus one's attention on the present moment for reasons of personal health enhancement. As a construct, mindfulness is the conscious and nonjudgmental realization of one's moment-by-moment thoughts and experiences. Mindfulness practices could be quite useful in helping to enhance an assortment of social and emotional health outcomes for educators and their students (Meiklejohn et al., 2012; Zenner, Herrnleben-Kurz, & Walach, 2014). The purpose of this paper is to provide health and physical educators with an overview of an assortment of mindfulness practices that have been used successfully in classrooms across a range of student populations, and to describe some of the benefits that are outcomes of these practices. An additional aim of this paper is to include an array of references and tips that might be of interest to teachers who would like to pursue the use of mindfulness in the classroom further.

Table of Contents

Introduction

Mindfulness is a type of contemplative practice that presents opportunity to focus one's attention, calmly on the present moment. The practice of mindfulness promotes being aware of thoughts and emotions as they occur moment-by-moment (Bishop et al., 2004). Mindfulness practices (MPs) hold tremendous promise as a useful tool in helping educators and their students increase focus/attention, develop emotional regulation, combat stress, and increase capacity for compassion within the classroom (Barbezat & Bush, 2014; Schonert-Reichl et al., 2015; Semple, Lee, Rosa, & Miller, 2010).

There is a growing body of evidence illustrating the benefits of using MPs within K-12 educational settings (Burke, 2010; Zoogman, Goldberg, Hoyt, & Miller, 2015). Decreased behavior problems, increased attention, and the promotion of a variety of social skills have been found to occur through the use of MPs (Meiklejohn et al., 2012). In addition, the benefits from cultivating mindfulness within the classroom may help educators to work with students in order to reach student learning outcomes associated with National Health Education Standards 5 and 7: promoting healthy decision making and health enhancing behavior (National Health Education Standards, 2016) and SHAPE America National Standard 4: responsible personal and social behavior (SHAPE America - Society of Health and Physical Educators, 2014). This, and the further research cited below, suggests that it is possible to envision the use of MPs within health and physical education classrooms.

The purpose of this paper is to provide an alphabetical listing of mindfulness concepts, practices, related resources, and tips for health and physical educators who would like to learn more about using mindfulness in helping to develop better attention, equanimity, and compassion – for themselves (i.e., personal use) and their students (i.e., as a supplement to existing curriculum). Readers who would like to learn about potential ways to develop better attention, equanimity, and compassion are encouraged to use the A to Z alphabetical list as a guide in an effort to become more versed about mindfulness.

A – Activities (i.e., Mindfulness Practices)

There are dozens of MPs that a teacher can choose to use at home or in the classroom (Kabat-Zinn, 2009). Table 1 lists several resources from which MPs can be drawn. MPs can be conducted during a class introduction and/or closure of a lesson, and take a minimal amount of time to implement (e.g., 1 -10 minutes); educators can adjust these practices to suit the age level of their students. Four simple yet critical facilitation tips when starting most MPs include guiding students to sit in a comfortable position with spine erect (i.e., upright body posture), close their eyes or use an unfocused, lowered gaze, take 2-3 deep breaths, and attempt to stay alert yet relaxed. In addition, it is important that those who teach MPs also are themselves practitioners using these techniques. Within this paper the acronym (MP) has been placed next to 11 letters (C, D, F, G, H, L, R, S, U, V, and Y) to indicate a mindfulness practice that teachers can try out for personal use, and with K-12 and college students.

B – Benefits of Mindfulness (Strengthening Attention, Equanimity, and Compassion)

Attention (i.e., focus), equanimity (i.e., emotional balance), and compassion (i.e., loving-kindness toward self and others) are three fundamental benefits that can arise from using MPs (Stuhr & Thomas, 2017; Zoogman et al., 2015). MPs have been shown to help students improve their capacity to stay focused on a topic or on the present moment (Eysenck, Derakshan, Santos, & Calvo, 2007). Students' capacity to attend in the classroom is beneficial across a range of activities, from focusing on a teacher demonstration, to being fully present during group work, to persevering on a difficult motor skill. Activities that develop mindfulness have also been found to strengthen emotional regulation, self-compassion, and intrapersonal relationships skills (Meiklejohn, 2012; Zenner, Herrnleben-Kurz, & Walach, 2014). Skills such as these can influence academic performance in the classroom (Zenner et al., 2014). For example, one might argue that students who have greater self-regulation (i.e., self-control) would tend to require less attention and management from the teacher. Furthermore, students who have greater emotional regulation skills tend not to be bullies or victims of bullying in the classroom (Shields & Cicchetti, 2001). There seem to be plausible health and academic benefits for students who use MPs (Burke, 2010; Schonert-Reichl et al., 2015; Zenner et al., 2014).

C – Contemplative Breathing (MP)

Breathing by its very nature can invite calmness, relaxation, and a sense of peace. Contemplative breathing (adapted from Barbezat & Bush, 2014) is an MP that invites participants to focus on the deceptively simple task of having air go in and out of the body. For 1-3 minutes have students focus on the sensation of breathing—e.g., the air going into and out of the nose, or the chest/belly expanding and contracting. Explain to students that if a thought or sound distracts them, simply acknowledge the distraction and refocus back onto breathing. The mind inevitably wants to wander, that's ok! For the beginner it may be very difficult to keep focus on breathing for even one minute! The key is to recognize that the mind has wandered and gently, nonjudgmentally refocus attention back to breathing. After 1-3 minutes the teacher may want to ask students a question regarding the lesson focus, and then repeat the process with the focus being on the question rather than the air going in and out of the body.

D – Deep Listening (MP)

As educators we want our students to be great listeners. Deep Listening (adapted from Barbezat & Bush, 2014) is an MP that can help develop nonjudgmental and nonreactive listening skills. First, ask students to listen to the sounds all around them. Tell students not to label the sounds (e.g., wind, airplane, kids talking at recess), instead let the sound come, acknowledge it, and then gently let go of any analysis or naming of the sound. As students sit listening they will inevitably start to have thoughts, emotions, or perhaps memories enter their minds. Simply tell students when a thought, emotion, or memory pops into their head, consciously recognize what has

happened and gently let it go, and return to allowing their ears to receive other sounds. Allowing oneself to notice different sounds, thoughts, and emotions coming and going without judgment or labeling is called "open awareness," and it's a method that can help one stay relaxed, centered, and in the present moment (Barbezat & Bush, 2014).

E – Emotional Well-Being

Helping students develop traits associated with emotional well-being (e.g., positive emotions, emotion-regulation skills, and strong interpersonal relationships) holds tremendous potential in promoting learning within the classroom (Lu & Buchanan, 2014; McCaughtry, 2004; Stuhr, Sutherland, & Ward; 2012). Seligman contends (2011) that in order to flourish emotionally (i.e., experience happiness and well-being) one needs to be provided with opportunities to develop positive emotions (feeling happy), engagement (self-regulation), relationships (being socially connected to others), meaning (sense of purpose), and achievement (perceived accomplishment). MPs provide such an opportunity to enhance psychological well-being within education because they have been shown to reduce anxiety, improve attention and social skills (Napoli, Krech, & Holley, 2005) and help students feel calmer with a higher sense of perceived well-being (Wall, 2005). Periodically, students should be given the opportunity to step back from the mentally busy school day, use MPs, and be in the moment.

F – Focused Attention (MP)

Paying close attention to a thought, sound, physical object, or even gently monitoring breathing is the basis for the MP of focused attention. This type of MP can be done in as little as a few minutes, or much longer (e.g., 30 minutes). Focused attention is a practice to help one stay in the present moment, while turning off internal dialogue that may be at times, focused on past or future events. Adapted from Scott (2016), there are three simple steps to follow in using focused attention as an MP. First, choose the target for your focus; for example, the sound of a metronome or soothing music, pictures, sights from current location, a body part, or even one's breathing. A teacher may use this MP as part of the lesson and have students focus attention on a question or topic pertinent to class content. Second, gently pay attention to the target. The key is not to overanalyze the target, but instead experience it, in the present moment, without judgment or reaction to whether it's good or bad. Finally, be kind to yourself when your mind drifts and wanders. Simply recognize that your mind has moved off course and gently return back to the target and the thoughts and/or sensations you perceive from it.

G – Gratitude List (MP)

From time to time, students and teachers can take for granted all the wonder and joy that encompasses their lives. Being grateful helps eliminate unwanted and negative thoughts, and opens the door to being consciously aware of the gifts we possess in the present moment (Kozak, 2015). O'Leary and Dockray (2015) found that short, simple gratitude interventions lower levels of stress and depression, while increasing happiness. The gratitude list is a very simple MP (adapted from Kozak, 2015) that can help one become more grounded and emotionally balanced. Start with listing all the items in your life that you are thankful for and that provide meaning. The list can be a working document that you keep adding to throughout the school year. Whenever you feel down or discouraged, take your list out and quietly read through it a few times. Creating a gratitude list is an MP that just may help one become motivated and inspired to take on the most difficult of challenges, or the simplest of daily tasks.

H – Hold and Release Meditation (MP)

The hold and release MP is a progressive muscle relaxation technique used to ease stress and tension from the body. Standing, sitting, or even lying down, ask students to tighten all the muscles of the body (e.g., toes, legs, belly, arms, fists, and shoulders). Tell students to hold the tightened position for 2-3 seconds, then release and fully relax the entire body. Remind students to pay close attention to how their body feels upon releasing all the tension. Repeat 3-5 times.

I – Inviting Students to Practice Mindfulness

Students may have little background or knowledge surrounding mindfulness, and thus could be skeptical or even resistant to practice. Unfamiliarity may position some students to believe these practices are "too far out there" for them to take seriously. Consider these four tips/suggestions to help students ease into MPs. 1. Take time to specifically go over the purpose/intent and potential benefits of mindfulness. Students will be more engaged when they have an understanding of why they are performing MPs. 2. Start with simple, short 1-2 minute breathing MPs and progress to longer, more complex practices later in the school year once students have gained more understanding of what mindfulness is all about. 3. Teachers should consider practicing mindfulness themselves. If teachers expect their students to be mindful, the teachers themselves should be familiar and comfortable with the practices as well. 4. Completing MPs should be enjoyable. So go ahead, have students crack a smile when they practice. Smiling can be very beneficial as a tension tamer and a way to create a welcoming environment.

J – Journaling

Completing a mindfulness journal can be a great way for students to practice introspection. Journaling can be done in or outside of class, from upper elementary through the college level. A teacher can have students complete their mindfulness journal using a computer, an app, or simply a physical journal. The writing can be done occasionally or upon completion of each MP done in class. Teachers may decide to use journaling as an authentic assessment, such as with Photovoice method (Treadwell & Taylor, 2017). Prompting can be an invaluable tool to help students with the writing process. Teachers can use What, Why, and How questions to guide student writing. Here is one example: What does it mean to be present? Why is it important to be present with family and friends? How can you be more present in your everyday life?

Using journaling creates an opportunity for students to calmly reflect on the thoughts and emotions they experience before, during, or after the MPs.

K – Kindness When Practicing

Mindfulness and kindness go hand-in-hand and are very much compatible constructs (Hofmann, Grossman, & Hinton, 2011). Being friendly and forgiving when one practices being mindful is highly encouraged (Flook, Goldberg, Pinger, & Davidson, 2015). Here are three tips/suggestions for teachers and students attempting MPs. 1. Place one hand over the heart (when possible) while practicing. This strategy can help remind individuals to focus not only with the mind but the heart as well. 2. Some individuals will quickly become comfortable with the practices, while others will need time. If a student is struggling with the MPs remind them not to worry, try not to get discouraged, and be kind to themselves. The mind naturally wants to wander. The goal of mindfulness meditation is less to stop the wandering than to be aware of it as it is happening, and to be less prone to being captured by wandering thoughts. 3. If a student believes that they are not "doing it right" ask them to do self-talk before attempting the MP. Silently repeating words such as relax, breathe, everything is ok, can be helpful in attempting to be kind to oneself.

L – Loving-Kindness Toward Another (MP)

The purpose of practicing loving-kindness toward another is to create a healthier attitude, and a greater capacity for compassion for self and others (Kozak, 2015). "The more we cultivate love [toward others], the less our hearts have room to harbor hate" (Kozak, 2015, p. 132). Begin by choosing a person whom you want to direct the loving-kindness toward. This could be a relative, friend, or even someone it may be difficult to send warm and kind feelings toward. Then, silently repeat the following passage 3-5 times: May you be safe, May you be healthy, May you be happy, May you live in peace. Remember, loving-kindness is nonjudgmental, unreserved love with no conditions – whether or not the other deserves it is inconsequential.

M – Mindful Movements

Mindful movements (Nhat Hanh, 2008) are ten quick and easy stretching/balancing exercises that can help quiet the mind and body. The ten kinesthetic exercises suggested in this resource are designed as movement-MPs and could easily compliment a warm-up or stretching routine within physical education. All ten exercises can be done in 15 minutes, or a teacher could allot 5 minutes and complete 3-4 per day. These exercises require movement from a variety of body parts (e.g., fingers, arms, legs, ankles, and waist). These mindful movements can be done before or after a stationary breathing activity – such as the MP described in section C.

N – Nonjudgmental Conversation and Reflection

Whether it is group work or a team activity, students in health and physical education have an opportunity to socially interact with one another on a consistent basis. MPs conducted prior to a group discussion can be useful for helping students to be more aware of nonjudgmental interaction with peers. Mindfulness has been shown to have a reasonably strong impact on improved metacognition/reflection (Baer, 2007). Teachers who use an adventure-based learning (ABL) curriculum purposively conduct reflection sessions (i.e., debriefs) at the end of the cooperative activities in order to help students transfer intra- and interpersonal relationship skills (Stuhr, Sutherland, Ressler, & Ortiz-Stuhr, 2015). Using an MP, in conjunction with an ABL debrief (or any other reflection conducted in health or physical education), may provide students opportunity to become calm and focused, and to nonjudgmentally enter into the conversation with an open mind.

O – Other Benefits of Mindfulness (Reduced Anxiety, Rumination, and Stress)

Teachers who use MPs for themselves and/or for students do so with the understanding that mindfulness has been empirically linked to an assortment of positive outcomes related to health and wellness such as better attention, emotional balance, and compassion – as discussed in letter B. Researchers have also found that MPs can be very useful in reducing negative outcomes, such as anxiety, rumination, and stress responses (Hoffman, Sawyer, Witt, & Oh, 2010; Hoge et al., 2013). With concerns such as teacher burnout and bullying within our schools it behooves educators and administrators to look further into using MPs as a complementary tool toward improved school climate and environments conducive to optimal learning.

P – Physical Activity and Mindfulness: Complementary Interventions

Researchers have suggested fascinating psychological and physiological benefits from using MPs along with physical activity (Bryan, Zipp, & Parasher, 2012; Kennedy & Resnick, 2015; Li, Hing, & Chan, 2001). In one such study, individuals who were more mindful had greater success with staying physically active (Ulmer, Stretson, & Salmon, 2010). MPs have also been shown to improve cardiorespiratory and metabolic functioning (Danucalov, Simoes, Kozasa, & Leite, 2008). Edelman et al. (2006) found that MPs were beneficial in reducing the risk factors associated with coronary heart disease. MPs may also help individuals become more resilient to psychological pressure, which could create better health through the buffering of cardiovascular responses to stress (Demarzo et al., 2014). MPs appear to be complementary to physical activity and potentially could be used together in physical education.

Q – Quiet Mind and Body: Chimes, Bells, and Bowls

Soothing vibrations and harmonious tones produced by various tools (e.g. chime) invite individuals to focus attention on sound rather than thoughts or emotions. Using a chime, bell, or singing bowl can help create a relaxing environment for individuals practicing mindfulness. Meditation sound tools do vary in cost; however, very simple solo chimes can be found online for very reasonable prices. The Mindfulness Bell (www.mindfulnessdc.org/bell) is an online meditation bell that can be played free of cost, without downloading any software.

R – RAIN Activity (MP)

Teachers and students can use the RAIN activity as a means to apply greater attention and compassion toward thoughts and emotions (Ameli, 2014). RAIN is an acronym for recognition, acceptance, investigation, and non-identification (Brach, 2012). Adapted from Ameli (2014), first recognize a thought or emotion that is currently prominent or most salient in the present moment. Accept the thought or emotion with compassion, care, and kindness. Regardless of the thought or emotion be receptive to the notion that you are experiencing this phenomenon nonjudgmentally. Next, investigate the thought or emotion, by asking questions such as, how are you labeling it and does this label change over time? What body sensations does this thought or emotion bring up and do these sensations linger or pass? Finally, not identifying with or holding on to each discrete thought or emotion as necessarily true, but rather seeing the thoughts and emotions as transitory and allowing them to gently come and go.

S – Self-Compassion (MP)

Acceptance, support, and tenderness toward self are three ways to frame loving-kindness. Just as it is important to demonstrate benevolent affection toward others, cultivating authentic self-compassion can have a positive effect on overall well-being (Baumeister & Leary, 2005; Leary, Tate, Adams, & Hancock, 2007). Self-compassion as an MP provides opportunity to reduce anxiety, depression, and stress (Birnie, Speca, & Carlson, 2010). Adapted from Kozak (2015), this loving -kindness MP begins like all the others, by having students sit in a comfortable position with upright posture (staying alert yet relaxed), eyes closed, and taking 2-3 deep breaths. Then, have students silently repeat the following passage 3-5 times: May I be safe, May I be healthy, May I be peaceful, May I accept myself as I am. For younger children the teacher may want to shorten the passage. Those interested in more self-compassion resources, research, and practices are encouraged to explore Neff's (2017) body of work at self-compassion.org.

T – Tips

Here are three additional tips/suggestions to consider before starting or implementing MPs. 1. Mindfulness is a secular practice and should not be considered religious or spiritual. Explaining the secular nature of the MPs is useful/ important in discussions with administrators, parents and students. 2. Keeping eyes closed is optional. Having eyes open, (but with a downward, unfocused gaze) during a practice is perfectly acceptable. Allow students to choose what works best for them. 3. Remind students that MPs are not designed to help them fall asleep. Instead, one should be wide awake when practicing. Holding an upright posture can help combat dozing off. Also, gauge the energy level of students and choose moments during a lesson when the MP will work best.

U – Understanding Content: Mindful Reading (MP)

Helping students attend to and gain an enduring understanding of class material is one of the goals of teaching. Mindful reading is a pedagogical practice that can be implemented to help students focus more keenly toward written information. A modified version of mindful reading (Barbezat & Bush, 2014) can be used in health and physical education when students are tasked to read material during class. First, one student slowly reads aloud a specified piece of text. Next, allow for 30 to 60 seconds of silent reflection on what was read aloud. Then, have another student re-read the text aloud. Following the second reading, students pair up and discuss the passage for 1-3 minutes. Finally, as a whole class discussion, ask for volunteers who would be willing to share what they heard from their partner. Mindful reading is a student-centered technique that provides "student voice" and emphasizes a less-is-more approach by covering content deeply, and allowing students to be more immersed in the information being presented.

V – Visualizing (MP)

Leaves on a Stream (adapted from Harris, 2009) is an MP for students and teachers, where one visualizes, by noticing and releasing, problematic/negative thoughts that can potentially cause anxiety, suffering, or stress. This cognitive defusion practice (i.e., a process to help mindfully disconnect or distance self from maladaptive thoughts) starts by envisioning a stream or river where leaves are gently floating past. Over the next 3-5 minutes place each thought that enters the mind on a leaf and let it float away. Allow each thought (i.e., leaf) to float away at its own speed. If there is concern that the practice is not happening correctly or you become bored, simply place those thoughts on a leaf and let them float away as well. If you get stuck on a thought, allow that leaf to hang around longer until its ready to drift downstream. If you become distracted and stop the practice, that's ok, simply recognize that you have become sidetracked and gently, nonjudgmentally return to the exercise. Thoughts are just that, thoughts. Thoughts come and go, and may not necessarily represent the true reality of a given situation (i.e., people have a tendency to over-identify with thoughts). Leaves on a Stream is one example of a mindful visualization exercise that helps to expand one's capacity to let go of unnecessary thoughts, while reducing anxiety and attachment to self (pain/suffering).

W – Walking Meditations

There are various forms of contemplative movement practices that teachers have at their disposal when considering ways to introduce mindfulness into the curriculum. Outcomes associated with mindfulness can be fostered through simple walking meditations (e.g., mindful walking) or more complex movement forms such as aikido, tai chi, or yoga. There are a variety of walking meditations a teacher can choose from, such as Mindful Walking, Labyrinth Walking, Walking with Words, and Zen Walking (Barbezat & Bush, 2014). Each type of walking meditation allows for opportunity to slowly (non-competitively) move from place to place, while focusing attention on the muscles of the body, the movement of body parts, and the balance needed for each step to occur (Stuhr & Thomas, 2017). Focus can be on self (such as one's body movement) or directed outward toward being aware of one's surroundings.

X – X-Factor Toward Improved Well-Being

MPs have become increasingly researched and more mainstream (Brown, Ryan, & Creswell, 2007). Large Fortune 500 companies are incorporating MPs within the workplace to help employees with productivity and overall well-being. Companies such as Google, Target, Intel, and General Mills, to name a few, are firm backers of meditation practices (including mindfulness) and offer full classes for their employees (Cross-Wilson & Mait, 2016, August 16). Mindfulness is also rapidly becoming infused in schools. In education settings there have been promising studies on the effect of mindfulness, highlighting it as having a reasonably strong impact on improving student focus (Semple et al., 2010), behavior (Schonert-Reichl et al., 2015), and academic performance (Zenner et al., 2014).

Y – Yawn and Stretch (MP)

A quick MP that can be implemented in as little as 1-minute, the yawn and stretch activity (adapted from Stewart-Weeks, 2016) starts with a yawn (a fake yawn will work too). As participants begin to yawn, they stretch their arms in all directions, slowly, for ~10-seconds. Next, participants sit calmly and focus their attention on any tension or tightness in the body (e.g., shoulder or neck region). Then, repeat the process focusing attention on the region of the body where the tension exists. If no tension is present, the focus should be on how the individual is feeling, nonjudgmentally in the present moment.

Z – Zinn (Jon Kabat-Zinn)

One of the influential advocates who brought mindfulness into the mainstream in Western society is Jon Kabat-Zinn. Kabat-Zinn is a Professor of Medicine Emeritus at the University of Massachusetts and creator of a stress reduction program that uses mindfulness, called mindfulness-based stress reduction (MBSR). The purpose of this topic (letter Z) is to list several resources written/co-written by Kabat-Zinn in an effort to provide educators with material from one of the top mindfulness experts. For educators looking for more information on mindfulness, the authors recommend the resources listed in Table 2.

Summary

Mindfulness is a unique yet remarkably promising practice that could potentially offer many benefits for educators. The intention of this paper was to provide mindfulness concepts, practices, resources, and tips for health and physical educators who are curious about using contemplative activities as a potential way to develop better attention, equanimity, and compassion, for themselves and their students. An A to Z alphabetical list was used as a guide to assist health and physical educators in reading and learning more about many different topics associated with mindfulness. Educators are encouraged to learn more about mindfulness by further exploring the resources provided in Table 1, Table 2, and throughout the paper.

References

Ameli, R. (2014). *Lessons in mindfulness: Now time for healthy living*. Washington, DC: American Psychological Association. https://doi.org/10.1037/14257-000

Baer, R. A. (2007). Mindfulness, assessment, and transdiagnostic processes. *Psychological Inquiry, 18*(4), 238-242. https://doi.org/10.1080/10478400701598306

Barbezat, D. P., & Bush, M. (Eds.). (2014). *Contemplative practices in higher education: Powerful methods to transform teaching and learning*. San Francisco, CA: Jossey-Bass.

Baumeister, R. F. & Leary, M. R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin, 117*, 497–529. https://doi.org/10.1037/0033-2909.117.3.497

Birnie, K., Speca, M., & Carlson, L. E. (2010). Exploring self-compassion and empathy in the context of mindfulness-based stress reduction (MBSR). *Stress and health, 26*(5), 359-371. https://doi.org/10.1002/smi.1305

Bishop, S., Lau, M., Shapiro, S., Carlson, L., Anderson, N. D., Carmody, J., Segal, Z. V., Abbey, S., Speca, M., Velting, D., Devins, G. (2004). Mindfulness: A proposed operational definition. *Clinical Psychology: Science and Practice, 11*(3), 230-241. https://doi.org/10.1093/clipsy/bph077

Brach, T. (2012). *True refuge: Finding peace and freedom in your own awakened heart*. New York, NY: The Random House Publishing Group.

Bryan, S., Zipp, G. P., & Parasher, R. (2012). The effects of yoga on psychosocial variables and exercise adherence: A randomized, controlled pilot study. *Alternative Therapies in Health and Medicine, 18*(5), 50-59.

Brown, K. W., Ryan, R. M., & Creswell, J. D. (2007). Mindfulness: Theoretical foundations and evidence for its salutary effects. *Psychological Inquiry, 18*(4), 211-237. https://doi.org/10.1080/10478400701598298

Burke, C. A. (2010). Mindfulness-based approaches with children and adolescents: A preliminary review of current research in an emergent field. *Journal of Children and Family Studies, 19*(2), 133-144. https://doi.org/10.1007/s10826-009-9282-x

Cross-Wilson, S., & Mait, A. (2016, August 16). Our review of the value of meditation in the workplace to enhance employee performance and engagement. Retrieved from http://chapmancg.com/news/thought-leadership/2016/08/our-review-of-the-value-of-meditation-in-the-workplace-to-enhance-employee-performance-and-engagement.

Danucalov, M. A., Simoes, R. S., Kozasa, E. H., Leite, J. R. (2008). Cardiorespiratory and metabolic changes during yoga sessions: The effects of respiratory exercises and meditation practices. *Applied Psychophysiology Biofeedback, 33*, 77-81. https://doi.org/10.1007/s10484-008-9053-2

Demarzo, M. M., Montero-Marin, J., Stein, P. K., Cebolla, A., Provinciale, J. G., & García-Campayo, J. (2014). Mindfulness may both moderate and mediate the effect of physical fitness on cardiovascular responses to stress: A speculative hypothesis. *Frontiers in Physiology, 5*, 44-51. https://doi.org/10.3389/fphys.2014.00105

Edelman, D., Oddone, E. Z., Liebowitz, R. S., Yancy, W. S. Jr., Olsen, M. K., Jeffreys, A. S., et al. (2006). A multidimensional integrative medicine intervention to improve cardiovascular risk. *Journal of General Internal Medicine, 21*, 728-734. https://doi.org/10.1111/j.1525-1497.2006.00495.x

Eysenck, M. W., Derakshan N., Santos R., & Calvo M. G. (2007). Anxiety and cognitive performance: Attentional control theory. *Emotion 7*, 336. https://doi.org/10.1037/1528-3542.7.2.336

Flook, L., Goldberg, S. B., Pinger, L., & Davidson, R. J. (2015) Promoting prosocial behavior and self-regulatory skills in preschool children through mindfulness-based kindness curriculum. *Developmental Psychology, 51*(1), 44-51. https://doi.org/10.1037/a0038256

Harris, R. (2009). *ACT made simple*. Oakland, CA: New Harbinger Publications, INC.

Hofmann, S. G., Grossman, P., & Hinton, D. E. (2011). Loving-kindness and compassion meditation: Potential for psychological interventions. *Clinical Psychology Review, 31*(7), 1126-1132.

Hoffman, S., Sawyer, A., Witt, A. A., & Oh, D. (2010). The effect of mindfulness-based therapy on anxiety and depression: A meta-analytic review. *Journal of Consulting and Clinical Psychology, 78*(2), 169-183. https://doi.org/10.1037/a0018555

Hoge, E. A., Bui, E., Marques, L., Metcalf, C. A., Morris, L. K., Robinaugh, D. J., Worthington, J. J., Pollack, M. H., & Simon, N. M. (2013). Randomized controlled trial of mindfulness meditation for generalized anxiety disorder: Effects on anxiety and stress reactivity. *Journal of Clinical Psychiatry, 74*(8), 786-792. https://doi.org/10.4088/JCP.12m08083

Kabat-Zinn, J. (2009). *Letting everything become your teacher: 100 lessons in mindfulness (2nd)*. New York, NY: Delta Trade Paperbacks.

Kennedy, A. B., & Resnick, P. B. (2015). Mindfulness and physical activity. *American Journal of Lifestyle Medicine, 9*(3), 221-223. https://doi.org/10.1177/155982761456456

Kozak, A. (2015). *Mindfulness A to Z: 108 Insights for awakening now*, Somerville, MA: Wisdom Publications.

Leary, M. R., Tate, E. B., Adams, C. E., & Hancock, J. (2007). Self-compassion and reactions to unpleasant self-relevant events: The implications of treating oneself kindly. *Journal of Personality and Social Psychology, 92*, 887–904. https://doi.org/10.1037/0022-3514.92.5.887

Li, J. X., Hong, Y., & Chan, K. M. (2001). Tai chi: Physiological characteristics and beneficial effects on health. *British Journal of Sports Medicine, 35*, 148-156. https://doi.org/10.1136/bjsm.35.3.148

Lu, C., & Buchanan, A. (2014). Developing students' emotional well-being in physical education. *Journal of Physical Education, Recreation and Dance, 85*(4), 28-32. https://doi.org/10.1080/07303084.2014.884433

McCaughtry, N. (2004). The emotional dimensions of a teacher's pedagogical content knowledge: Influences on content, curriculum and pedagogy. *Journal of Teaching in Physical Education, 23*, 30-47. https://doi.org/10.1123/jtpe.23.1.30

Meiklejohn, J., Phillips, C., Freedman, M. L., Griffin, M. L., Biegel, G., Roach, A., . . . Saltzman, A. (2012). Integrating mindfulness training into K-12 education: Fostering the resilence of teachers and students. *Mindfulness, 3*(4), 291-307. https://doi.org/10.1007/s12671-012-0094-5

Napoli, M., Krech, P. R., & Holley, L. C. (2005). Mindfulness training for elementary school students: The attention academy. *Journal of Applied School Psychology, 21*, 99–125. https://doi.org/10.1300/ J370v21n01_05

National Health Education Standards. (2016, August 10). Retrieved from http://www.cdc.gov/healthyschools/sher/standards/index.htm

Neff, K. (2017, March 31). Self-compassion. Retrieved from self-compassion.org.

Nhat Hanh, T. (2008). *Mindful movements: Ten exercises for well-being*. Berkeley, CA: Parallax Press.

O'Leary, K., & Dockray, S. (2015). The effects of two novel gratitude and mindfulness interventions on well-being. *The Journal of Alternative and Complementary Medicine, 21*(4): 243-245. https://doi.org/10.1089/acm.2014.0119.

Schonert-Reichl, K. A., Oberle, E., Lawlor, M. S., Abbott, D., Thomson, K., Oberlander, T. F., & Diamond, A. (2015). Enhancing cognitive and social–emotional development through a simple-to-administer mindfulness-based school program for elementary school children: A randomized controlled trial. *Developmental Psychology, 51*(1), 52-66. https://doi.org/10.1037/a0038454

Scott, E. (2016, April 1). How to get started with a focused meditation practice. Retrieved from https://www.verywell.com/practice-focused-meditation-3144785

Seligman, M. (2011). Flourish: A visionary new understanding of happiness and well-being. New Your, NY: Free Press.

Semple, R. J., Lee, J., Rosa, D., & Miller, L. F. (2010). A randomized trial of mindfulness-based cognitive therapy for children: promoting mindful attention to enhance social-emotional resiliency in children. *Journal of Child and Family Studies, 19*(2), 218–229. https://doi.org/10.1007/s10826-009-9301-y

Shields, A. & Cicchetti, D. (2001). Parental maltreatment and emotion dysregulation as risk factors for bullying and victimization in middle childhood. *Journal of Clinical Child and Adolescent Psychology, 30*(3), 349-363. https://doi.org/10.1207/S15374424JCCP3003_7

Society of Health and Physical Educators (2014). National standards and grade-level outcomes for K-12 physical education. Champaign, IL: Human Kinetics.

Stewart-Weeks, L. (2016, March 8). 1-minute mindfulness exercises. *Psych Central*. Retrieved from https://psychcentral.com/blog/archives/2016/01/24/1-minute-mindfulness-exercises/

Stuhr, P. T., Sutherland, S., Ressler, J., & Ortiz-Stuhr, E. M. (2015). Students perception of relationship skills during an adventure-based learning unit within physical education. *Australian Journal of Outdoor Education, 18*(1), 27-38.

Stuhr, P. T., Sutherland, S., & Ward, P. (2012). Lived-positive emotionality in elementary physical education. *Pedagogies: An International Journal, 7*(2), 165-181. https://doi.org/10.1080/1554480X.2012.656346

Stuhr, P. T., & Thomas, M., D. (2017). Conceptualizing mindfulness for health and physical educators. *California Association for Health, Physical Education, Recreation and Dance e-Journal, 3*(3), 13-21.

Treadwell, S. M., & Taylor, N. (2017). Pe in pictures: Using photovoice to promote middle school students' reflections on physical activity during free time. *Journal of Physical Education, Recreation & Dance, 88*(4), 26-33. https://doi.org/10.1080/07303084.2017.1280436

Ulmer, C. S., Stetson, B. A., Salmon, P. G. (2010). Mindfulness and acceptance are associated with exercise maintenance in YMCA exercisers. *Behaviour Research and Therapy, 48*, 805-809. https://doi.org/10.1016/j.brat.2010.04.009

Wall, R. B. (2005). Tai chi and mindfulness-based stress reduction in a Boston middle school. *Journal of Pediatric Health Care, 19*, 230-237. https://doi.org/10.1016/j.pedhc.2005.02.006

Zenner, C. Herrnleben-Kurz, S. and Walach, H. (2014). Mindfulness-based interventions in schools: A systematic review and meta-analysis. *Frontiers in Psychology*. https://doi.org/ 10.3389/fpsyg.2014.00603

Zoogman, S., Goldberg, S. B., Hoyt, W. T., & Miller, L. (2015). Mindfulness interventions with youth: A meta-analysis. *Mindfulness, 6*(2), 290-302. https://doi.org/10.1007/s12671-013-0260-4

Table 1.

Mindfulness Resources

Resources for Locating, Designing, and Using Mindfulness Practices

Books

Nhat Hanh, T. (2008). *Mindful movements: Ten exercises for well-being*. Berkeley, CA: Parallax Press.

Weis, S. J. (2016). *Go go yoga kids: A complete guide to yoga with kids*. Go Go Yoga Kids.

Willard, C. (2006). *Child's Mind: Mindfulness practices to help our children be more focused*. Berkeley, CA: Parallax Press.

Videos

101 Mindfulness Activities found at https://www.youtube.com/watch?v=S3LmjKzMcqc

Easy Mindfulness Exercises found at https://www.youtube.com/watch?v=L-IZArfQHOo

Simple Mindfulness Exercise found at https://www.youtube.com/watch?v=rvgBPtn2JHc

Websites

http://www.mindfulnesseveryday.org

https://positivepsychologyprogram.com/mindfulness-exercises-techniques-activities/

http://www.pocketmindfulness.com/6-mindfulness-exercises-you-can-try-today/

http://www.mindfulteachers.org/p/free-resources-and-lesson-plans.html

Table 2.

Topic Z – Zinn (Jon Kabat-Zinn) Mindfulness Resources

Nine Mindfulness Resources Written/Co-written by Jon Kabat-Zinn

Articles

Davidson, R., Kabat-Zinn, J., Schumacher, J., Rosenkranz, M., Muller, D., Santorelli, S. F… John, F. (2003). Alterations in brain and immune function produced by mindfulness meditation. Psychosomatic Medicine, 65(4), 564-570. https://doi:10.1097/01.PSY.0000077505.67574.E3

Kabat-Zinn, J. (2003). Mindfulness-based interventions in context: Past, present, and future. *Clinical Psychology: Science and Practice, 10*, 144–156.

Paulson, S., Davidson, R., Jha, A., & Kabat-Zinn, J. (2103). Becoming conscious: The science of mindfulness. Annals of the New york Academy of Science, 13(3), 87-104. https://doi:10.1111/nyas.12203

Books

Kabat-Zinn, J. (2005). *Coming to our senses: Healing ourselves and the world through mindfulness*. New York, NY: Hyperion.

Kabat-Zinn, J. (2005). *Wherever you go, there you are: Mindfulness meditation in everyday life (10th ed.)*. New York, NY: Hyperion.

Kabat-Zinn, J. (2007). *Arriving at your own door: 108 lessons in mindfulness (2nd ed.)*. New York, NY: Hyperion.

Kabat-Zinn, J. (2009). *Letting everything become your teacher: 100 lessons in mindfulness (2nd ed.)*. New York, NY: Delta Trade Paperbacks.

Kabat-Zinn, J. (2011). *Mindfulness for beginners: Reclaiming the present moment – and your life*. Boulder, CO: Sounds True.

Kabat-Zinn, J. (2013). *Full catastrophe living: Using the wisdom of your body and mind to face stress, pain, and illness (2nd ed.)*. New York, NY: Bantam Books.

Call for Papers

The California Association for Health, Physical Education, Recreation, and Dance issues this call for papers anticipated to appear in the Fall 2018 or Winter 2019 editions of the CAHPERD e-Journal. The e-Journal contains two types of articles: (a) practical manuscripts related to teaching, professional practice or performance, (b) research articles in the HPERD disciplines. All submissions will be subject to a blind peer review process. Authors who are professionally engaged in the study of HPERD and related fields, including professors, teachers, and others, are encouraged to submit articles for review and potential publication. Authors need not be professional writers. Graduate students in the HPERD disciplines are also encouraged to submit. The editors will give priority consideration to those articles that relate directly to HPERD issues confronting California professionals. This includes articles that provide expert teaching strategies. Authors may not submit the same article to this e-Journal and other publications for simultaneous review. Previously published content should not be submitted.

Authors seeking publication in the e-Journal should include the following materials: (1) Cover letter indicating the desire to have materials reviewed for possible publication. The cover letter should indicate acknowledgement that CAHPERD will hold the copyright to all information published in the e-Journal. (2) Email attachment of the desired publication as a word document only. (3) Biographical information about the author(s) (not to exceed 25 words).

Manuscripts should not exceed 2500 words (not including references or graphics). Authors are expected to follow APA formatting. The order of information included in the manuscript should be as follows: (1) Cover letter, (2) Title Page, (3) Title page with author(s) and affiliation information, (4) Abstract, (5) Text, (6) References, (7) Tables, (8) Figures, and (9) Acknowledgements, if appropriate.

Manuscripts for the upcoming issues may be submitted electronically to Chris Gentry at cgentry@csusb.edu

Submission deadline for consideration in the Fall 18 e-Journal is July 27th. All other submissions will be reviewed for Spring 19.

2019 CAHPERD State Conference
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This coming year will be guided by the theme **"Our Time"** where we will focus on quality teaching, inclusion, research, leadership, advocacy and wellness. We are proud to announce that **Mr. Paul Zientarski** and **Mr. Mike Kuczala** will serve as our keynote speakers. So, come be a part of **"Our Time"** and help us make CAHPERD 2019 a great learning experience!